

**APPENDIX F3**  
**AMEC 2010 and 2014 Wetland Baseline Survey Report**

Attachment D – Wetland Functional Assessment Forms

Attachment E – Additional Wetland Delineation Data Sheets

Black Point Quarry Project  
Guysborough County, NS  
SLR Project No.: 210.05913.00000

**APPENDIX D**  
**Wetland Functional Assessment Forms**

| APPENDIX D: WL1                                                                                                                          |  |  |  |  |  |                                                                                                                                                                                                              |  |               |  |                  | Nova Scotia Wetland Evaluation Technique Field Data Sheet |                                                                            |  |            |  |                                           |  |                                                 |  |        |  |             |
|------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------|--|------------------|-----------------------------------------------------------|----------------------------------------------------------------------------|--|------------|--|-------------------------------------------|--|-------------------------------------------------|--|--------|--|-------------|
| Project Name: Black Point Quarry                                                                                                         |  |  |  |  |  | Evaluator: Scott Burley                                                                                                                                                                                      |  |               |  |                  | GPS Coordinates: 645437 E x 5022529 N                     |                                                                            |  |            |  |                                           |  |                                                 |  |        |  |             |
| PID:35212497, 35212505, 35212521, 35212513, 35044056, 35214014, 35214022, 35214022 and 35213990                                          |  |  |  |  |  | Site Address: Black Point, Guysborough County, NS                                                                                                                                                            |  |               |  |                  |                                                           |                                                                            |  |            |  |                                           |  |                                                 |  |        |  |             |
| Sources and Dates of Mapping/Images: NS Wetlands Inventory (2012); NS Forest Inventory (Current Forest Data - 2004); Google Earth (2003) |  |  |  |  |  |                                                                                                                                                                                                              |  |               |  |                  |                                                           |                                                                            |  |            |  |                                           |  |                                                 |  |        |  |             |
| Evaluation Date: 04-Sep-14                                                                                                               |  |  |  |  |  | Site Visit Date: 19-Aug-14                                                                                                                                                                                   |  |               |  |                  |                                                           |                                                                            |  |            |  |                                           |  |                                                 |  |        |  |             |
| Weather Conditions (past 48 hours): Periods of rain with clouds                                                                          |  |  |  |  |  |                                                                                                                                                                                                              |  |               |  |                  |                                                           |                                                                            |  |            |  |                                           |  |                                                 |  |        |  |             |
| Seasonal Weather Conditions: Typical                                                                                                     |  |  |  |  |  |                                                                                                                                                                                                              |  |               |  |                  |                                                           |                                                                            |  |            |  |                                           |  |                                                 |  |        |  |             |
| SECTION ONE: WATERSHED CHARACTERISTICS                                                                                                   |  |  |  |  |  |                                                                                                                                                                                                              |  |               |  |                  |                                                           |                                                                            |  |            |  |                                           |  |                                                 |  |        |  |             |
| 1 Watershed Name (tertiary): 1EQ-SD                                                                                                      |  |  |  |  |  | Size: 518 km <sup>2</sup>                                                                                                                                                                                    |  |               |  |                  |                                                           |                                                                            |  |            |  |                                           |  |                                                 |  |        |  |             |
| 2 % Watershed Land Cover                                                                                                                 |  |  |  |  |  | For: 43                                                                                                                                                                                                      |  | Nat: 36       |  | Past/Hay: <1     |                                                           | Crop: <1                                                                   |  | Urb/Com: 2 |  | Road: <1                                  |  | Other Dev: <1 (Gravel Pit, Landfill, Industrial |  |        |  |             |
| 3 % Watershed WL Cover and by Class                                                                                                      |  |  |  |  |  | Total: 10%                                                                                                                                                                                                   |  | SM: <1        |  | BO: 6            |                                                           | FE: 1                                                                      |  | FM: 2      |  | FS: 1                                     |  | SS: 1                                           |  | CP: <1 |  | VP: Present |
| SF1 Watershed condition                                                                                                                  |  |  |  |  |  | H                                                                                                                                                                                                            |  | M             |  | L                |                                                           |                                                                            |  |            |  |                                           |  |                                                 |  |        |  |             |
| SF2 Proportion of WL area in watershed & opportunity for floodwater detention                                                            |  |  |  |  |  | H                                                                                                                                                                                                            |  | M             |  | L                |                                                           |                                                                            |  |            |  |                                           |  |                                                 |  |        |  |             |
| SECTION TWO: WETLAND CHARACTERISTICS                                                                                                     |  |  |  |  |  |                                                                                                                                                                                                              |  |               |  |                  |                                                           |                                                                            |  |            |  |                                           |  |                                                 |  |        |  |             |
| Wetland Type: Bog/Swamp                                                                                                                  |  |  |  |  |  | WL size: 15 hectares                                                                                                                                                                                         |  |               |  |                  | Landform: Basin                                           |                                                                            |  |            |  | Landscape Position: Lotic-Stream Confined |  |                                                 |  |        |  |             |
| Water flow path: Throughflow                                                                                                             |  |  |  |  |  | Wetland Origin: Natural                                                                                                                                                                                      |  |               |  |                  |                                                           |                                                                            |  |            |  |                                           |  |                                                 |  |        |  |             |
| 1 Water Regime                                                                                                                           |  |  |  |  |  | PF                                                                                                                                                                                                           |  | SF            |  | TF               |                                                           | SS                                                                         |  | PS         |  | RfT                                       |  | IfT                                             |  | AF     |  |             |
| 2 # WL's within 30m project area                                                                                                         |  |  |  |  |  | Total# 0                                                                                                                                                                                                     |  | SM:           |  | BO:              |                                                           | FE:                                                                        |  | FM:        |  | FS:                                       |  | SS:                                             |  | CP:    |  | VP:         |
| 3 Is WL part of complex                                                                                                                  |  |  |  |  |  | Yes                                                                                                                                                                                                          |  | No            |  |                  |                                                           |                                                                            |  |            |  |                                           |  |                                                 |  |        |  |             |
| 4 % each wetland type in complex                                                                                                         |  |  |  |  |  | SM:                                                                                                                                                                                                          |  | BO: 43        |  | FE:              |                                                           | FM:                                                                        |  | FS: 32     |  | SS: 25                                    |  | CP:                                             |  | VP:    |  |             |
| 5 Is WL bordering or associated with a lake or pond?                                                                                     |  |  |  |  |  | bordering                                                                                                                                                                                                    |  | within 100m   |  | N/A              |                                                           | specify                                                                    |  |            |  |                                           |  |                                                 |  |        |  |             |
| 6 Standing water?                                                                                                                        |  |  |  |  |  | Yes                                                                                                                                                                                                          |  | Avg Dep: 5-20 |  | % Inundated: 10% |                                                           | No                                                                         |  |            |  |                                           |  |                                                 |  |        |  |             |
| 7 Inlet or Outlet (circle all that apply)?                                                                                               |  |  |  |  |  | Inlet                                                                                                                                                                                                        |  | Outlet        |  |                  |                                                           |                                                                            |  |            |  |                                           |  |                                                 |  |        |  |             |
| 8 Adjacent Upland Land Use within 100m (%)                                                                                               |  |  |  |  |  | For: 90                                                                                                                                                                                                      |  | Nat:          |  | PasHay:          |                                                           | Crop:                                                                      |  | UrbCm:     |  | Road:                                     |  | Other Dev: 10 Powerline corridor                |  |        |  |             |
| 9 Are there stressors in WL or WL buffer area? Circle primary stressor(s).                                                               |  |  |  |  |  | DD __, CW __, WcS __, O/C __, EB __, DP __, F __, M __, ES __, NE __, DwP __, M __, GC __, AT __, x __, DG __, EA __, R __, Rr __, U/CD __, F __, FA __, other (specify): Powerline corridor along south end |  |               |  |                  |                                                           |                                                                            |  |            |  |                                           |  |                                                 |  |        |  |             |
| 10 Hydrology Altered (circle all that apply)?                                                                                            |  |  |  |  |  | Ditching                                                                                                                                                                                                     |  | Dams          |  | Tiles            |                                                           | Culvert                                                                    |  | Well       |  | Diversion                                 |  | Other Specify:                                  |  |        |  |             |
| SF3 Rate the general wetland condition/integrity                                                                                         |  |  |  |  |  | H                                                                                                                                                                                                            |  | M             |  | L                |                                                           |                                                                            |  |            |  |                                           |  |                                                 |  |        |  |             |
| SECTION THREE: ADJACENT LAND CONDITION AND INTEGRITY                                                                                     |  |  |  |  |  |                                                                                                                                                                                                              |  |               |  |                  |                                                           |                                                                            |  |            |  |                                           |  |                                                 |  |        |  |             |
| 1 Average width of adjacent naturalized buffer                                                                                           |  |  |  |  |  | >1000_m                                                                                                                                                                                                      |  |               |  |                  |                                                           |                                                                            |  |            |  |                                           |  |                                                 |  |        |  |             |
| 2 Widths for water quality                                                                                                               |  |  |  |  |  | H >1                                                                                                                                                                                                         |  | M 8-15        |  | L <8             |                                                           | Powerline located along one side of wetland                                |  |            |  |                                           |  |                                                 |  |        |  |             |
| 3 Widths for wildlife habitat                                                                                                            |  |  |  |  |  | H >100                                                                                                                                                                                                       |  | M 15-100      |  | L <15            |                                                           | Powerline located along one side of wetland                                |  |            |  |                                           |  |                                                 |  |        |  |             |
| 4 Adjacent area vegetation condition (list % in each category)                                                                           |  |  |  |  |  | H 90%                                                                                                                                                                                                        |  | M             |  | L 10%            |                                                           |                                                                            |  |            |  |                                           |  |                                                 |  |        |  |             |
| 5 Adjacent area diversity and structure (list % in each category)                                                                        |  |  |  |  |  | H 90%                                                                                                                                                                                                        |  | M             |  | L 10%            |                                                           |                                                                            |  |            |  |                                           |  |                                                 |  |        |  |             |
| 6 Adjacent Upland Slope (list % in each category)                                                                                        |  |  |  |  |  | Steep 5%                                                                                                                                                                                                     |  | Mod 20%       |  | Gentle 75%       |                                                           |                                                                            |  |            |  |                                           |  |                                                 |  |        |  |             |
| 7 Adjacent land supports water quality                                                                                                   |  |  |  |  |  | Yes                                                                                                                                                                                                          |  | No            |  | Specify:         |                                                           |                                                                            |  |            |  |                                           |  |                                                 |  |        |  |             |
| 8 Adjacent land supports wildlife habitat                                                                                                |  |  |  |  |  | Yes                                                                                                                                                                                                          |  | No            |  | Specify:         |                                                           |                                                                            |  |            |  |                                           |  |                                                 |  |        |  |             |
| SF4 Rate the overall condition and integrity land adjacent to wetland                                                                    |  |  |  |  |  | H                                                                                                                                                                                                            |  | M             |  | L                |                                                           | is buffer required to maintain red flag functions of wetland? If yes if no |  |            |  |                                           |  |                                                 |  |        |  |             |
| SECTION FOUR: DOCUMENTED IMPORTANT FEATURES                                                                                              |  |  |  |  |  |                                                                                                                                                                                                              |  |               |  |                  |                                                           |                                                                            |  |            |  |                                           |  |                                                 |  |        |  |             |
| SF5 Is the WL a WSS?                                                                                                                     |  |  |  |  |  | Yes                                                                                                                                                                                                          |  | No            |  |                  |                                                           |                                                                            |  |            |  |                                           |  |                                                 |  |        |  |             |

|                                                         |                                                                       |                                                                                  |          |     |                |        |                        |         |    |                                             |
|---------------------------------------------------------|-----------------------------------------------------------------------|----------------------------------------------------------------------------------|----------|-----|----------------|--------|------------------------|---------|----|---------------------------------------------|
| SF6                                                     | Does the WL support commercial/recreational fish/shellfish?           | Yes                                                                              | No       |     |                |        |                        |         |    |                                             |
| SF7                                                     | Species of concern (Fed/Prov)? Specify. <i>Cladonia stygia</i>        | End                                                                              | Thr      | SpC | Red            | Yellow | S1                     | S2      | S3 | N/A                                         |
| SF8                                                     | Wetland has conservation/compensation agreements/activity?            | Yes                                                                              | No       |     |                |        |                        |         |    |                                             |
| SF9                                                     | Wetland is calcerous fen, black ash or cedar swamp?                   | Yes                                                                              | No       |     |                |        |                        |         |    |                                             |
| SF10                                                    | Within Drinking Water Protected Area (designated watershed/wellfield) | Yes                                                                              | No       |     |                |        |                        |         |    |                                             |
| SF11                                                    | WL within a floodplain and upstream of or within of a populated area? | Yes                                                                              | No       |     |                |        |                        |         |    |                                             |
| SF12                                                    | Fed/Prov/Municipal area of interest?                                  | Yes                                                                              | No       |     |                |        |                        |         |    |                                             |
| <b>SECTION FIVE: HYDROLOGIC CONDITION AND INTEGRITY</b> |                                                                       |                                                                                  |          |     |                |        |                        |         |    |                                             |
| 1                                                       | Is WL source of stream or headwater(wc order 1 or 2)                  | Yes                                                                              | No       |     |                |        |                        |         |    | Specify: Located along a first order stream |
| 2                                                       | Is WL geographically isolated?                                        | Yes                                                                              | No       |     |                |        |                        |         |    | Specify:                                    |
| 3                                                       | WL ability to maintain characteristic hydrologic regime               | High                                                                             |          |     | Med            |        | Low                    |         |    |                                             |
| 4                                                       | Water Storage Depth (list % in each class)                            | >30cm                                                                            | 15-30cm  | 10% | up to 15cm     | 10%    | No ponding             |         |    |                                             |
| 5                                                       | Signs of surface water retention observed?                            | SW_30_cm, WSL_, WCD_, WM_cm, SM_cm, SD_, AD_, ID_, PMT_x_, AI_, BT_, AR_, Other: |          |     |                |        |                        |         |    |                                             |
| 6                                                       | Describe observable/historical anthropogenic sediment delivery        | Low                                                                              |          |     | Med            |        | High                   |         |    |                                             |
| 7                                                       | Disturbance of WL soils                                               | Low                                                                              |          |     | Med            |        | High                   |         |    |                                             |
| 8                                                       | Predominant soils adjacent to WL                                      | Sand                                                                             |          |     | Silt/loam      |        | Clay                   | bedrock |    |                                             |
| 9                                                       | Capacity of WL to alter/retard flows                                  | High                                                                             |          |     | Med            |        | Low                    |         |    |                                             |
| 10                                                      | Roughness coefficient for surface water flow path                     | High                                                                             |          |     | Med            |        | Low                    |         |    |                                             |
| 11                                                      | Stormwater/Wastewater/Agricultural runoff detention                   | High                                                                             |          |     | Med            |        | Low                    |         |    |                                             |
| 12                                                      | Water Source                                                          | Natural                                                                          |          |     | Mostly natural |        | Partly altered         |         |    | Controlled                                  |
| 13                                                      | Hydrology of tidal wetlands                                           | Unrestricted                                                                     |          |     | Reduced        |        | Restricted             |         |    | N/A                                         |
| 14                                                      | Coastal storm surge                                                   | Yes                                                                              | No       |     |                |        |                        |         |    |                                             |
| SF13                                                    | WL hydrologic condition                                               | Natural                                                                          | Modified |     |                |        | Significantly Modified |         |    |                                             |
| SF14                                                    | WL important for maintaining stream flow?                             | Yes                                                                              | No       |     |                |        |                        |         |    |                                             |
| SF15                                                    | WL ability to detain surface water                                    | High                                                                             | Med      |     | Low            |        |                        |         |    |                                             |
| <b>SECTION SIX: WATER QUALITY</b>                       |                                                                       |                                                                                  |          |     |                |        |                        |         |    |                                             |
| 1                                                       | Stormwater/Wastewater/Agricultural runoff as water source?            | High                                                                             |          |     | Med            |        | Low                    |         |    |                                             |
| 2                                                       | Nutrients/sediments from surrounding land                             | High                                                                             |          |     | Med            |        | Low                    |         |    |                                             |
| 3                                                       | Significant flood/stormwater attenuation                              | Yes                                                                              | No       |     |                |        |                        |         |    |                                             |
| 4                                                       | Vegetation capacity to settle suspended sediments                     | High                                                                             |          |     | Med            |        | Low                    |         |    |                                             |
| 5                                                       | WL type /landscape position holds/filters runoff?                     | Yes                                                                              | No       |     |                |        |                        |         |    |                                             |
| SF16                                                    | Wetland improves water quality?                                       | Yes                                                                              | No       |     |                |        |                        |         |    |                                             |
| SF17                                                    | Evidence of excess nutrient loading/contamination?                    | Low                                                                              | Med      |     | High           |        |                        |         |    |                                             |
| SF18                                                    | WL contributes to water quality in downstream resources               | High                                                                             | Med      |     | Low            |        |                        |         |    |                                             |
| <b>SECTION SEVEN: GROUNDWATER INTERACTIONS</b>          |                                                                       |                                                                                  |          |     |                |        |                        |         |    |                                             |
| 1                                                       | Describe soils in wetland                                             | Recharge                                                                         |          |     | Discharge      |        |                        |         |    |                                             |
| 2                                                       | Land use / run off in subwatershed upstream                           | Recharge                                                                         |          |     | Discharge      |        |                        |         |    |                                             |
| 3                                                       | Conditions of upland soils within 200m of wetland                     | Recharge                                                                         |          |     | Discharge      |        |                        |         |    |                                             |
| 4                                                       | Hydroperiod of wetland                                                | Recharge                                                                         |          |     | Discharge      |        |                        |         |    |                                             |
| 5                                                       | Describe inlet/outlet configuration                                   | Recharge                                                                         |          |     | Discharge      |        |                        |         |    |                                             |
| 6                                                       | Characterize topographic relief surrounding wetland                   | Recharge                                                                         |          |     | Discharge      |        |                        |         |    |                                             |

|                                                             |                                                                           |                                                                                                                       |          |                                                      |                       |            |              |             |                  |
|-------------------------------------------------------------|---------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|----------|------------------------------------------------------|-----------------------|------------|--------------|-------------|------------------|
| SF19                                                        | WL serves as a recharge site                                              | Yes                                                                                                                   | No       |                                                      |                       |            |              |             |                  |
| SF20                                                        | WL serves as a discharge site                                             | Yes                                                                                                                   | No       |                                                      |                       |            |              |             |                  |
| <b>SECTION EIGHT: SHORELINE STABILIZATION AND INTEGRITY</b> |                                                                           |                                                                                                                       |          |                                                      |                       |            |              |             |                  |
| 1                                                           | Wetland fringing ocean/estuary/lake/pond/river/stream?                    | Yes                                                                                                                   | No       | streamwidth >4m                                      | streamwidth<4m        | WB Exposed | WB Sheltered |             |                  |
| 2                                                           | % cover of rooted vegetation in shallow water zone                        | H >50%                                                                                                                | M 10-50  | L <10%                                               |                       |            |              |             |                  |
| 3                                                           | Avg veg WL width b/w shoreline/streambank & 2 m depth contour             | H >10m                                                                                                                | M 3-10   | L <3m                                                |                       |            |              |             |                  |
| 4                                                           | Prevalence of strong-stemmed emerg. veg (shoreline marshes and fens only) | High                                                                                                                  | Med      | Low                                                  |                       |            |              |             |                  |
| 5                                                           | Describe shoreline erosion potential                                      | High                                                                                                                  | Med      | Low                                                  |                       |            |              |             |                  |
| 6                                                           | Shoreline/streambank veg condition upslope of water level                 | Low                                                                                                                   | Med      | High                                                 | Artificial            |            |              |             |                  |
| SF21                                                        | WL ability to stabilize shoreline                                         | H                                                                                                                     | M        | L                                                    | N/A                   |            |              |             |                  |
| <b>SECTION NINE: PLANT COMMUNITY</b>                        |                                                                           |                                                                                                                       |          |                                                      |                       |            |              |             |                  |
| 1                                                           | Vegetation diversity                                                      | High                                                                                                                  | Med      | Low                                                  |                       |            |              |             |                  |
| 1b                                                          | Dominant plant species and % cover in the WL                              | list: <i>Picea mariana</i> (30%)/ <i>Chamaedaphne calyculata</i> (20%)/ <i>Nemopanthes mucronata</i> (15%)            |          |                                                      |                       |            |              |             |                  |
| 3                                                           | Dominant Non-native or Invasive species and % cover                       | Yes                                                                                                                   | No       | specify: %                                           |                       |            |              |             |                  |
| 4                                                           | Vegetation Disturbance                                                    | H                                                                                                                     | M        | L                                                    | specify type(s) below |            |              |             |                  |
| 5                                                           | Disturbance Types                                                         | H __,ATV __,G __,M __,In __, D/D __, Im __, OAH __, li __, Sd __,E __,other __,                                       |          |                                                      |                       |            |              |             |                  |
| 7                                                           | Vegetative Integrity of plant community                                   | E                                                                                                                     | H        | M                                                    | L                     |            |              |             |                  |
| SF22                                                        | Is the plant community unique or rare regionally or provincially?         | Yes                                                                                                                   | no       | specify:                                             |                       |            |              |             |                  |
| SF23                                                        | Does the WL contain a diversity of plant communities                      | H                                                                                                                     | M        | L                                                    |                       |            |              |             |                  |
| SF24                                                        | Rate the overall integrity/quality of plant community?                    | H                                                                                                                     | M        | L                                                    |                       |            |              |             |                  |
| SF25                                                        | Are there any observed rare or endangered plant species? Specify.         | End                                                                                                                   | Thr      | SpC                                                  | Red                   | Yellow     | S1           | S2          | S3 N/A C. stygia |
| <b>SECTION TEN: FISH AND WILDLIFE HABITAT AND INTEGRITY</b> |                                                                           |                                                                                                                       |          |                                                      |                       |            |              |             |                  |
| 1                                                           | Interspersion of open water and vegetation (open water types only)        | H                                                                                                                     | M        | L                                                    |                       |            |              |             |                  |
| 1b                                                          | % cover in vegetation versus open water                                   | _90_ %                                                                                                                |          |                                                      |                       |            |              |             |                  |
| 2                                                           | Interspersion that best fits entire wetland                               | H                                                                                                                     | M        | L                                                    | N/A                   |            |              |             |                  |
| 3                                                           | Wetland condition related to detritus                                     | H                                                                                                                     | M        | L                                                    | N/A                   |            |              |             |                  |
| 4                                                           | Interspersion of other wetlands in vicinity                               | H                                                                                                                     | M        | L                                                    |                       |            |              |             |                  |
| 6                                                           | Barriers/restriction between wetland and other habitat                    | L                                                                                                                     | M        | H                                                    |                       |            |              |             |                  |
| 7                                                           | Noteworthy wildlife or evidence (birds, mammals, amphibians,etc)          | Yes                                                                                                                   | No       | list: Dragon flies, Passerines, Beaver, Moose Tracks |                       |            |              |             |                  |
| 8                                                           | Connected to permanent water (accessible to fish)?                        | Exceptional                                                                                                           | High     | Med                                                  | Low                   | N/A        |              |             |                  |
| 9                                                           | Fish species observed or evidence seen (list)                             | Yes                                                                                                                   | No       | list:                                                |                       |            |              |             |                  |
| 10                                                          | Wetland part of contiguous upland or wetland:                             | >50ha                                                                                                                 | 25-50ha  | 10-25ha                                              | <10ha                 |            |              |             |                  |
| 11                                                          | WL provides habitat for:                                                  | Amphibians                                                                                                            | Reptiles | Waterfowl                                            | Waterbirds            | Mammals    | Fish         | R/E species |                  |
| SF26                                                        | Does wetland support fish/fish habitat?                                   | Yes                                                                                                                   | No       | specify:                                             |                       |            |              |             |                  |
| SF27                                                        | Rare or endangered fish/wildlife species found in the wetland?            | End                                                                                                                   | Thr      | SpC                                                  | Red                   | Yellow     | S1           | S2          | S3 N/A           |
| SF28                                                        | Overall fish and wildlife habitat quality                                 | H                                                                                                                     | M        | L                                                    |                       |            |              |             |                  |
| <b>SECTION ELEVEN: COMMUNITY USE/VALUE</b>                  |                                                                           |                                                                                                                       |          |                                                      |                       |            |              |             |                  |
| 1                                                           | Describe community use                                                    | VV __,CP __,CO __,PO __,PA __,AV_x __,GB __,E __,HI __, WV __, BO __,HU __, PG_x __, BP_x __,F __, E __, R __, Other: |          |                                                      |                       |            |              |             |                  |
| SF29                                                        | Rate the wetland's community use/value                                    | H                                                                                                                     | M        | L                                                    |                       |            |              |             |                  |

SF ratings highlighted in red indicate critical wetland functions or watershed conditions that are highly degraded. Whenever a wetland is found to have red-highlighted SFs the proponent

| APPENDIX D: WL2                                                                                                                          |                                                                                      |  |  |  |  |                                                                                                                                                                                          |               |              |                                                                            |            | Nova Scotia Wetland Evaluation Technique Field Data Sheet |                                                 |        |             |  |                                |  |  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--|--|--|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------|----------------------------------------------------------------------------|------------|-----------------------------------------------------------|-------------------------------------------------|--------|-------------|--|--------------------------------|--|--|--|--|--|
| Project Name: Black Point Quarry                                                                                                         |                                                                                      |  |  |  |  | Evaluator: Scott Burley                                                                                                                                                                  |               |              |                                                                            |            | GPS Coordinates: 645430 E x 5024058 N                     |                                                 |        |             |  |                                |  |  |  |  |  |
| PID:35212497, 35212505, 35212521, 35212513, 35044056, 35214014, 35214022, 35214022 and 35213990                                          |                                                                                      |  |  |  |  | Site Address: Black Point, Guysborough County, NS                                                                                                                                        |               |              |                                                                            |            |                                                           |                                                 |        |             |  |                                |  |  |  |  |  |
| Sources and Dates of Mapping/Images: NS Wetlands Inventory (2012); NS Forest Inventory (Current Forest Data - 2004); Google Earth (2003) |                                                                                      |  |  |  |  |                                                                                                                                                                                          |               |              |                                                                            |            |                                                           |                                                 |        |             |  |                                |  |  |  |  |  |
| Evaluation Date: 04-Sep-14                                                                                                               |                                                                                      |  |  |  |  | Site Visit Date: 20-Aug-14                                                                                                                                                               |               |              |                                                                            |            |                                                           |                                                 |        |             |  |                                |  |  |  |  |  |
| Weather Conditions (past 48 hours): Periods of rain with clouds; sun and cloud                                                           |                                                                                      |  |  |  |  |                                                                                                                                                                                          |               |              |                                                                            |            |                                                           |                                                 |        |             |  |                                |  |  |  |  |  |
| Seasonal Weather Conditions: Typical                                                                                                     |                                                                                      |  |  |  |  |                                                                                                                                                                                          |               |              |                                                                            |            |                                                           |                                                 |        |             |  |                                |  |  |  |  |  |
| SECTION ONE: WATERSHED CHARACTERISTICS                                                                                                   |                                                                                      |  |  |  |  |                                                                                                                                                                                          |               |              |                                                                            |            |                                                           |                                                 |        |             |  |                                |  |  |  |  |  |
| 1                                                                                                                                        | Watershed Name (tertiary): 1EQ-SD                                                    |  |  |  |  | Size: 518 km <sup>2</sup>                                                                                                                                                                |               |              |                                                                            |            |                                                           |                                                 |        |             |  |                                |  |  |  |  |  |
| 2                                                                                                                                        | % Watershed Land Cover                                                               |  |  |  |  | For: 43                                                                                                                                                                                  | Nat: 36       | Past/Hay: <1 | Crop: <1                                                                   | Urb/Com: 2 | Road: <1                                                  | Other Dev: <1 (Gravel Pit, Landfill, Industrial |        |             |  |                                |  |  |  |  |  |
| 3                                                                                                                                        | % Watershed WL Cover and by Class                                                    |  |  |  |  | Total: 10%                                                                                                                                                                               | SM: <1        | BO: 6        | FE: 1                                                                      | FM: 2      | FS: 1                                                     | SS: 1                                           | CP: <1 | VP: Present |  |                                |  |  |  |  |  |
| SF1                                                                                                                                      | <b>Watershed condition</b>                                                           |  |  |  |  | H                                                                                                                                                                                        | M             | L            |                                                                            |            |                                                           |                                                 |        |             |  |                                |  |  |  |  |  |
| SF2                                                                                                                                      | <b>Proportion of WL area in watershed &amp; opportunity for floodwater detention</b> |  |  |  |  | H                                                                                                                                                                                        | M             | L            |                                                                            |            |                                                           |                                                 |        |             |  |                                |  |  |  |  |  |
| SECTION TWO: WETLAND CHARACTERISTICS                                                                                                     |                                                                                      |  |  |  |  |                                                                                                                                                                                          |               |              |                                                                            |            |                                                           |                                                 |        |             |  |                                |  |  |  |  |  |
| Wetland Type: Fen/Swamp/Marsh                                                                                                            |                                                                                      |  |  |  |  | WL size: 6 hectares                                                                                                                                                                      |               |              |                                                                            |            | Landform: Basin                                           |                                                 |        |             |  | Landscape Position: Lotic Pond |  |  |  |  |  |
| Water flow path: Inflow                                                                                                                  |                                                                                      |  |  |  |  | Wetland Origin: Natural                                                                                                                                                                  |               |              |                                                                            |            |                                                           |                                                 |        |             |  |                                |  |  |  |  |  |
| 1                                                                                                                                        | Water Regime                                                                         |  |  |  |  | PF                                                                                                                                                                                       | SF            | TF           | SS                                                                         | PS         | RfT                                                       | IfT                                             | AF     |             |  |                                |  |  |  |  |  |
| 2                                                                                                                                        | # WL's within 30m project area                                                       |  |  |  |  | Total# 0                                                                                                                                                                                 | SM:           | BO:          | FE:                                                                        | FM:        | FS:                                                       | SS:                                             | CP:    | VP:         |  |                                |  |  |  |  |  |
| 3                                                                                                                                        | Is WL part of complex                                                                |  |  |  |  | Yes                                                                                                                                                                                      | No            |              |                                                                            |            |                                                           |                                                 |        |             |  |                                |  |  |  |  |  |
| 4                                                                                                                                        | % each wetland type in complex                                                       |  |  |  |  | SM:                                                                                                                                                                                      | BO:           | FE: 23       | FM: 45                                                                     | FS: 32     | SS:                                                       | CP:                                             | VP:    |             |  |                                |  |  |  |  |  |
| 5                                                                                                                                        | Is WL bordering or associated with a lake or pond?                                   |  |  |  |  | bordering                                                                                                                                                                                | within 100m   |              | N/A                                                                        |            | specify: small pond at northern end of wetland            |                                                 |        |             |  |                                |  |  |  |  |  |
| 6                                                                                                                                        | Standing water?                                                                      |  |  |  |  | Yes                                                                                                                                                                                      | Avg Dep: 5-20 |              | % Inundated: 15%                                                           |            | No                                                        |                                                 |        |             |  |                                |  |  |  |  |  |
| 7                                                                                                                                        | Inlet or Outlet (circle all that apply)?                                             |  |  |  |  | Inlet                                                                                                                                                                                    | Outlet        |              |                                                                            |            |                                                           |                                                 |        |             |  |                                |  |  |  |  |  |
| 8                                                                                                                                        | Adjacent Upland Land Use within 100m (%)                                             |  |  |  |  | For: 90                                                                                                                                                                                  | Nat:          | PasHay:      | Crop:                                                                      | UrbCm:     | Road:                                                     | Other Dev: 10 gravel cobble beach               |        |             |  |                                |  |  |  |  |  |
| 9                                                                                                                                        | Are there stressors in WL or WL buffer area? Circle primary stressor(s).             |  |  |  |  | DD __, CW __, WcS __, O/C __, EB __, DP __, F __, M __, ES __, NE __, Dwp __, M __, GC __, ATV __, DG_x __, EA __, R __, Rr __, U/CD __, F_x __, FA __, other (specify): Coastal garbage |               |              |                                                                            |            |                                                           |                                                 |        |             |  |                                |  |  |  |  |  |
| 10                                                                                                                                       | Hydrology Altered (circle all that apply)?                                           |  |  |  |  | Ditching                                                                                                                                                                                 | Dams          | Tiles        | Culvert                                                                    | Well       | Diversion                                                 | Other Specify:                                  |        |             |  |                                |  |  |  |  |  |
| SF3                                                                                                                                      | <b>Rate the general wetland condition/integrity</b>                                  |  |  |  |  | H                                                                                                                                                                                        | M             | L            |                                                                            |            |                                                           |                                                 |        |             |  |                                |  |  |  |  |  |
| SECTION THREE: ADJACENT LAND CONDITION AND INTEGRITY                                                                                     |                                                                                      |  |  |  |  |                                                                                                                                                                                          |               |              |                                                                            |            |                                                           |                                                 |        |             |  |                                |  |  |  |  |  |
| 1                                                                                                                                        | Average width of adjacent naturalized buffer                                         |  |  |  |  | >1000_m                                                                                                                                                                                  |               |              |                                                                            |            |                                                           |                                                 |        |             |  |                                |  |  |  |  |  |
| 2                                                                                                                                        | Widths for water quality                                                             |  |  |  |  | H >1                                                                                                                                                                                     | M 8-15        | L <8         | gravel/cobble/boulder Beach along northern end of wetland                  |            |                                                           |                                                 |        |             |  |                                |  |  |  |  |  |
| 3                                                                                                                                        | Widths for wildlife habitat                                                          |  |  |  |  | H >100                                                                                                                                                                                   | M 15-100      | L <15        |                                                                            |            |                                                           |                                                 |        |             |  |                                |  |  |  |  |  |
| 4                                                                                                                                        | Adjacent area vegetation condition (list % in each category)                         |  |  |  |  | H 90%                                                                                                                                                                                    | M             | L 10%        |                                                                            |            |                                                           |                                                 |        |             |  |                                |  |  |  |  |  |
| 5                                                                                                                                        | Adjacent area diversity and structure (list % in each category)                      |  |  |  |  | H 90%                                                                                                                                                                                    | M             | L 10%        |                                                                            |            |                                                           |                                                 |        |             |  |                                |  |  |  |  |  |
| 6                                                                                                                                        | Adjacent Upland Slope (list % in each category)                                      |  |  |  |  | Steep 5%                                                                                                                                                                                 | Mod 20%       | Gentle 75%   |                                                                            |            |                                                           |                                                 |        |             |  |                                |  |  |  |  |  |
| 7                                                                                                                                        | Adjacent land supports water quality                                                 |  |  |  |  | Yes                                                                                                                                                                                      | No            | Specify:     |                                                                            |            |                                                           |                                                 |        |             |  |                                |  |  |  |  |  |
| 8                                                                                                                                        | Adjacent land supports wildlife habitat                                              |  |  |  |  | Yes                                                                                                                                                                                      | No            | Specify:     |                                                                            |            |                                                           |                                                 |        |             |  |                                |  |  |  |  |  |
| SF4                                                                                                                                      | <b>Rate the overall condition and integrity land adjacent to wetland</b>             |  |  |  |  | H                                                                                                                                                                                        | M             | L            | is buffer required to maintain red flag functions of wetland? If yes if no |            |                                                           |                                                 |        |             |  |                                |  |  |  |  |  |
| SECTION FOUR: DOCUMENTED IMPORTANT FEATURES                                                                                              |                                                                                      |  |  |  |  |                                                                                                                                                                                          |               |              |                                                                            |            |                                                           |                                                 |        |             |  |                                |  |  |  |  |  |
| SF5                                                                                                                                      | <b>Is the WL a WSS?</b>                                                              |  |  |  |  | Yes                                                                                                                                                                                      | No            |              |                                                                            |            |                                                           |                                                 |        |             |  |                                |  |  |  |  |  |

|                                                         |                                                                       |                                                                                        |             |                        |          |                |    |            |    |     |
|---------------------------------------------------------|-----------------------------------------------------------------------|----------------------------------------------------------------------------------------|-------------|------------------------|----------|----------------|----|------------|----|-----|
| SF6                                                     | Does the WL support commercial/recreational fish/shellfish?           | Yes                                                                                    | No          |                        |          |                |    |            |    |     |
| SF7                                                     | Species of concern (Fed/Prov)? Specify.                               | End                                                                                    | Thr         | SpC                    | Red      | Yellow         | S1 | S2         | S3 | N/A |
| SF8                                                     | Wetland has conservation/compensation agreements/activity?            | Yes                                                                                    | No          |                        | specify: |                |    |            |    |     |
| SF9                                                     | Wetland is calcerous fen, black ash or cedar swamp?                   | Yes                                                                                    | No          |                        |          |                |    |            |    |     |
| SF10                                                    | Within Drinking Water Protected Area (designated watershed/wellfield) | Yes                                                                                    | No          |                        | specify: |                |    |            |    |     |
| SF11                                                    | WL within a floodplain and upstream of or within of a populated area? | Yes                                                                                    | No          |                        |          |                |    |            |    |     |
| SF12                                                    | Fed/Prov/Municipal area of interest?                                  | Yes                                                                                    | No          |                        | specify: |                |    |            |    |     |
| <b>SECTION FIVE: HYDROLOGIC CONDITION AND INTEGRITY</b> |                                                                       |                                                                                        |             |                        |          |                |    |            |    |     |
| 1                                                       | Is WL source of stream or headwater(wc order 1 or 2)                  | Yes                                                                                    | No          |                        | Specify: |                |    |            |    |     |
| 2                                                       | Is WL geographically isolated?                                        | Yes                                                                                    | No          |                        | Specify: |                |    |            |    |     |
| 3                                                       | WL ability to maintain characteristic hydrologic regime               | High                                                                                   |             | Med                    |          | Low            |    |            |    |     |
| 4                                                       | Water Storage Depth (list % in each class)                            | >30cm                                                                                  | 15-30cm 10% | up to 15cm 5%          |          | No ponding     |    |            |    |     |
| 5                                                       | Signs of surface water retention observed?                            | SW_30_cm, WSL_x_, WCD_x_, WM_cm, SM_cm, SD_, AD_x_, ID_, PMT_x_, Al_, BT_, AR_, Other: |             |                        |          |                |    |            |    |     |
| 6                                                       | Describe observable/historical anthropogenic sediment delivery        | Low                                                                                    |             | Med                    |          | High           |    |            |    |     |
| 7                                                       | Disturbance of WL soils                                               | Low                                                                                    |             | Med                    |          | High           |    |            |    |     |
| 8                                                       | Predominant soils adjacent to WL                                      | Sand                                                                                   |             | Silt/loam              |          | Clay, bedrock  |    |            |    |     |
| 9                                                       | Capacity of WL to alter/retard flows                                  | High                                                                                   |             | Med                    |          | Low            |    |            |    |     |
| 10                                                      | Roughness coefficient for surface water flow path                     | High                                                                                   |             | Med                    |          | Low            |    |            |    |     |
| 11                                                      | Stormwater/Wastewater/Agricultural runoff detention                   | High                                                                                   |             | Med                    |          | Low            |    |            |    |     |
| 12                                                      | Water Source                                                          | Natural                                                                                |             | Mostly natural         |          | Partly altered |    | Controlled |    |     |
| 13                                                      | Hydrology of tidal wetlands                                           | Unrestricted                                                                           |             | Reduced                |          | Restricted     |    | N/A        |    |     |
| 14                                                      | Coastal storm surge                                                   | Yes                                                                                    | No          |                        |          |                |    |            |    |     |
| SF13                                                    | WL hydrologic condition                                               | Natural                                                                                | Modified    | Significantly Modified |          |                |    |            |    |     |
| SF14                                                    | WL important for maintaining stream flow?                             | Yes                                                                                    | No          |                        |          |                |    |            |    |     |
| SF15                                                    | WL ability to detain surface water                                    | High                                                                                   | Med         | Low                    |          |                |    |            |    |     |
| <b>SECTION SIX: WATER QUALITY</b>                       |                                                                       |                                                                                        |             |                        |          |                |    |            |    |     |
| 1                                                       | Stormwater/Wastewater/Agricultural runoff as water source?            | High                                                                                   |             | Med                    |          | Low            |    |            |    |     |
| 2                                                       | Nutrients/sediments from surrounding land                             | High                                                                                   |             | Med                    |          | Low            |    |            |    |     |
| 3                                                       | Significant flood/stormwater attenuation                              | Yes                                                                                    | No          |                        |          |                |    |            |    |     |
| 4                                                       | Vegetation capacity to settle suspended sediments                     | High                                                                                   |             | Med                    |          | Low            |    |            |    |     |
| 5                                                       | WL type /landscape position holds/filters runoff?                     | Yes                                                                                    | No          |                        |          |                |    |            |    |     |
| SF16                                                    | Wetland improves water quality?                                       | Yes                                                                                    | No          |                        |          |                |    |            |    |     |
| SF17                                                    | Evidence of excess nutrient loading/contamination?                    | Low                                                                                    | Med         | High                   |          |                |    |            |    |     |
| SF18                                                    | WL contributes to water quality in downstream resources               | High                                                                                   | Med         | Low                    |          |                |    |            |    |     |
| <b>SECTION SEVEN: GROUNDWATER INTERACTIONS</b>          |                                                                       |                                                                                        |             |                        |          |                |    |            |    |     |
| 1                                                       | Describe soils in wetland                                             | Recharge                                                                               |             | Discharge              |          |                |    |            |    |     |
| 2                                                       | Land use / run off in subwatershed upstream                           | Recharge                                                                               |             | Discharge              |          |                |    |            |    |     |
| 3                                                       | Conditions of upland soils within 200m of wetland                     | Recharge                                                                               |             | Discharge              |          |                |    |            |    |     |
| 4                                                       | Hydroperiod of wetland                                                | Recharge                                                                               |             | Discharge              |          |                |    |            |    |     |
| 5                                                       | Describe inlet/outlet configuration                                   | Recharge                                                                               |             | Discharge              |          |                |    |            |    |     |
| 6                                                       | Characterize topographic relief surrounding wetland                   | Recharge                                                                               |             | Discharge              |          |                |    |            |    |     |

|                                                             |                                                                           |                                                                                                                      |          |                                       |                                                             |            |              |             |    |
|-------------------------------------------------------------|---------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|----------|---------------------------------------|-------------------------------------------------------------|------------|--------------|-------------|----|
| SF19                                                        | WL serves as a recharge site                                              | Yes                                                                                                                  | No       |                                       |                                                             |            |              |             |    |
| SF20                                                        | WL serves as a discharge site                                             | Yes                                                                                                                  | No       |                                       |                                                             |            |              |             |    |
| <b>SECTION EIGHT: SHORELINE STABILIZATION AND INTEGRITY</b> |                                                                           |                                                                                                                      |          |                                       |                                                             |            |              |             |    |
| 1                                                           | Wetland fringing ocean/estuary/lake/pond/river/stream? Small pond         | Yes                                                                                                                  | No       | streamwidth >4m                       | streamwidth<4m                                              | WB Exposed | WB Sheltered |             |    |
| 2                                                           | % cover of rooted vegetation in shallow water zone                        | H >50%                                                                                                               | M 10-50  | L <10%                                |                                                             |            |              |             |    |
| 3                                                           | Avg veg WL width b/w shoreline/streambank & 2 m depth contour             | H >10m                                                                                                               | M 3-10   | L <3m                                 |                                                             |            |              |             |    |
| 4                                                           | Prevalence of strong-stemmed emerg. veg (shoreline marshes and fens only) | High                                                                                                                 | Med      | Low                                   |                                                             |            |              |             |    |
| 5                                                           | Describe shoreline erosion potential                                      | High                                                                                                                 | Med      | Low                                   |                                                             |            |              |             |    |
| 6                                                           | Shoreline/streambank veg condition upslope of water level                 | Low                                                                                                                  | Med      | High                                  | Artificial                                                  |            |              |             |    |
| SF21                                                        | WL ability to stabilize shoreline                                         | H                                                                                                                    | M        | L                                     | N/A                                                         |            |              |             |    |
| <b>SECTION NINE: PLANT COMMUNITY</b>                        |                                                                           |                                                                                                                      |          |                                       |                                                             |            |              |             |    |
| 1                                                           | Vegetation diversity                                                      | High                                                                                                                 | Med      | Low                                   |                                                             |            |              |             |    |
| 1b                                                          | Dominant plant species and % cover in the WL                              | list: <i>Typha latifolia</i> (30%)/ <i>Chamaedaphne calyculata</i> (10%)/ <i>Scirpus</i> (15%)                       |          |                                       |                                                             |            |              |             |    |
| 3                                                           | Dominant Non-native or Invasive species and % cover                       | Yes                                                                                                                  | No       | specify: %                            |                                                             |            |              |             |    |
| 4                                                           | Vegetation Disturbance                                                    | H                                                                                                                    | M        | L                                     | Specify type(s) below: regenerating vegetation in south end |            |              |             |    |
| 5                                                           | Disturbance Types                                                         | H __,ATV __,G __,M __,In __, D/D __, Im __, OAH __, li __, Sd __,E __,other __,                                      |          |                                       |                                                             |            |              |             |    |
| 7                                                           | Vegetative Integrity of plant community                                   | E                                                                                                                    | H        | M                                     | L                                                           |            |              |             |    |
| SF22                                                        | Is the plant community unique or rare regionally or provincially?         | Yes                                                                                                                  | no       | specify:                              |                                                             |            |              |             |    |
| SF23                                                        | Does the WL contain a diversity of plant communities                      | H                                                                                                                    | M        | L                                     |                                                             |            |              |             |    |
| SF24                                                        | Rate the overall integrity/quality of plant community?                    | H                                                                                                                    | M        | L                                     |                                                             |            |              |             |    |
| SF25                                                        | Are there any observed rare or endangered plant species? Specify.         | End                                                                                                                  | Thr      | SpC                                   | Red                                                         | Yellow     | S1           | S2          | S3 |
| <b>SECTION TEN: FISH AND WILDLIFE HABITAT AND INTEGRITY</b> |                                                                           |                                                                                                                      |          |                                       |                                                             |            |              |             |    |
| 1                                                           | Interspersion of open water and vegetation (open water types only)        | H                                                                                                                    | M        | L                                     |                                                             |            |              |             |    |
| 1b                                                          | % cover in vegetation versus open water                                   | 85 %                                                                                                                 |          |                                       |                                                             |            |              |             |    |
| 2                                                           | Interspersion that best fits entire wetland                               | H                                                                                                                    | M        | L                                     | N/A                                                         |            |              |             |    |
| 3                                                           | Wetland condition related to detritus                                     | H                                                                                                                    | M        | L                                     | N/A                                                         |            |              |             |    |
| 4                                                           | Interspersion of other wetlands in vicinity                               | H                                                                                                                    | M        | L                                     |                                                             |            |              |             |    |
| 6                                                           | Barriers/restriction between wetland and other habitat                    | L                                                                                                                    | M        | H                                     |                                                             |            |              |             |    |
| 7                                                           | Noteworthy wildlife or evidence (birds, mammals, amphibians,etc)          | Yes                                                                                                                  | No       | list: Dragon flies, Passerines, Newts |                                                             |            |              |             |    |
| 8                                                           | Connected to permanent water (accessible to fish)?                        | Exceptional                                                                                                          | High     | Med                                   | Low                                                         | N/A        |              |             |    |
| 9                                                           | Fish species observed or evidence seen (list)                             | Yes                                                                                                                  | No       | list:                                 |                                                             |            |              |             |    |
| 10                                                          | Wetland part of contiguous upland or wetland:                             | >50ha                                                                                                                | 25-50ha  | 10-25ha                               | <10ha                                                       |            |              |             |    |
| 11                                                          | WL provides habitat for:                                                  | Amphibians                                                                                                           | Reptiles | Waterfowl                             | Waterbirds                                                  | Mammals    | Fish         | R/E species |    |
| SF26                                                        | Does wetland support fish/fish habitat?                                   | Yes                                                                                                                  | No       | specify:                              |                                                             |            |              |             |    |
| SF27                                                        | Rare or endangered fish/wildlife species found in the wetland?            | End                                                                                                                  | Thr      | SpC                                   | Red                                                         | Yellow     | S1           | S2          | S3 |
| SF28                                                        | Overall fish and wildlife habitat quality                                 | H                                                                                                                    | M        | L                                     |                                                             |            |              |             |    |
| <b>SECTION ELEVEN: COMMUNITY USE/VALUE</b>                  |                                                                           |                                                                                                                      |          |                                       |                                                             |            |              |             |    |
| 1                                                           | Describe community use                                                    | VV __,CP __,CO __,PO __,PA __,AV __,x __,GB __,E __,HI __, WV __, BO __,HU __, PG __, BP __,F __, E __, R __, Other: |          |                                       |                                                             |            |              |             |    |
| SF29                                                        | Rate the wetland's community use/value                                    | H                                                                                                                    | M        | L                                     |                                                             |            |              |             |    |

SF ratings highlighted in red indicate critical wetland functions or watershed conditions that are highly degraded. Whenever a wetland is found to have red-highlighted SFs the proponent



| APPENDIX D: WL3                                                                                                                          |  |  |  |  |  |                                                                                                                                                                      |  |               |  |              | Nova Scotia Wetland Evaluation Technique Field Data Sheet |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
|------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------|--|--------------|-----------------------------------------------------------|-----------------------------------------------------------------------------------|--|------------|--|-------------------------------------------|--|-------------------------------------------------|--|--------|--|-------------|--|
| Project Name: Black Point Quarry                                                                                                         |  |  |  |  |  | Evaluator: Scott Burley                                                                                                                                              |  |               |  |              | GPS Coordinates: 645076 E x 5024059 N                     |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| PID:35212497, 35212505, 35212521, 35212513, 35044056, 35214014, 35214022, 35214022 and 35213990                                          |  |  |  |  |  | Site Address: Black Point, Guysborough County, NS                                                                                                                    |  |               |  |              |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| Sources and Dates of Mapping/Images: NS Wetlands Inventory (2012); NS Forest Inventory (Current Forest Data - 2004); Google Earth (2003) |  |  |  |  |  |                                                                                                                                                                      |  |               |  |              |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| Evaluation Date: 04-Sep-14                                                                                                               |  |  |  |  |  | Site Visit Date: 20-Aug-14                                                                                                                                           |  |               |  |              |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| Weather Conditions (past 48 hours): Sun and Clouds                                                                                       |  |  |  |  |  |                                                                                                                                                                      |  |               |  |              |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| Seasonal Weather Conditions: Typical                                                                                                     |  |  |  |  |  |                                                                                                                                                                      |  |               |  |              |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| SECTION ONE: WATERSHED CHARACTERISTICS                                                                                                   |  |  |  |  |  |                                                                                                                                                                      |  |               |  |              |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| 1 Watershed Name (tertiary): 1EQ-SD                                                                                                      |  |  |  |  |  | Size: 518 km <sup>2</sup>                                                                                                                                            |  |               |  |              |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| 2 % Watershed Land Cover                                                                                                                 |  |  |  |  |  | For: 43                                                                                                                                                              |  | Nat: 36       |  | Past/Hay: <1 |                                                           | Crop: <1                                                                          |  | Urb/Com: 2 |  | Road: <1                                  |  | Other Dev: <1 (Gravel Pit, Landfill, Industrial |  |        |  |             |  |
| 3 % Watershed WL Cover and by Class                                                                                                      |  |  |  |  |  | Total: 10%                                                                                                                                                           |  | SM: <1        |  | BO: 6        |                                                           | FE: 1                                                                             |  | FM: 2      |  | FS: 1                                     |  | SS: 1                                           |  | CP: <1 |  | VP: Present |  |
| <b>SF1 Watershed condition</b>                                                                                                           |  |  |  |  |  | <b>H</b>                                                                                                                                                             |  | <b>M</b>      |  | <b>L</b>     |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| <b>SF2 Proportion of WL area in watershed &amp; opportunity for floodwater detention</b>                                                 |  |  |  |  |  | <b>H</b>                                                                                                                                                             |  | <b>M</b>      |  | <b>L</b>     |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| SECTION TWO: WETLAND CHARACTERISTICS                                                                                                     |  |  |  |  |  |                                                                                                                                                                      |  |               |  |              |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| Wetland Type: Fen                                                                                                                        |  |  |  |  |  | WL size: 0.5 hectares                                                                                                                                                |  |               |  |              | Landform: Slope                                           |                                                                                   |  |            |  | Landscape Position: Lotic-Stream Confined |  |                                                 |  |        |  |             |  |
| Water flow path: Throughflow                                                                                                             |  |  |  |  |  | Wetland Origin: Natural                                                                                                                                              |  |               |  |              |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| 1 Water Regime                                                                                                                           |  |  |  |  |  | PF                                                                                                                                                                   |  | SF            |  | TF           |                                                           | SS                                                                                |  | <b>PS</b>  |  | RfT                                       |  | IfT                                             |  | AF     |  |             |  |
| 2 # WL's within 30m project area                                                                                                         |  |  |  |  |  | Total# 0                                                                                                                                                             |  | SM:           |  | BO:          |                                                           | FE:                                                                               |  | FM:        |  | FS:                                       |  | SS:                                             |  | CP:    |  | VP:         |  |
| 3 Is WL part of complex                                                                                                                  |  |  |  |  |  | Yes                                                                                                                                                                  |  | <b>No</b>     |  |              |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| 4 % each wetland type in complex                                                                                                         |  |  |  |  |  | SM:                                                                                                                                                                  |  | BO:           |  | FE: 100      |                                                           | FM:                                                                               |  | FS:        |  | SS:                                       |  | CP:                                             |  | VP:    |  |             |  |
| 5 Is WL bordering or associated with a lake or pond?                                                                                     |  |  |  |  |  | bordering                                                                                                                                                            |  |               |  | within 100m  |                                                           |                                                                                   |  | <b>N/A</b> |  |                                           |  | specify                                         |  |        |  |             |  |
| 6 Standing water?                                                                                                                        |  |  |  |  |  | <b>Yes</b>                                                                                                                                                           |  | Avg Dep: 5-10 |  |              |                                                           | % Inundated: 5%                                                                   |  |            |  | No                                        |  |                                                 |  |        |  |             |  |
| 7 Inlet or Outlet (circle all that apply)?                                                                                               |  |  |  |  |  | <b>Inlet</b>                                                                                                                                                         |  | <b>Outle</b>  |  |              |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| 8 Adjacent Upland Land Use within 100m (%)                                                                                               |  |  |  |  |  | For: 100                                                                                                                                                             |  | Nat:          |  | PasHay:      |                                                           | Crop:                                                                             |  | UrbCm:     |  | Road:                                     |  | Other Dev:                                      |  |        |  |             |  |
| 9 Are there stressors in WL or WL buffer area? Circle primary stressor(s).                                                               |  |  |  |  |  | DD __, CW __, WcS __, O/C __, EB __, DP __, F __, M __, ES __, NE __, DwP __, M __, GC __, ATV __, DG __, EA __, R __, Rr __, U/CD __, F __, FA __, other (specify): |  |               |  |              |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| 10 Hydrology Altered (circle all that apply)?                                                                                            |  |  |  |  |  | Ditching                                                                                                                                                             |  | Dams          |  | Tiles        |                                                           | Culvert                                                                           |  | Well       |  | Diversion                                 |  | Other Specify:                                  |  |        |  |             |  |
| <b>SF3 Rate the general wetland condition/integrity</b>                                                                                  |  |  |  |  |  | <b>H</b>                                                                                                                                                             |  | <b>M</b>      |  | <b>L</b>     |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| SECTION THREE: ADJACENT LAND CONDITION AND INTEGRITY                                                                                     |  |  |  |  |  |                                                                                                                                                                      |  |               |  |              |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| 1 Average width of adjacent naturalized buffer                                                                                           |  |  |  |  |  | >1000_m                                                                                                                                                              |  |               |  |              |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| 2 Widths for water quality                                                                                                               |  |  |  |  |  | <b>H &gt;1</b>                                                                                                                                                       |  | M 8-15        |  | L <8         |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| 3 Widths for wildlife habitat                                                                                                            |  |  |  |  |  | <b>H &gt;100</b>                                                                                                                                                     |  | M 15-100      |  | L <15        |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| 4 Adjacent area vegetation condition (list % in each category)                                                                           |  |  |  |  |  | H 100%                                                                                                                                                               |  | M             |  | L            |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| 5 Adjacent area diversity and structure (list % in each category)                                                                        |  |  |  |  |  | H 100%                                                                                                                                                               |  | M             |  | L            |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| 6 Adjacent Upland Slope (list % in each category)                                                                                        |  |  |  |  |  | Steep 80%                                                                                                                                                            |  | Mod 15%       |  | Gentle 5%    |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| 7 Adjacent land supports water quality                                                                                                   |  |  |  |  |  | <b>Yes</b>                                                                                                                                                           |  | No            |  | Specify:     |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| 8 Adjacent land supports wildlife habitat                                                                                                |  |  |  |  |  | <b>Yes</b>                                                                                                                                                           |  | No            |  | Specify:     |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| <b>SF4 Rate the overall condition and integrity land adjacent to wetland</b>                                                             |  |  |  |  |  | <b>H</b>                                                                                                                                                             |  | <b>M</b>      |  | <b>L</b>     |                                                           | is buffer required to maintain red flag functions of wetland? <b>If yes if no</b> |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| SECTION FOUR: DOCUMENTED IMPORTANT FEATURES                                                                                              |  |  |  |  |  |                                                                                                                                                                      |  |               |  |              |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| <b>SF5 Is the WL a WSS?</b>                                                                                                              |  |  |  |  |  | <b>Yes</b>                                                                                                                                                           |  | <b>No</b>     |  |              |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |

|                                                         |                                                                       |                                                                                |            |                                                         |                |            |    |    |    |
|---------------------------------------------------------|-----------------------------------------------------------------------|--------------------------------------------------------------------------------|------------|---------------------------------------------------------|----------------|------------|----|----|----|
| SF6                                                     | Does the WL support commercial/recreational fish/shellfish?           | Yes                                                                            | No         |                                                         |                |            |    |    |    |
| SF7                                                     | Species of concern (Fed/Prov)? Specify.                               | End                                                                            | Thr - SARA | SpC                                                     | Red            | Yellow     | S1 | S2 | S3 |
| SF8                                                     | Wetland has conservation/compensation agreements/activity?            | Yes                                                                            | No         | specify:                                                |                |            |    |    |    |
| SF9                                                     | Wetland is calcerous fen, black ash or cedar swamp?                   | Yes                                                                            | No         |                                                         |                |            |    |    |    |
| SF10                                                    | Within Drinking Water Protected Area (designated watershed/wellfield) | Yes                                                                            | No         | specify:                                                |                |            |    |    |    |
| SF11                                                    | WL within a floodplain and upstream of or within of a populated area? | Yes                                                                            | No         |                                                         |                |            |    |    |    |
| SF12                                                    | Fed/Prov/Municipal area of interest?                                  | Yes                                                                            | No         | specify:                                                |                |            |    |    |    |
| <b>SECTION FIVE: HYDROLOGIC CONDITION AND INTEGRITY</b> |                                                                       |                                                                                |            |                                                         |                |            |    |    |    |
| 1                                                       | Is WL source of stream or headwater(wc order 1 or 2)                  | Yes                                                                            | No         | Specify: small first order stream flows through wetland |                |            |    |    |    |
| 2                                                       | Is WL geographically isolated?                                        | Yes                                                                            | No         | Specify:                                                |                |            |    |    |    |
| 3                                                       | WL ability to maintain characteristic hydrologic regime               | High                                                                           |            | Med                                                     | Low            |            |    |    |    |
| 4                                                       | Water Storage Depth (list % in each class)                            | >30cm                                                                          | 15-30cm    | up to 15cm 5%                                           | No ponding     |            |    |    |    |
| 5                                                       | Signs of surface water retention observed?                            | SW_10_cm, WSL_, WCD_, WM_cm, SM_cm, SD_, AD_, ID_, PMT_, AI_, BT_, AR_, Other: |            |                                                         |                |            |    |    |    |
| 6                                                       | Describe observable/historical anthropogenic sediment delivery        | Low                                                                            |            | Med                                                     | High           |            |    |    |    |
| 7                                                       | Disturbance of WL soils                                               | Low                                                                            |            | Med                                                     | High           |            |    |    |    |
| 8                                                       | Predominant soils adjacent to WL                                      | Sand                                                                           |            | Silt/loam                                               | Clay, bedrock  |            |    |    |    |
| 9                                                       | Capacity of WL to alter/retard flows                                  | High                                                                           |            | Med                                                     | Low            |            |    |    |    |
| 10                                                      | Roughness coefficient for surface water flow path                     | High                                                                           |            | Med                                                     | Low            |            |    |    |    |
| 11                                                      | Stormwater/Wastewater/Agricultural runoff detention                   | High                                                                           |            | Med                                                     | Low            |            |    |    |    |
| 12                                                      | Water Source                                                          | Natural                                                                        |            | Mostly natural                                          | Partly altered | Controlled |    |    |    |
| 13                                                      | Hydrology of tidal wetlands                                           | Unrestricted                                                                   |            | Reduced                                                 | Restricted     | N/A        |    |    |    |
| 14                                                      | Coastal storm surge                                                   | Yes                                                                            | No         |                                                         |                |            |    |    |    |
| SF13                                                    | WL hydrologic condition                                               | Natural                                                                        | Modified   | Significantly Modified                                  |                |            |    |    |    |
| SF14                                                    | WL important for maintaining stream flow?                             | Yes                                                                            | No         |                                                         |                |            |    |    |    |
| SF15                                                    | WL ability to detain surface water                                    | High                                                                           | Med        | Low                                                     |                |            |    |    |    |
| <b>SECTION SIX: WATER QUALITY</b>                       |                                                                       |                                                                                |            |                                                         |                |            |    |    |    |
| 1                                                       | Stormwater/Wastewater/Agricultural runoff as water source?            | High                                                                           |            | Med                                                     | Low            |            |    |    |    |
| 2                                                       | Nutrients/sediments from surrounding land                             | High                                                                           |            | Med                                                     | Low            |            |    |    |    |
| 3                                                       | Significant flood/stormwater attenuation                              | Yes                                                                            | No         |                                                         |                |            |    |    |    |
| 4                                                       | Vegetation capacity to settle suspended sediments                     | High                                                                           |            | Med                                                     | Low            |            |    |    |    |
| 5                                                       | WL type /landscape position holds/filters runoff?                     | Yes                                                                            | No         |                                                         |                |            |    |    |    |
| SF16                                                    | Wetland improves water quality?                                       | Yes                                                                            | No         |                                                         |                |            |    |    |    |
| SF17                                                    | Evidence of excess nutrient loading/contamination?                    | Low                                                                            | Med        | High                                                    |                |            |    |    |    |
| SF18                                                    | WL contributes to water quality in downstream resources               | High                                                                           | Med        | Low                                                     |                |            |    |    |    |
| <b>SECTION SEVEN: GROUNDWATER INTERACTIONS</b>          |                                                                       |                                                                                |            |                                                         |                |            |    |    |    |
| 1                                                       | Describe soils in wetland                                             | Recharge                                                                       |            | Discharge                                               |                |            |    |    |    |
| 2                                                       | Land use / run off in subwatershed upstream                           | Recharge                                                                       |            | Discharge                                               |                |            |    |    |    |
| 3                                                       | Conditions of upland soils within 200m of wetland                     | Recharge                                                                       |            | Discharge                                               |                |            |    |    |    |
| 4                                                       | Hydroperiod of wetland                                                | Recharge                                                                       |            | Discharge                                               |                |            |    |    |    |
| 5                                                       | Describe inlet/outlet configuration                                   | Recharge                                                                       |            | Discharge                                               |                |            |    |    |    |
| 6                                                       | Characterize topographic relief surrounding wetland                   | Recharge                                                                       |            | Discharge                                               |                |            |    |    |    |

|                                                             |                                                                           |                                                                                                                      |          |                                           |                       |            |              |             |     |
|-------------------------------------------------------------|---------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|----------|-------------------------------------------|-----------------------|------------|--------------|-------------|-----|
| SF19                                                        | WL serves as a recharge site                                              | Yes                                                                                                                  | No       |                                           |                       |            |              |             |     |
| SF20                                                        | WL serves as a discharge site                                             | Yes                                                                                                                  | No       |                                           |                       |            |              |             |     |
| <b>SECTION EIGHT: SHORELINE STABILIZATION AND INTEGRITY</b> |                                                                           |                                                                                                                      |          |                                           |                       |            |              |             |     |
| 1                                                           | Wetland fringing ocean/estuary/lake/pond/river/stream?                    | Yes                                                                                                                  | No       | streamwidth >4m                           | streamwidth<4m        | WB Exposed | WB Sheltered |             |     |
| 2                                                           | % cover of rooted vegetation in shallow water zone                        | H >50%                                                                                                               | M 10-50  | L <10%                                    |                       |            |              |             |     |
| 3                                                           | Avg veg WL width b/w shoreline/streambank & 2 m depth contour             | H >10m                                                                                                               | M 3-10   | L <3m                                     |                       |            |              |             |     |
| 4                                                           | Prevalence of strong-stemmed emerg. veg (shoreline marshes and fens only) | High                                                                                                                 | Med      | Low                                       |                       |            |              |             |     |
| 5                                                           | Describe shoreline erosion potential                                      | High                                                                                                                 | Med      | Low                                       |                       |            |              |             |     |
| 6                                                           | Shoreline/streambank veg condition upslope of water level                 | Low                                                                                                                  | Med      | High                                      | Artificial            |            |              |             |     |
| SF21                                                        | WL ability to stabilize shoreline                                         | H                                                                                                                    | M        | L                                         | N/A                   |            |              |             |     |
| <b>SECTION NINE: PLANT COMMUNITY</b>                        |                                                                           |                                                                                                                      |          |                                           |                       |            |              |             |     |
| 1                                                           | Vegetation diversity                                                      | High                                                                                                                 | Med      | Low                                       |                       |            |              |             |     |
| 1b                                                          | Dominant plant species and % cover in the WL                              | list: <i>Osmunda cinnamomea</i> (20%)/ <i>Rhynchospora alba</i> (20%)/ <i>Mainantheum trifolium</i> (15%)            |          |                                           |                       |            |              |             |     |
| 3                                                           | Dominant Non-native or Invasive species and % cover                       | Yes                                                                                                                  | No       | specify: %                                |                       |            |              |             |     |
| 4                                                           | Vegetation Disturbance                                                    | H                                                                                                                    | M        | L                                         | specify type(s) below |            |              |             |     |
| 5                                                           | Disturbance Types                                                         | H __,ATV __,G __,M __,In __, D/D __, Im __, OAH __, li __, Sd __,E __,other __,                                      |          |                                           |                       |            |              |             |     |
| 7                                                           | Vegetative Integrity of plant community                                   | E                                                                                                                    | H        | M                                         | L                     |            |              |             |     |
| SF22                                                        | Is the plant community unique or rare regionally or provincially?         | Yes                                                                                                                  | no       | specify:                                  |                       |            |              |             |     |
| SF23                                                        | Does the WL contain a diversity of plant communities                      | H                                                                                                                    | M        | L                                         |                       |            |              |             |     |
| SF24                                                        | Rate the overall integrity/quality of plant community?                    | H                                                                                                                    | M        | L                                         |                       |            |              |             |     |
| SF25                                                        | Are there any observed rare or endangered plant species? Specify.         | End                                                                                                                  | Thr      | SpC                                       | Red                   | Yellow     | S1           | S2          | S3  |
|                                                             |                                                                           |                                                                                                                      |          |                                           |                       |            |              |             | N/A |
| <b>SECTION TEN: FISH AND WILDLIFE HABITAT AND INTEGRITY</b> |                                                                           |                                                                                                                      |          |                                           |                       |            |              |             |     |
| 1                                                           | Interspersion of open water and vegetation (open water types only)        | H                                                                                                                    | M        | L                                         |                       |            |              |             |     |
| 1b                                                          | % cover in vegetation versus open water                                   | _95_ %                                                                                                               |          |                                           |                       |            |              |             |     |
| 2                                                           | Interspersion that best fits entire wetland                               | H                                                                                                                    | M        | L                                         | N/A                   |            |              |             |     |
| 3                                                           | Wetland condition related to detritus                                     | H                                                                                                                    | M        | L                                         | N/A                   |            |              |             |     |
| 4                                                           | Interspersion of other wetlands in vicinity                               | H                                                                                                                    | M        | L                                         |                       |            |              |             |     |
| 6                                                           | Barriers/restriction between wetland and other habitat                    | L                                                                                                                    | M        | H                                         |                       |            |              |             |     |
| 7                                                           | Noteworthy wildlife or evidence (birds, mammals, amphibians,etc)          | Yes                                                                                                                  | No       | list: Dragon flies, Passerines, Bull Frog |                       |            |              |             |     |
| 8                                                           | Connected to permanent water (accessible to fish)?                        | Exceptional                                                                                                          | High     | Med                                       | Low                   | N/A        |              |             |     |
| 9                                                           | Fish species observed or evidence seen (list)                             | Yes                                                                                                                  | No       | list:                                     |                       |            |              |             |     |
| 10                                                          | Wetland part of contiguous upland or wetland:                             | >50ha                                                                                                                | 25-50ha  | 10-25ha                                   | <10ha                 |            |              |             |     |
| 11                                                          | WL provides habitat for:                                                  | Amphibians                                                                                                           | Reptiles | Waterfowl                                 | Waterbirds            | Mammals    | Fish         | R/E species |     |
| SF26                                                        | Does wetland support fish/fish habitat?                                   | Yes                                                                                                                  | No       | specify:                                  |                       |            |              |             |     |
| SF27                                                        | Rare or endangered fish/wildlife species found in the wetland?            | End                                                                                                                  | Thr-SARA | SpC                                       | Red                   | Yellow     | S1           | S2          | S3  |
|                                                             |                                                                           |                                                                                                                      |          |                                           |                       |            |              |             | N/A |
| SF28                                                        | Overall fish and wildlife habitat quality                                 | H                                                                                                                    | M        | L                                         |                       |            |              |             |     |
| <b>SECTION ELEVEN: COMMUNITY USE/VALUE</b>                  |                                                                           |                                                                                                                      |          |                                           |                       |            |              |             |     |
| 1                                                           | Describe community use                                                    | VV __,CP __,CO __,PO __,PA __,AV __,x __,GB __,E __,HI __, WV __, BO __,HU __, PG __, BP __,F __, E __, R __, Other: |          |                                           |                       |            |              |             |     |
| SF29                                                        | Rate the wetland's community use/value                                    | H                                                                                                                    | M        | L                                         |                       |            |              |             |     |

SF ratings highlighted in red indicate critical wetland functions or watershed conditions that are highly degraded. Whenever a wetland is found to have red-highlighted SFs the proponent

| APPENDIX D: WL4                                                                                                                          |                                                                                      |  |  |  |  |                                                                                                                                                    |               |              |                                                                            |            | Nova Scotia Wetland Evaluation Technique Field Data Sheet |                                                 |        |             |  |                             |  |  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--|--|--|--|----------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------|----------------------------------------------------------------------------|------------|-----------------------------------------------------------|-------------------------------------------------|--------|-------------|--|-----------------------------|--|--|--|--|--|
| Project Name: Black Point Quarry                                                                                                         |                                                                                      |  |  |  |  | Evaluator: Scott Burley                                                                                                                            |               |              |                                                                            |            | GPS Coordinates: 645076 E x 5024059 N                     |                                                 |        |             |  |                             |  |  |  |  |  |
| PID:35212497, 35212505, 35212521, 35212513, 35044056, 35214014, 35214022, 35214022 and 35213990                                          |                                                                                      |  |  |  |  | Site Address: Black Point, Guysborough County, NS                                                                                                  |               |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| Sources and Dates of Mapping/Images: NS Wetlands Inventory (2012); NS Forest Inventory (Current Forest Data - 2004); Google Earth (2003) |                                                                                      |  |  |  |  |                                                                                                                                                    |               |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| Evaluation Date: 04-Sep-14                                                                                                               |                                                                                      |  |  |  |  | Site Visit Date: 20-Aug-14                                                                                                                         |               |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| Weather Conditions (past 48 hours): Sun and Clouds                                                                                       |                                                                                      |  |  |  |  |                                                                                                                                                    |               |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| Seasonal Weather Conditions: Typical                                                                                                     |                                                                                      |  |  |  |  |                                                                                                                                                    |               |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| SECTION ONE: WATERSHED CHARACTERISTICS                                                                                                   |                                                                                      |  |  |  |  |                                                                                                                                                    |               |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 1                                                                                                                                        | Watershed Name (tertiary): 1EQ-SD                                                    |  |  |  |  | Size: 518 km <sup>2</sup>                                                                                                                          |               |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 2                                                                                                                                        | % Watershed Land Cover                                                               |  |  |  |  | For: 43                                                                                                                                            | Nat: 36       | Past/Hay: <1 | Crop: <1                                                                   | Urb/Com: 2 | Road: <1                                                  | Other Dev: <1 (Gravel Pit, Landfill, Industrial |        |             |  |                             |  |  |  |  |  |
| 3                                                                                                                                        | % Watershed WL Cover and by Class                                                    |  |  |  |  | Total: 10%                                                                                                                                         | SM: <1        | BO: 6        | FE: 1                                                                      | FM: 2      | FS: 1                                                     | SS: 1                                           | CP: <1 | VP: Present |  |                             |  |  |  |  |  |
| SF1                                                                                                                                      | <b>Watershed condition</b>                                                           |  |  |  |  | H                                                                                                                                                  | M             | L            |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| SF2                                                                                                                                      | <b>Proportion of WL area in watershed &amp; opportunity for floodwater detention</b> |  |  |  |  | H                                                                                                                                                  | M             | L            |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| SECTION TWO: WETLAND CHARACTERISTICS                                                                                                     |                                                                                      |  |  |  |  |                                                                                                                                                    |               |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| Wetland Type: Bog                                                                                                                        |                                                                                      |  |  |  |  | WL size: 0.2 hectares                                                                                                                              |               |              |                                                                            |            | Landform: Basin                                           |                                                 |        |             |  | Landscape Position: Terrene |  |  |  |  |  |
| Water flow path: Isolated                                                                                                                |                                                                                      |  |  |  |  | Wetland Origin: Natural                                                                                                                            |               |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 1                                                                                                                                        | Water Regime                                                                         |  |  |  |  | PF                                                                                                                                                 | SF            | TF           | SS                                                                         | PS         | RfT                                                       | IfT                                             | AF     |             |  |                             |  |  |  |  |  |
| 2                                                                                                                                        | # WL's within 30m project area                                                       |  |  |  |  | Total# 0                                                                                                                                           | SM:           | BO:          | FE:                                                                        | FM:        | FS:                                                       | SS:                                             | CP:    | VP:         |  |                             |  |  |  |  |  |
| 3                                                                                                                                        | Is WL part of complex                                                                |  |  |  |  | Yes                                                                                                                                                | No            |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 4                                                                                                                                        | % each wetland type in complex                                                       |  |  |  |  | SM:                                                                                                                                                | BO: 100       | FE:          | FM:                                                                        | FS:        | SS:                                                       | CP:                                             | VP:    |             |  |                             |  |  |  |  |  |
| 5                                                                                                                                        | Is WL bordering or associated with a lake or pond?                                   |  |  |  |  | bordering                                                                                                                                          |               | within 100m  |                                                                            |            | N/A                                                       | specify                                         |        |             |  |                             |  |  |  |  |  |
| 6                                                                                                                                        | Standing water?                                                                      |  |  |  |  | Yes                                                                                                                                                | Avg Dep: 5-10 |              | % Inundated:                                                               |            |                                                           | No                                              |        |             |  |                             |  |  |  |  |  |
| 7                                                                                                                                        | Inlet or Outlet (circle all that apply)?                                             |  |  |  |  | Inlet                                                                                                                                              | Outlet        |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 8                                                                                                                                        | Adjacent Upland Land Use within 100m (%)                                             |  |  |  |  | For: 100                                                                                                                                           | Nat:          | PasHay:      | Crop:                                                                      | UrbCm:     | Road:                                                     | Other Dev:                                      |        |             |  |                             |  |  |  |  |  |
| 9                                                                                                                                        | Are there stressors in WL or WL buffer area? Circle primary stressor(s).             |  |  |  |  | DD__, CW__, WcS__, O/C__, EB__, DP__, F__, M__, ES__, NE__, DwP__,<br>M__, GC__, ATV__, DG__, EA__, R__, Rr__, U/CD__, F__, FA__, other (specify): |               |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 10                                                                                                                                       | Hydrology Altered (circle all that apply)?                                           |  |  |  |  | Ditching                                                                                                                                           | Dams          | Tiles        | Culvert                                                                    | Well       | Diversion                                                 | Other Specify:                                  |        |             |  |                             |  |  |  |  |  |
| SF3                                                                                                                                      | <b>Rate the general wetland condition/integrity</b>                                  |  |  |  |  | H                                                                                                                                                  | M             | L            |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| SECTION THREE: ADJACENT LAND CONDITION AND INTEGRITY                                                                                     |                                                                                      |  |  |  |  |                                                                                                                                                    |               |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 1                                                                                                                                        | Average width of adjacent naturalized buffer                                         |  |  |  |  | >1000_m                                                                                                                                            |               |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 2                                                                                                                                        | Widths for water quality                                                             |  |  |  |  | H >1                                                                                                                                               | M 8-15        | L <8         |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 3                                                                                                                                        | Widths for wildlife habitat                                                          |  |  |  |  | H >100                                                                                                                                             | M 15-100      | L <15        |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 4                                                                                                                                        | Adjacent area vegetation condition (list % in each category)                         |  |  |  |  | H 100%                                                                                                                                             | M             | L            |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 5                                                                                                                                        | Adjacent area diversity and structure (list % in each category)                      |  |  |  |  | H 100%                                                                                                                                             | M             | L            |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 6                                                                                                                                        | Adjacent Upland Slope (list % in each category)                                      |  |  |  |  | Steep 40%                                                                                                                                          | Mod 40%       | Gentle 20%   |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 7                                                                                                                                        | Adjacent land supports water quality                                                 |  |  |  |  | Yes                                                                                                                                                | No            | Specify:     |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 8                                                                                                                                        | Adjacent land supports wildlife habitat                                              |  |  |  |  | Yes                                                                                                                                                | No            | Specify:     |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| SF4                                                                                                                                      | <b>Rate the overall condition and integrity land adjacent to wetland</b>             |  |  |  |  | H                                                                                                                                                  | M             | L            | is buffer required to maintain red flag functions of wetland? If yes if no |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| SECTION FOUR: DOCUMENTED IMPORTANT FEATURES                                                                                              |                                                                                      |  |  |  |  |                                                                                                                                                    |               |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| SF5                                                                                                                                      | <b>Is the WL a WSS?</b>                                                              |  |  |  |  | Yes                                                                                                                                                | No            |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |

|                                                         |                                                                       |                                                                                                        |            |                |     |                        |    |            |    |     |
|---------------------------------------------------------|-----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|------------|----------------|-----|------------------------|----|------------|----|-----|
| SF6                                                     | Does the WL support commercial/recreational fish/shellfish?           | Yes                                                                                                    | No         |                |     |                        |    |            |    |     |
| SF7                                                     | Species of concern (Fed/Prov)? Specify.                               | End                                                                                                    | Thr - SARA | SpC            | Red | Yellow                 | S1 | S2         | S3 | N/A |
| SF8                                                     | Wetland has conservation/compensation agreements/activity?            | Yes                                                                                                    | No         | specify:       |     |                        |    |            |    |     |
| SF9                                                     | Wetland is calcerous fen, black ash or cedar swamp?                   | Yes                                                                                                    | No         |                |     |                        |    |            |    |     |
| SF10                                                    | Within Drinking Water Protected Area (designated watershed/wellfield) | Yes                                                                                                    | No         | specify:       |     |                        |    |            |    |     |
| SF11                                                    | WL within a floodplain and upstream of or within of a populated area? | Yes                                                                                                    | No         |                |     |                        |    |            |    |     |
| SF12                                                    | Fed/Prov/Municipal area of interest?                                  | Yes                                                                                                    | No         | specify:       |     |                        |    |            |    |     |
| <b>SECTION FIVE: HYDROLOGIC CONDITION AND INTEGRITY</b> |                                                                       |                                                                                                        |            |                |     |                        |    |            |    |     |
| 1                                                       | Is WL source of stream or headwater(wc order 1 or 2)                  | Yes                                                                                                    | No         | Specify:       |     |                        |    |            |    |     |
| 2                                                       | Is WL geographically isolated?                                        | Yes                                                                                                    | No         | Specify:       |     |                        |    |            |    |     |
| 3                                                       | WL ability to maintain characteristic hydrologic regime               | High                                                                                                   |            | Med            |     | Low                    |    |            |    |     |
| 4                                                       | Water Storage Depth (list % in each class)                            | >30cm                                                                                                  | 15-30cm    | up to 15cm     |     | No ponding             |    |            |    |     |
| 5                                                       | Signs of surface water retention observed?                            | SW __ cm, WSL __, WCD __, WM __ cm, SM __ cm, SD __, AD __, ID __, PMT __, AI __, BT __, AR __, Other: |            |                |     |                        |    |            |    |     |
| 6                                                       | Describe observable/historical anthropogenic sediment delivery        | Low                                                                                                    |            | Med            |     | High                   |    |            |    |     |
| 7                                                       | Disturbance of WL soils                                               | Low                                                                                                    |            | Med            |     | High                   |    |            |    |     |
| 8                                                       | Predominant soils adjacent to WL                                      | Sand                                                                                                   |            | Silt/loam      |     | Clay, bedrock          |    |            |    |     |
| 9                                                       | Capacity of WL to alter/retard flows                                  | High                                                                                                   |            | Med            |     | Low                    |    |            |    |     |
| 10                                                      | Roughness coefficient for surface water flow path                     | High                                                                                                   |            | Med            |     | Low                    |    |            |    |     |
| 11                                                      | Stormwater/Wastewater/Agricultural runoff detention                   | High                                                                                                   |            | Med            |     | Low                    |    |            |    |     |
| 12                                                      | Water Source                                                          | Natural                                                                                                |            | Mostly natural |     | Partly altered         |    | Controlled |    |     |
| 13                                                      | Hydrology of tidal wetlands                                           | Unrestricted                                                                                           |            | Reduced        |     | Restricted             |    | N/A        |    |     |
| 14                                                      | Coastal storm surge                                                   | Yes                                                                                                    | No         |                |     |                        |    |            |    |     |
| SF13                                                    | WL hydrologic condition                                               | Natural                                                                                                | Modified   |                |     | Significantly Modified |    |            |    |     |
| SF14                                                    | WL important for maintaining stream flow?                             | Yes                                                                                                    | No         |                |     |                        |    |            |    |     |
| SF15                                                    | WL ability to detain surface water                                    | High                                                                                                   | Med        | Low            |     |                        |    |            |    |     |
| <b>SECTION SIX: WATER QUALITY</b>                       |                                                                       |                                                                                                        |            |                |     |                        |    |            |    |     |
| 1                                                       | Stormwater/Wastewater/Agricultural runoff as water source?            | High                                                                                                   |            | Med            |     | Low                    |    |            |    |     |
| 2                                                       | Nutrients/sediments from surrounding land                             | High                                                                                                   |            | Med            |     | Low                    |    |            |    |     |
| 3                                                       | Significant flood/stormwater attenuation                              | Yes                                                                                                    | No         |                |     |                        |    |            |    |     |
| 4                                                       | Vegetation capacity to settle suspended sediments                     | High                                                                                                   |            | Med            |     | Low                    |    |            |    |     |
| 5                                                       | WL type /landscape position holds/filters runoff?                     | Yes                                                                                                    | No         |                |     |                        |    |            |    |     |
| SF16                                                    | Wetland improves water quality?                                       | Yes                                                                                                    | No         |                |     |                        |    |            |    |     |
| SF17                                                    | Evidence of excess nutrient loading/contamination?                    | Low                                                                                                    | Med        | High           |     |                        |    |            |    |     |
| SF18                                                    | WL contributes to water quality in downstream resources               | High                                                                                                   | Med        | Low            |     |                        |    |            |    |     |
| <b>SECTION SEVEN: GROUNDWATER INTERACTIONS</b>          |                                                                       |                                                                                                        |            |                |     |                        |    |            |    |     |
| 1                                                       | Describe soils in wetland                                             | Recharge                                                                                               |            | Discharge      |     |                        |    |            |    |     |
| 2                                                       | Land use / run off in subwatershed upstream                           | Recharge                                                                                               |            | Discharge      |     |                        |    |            |    |     |
| 3                                                       | Conditions of upland soils within 200m of wetland                     | Recharge                                                                                               |            | Discharge      |     |                        |    |            |    |     |
| 4                                                       | Hydroperiod of wetland                                                | Recharge                                                                                               |            | Discharge      |     |                        |    |            |    |     |
| 5                                                       | Describe inlet/outlet configuration                                   | Recharge                                                                                               |            | Discharge      |     |                        |    |            |    |     |
| 6                                                       | Characterize topographic relief surrounding wetland                   | Recharge                                                                                               |            | Discharge      |     |                        |    |            |    |     |

|                                                             |                                                                           |                                                                                                                           |          |                 |                       |            |              |             |    |
|-------------------------------------------------------------|---------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|----------|-----------------|-----------------------|------------|--------------|-------------|----|
| SF19                                                        | WL serves as a recharge site                                              | Yes                                                                                                                       | No       |                 |                       |            |              |             |    |
| SF20                                                        | WL serves as a discharge site                                             | Yes                                                                                                                       | No       |                 |                       |            |              |             |    |
| <b>SECTION EIGHT: SHORELINE STABILIZATION AND INTEGRITY</b> |                                                                           |                                                                                                                           |          |                 |                       |            |              |             |    |
| 1                                                           | Wetland fringing ocean/estuary/lake/pond/river/stream?                    | Yes                                                                                                                       | No       | streamwidth >4m | streamwidth<4m        | WB Exposed | WB Sheltered |             |    |
| 2                                                           | % cover of rooted vegetation in shallow water zone                        | H >50%                                                                                                                    | M 10-50  | L <10%          |                       |            |              |             |    |
| 3                                                           | Avg veg WL width b/w shoreline/streambank & 2 m depth contour             | H >10m                                                                                                                    | M 3-10   | L <3m           |                       |            |              |             |    |
| 4                                                           | Prevalence of strong-stemmed emerg. veg (shoreline marshes and fens only) | High                                                                                                                      | Med      | Low             |                       |            |              |             |    |
| 5                                                           | Describe shoreline erosion potential                                      | High                                                                                                                      | Med      | Low             |                       |            |              |             |    |
| 6                                                           | Shoreline/streambank veg condition upslope of water level                 | Low                                                                                                                       | Med      | High            | Artificial            |            |              |             |    |
| SF21                                                        | WL ability to stabilize shoreline                                         | H                                                                                                                         | M        | L               | N/A                   |            |              |             |    |
| <b>SECTION NINE: PLANT COMMUNITY</b>                        |                                                                           |                                                                                                                           |          |                 |                       |            |              |             |    |
| 1                                                           | Vegetation diversity                                                      | High                                                                                                                      | Med      | Low             |                       |            |              |             |    |
| 1b                                                          | Dominant plant species and % cover in the WL                              | list: <i>Picea mariana</i> (70%)/ <i>Carex trisperma</i> (40%)/ <i>Mainantheum trifolium</i> (25%)                        |          |                 |                       |            |              |             |    |
| 3                                                           | Dominant Non-native or Invasive species and % cover                       | Yes                                                                                                                       | No       | specify: %      |                       |            |              |             |    |
| 4                                                           | Vegetation Disturbance                                                    | H                                                                                                                         | M        | L               | specify type(s) below |            |              |             |    |
| 5                                                           | Disturbance Types                                                         | H __,ATV __, G __, M __, In __, D/D __, Im __, OAH __, li __, Sd __, E __, other __,                                      |          |                 |                       |            |              |             |    |
| 7                                                           | Vegetative Integrity of plant community                                   | E                                                                                                                         | H        | M               | L                     |            |              |             |    |
| SF22                                                        | Is the plant community unique or rare regionally or provincially?         | Yes                                                                                                                       | no       | specify:        |                       |            |              |             |    |
| SF23                                                        | Does the WL contain a diversity of plant communities                      | H                                                                                                                         | M        | L               |                       |            |              |             |    |
| SF24                                                        | Rate the overall integrity/quality of plant community?                    | H                                                                                                                         | M        | L               |                       |            |              |             |    |
| SF25                                                        | Are there any observed rare or endangered plant species? Specify.         | End                                                                                                                       | Thr      | SpC             | Red                   | Yellow     | S1           | S2          | S3 |
| <b>SECTION TEN: FISH AND WILDLIFE HABITAT AND INTEGRITY</b> |                                                                           |                                                                                                                           |          |                 |                       |            |              |             |    |
| 1                                                           | Interspersion of open water and vegetation (open water types only)        | H                                                                                                                         | M        | L               |                       |            |              |             |    |
| 1b                                                          | % cover in vegetation versus open water                                   | _100_ %                                                                                                                   |          |                 |                       |            |              |             |    |
| 2                                                           | Interspersion that best fits entire wetland                               | H                                                                                                                         | M        | L               | N/A                   |            |              |             |    |
| 3                                                           | Wetland condition related to detritus                                     | H                                                                                                                         | M        | L               | N/A                   |            |              |             |    |
| 4                                                           | Interspersion of other wetlands in vicinity                               | H                                                                                                                         | M        | L               |                       |            |              |             |    |
| 6                                                           | Barriers/restriction between wetland and other habitat                    | L                                                                                                                         | M        | H               |                       |            |              |             |    |
| 7                                                           | Noteworthy wildlife or evidence (birds, mammals, amphibians,etc)          | Yes                                                                                                                       | No       | list:           |                       |            |              |             |    |
| 8                                                           | Connected to permanent water (accessible to fish)?                        | Exceptional                                                                                                               | High     | Med             | Low                   | N/A        |              |             |    |
| 9                                                           | Fish species observed or evidence seen (list)                             | Yes                                                                                                                       | No       | list:           |                       |            |              |             |    |
| 10                                                          | Wetland part of contiguous upland or wetland:                             | >50ha                                                                                                                     | 25-50ha  | 10-25ha         | <10ha                 |            |              |             |    |
| 11                                                          | WL provides habitat for:                                                  | Amphibians                                                                                                                | Reptiles | Waterfowl       | Waterbirds            | Mammals    | Fish         | R/E species |    |
| SF26                                                        | Does wetland support fish/fish habitat?                                   | Yes                                                                                                                       | No       | specify:        |                       |            |              |             |    |
| SF27                                                        | Rare or endangered fish/wildlife species found in the wetland?            | End                                                                                                                       | Thr-SARA | SpC             | Red                   | Yellow     | S1           | S2          | S3 |
| SF28                                                        | Overall fish and wildlife habitat quality                                 | H                                                                                                                         | M        | L               |                       |            |              |             |    |
| <b>SECTION ELEVEN: COMMUNITY USE/VALUE</b>                  |                                                                           |                                                                                                                           |          |                 |                       |            |              |             |    |
| 1                                                           | Describe community use                                                    | VV __, CP __, CO __, PO __, PA __, AV __, GB __, E __, HI __, WV __, BO __, HU __, PG __, BP __, F __, E __, R __, Other: |          |                 |                       |            |              |             |    |
| SF29                                                        | Rate the wetland's community use/value                                    | H                                                                                                                         | M        | L               |                       |            |              |             |    |

SF ratings highlighted in red indicate critical wetland functions or watershed conditions that are highly degraded. Whenever a wetland is found to have red-highlighted SFs the proponent



| APPENDIX D: WLS                                                                                                                          |                                                                                      |  |  |  |  |                                                                                                                                                                      |               |              |                                                                            |            | Nova Scotia Wetland Evaluation Technique Field Data Sheet |                                                 |        |             |  |  |  |  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--|--|--|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------|----------------------------------------------------------------------------|------------|-----------------------------------------------------------|-------------------------------------------------|--------|-------------|--|--|--|--|--|--|--|
| Project Name: Black Point Quarry                                                                                                         |                                                                                      |  |  |  |  | Evaluator: Scott Burley                                                                                                                                              |               |              |                                                                            |            | GPS Coordinates: 644431 E x 5024129 N                     |                                                 |        |             |  |  |  |  |  |  |  |
| PID:35212497, 35212505, 35212521, 35212513, 35044056, 35214014, 35214022, 35214022 and 35213990                                          |                                                                                      |  |  |  |  | Site Address: Black Point, Guysborough County, NS                                                                                                                    |               |              |                                                                            |            |                                                           |                                                 |        |             |  |  |  |  |  |  |  |
| Sources and Dates of Mapping/Images: NS Wetlands Inventory (2012); NS Forest Inventory (Current Forest Data - 2004); Google Earth (2003) |                                                                                      |  |  |  |  |                                                                                                                                                                      |               |              |                                                                            |            |                                                           |                                                 |        |             |  |  |  |  |  |  |  |
| Evaluation Date: 04-Sep-14                                                                                                               |                                                                                      |  |  |  |  | Site Visit Date: 20-Aug-14                                                                                                                                           |               |              |                                                                            |            |                                                           |                                                 |        |             |  |  |  |  |  |  |  |
| Weather Conditions (past 48 hours): Sun and Clouds                                                                                       |                                                                                      |  |  |  |  |                                                                                                                                                                      |               |              |                                                                            |            |                                                           |                                                 |        |             |  |  |  |  |  |  |  |
| Seasonal Weather Conditions: Typical                                                                                                     |                                                                                      |  |  |  |  |                                                                                                                                                                      |               |              |                                                                            |            |                                                           |                                                 |        |             |  |  |  |  |  |  |  |
| SECTION ONE: WATERSHED CHARACTERISTICS                                                                                                   |                                                                                      |  |  |  |  |                                                                                                                                                                      |               |              |                                                                            |            |                                                           |                                                 |        |             |  |  |  |  |  |  |  |
| 1                                                                                                                                        | Watershed Name (tertiary): 1EQ-SD                                                    |  |  |  |  | Size: 518 km <sup>2</sup>                                                                                                                                            |               |              |                                                                            |            |                                                           |                                                 |        |             |  |  |  |  |  |  |  |
| 2                                                                                                                                        | % Watershed Land Cover                                                               |  |  |  |  | For: 43                                                                                                                                                              | Nat: 36       | Past/Hay: <1 | Crop: <1                                                                   | Urb/Com: 2 | Road: <1                                                  | Other Dev: <1 (Gravel Pit, Landfill, Industrial |        |             |  |  |  |  |  |  |  |
| 3                                                                                                                                        | % Watershed WL Cover and by Class                                                    |  |  |  |  | Total: 10%                                                                                                                                                           | SM: <1        | BO: 6        | FE: 1                                                                      | FM: 2      | FS: 1                                                     | SS: 1                                           | CP: <1 | VP: Present |  |  |  |  |  |  |  |
| SF1                                                                                                                                      | <b>Watershed condition</b>                                                           |  |  |  |  | H                                                                                                                                                                    | M             | L            |                                                                            |            |                                                           |                                                 |        |             |  |  |  |  |  |  |  |
| SF2                                                                                                                                      | <b>Proportion of WL area in watershed &amp; opportunity for floodwater detention</b> |  |  |  |  | H                                                                                                                                                                    | M             | L            |                                                                            |            |                                                           |                                                 |        |             |  |  |  |  |  |  |  |
| SECTION TWO: WETLAND CHARACTERISTICS                                                                                                     |                                                                                      |  |  |  |  |                                                                                                                                                                      |               |              |                                                                            |            |                                                           |                                                 |        |             |  |  |  |  |  |  |  |
| Wetland Type: Fen                                                                                                                        |                                                                                      |  |  |  |  | WL size: 0.5 hectares                                                                                                                                                |               |              | Landform: Slope                                                            |            |                                                           | Landscape Position: Lotic Stream-Confined       |        |             |  |  |  |  |  |  |  |
| Water flow path: Throughflow                                                                                                             |                                                                                      |  |  |  |  | Wetland Origin: Natural                                                                                                                                              |               |              |                                                                            |            |                                                           |                                                 |        |             |  |  |  |  |  |  |  |
| 1                                                                                                                                        | Water Regime                                                                         |  |  |  |  | PF                                                                                                                                                                   | SF            | TF           | SS                                                                         | PS         | RfT                                                       | IfT                                             | AF     |             |  |  |  |  |  |  |  |
| 2                                                                                                                                        | # WL's within 30m project area                                                       |  |  |  |  | Total# 0                                                                                                                                                             | SM:           | BO:          | FE:                                                                        | FM:        | FS:                                                       | SS:                                             | CP:    | VP:         |  |  |  |  |  |  |  |
| 3                                                                                                                                        | Is WL part of complex                                                                |  |  |  |  | Yes                                                                                                                                                                  | No            |              |                                                                            |            |                                                           |                                                 |        |             |  |  |  |  |  |  |  |
| 4                                                                                                                                        | % each wetland type in complex                                                       |  |  |  |  | SM:                                                                                                                                                                  | BO:           | FE: 100      | FM:                                                                        | FS:        | SS:                                                       | CP:                                             | VP:    |             |  |  |  |  |  |  |  |
| 5                                                                                                                                        | Is WL bordering or associated with a lake or pond?                                   |  |  |  |  | bordering                                                                                                                                                            |               | within 100m  |                                                                            | N/A        | specify                                                   |                                                 |        |             |  |  |  |  |  |  |  |
| 6                                                                                                                                        | Standing water?                                                                      |  |  |  |  | Yes                                                                                                                                                                  | Avg Dep: 5-10 |              | % Inundated:                                                               |            | No                                                        |                                                 |        |             |  |  |  |  |  |  |  |
| 7                                                                                                                                        | Inlet or Outlet (circle all that apply)?                                             |  |  |  |  | Inlet                                                                                                                                                                | Outlet        |              |                                                                            |            |                                                           |                                                 |        |             |  |  |  |  |  |  |  |
| 8                                                                                                                                        | Adjacent Upland Land Use within 100m (%)                                             |  |  |  |  | For: 90                                                                                                                                                              | Nat: 10       | PasHay:      | Crop:                                                                      | UrbCm:     | Road:                                                     | Other Dev:                                      |        |             |  |  |  |  |  |  |  |
| 9                                                                                                                                        | Are there stressors in WL or WL buffer area? Circle primary stressor(s).             |  |  |  |  | DD __, CW __, WcS __, O/C __, EB __, DP __, F __, M __, ES __, NE __, DwP __, M __, GC __, ATV __, DG __, EA __, R __, Rr __, U/CD __, F __, FA __, other (specify): |               |              |                                                                            |            |                                                           |                                                 |        |             |  |  |  |  |  |  |  |
| 10                                                                                                                                       | Hydrology Altered (circle all that apply)?                                           |  |  |  |  | Ditching                                                                                                                                                             | Dams          | Tiles        | Culvert                                                                    | Well       | Diversion                                                 | Other Specify:                                  |        |             |  |  |  |  |  |  |  |
| SF3                                                                                                                                      | <b>Rate the general wetland condition/integrity</b>                                  |  |  |  |  | H                                                                                                                                                                    | M             | L            |                                                                            |            |                                                           |                                                 |        |             |  |  |  |  |  |  |  |
| SECTION THREE: ADJACENT LAND CONDITION AND INTEGRITY                                                                                     |                                                                                      |  |  |  |  |                                                                                                                                                                      |               |              |                                                                            |            |                                                           |                                                 |        |             |  |  |  |  |  |  |  |
| 1                                                                                                                                        | Average width of adjacent naturalized buffer                                         |  |  |  |  | >1000_m                                                                                                                                                              |               |              |                                                                            |            |                                                           |                                                 |        |             |  |  |  |  |  |  |  |
| 2                                                                                                                                        | Widths for water quality                                                             |  |  |  |  | H >1                                                                                                                                                                 | M 8-15        | L <8         |                                                                            |            |                                                           |                                                 |        |             |  |  |  |  |  |  |  |
| 3                                                                                                                                        | Widths for wildlife habitat                                                          |  |  |  |  | H >100                                                                                                                                                               | M 15-100      | L <15        |                                                                            |            |                                                           |                                                 |        |             |  |  |  |  |  |  |  |
| 4                                                                                                                                        | Adjacent area vegetation condition (list % in each category)                         |  |  |  |  | H 100%                                                                                                                                                               | M             | L            |                                                                            |            |                                                           |                                                 |        |             |  |  |  |  |  |  |  |
| 5                                                                                                                                        | Adjacent area diversity and structure (list % in each category)                      |  |  |  |  | H 100%                                                                                                                                                               | M             | L            |                                                                            |            |                                                           |                                                 |        |             |  |  |  |  |  |  |  |
| 6                                                                                                                                        | Adjacent Upland Slope (list % in each category)                                      |  |  |  |  | Steep 70%                                                                                                                                                            | Mod 25%       | Gentle 5%    |                                                                            |            |                                                           |                                                 |        |             |  |  |  |  |  |  |  |
| 7                                                                                                                                        | Adjacent land supports water quality                                                 |  |  |  |  | Yes                                                                                                                                                                  | No            | Specify:     |                                                                            |            |                                                           |                                                 |        |             |  |  |  |  |  |  |  |
| 8                                                                                                                                        | Adjacent land supports wildlife habitat                                              |  |  |  |  | Yes                                                                                                                                                                  | No            | Specify:     |                                                                            |            |                                                           |                                                 |        |             |  |  |  |  |  |  |  |
| SF4                                                                                                                                      | <b>Rate the overall condition and integrity land adjacent to wetland</b>             |  |  |  |  | H                                                                                                                                                                    | M             | L            | is buffer required to maintain red flag functions of wetland? If yes if no |            |                                                           |                                                 |        |             |  |  |  |  |  |  |  |
| SECTION FOUR: DOCUMENTED IMPORTANT FEATURES                                                                                              |                                                                                      |  |  |  |  |                                                                                                                                                                      |               |              |                                                                            |            |                                                           |                                                 |        |             |  |  |  |  |  |  |  |
| SF5                                                                                                                                      | <b>Is the WL a WSS?</b>                                                              |  |  |  |  | Yes                                                                                                                                                                  | No            |              |                                                                            |            |                                                           |                                                 |        |             |  |  |  |  |  |  |  |

|                                                         |                                                                       |                                                                                                        |            |                |     |                        |    |            |    |     |
|---------------------------------------------------------|-----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|------------|----------------|-----|------------------------|----|------------|----|-----|
| SF6                                                     | Does the WL support commercial/recreational fish/shellfish?           | Yes                                                                                                    | No         |                |     |                        |    |            |    |     |
| SF7                                                     | Species of concern (Fed/Prov)? Specify.                               | End                                                                                                    | Thr - SARA | SpC            | Red | Yellow                 | S1 | S2         | S3 | N/A |
| SF8                                                     | Wetland has conservation/compensation agreements/activity?            | Yes                                                                                                    | No         | specify:       |     |                        |    |            |    |     |
| SF9                                                     | Wetland is calcerous fen, black ash or cedar swamp?                   | Yes                                                                                                    | No         |                |     |                        |    |            |    |     |
| SF10                                                    | Within Drinking Water Protected Area (designated watershed/wellfield) | Yes                                                                                                    | No         | specify:       |     |                        |    |            |    |     |
| SF11                                                    | WL within a floodplain and upstream of or within of a populated area? | Yes                                                                                                    | No         |                |     |                        |    |            |    |     |
| SF12                                                    | Fed/Prov/Municipal area of interest?                                  | Yes                                                                                                    | No         | specify:       |     |                        |    |            |    |     |
| <b>SECTION FIVE: HYDROLOGIC CONDITION AND INTEGRITY</b> |                                                                       |                                                                                                        |            |                |     |                        |    |            |    |     |
| 1                                                       | Is WL source of stream or headwater(wc order 1 or 2)                  | Yes                                                                                                    | No         | Specify:       |     |                        |    |            |    |     |
| 2                                                       | Is WL geographically isolated?                                        | Yes                                                                                                    | No         | Specify:       |     |                        |    |            |    |     |
| 3                                                       | WL ability to maintain characteristic hydrologic regime               | High                                                                                                   |            | Med            |     | Low                    |    |            |    |     |
| 4                                                       | Water Storage Depth (list % in each class)                            | >30cm                                                                                                  | 15-30cm    | up to 15cm     |     | No ponding             |    |            |    |     |
| 5                                                       | Signs of surface water retention observed?                            | SW __ cm, WSL __, WCD __, WM __ cm, SM __ cm, SD __, AD __, ID __, PMT __, AI __, BT __, AR __, Other: |            |                |     |                        |    |            |    |     |
| 6                                                       | Describe observable/historical anthropogenic sediment delivery        | Low                                                                                                    |            | Med            |     | High                   |    |            |    |     |
| 7                                                       | Disturbance of WL soils                                               | Low                                                                                                    |            | Med            |     | High                   |    |            |    |     |
| 8                                                       | Predominant soils adjacent to WL                                      | Sand                                                                                                   |            | Silt/loam      |     | Clay, bedrock          |    |            |    |     |
| 9                                                       | Capacity of WL to alter/retard flows                                  | High                                                                                                   |            | Med            |     | Low                    |    |            |    |     |
| 10                                                      | Roughness coefficient for surface water flow path                     | High                                                                                                   |            | Med            |     | Low                    |    |            |    |     |
| 11                                                      | Stormwater/Wastewater/Agricultural runoff detention                   | High                                                                                                   |            | Med            |     | Low                    |    |            |    |     |
| 12                                                      | Water Source                                                          | Natural                                                                                                |            | Mostly natural |     | Partly altered         |    | Controlled |    |     |
| 13                                                      | Hydrology of tidal wetlands                                           | Unrestricted                                                                                           |            | Reduced        |     | Restricted             |    | N/A        |    |     |
| 14                                                      | Coastal storm surge                                                   | Yes                                                                                                    | No         |                |     |                        |    |            |    |     |
| SF13                                                    | WL hydrologic condition                                               | Natural                                                                                                | Modified   |                |     | Significantly Modified |    |            |    |     |
| SF14                                                    | WL important for maintaining stream flow?                             | Yes                                                                                                    | No         |                |     |                        |    |            |    |     |
| SF15                                                    | WL ability to detain surface water                                    | High                                                                                                   | Med        | Low            |     |                        |    |            |    |     |
| <b>SECTION SIX: WATER QUALITY</b>                       |                                                                       |                                                                                                        |            |                |     |                        |    |            |    |     |
| 1                                                       | Stormwater/Wastewater/Agricultural runoff as water source?            | High                                                                                                   |            | Med            |     | Low                    |    |            |    |     |
| 2                                                       | Nutrients/sediments from surrounding land                             | High                                                                                                   |            | Med            |     | Low                    |    |            |    |     |
| 3                                                       | Significant flood/stormwater attenuation                              | Yes                                                                                                    | No         |                |     |                        |    |            |    |     |
| 4                                                       | Vegetation capacity to settle suspended sediments                     | High                                                                                                   |            | Med            |     | Low                    |    |            |    |     |
| 5                                                       | WL type /landscape position holds/filters runoff?                     | Yes                                                                                                    | No         |                |     |                        |    |            |    |     |
| SF16                                                    | Wetland improves water quality?                                       | Yes                                                                                                    | No         |                |     |                        |    |            |    |     |
| SF17                                                    | Evidence of excess nutrient loading/contamination?                    | Low                                                                                                    | Med        | High           |     |                        |    |            |    |     |
| SF18                                                    | WL contributes to water quality in downstream resources               | High                                                                                                   | Med        | Low            |     |                        |    |            |    |     |
| <b>SECTION SEVEN: GROUNDWATER INTERACTIONS</b>          |                                                                       |                                                                                                        |            |                |     |                        |    |            |    |     |
| 1                                                       | Describe soils in wetland                                             | Recharge                                                                                               |            | Discharge      |     |                        |    |            |    |     |
| 2                                                       | Land use / run off in subwatershed upstream                           | Recharge                                                                                               |            | Discharge      |     |                        |    |            |    |     |
| 3                                                       | Conditions of upland soils within 200m of wetland                     | Recharge                                                                                               |            | Discharge      |     |                        |    |            |    |     |
| 4                                                       | Hydroperiod of wetland                                                | Recharge                                                                                               |            | Discharge      |     |                        |    |            |    |     |
| 5                                                       | Describe inlet/outlet configuration                                   | Recharge                                                                                               |            | Discharge      |     |                        |    |            |    |     |
| 6                                                       | Characterize topographic relief surrounding wetland                   | Recharge                                                                                               |            | Discharge      |     |                        |    |            |    |     |



|                                                             |                                                                           |                                                                                                                                 |          |                                          |                       |            |              |             |     |
|-------------------------------------------------------------|---------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|----------|------------------------------------------|-----------------------|------------|--------------|-------------|-----|
| SF19                                                        | WL serves as a recharge site                                              | Yes                                                                                                                             | No       |                                          |                       |            |              |             |     |
| SF20                                                        | WL serves as a discharge site                                             | Yes                                                                                                                             | No       |                                          |                       |            |              |             |     |
| <b>SECTION EIGHT: SHORELINE STABILIZATION AND INTEGRITY</b> |                                                                           |                                                                                                                                 |          |                                          |                       |            |              |             |     |
| 1                                                           | Wetland fringing ocean/estuary/lake/pond/river/stream?                    | Yes                                                                                                                             | No       | streamwidth >4m                          | streamwidth<4m        | WB Exposed | WB Sheltered |             |     |
| 2                                                           | % cover of rooted vegetation in shallow water zone                        | H >50%                                                                                                                          | M 10-50  | L <10%                                   |                       |            |              |             |     |
| 3                                                           | Avg veg WL width b/w shoreline/streambank & 2 m depth contour             | H >10m                                                                                                                          | M 3-10   | L <3m                                    |                       |            |              |             |     |
| 4                                                           | Prevalence of strong-stemmed emerg. veg (shoreline marshes and fens only) | High                                                                                                                            | Med      | Low                                      |                       |            |              |             |     |
| 5                                                           | Describe shoreline erosion potential                                      | High                                                                                                                            | Med      | Low                                      |                       |            |              |             |     |
| 6                                                           | Shoreline/streambank veg condition upslope of water level                 | Low                                                                                                                             | Med      | High                                     | Artificial            |            |              |             |     |
| SF21                                                        | WL ability to stabilize shoreline                                         | H                                                                                                                               | M        | L                                        | N/A                   |            |              |             |     |
| <b>SECTION NINE: PLANT COMMUNITY</b>                        |                                                                           |                                                                                                                                 |          |                                          |                       |            |              |             |     |
| 1                                                           | Vegetation diversity                                                      | High                                                                                                                            | Med      | Low                                      |                       |            |              |             |     |
| 1b                                                          | Dominant plant species and % cover in the WL                              | list: <i>Illex glabra</i> (20%)/ <i>Osmunda cinnamomea</i> (20%)/ <i>Picea mariana</i> (10%)                                    |          |                                          |                       |            |              |             |     |
| 3                                                           | Dominant Non-native or Invasive species and % cover                       | Yes                                                                                                                             | No       | specify: %                               |                       |            |              |             |     |
| 4                                                           | Vegetation Disturbance                                                    | H                                                                                                                               | M        | L                                        | specify type(s) below |            |              |             |     |
| 5                                                           | Disturbance Types                                                         | H __,ATV __, G __, M __, In __, D/D __, Im __, OAH __, li __, Sd __, E __, other __,                                            |          |                                          |                       |            |              |             |     |
| 7                                                           | Vegetative Integrity of plant community                                   | E                                                                                                                               | H        | M                                        | L                     |            |              |             |     |
| SF22                                                        | Is the plant community unique or rare regionally or provincially?         | Yes                                                                                                                             | no       | specify:                                 |                       |            |              |             |     |
| SF23                                                        | Does the WL contain a diversity of plant communities                      | H                                                                                                                               | M        | L                                        |                       |            |              |             |     |
| SF24                                                        | Rate the overall integrity/quality of plant community?                    | H                                                                                                                               | M        | L                                        |                       |            |              |             |     |
| SF25                                                        | Are there any observed rare or endangered plant species? Specify.         | End                                                                                                                             | Thr      | SpC                                      | Red                   | Yellow     | S1           | S2          | S3  |
|                                                             |                                                                           |                                                                                                                                 |          |                                          |                       |            |              |             | N/A |
| <b>SECTION TEN: FISH AND WILDLIFE HABITAT AND INTEGRITY</b> |                                                                           |                                                                                                                                 |          |                                          |                       |            |              |             |     |
| 1                                                           | Interspersion of open water and vegetation (open water types only)        | H                                                                                                                               | M        | L                                        |                       |            |              |             |     |
| 1b                                                          | % cover in vegetation versus open water                                   | _100_ %                                                                                                                         |          |                                          |                       |            |              |             |     |
| 2                                                           | Interspersion that best fits entire wetland                               | H                                                                                                                               | M        | L                                        | N/A                   |            |              |             |     |
| 3                                                           | Wetland condition related to detritus                                     | H                                                                                                                               | M        | L                                        | N/A                   |            |              |             |     |
| 4                                                           | Interspersion of other wetlands in vicinity                               | H                                                                                                                               | M        | L                                        |                       |            |              |             |     |
| 6                                                           | Barriers/restriction between wetland and other habitat                    | L                                                                                                                               | M        | H                                        |                       |            |              |             |     |
| 7                                                           | Noteworthy wildlife or evidence (birds, mammals, amphibians,etc)          | Yes                                                                                                                             | No       | list: Passerines, Wood frog, Brown Snake |                       |            |              |             |     |
| 8                                                           | Connected to permanent water (accessible to fish)?                        | Exceptional                                                                                                                     | High     | Med                                      | Low                   | N/A        |              |             |     |
| 9                                                           | Fish species observed or evidence seen (list)                             | Yes                                                                                                                             | No       | list:                                    |                       |            |              |             |     |
| 10                                                          | Wetland part of contiguous upland or wetland:                             | >50ha                                                                                                                           | 25-50ha  | 10-25ha                                  | <10ha                 |            |              |             |     |
| 11                                                          | WL provides habitat for:                                                  | Amphibians                                                                                                                      | Reptiles | Waterfowl                                | Waterbirds            | Mammals    | Fish         | R/E species |     |
| SF26                                                        | Does wetland support fish/fish habitat?                                   | Yes                                                                                                                             | No       | specify:                                 |                       |            |              |             |     |
| SF27                                                        | Rare or endangered fish/wildlife species found in the wetland?            | End                                                                                                                             | Thr-SARA | SpC                                      | Red                   | Yellow     | S1           | S2          | S3  |
|                                                             |                                                                           |                                                                                                                                 |          |                                          |                       |            |              |             | N/A |
| SF28                                                        | Overall fish and wildlife habitat quality                                 | H                                                                                                                               | M        | L                                        |                       |            |              |             |     |
| <b>SECTION ELEVEN: COMMUNITY USE/VALUE</b>                  |                                                                           |                                                                                                                                 |          |                                          |                       |            |              |             |     |
| 1                                                           | Describe community use                                                    | VV __, CP __, CO __, PO __, PA __, AV __, x __, GB __, E __, HI __, WV __, BO __, HU __, PG __, BP __, F __, E __, R __, Other: |          |                                          |                       |            |              |             |     |
| SF29                                                        | Rate the wetland's community use/value                                    | H                                                                                                                               | M        | L                                        |                       |            |              |             |     |

SF ratings highlighted in red indicate critical wetland functions or watershed conditions that are highly degraded. Whenever a wetland is found to have red-highlighted SFs the proponent

| APPENDIX D: WL6                                                                                                                          |                                                                                      |  |  |  |  |                                                                                                                                                 |               |              |                                                                            |            | Nova Scotia Wetland Evaluation Technique Field Data Sheet |                                                 |        |                                     |  |  |  |  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--|--|--|--|-------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------|----------------------------------------------------------------------------|------------|-----------------------------------------------------------|-------------------------------------------------|--------|-------------------------------------|--|--|--|--|--|--|--|
| Project Name: Black Point Quarry                                                                                                         |                                                                                      |  |  |  |  | Evaluator: Scott Burley                                                                                                                         |               |              |                                                                            |            | GPS Coordinates: 644737 E x 5024077 N                     |                                                 |        |                                     |  |  |  |  |  |  |  |
| PID:35212497, 35212505, 35212521, 35212513, 35044056, 35214014, 35214022, 35214022 and 35213990                                          |                                                                                      |  |  |  |  | Site Address: Black Point, Guysborough County, NS                                                                                               |               |              |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| Sources and Dates of Mapping/Images: NS Wetlands Inventory (2012); NS Forest Inventory (Current Forest Data - 2004); Google Earth (2003) |                                                                                      |  |  |  |  |                                                                                                                                                 |               |              |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| Evaluation Date: 04-Sep-14                                                                                                               |                                                                                      |  |  |  |  | Site Visit Date: 20-Aug-14                                                                                                                      |               |              |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| Weather Conditions (past 48 hours): Sun and Clouds                                                                                       |                                                                                      |  |  |  |  |                                                                                                                                                 |               |              |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| Seasonal Weather Conditions: Typical                                                                                                     |                                                                                      |  |  |  |  |                                                                                                                                                 |               |              |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| SECTION ONE: WATERSHED CHARACTERISTICS                                                                                                   |                                                                                      |  |  |  |  |                                                                                                                                                 |               |              |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| 1                                                                                                                                        | Watershed Name (tertiary): 1EQ-SD                                                    |  |  |  |  | Size: 518 km <sup>2</sup>                                                                                                                       |               |              |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| 2                                                                                                                                        | % Watershed Land Cover                                                               |  |  |  |  | For: 43                                                                                                                                         | Nat: 36       | Past/Hay: <1 | Crop: <1                                                                   | Urb/Com: 2 | Road: <1                                                  | Other Dev: <1 (Gravel Pit, Landfill, Industrial |        |                                     |  |  |  |  |  |  |  |
| 3                                                                                                                                        | % Watershed WL Cover and by Class                                                    |  |  |  |  | Total: 10%                                                                                                                                      | SM: <1        | BO: 6        | FE: 1                                                                      | FM: 2      | FS: 1                                                     | SS: 1                                           | CP: <1 | VP: Present                         |  |  |  |  |  |  |  |
| SF1                                                                                                                                      | <b>Watershed condition</b>                                                           |  |  |  |  | H                                                                                                                                               | M             | L            |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| SF2                                                                                                                                      | <b>Proportion of WL area in watershed &amp; opportunity for floodwater detention</b> |  |  |  |  | H                                                                                                                                               | M             | L            |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| SECTION TWO: WETLAND CHARACTERISTICS                                                                                                     |                                                                                      |  |  |  |  |                                                                                                                                                 |               |              |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| Wetland Type: Bog                                                                                                                        |                                                                                      |  |  |  |  | WL size: 0.3 hectares                                                                                                                           |               |              |                                                                            |            | Landform: Basin                                           |                                                 |        | Landscape Position: Terrene outflow |  |  |  |  |  |  |  |
| Water flow path: Outflow                                                                                                                 |                                                                                      |  |  |  |  | Wetland Origin: Natural                                                                                                                         |               |              |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| 1                                                                                                                                        | Water Regime                                                                         |  |  |  |  | PF                                                                                                                                              | SF            | TF           | SS                                                                         | PS         | RfT                                                       | IfT                                             | AF     |                                     |  |  |  |  |  |  |  |
| 2                                                                                                                                        | # WL's within 30m project area                                                       |  |  |  |  | Total# 0                                                                                                                                        | SM:           | BO:          | FE:                                                                        | FM:        | FS:                                                       | SS:                                             | CP:    | VP:                                 |  |  |  |  |  |  |  |
| 3                                                                                                                                        | Is WL part of complex                                                                |  |  |  |  | Yes                                                                                                                                             | No            |              |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| 4                                                                                                                                        | % each wetland type in complex                                                       |  |  |  |  | SM:                                                                                                                                             | BO: 100       | FE:          | FM:                                                                        | FS:        | SS:                                                       | CP:                                             | VP:    |                                     |  |  |  |  |  |  |  |
| 5                                                                                                                                        | Is WL bordering or associated with a lake or pond?                                   |  |  |  |  | bordering                                                                                                                                       |               | within 100m  |                                                                            | N/A        | specify                                                   |                                                 |        |                                     |  |  |  |  |  |  |  |
| 6                                                                                                                                        | Standing water?                                                                      |  |  |  |  | Yes                                                                                                                                             | Avg Dep: 5-10 |              | % Inundated:                                                               |            | No                                                        |                                                 |        |                                     |  |  |  |  |  |  |  |
| 7                                                                                                                                        | Inlet or Outlet (circle all that apply)?                                             |  |  |  |  | Inlet                                                                                                                                           | Outle         |              |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| 8                                                                                                                                        | Adjacent Upland Land Use within 100m (%)                                             |  |  |  |  | For: 90                                                                                                                                         | Nat: 10       | PasHay:      | Crop:                                                                      | UrbCm:     | Road:                                                     | Other Dev:                                      |        |                                     |  |  |  |  |  |  |  |
| 9                                                                                                                                        | Are there stressors in WL or WL buffer area? Circle primary stressor(s).             |  |  |  |  | DD__, CW__, WcS__, O/C__, EB__, DP__, F__, M__, ES__, NE__, DwP__, M__, GC__, ATV__, DG__, EA__, R__, Rr__, U/CD__, F__, FA__, other (specify): |               |              |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| 10                                                                                                                                       | Hydrology Altered (circle all that apply)?                                           |  |  |  |  | Ditching                                                                                                                                        | Dams          | Tiles        | Culvert                                                                    | Well       | Diversion                                                 | Other Specify:                                  |        |                                     |  |  |  |  |  |  |  |
| SF3                                                                                                                                      | <b>Rate the general wetland condition/integrity</b>                                  |  |  |  |  | H                                                                                                                                               | M             | L            |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| SECTION THREE: ADJACENT LAND CONDITION AND INTEGRITY                                                                                     |                                                                                      |  |  |  |  |                                                                                                                                                 |               |              |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| 1                                                                                                                                        | Average width of adjacent naturalized buffer                                         |  |  |  |  | >1000_m                                                                                                                                         |               |              |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| 2                                                                                                                                        | Widths for water quality                                                             |  |  |  |  | H >1                                                                                                                                            | M 8-15        | L <8         |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| 3                                                                                                                                        | Widths for wildlife habitat                                                          |  |  |  |  | H >100                                                                                                                                          | M 15-100      | L <15        |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| 4                                                                                                                                        | Adjacent area vegetation condition (list % in each category)                         |  |  |  |  | H 100%                                                                                                                                          | M             | L            |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| 5                                                                                                                                        | Adjacent area diversity and structure (list % in each category)                      |  |  |  |  | H 100%                                                                                                                                          | M             | L            |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| 6                                                                                                                                        | Adjacent Upland Slope (list % in each category)                                      |  |  |  |  | Steep 70%                                                                                                                                       | Mod 25%       | Gentle 5%    |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| 7                                                                                                                                        | Adjacent land supports water quality                                                 |  |  |  |  | Yes                                                                                                                                             | No            | Specify:     |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| 8                                                                                                                                        | Adjacent land supports wildlife habitat                                              |  |  |  |  | Yes                                                                                                                                             | No            | Specify:     |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| SF4                                                                                                                                      | <b>Rate the overall condition and integrity land adjacent to wetland</b>             |  |  |  |  | H                                                                                                                                               | M             | L            | is buffer required to maintain red flag functions of wetland? If yes if no |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| SECTION FOUR: DOCUMENTED IMPORTANT FEATURES                                                                                              |                                                                                      |  |  |  |  |                                                                                                                                                 |               |              |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| SF5                                                                                                                                      | <b>Is the WL a WSS?</b>                                                              |  |  |  |  | Yes                                                                                                                                             | No            |              |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |

|                                                         |                                                                       |                                                                                                        |            |                |                                                               |                        |    |            |       |
|---------------------------------------------------------|-----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|------------|----------------|---------------------------------------------------------------|------------------------|----|------------|-------|
| SF6                                                     | Does the WL support commercial/recreational fish/shellfish?           | Yes                                                                                                    | No         |                |                                                               |                        |    |            |       |
| SF7                                                     | Species of concern (Fed/Prov)? Specify.                               | End                                                                                                    | Thr - SARA | SpC            | Red                                                           | Yellow                 | S1 | S2         | S3    |
| SF8                                                     | Wetland has conservation/compensation agreements/activity?            | Yes                                                                                                    | No         |                |                                                               |                        |    |            | (N/A) |
| SF9                                                     | Wetland is calcerous fen, black ash or cedar swamp?                   | Yes                                                                                                    | No         |                |                                                               |                        |    |            |       |
| SF10                                                    | Within Drinking Water Protected Area (designated watershed/wellfield) | Yes                                                                                                    | No         |                |                                                               |                        |    |            |       |
| SF11                                                    | WL within a floodplain and upstream of or within of a populated area? | Yes                                                                                                    | No         |                |                                                               |                        |    |            |       |
| SF12                                                    | Fed/Prov/Municipal area of interest?                                  | Yes                                                                                                    | No         |                |                                                               |                        |    |            |       |
| <b>SECTION FIVE: HYDROLOGIC CONDITION AND INTEGRITY</b> |                                                                       |                                                                                                        |            |                |                                                               |                        |    |            |       |
| 1                                                       | Is WL source of stream or headwater(wc order 1 or 2)                  | Yes                                                                                                    | No         |                | Specify: Small outlet stream at east and west end of wetlands |                        |    |            |       |
| 2                                                       | Is WL geographically isolated?                                        | Yes                                                                                                    | No         |                | Specify:                                                      |                        |    |            |       |
| 3                                                       | WL ability to maintain characteristic hydrologic regime               | High                                                                                                   |            | Med            |                                                               | Low                    |    |            |       |
| 4                                                       | Water Storage Depth (list % in each class)                            | >30cm                                                                                                  | 15-30cm    | up to 15cm     |                                                               | No ponding             |    |            |       |
| 5                                                       | Signs of surface water retention observed?                            | SW __ cm, WSL __, WCD __, WM __ cm, SM __ cm, SD __, AD __, ID __, PMT __, AI __, BT __, AR __, Other: |            |                |                                                               |                        |    |            |       |
| 6                                                       | Describe observable/historical anthropogenic sediment delivery        | Low                                                                                                    |            | Med            |                                                               | High                   |    |            |       |
| 7                                                       | Disturbance of WL soils                                               | Low                                                                                                    |            | Med            |                                                               | High                   |    |            |       |
| 8                                                       | Predominant soils adjacent to WL                                      | Sand                                                                                                   |            | Silt/loam      |                                                               | Clay, bedrock          |    |            |       |
| 9                                                       | Capacity of WL to alter/retard flows                                  | High                                                                                                   |            | Med            |                                                               | Low                    |    |            |       |
| 10                                                      | Roughness coefficient for surface water flow path                     | High                                                                                                   |            | Med            |                                                               | Low                    |    |            |       |
| 11                                                      | Stormwater/Wastewater/Agricultural runoff detention                   | High                                                                                                   |            | Med            |                                                               | Low                    |    |            |       |
| 12                                                      | Water Source                                                          | Natural                                                                                                |            | Mostly natural |                                                               | Partly altered         |    | Controlled |       |
| 13                                                      | Hydrology of tidal wetlands                                           | Unrestricted                                                                                           |            | Reduced        |                                                               | Restricted             |    | (N/A)      |       |
| 14                                                      | Coastal storm surge                                                   | Yes                                                                                                    | No         |                |                                                               |                        |    |            |       |
| SF13                                                    | WL hydrologic condition                                               | Natural                                                                                                | Modified   |                |                                                               | Significantly Modified |    |            |       |
| SF14                                                    | WL important for maintaining stream flow?                             | Yes                                                                                                    | No         |                |                                                               |                        |    |            |       |
| SF15                                                    | WL ability to detain surface water                                    | High                                                                                                   | Med        | Low            |                                                               |                        |    |            |       |
| <b>SECTION SIX: WATER QUALITY</b>                       |                                                                       |                                                                                                        |            |                |                                                               |                        |    |            |       |
| 1                                                       | Stormwater/Wastewater/Agricultural runoff as water source?            | High                                                                                                   |            | Med            |                                                               | Low                    |    |            |       |
| 2                                                       | Nutrients/sediments from surrounding land                             | High                                                                                                   |            | Med            |                                                               | Low                    |    |            |       |
| 3                                                       | Significant flood/stormwater attenuation                              | Yes                                                                                                    | No         |                |                                                               |                        |    |            |       |
| 4                                                       | Vegetation capacity to settle suspended sediments                     | High                                                                                                   |            | Med            |                                                               | Low                    |    |            |       |
| 5                                                       | WL type /landscape position holds/filters runoff?                     | Yes                                                                                                    | No         |                |                                                               |                        |    |            |       |
| SF16                                                    | Wetland improves water quality?                                       | Yes                                                                                                    | No         |                |                                                               |                        |    |            |       |
| SF17                                                    | Evidence of excess nutrient loading/contamination?                    | Low                                                                                                    | Med        | High           |                                                               |                        |    |            |       |
| SF18                                                    | WL contributes to water quality in downstream resources               | High                                                                                                   | Med        | Low            |                                                               |                        |    |            |       |
| <b>SECTION SEVEN: GROUNDWATER INTERACTIONS</b>          |                                                                       |                                                                                                        |            |                |                                                               |                        |    |            |       |
| 1                                                       | Describe soils in wetland                                             | Recharge                                                                                               |            | Discharge      |                                                               |                        |    |            |       |
| 2                                                       | Land use / run off in subwatershed upstream                           | Recharge                                                                                               |            | Discharge      |                                                               |                        |    |            |       |
| 3                                                       | Conditions of upland soils within 200m of wetland                     | Recharge                                                                                               |            | Discharge      |                                                               |                        |    |            |       |
| 4                                                       | Hydroperiod of wetland                                                | Recharge                                                                                               |            | Discharge      |                                                               |                        |    |            |       |
| 5                                                       | Describe inlet/outlet configuration                                   | Recharge                                                                                               |            | Discharge      |                                                               |                        |    |            |       |
| 6                                                       | Characterize topographic relief surrounding wetland                   | Recharge                                                                                               |            | Discharge      |                                                               |                        |    |            |       |

|                                                             |                                                                           |                                                                                                                           |          |                                         |                       |            |              |             |     |
|-------------------------------------------------------------|---------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|----------|-----------------------------------------|-----------------------|------------|--------------|-------------|-----|
| SF19                                                        | WL serves as a recharge site                                              | Yes                                                                                                                       | No       |                                         |                       |            |              |             |     |
| SF20                                                        | WL serves as a discharge site                                             | Yes                                                                                                                       | No       |                                         |                       |            |              |             |     |
| <b>SECTION EIGHT: SHORELINE STABILIZATION AND INTEGRITY</b> |                                                                           |                                                                                                                           |          |                                         |                       |            |              |             |     |
| 1                                                           | Wetland fringing ocean/estuary/lake/pond/river/stream?                    | Yes                                                                                                                       | No       | streamwidth >4m                         | streamwidth<4m        | WB Exposed | WB Sheltered |             |     |
| 2                                                           | % cover of rooted vegetation in shallow water zone                        | H >50%                                                                                                                    | M 10-50  | L <10%                                  |                       |            |              |             |     |
| 3                                                           | Avg veg WL width b/w shoreline/streambank & 2 m depth contour             | H >10m                                                                                                                    | M 3-10   | L <3m                                   |                       |            |              |             |     |
| 4                                                           | Prevalence of strong-stemmed emerg. veg (shoreline marshes and fens only) | High                                                                                                                      | Med      | Low                                     |                       |            |              |             |     |
| 5                                                           | Describe shoreline erosion potential                                      | High                                                                                                                      | Med      | Low                                     |                       |            |              |             |     |
| 6                                                           | Shoreline/streambank veg condition upslope of water level                 | Low                                                                                                                       | Med      | High                                    | Artificial            |            |              |             |     |
| SF21                                                        | WL ability to stabilize shoreline                                         | H                                                                                                                         | M        | L                                       | N/A                   |            |              |             |     |
| <b>SECTION NINE: PLANT COMMUNITY</b>                        |                                                                           |                                                                                                                           |          |                                         |                       |            |              |             |     |
| 1                                                           | Vegetation diversity                                                      | High                                                                                                                      | Med      | Low                                     |                       |            |              |             |     |
| 1b                                                          | Dominant plant species and % cover in the WL                              | list: <i>Mainantheum trifolium</i> (20%)/ <i>Gaylussacia baccata</i> (10%)/ <i>Eriophorum virginicum</i> (10%)            |          |                                         |                       |            |              |             |     |
| 3                                                           | Dominant Non-native or Invasive species and % cover                       | Yes                                                                                                                       | No       | specify: %                              |                       |            |              |             |     |
| 4                                                           | Vegetation Disturbance                                                    | H                                                                                                                         | M        | L                                       | specify type(s) below |            |              |             |     |
| 5                                                           | Disturbance Types                                                         | H __,ATV __, G __, M __, In __, D/D __, Im __, OAH __, li __, Sd __, E __, other __,                                      |          |                                         |                       |            |              |             |     |
| 7                                                           | Vegetative Integrity of plant community                                   | E                                                                                                                         | H        | M                                       | L                     |            |              |             |     |
| SF22                                                        | Is the plant community unique or rare regionally or provincially?         | Yes                                                                                                                       | no       | specify:                                |                       |            |              |             |     |
| SF23                                                        | Does the WL contain a diversity of plant communities                      | H                                                                                                                         | M        | L                                       |                       |            |              |             |     |
| SF24                                                        | Rate the overall integrity/quality of plant community?                    | H                                                                                                                         | M        | L                                       |                       |            |              |             |     |
| SF25                                                        | Are there any observed rare or endangered plant species? Specify.         | End                                                                                                                       | Thr      | SpC                                     | Red                   | Yellow     | S1           | S2          | S3  |
|                                                             |                                                                           |                                                                                                                           |          |                                         |                       |            |              |             | N/A |
| <b>SECTION TEN: FISH AND WILDLIFE HABITAT AND INTEGRITY</b> |                                                                           |                                                                                                                           |          |                                         |                       |            |              |             |     |
| 1                                                           | Interspersion of open water and vegetation (open water types only)        | H                                                                                                                         | M        | L                                       |                       |            |              |             |     |
| 1b                                                          | % cover in vegetation versus open water                                   | _100_ %                                                                                                                   |          |                                         |                       |            |              |             |     |
| 2                                                           | Interspersion that best fits entire wetland                               | H                                                                                                                         | M        | L                                       | N/A                   |            |              |             |     |
| 3                                                           | Wetland condition related to detritus                                     | H                                                                                                                         | M        | L                                       | N/A                   |            |              |             |     |
| 4                                                           | Interspersion of other wetlands in vicinity                               | H                                                                                                                         | M        | L                                       |                       |            |              |             |     |
| 6                                                           | Barriers/restriction between wetland and other habitat                    | L                                                                                                                         | M        | H                                       |                       |            |              |             |     |
| 7                                                           | Noteworthy wildlife or evidence (birds, mammals, amphibians,etc)          | Yes                                                                                                                       | No       | list: Passerines, Wood frog, Passerines |                       |            |              |             |     |
| 8                                                           | Connected to permanent water (accessible to fish)?                        | Exceptional                                                                                                               | High     | Med                                     | Low                   | N/A        |              |             |     |
| 9                                                           | Fish species observed or evidence seen (list)                             | Yes                                                                                                                       | No       | list:                                   |                       |            |              |             |     |
| 10                                                          | Wetland part of contiguous upland or wetland:                             | >50ha                                                                                                                     | 25-50ha  | 10-25ha                                 | <10ha                 |            |              |             |     |
| 11                                                          | WL provides habitat for:                                                  | Amphibians                                                                                                                | Reptiles | Waterfowl                               | Waterbirds            | Mammals    | Fish         | R/E species |     |
| SF26                                                        | Does wetland support fish/fish habitat?                                   | Yes                                                                                                                       | No       | specify:                                |                       |            |              |             |     |
| SF27                                                        | Rare or endangered fish/wildlife species found in the wetland?            | End                                                                                                                       | Thr-SARA | SpC                                     | Red                   | Yellow     | S1           | S2          | S3  |
|                                                             |                                                                           |                                                                                                                           |          |                                         |                       |            |              |             | N/A |
| SF28                                                        | Overall fish and wildlife habitat quality                                 | H                                                                                                                         | M        | L                                       |                       |            |              |             |     |
| <b>SECTION ELEVEN: COMMUNITY USE/VALUE</b>                  |                                                                           |                                                                                                                           |          |                                         |                       |            |              |             |     |
| 1                                                           | Describe community use                                                    | VV __, CP __, CO __, PO __, PA __, AV __, GB __, E __, HI __, WV __, BO __, HU __, PG __, BP __, F __, E __, R __, Other: |          |                                         |                       |            |              |             |     |
| SF29                                                        | Rate the wetland's community use/value                                    | H                                                                                                                         | M        | L                                       |                       |            |              |             |     |

SF ratings highlighted in red indicate critical wetland functions or watershed conditions that are highly degraded. Whenever a wetland is found to have red-highlighted SFs the proponent

| APPENDIX D: WL7                                                                                                                          |                                                                                      |  |  |  |  |                                                                                                                                                 |               |              |                                                                            |            | Nova Scotia Wetland Evaluation Technique Field Data Sheet |                                                 |        |             |  |                                           |  |  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--|--|--|--|-------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------|----------------------------------------------------------------------------|------------|-----------------------------------------------------------|-------------------------------------------------|--------|-------------|--|-------------------------------------------|--|--|--|--|--|
| Project Name: Black Point Quarry                                                                                                         |                                                                                      |  |  |  |  | Evaluator: Scott Burley                                                                                                                         |               |              |                                                                            |            | GPS Coordinates: 644845 E x 5024349 N                     |                                                 |        |             |  |                                           |  |  |  |  |  |
| PID:35212497, 35212505, 35212521, 35212513, 35044056, 35214014, 35214022, 35214022 and 35213990                                          |                                                                                      |  |  |  |  | Site Address: Black Point, Guysborough County, NS                                                                                               |               |              |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| Sources and Dates of Mapping/Images: NS Wetlands Inventory (2012); NS Forest Inventory (Current Forest Data - 2004); Google Earth (2003) |                                                                                      |  |  |  |  |                                                                                                                                                 |               |              |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| Evaluation Date: 04-Sep-14                                                                                                               |                                                                                      |  |  |  |  | Site Visit Date: 20-Aug-14                                                                                                                      |               |              |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| Weather Conditions (past 48 hours): Sun and Clouds                                                                                       |                                                                                      |  |  |  |  |                                                                                                                                                 |               |              |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| Seasonal Weather Conditions: Typical                                                                                                     |                                                                                      |  |  |  |  |                                                                                                                                                 |               |              |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| SECTION ONE: WATERSHED CHARACTERISTICS                                                                                                   |                                                                                      |  |  |  |  |                                                                                                                                                 |               |              |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| 1                                                                                                                                        | Watershed Name (tertiary): 1EQ-SD                                                    |  |  |  |  | Size: 518 km <sup>2</sup>                                                                                                                       |               |              |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| 2                                                                                                                                        | % Watershed Land Cover                                                               |  |  |  |  | For: 43                                                                                                                                         | Nat: 36       | Past/Hay: <1 | Crop: <1                                                                   | Urb/Com: 2 | Road: <1                                                  | Other Dev: <1 (Gravel Pit, Landfill, Industrial |        |             |  |                                           |  |  |  |  |  |
| 3                                                                                                                                        | % Watershed WL Cover and by Class                                                    |  |  |  |  | Total: 10%                                                                                                                                      | SM: <1        | BO: 6        | FE: 1                                                                      | FM: 2      | FS: 1                                                     | SS: 1                                           | CP: <1 | VP: Present |  |                                           |  |  |  |  |  |
| SF1                                                                                                                                      | <b>Watershed condition</b>                                                           |  |  |  |  | H                                                                                                                                               | M             | L            |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| SF2                                                                                                                                      | <b>Proportion of WL area in watershed &amp; opportunity for floodwater detention</b> |  |  |  |  | H                                                                                                                                               | M             | L            |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| SECTION TWO: WETLAND CHARACTERISTICS                                                                                                     |                                                                                      |  |  |  |  |                                                                                                                                                 |               |              |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| Wetland Type: Treed Swamp                                                                                                                |                                                                                      |  |  |  |  | WL size: 0.5 hectares                                                                                                                           |               |              |                                                                            |            | Landform: Slope                                           |                                                 |        |             |  | Landscape Position: Lotic Stream-Confinde |  |  |  |  |  |
| Water flow path: Throughflow                                                                                                             |                                                                                      |  |  |  |  | Wetland Origin: Natural                                                                                                                         |               |              |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| 1                                                                                                                                        | Water Regime                                                                         |  |  |  |  | PF                                                                                                                                              | SF            | TF           | SS                                                                         | PS         | RfT                                                       | IfT                                             | AF     |             |  |                                           |  |  |  |  |  |
| 2                                                                                                                                        | # WL's within 30m project area                                                       |  |  |  |  | Total# 0                                                                                                                                        | SM:           | BO:          | FE:                                                                        | FM:        | FS:                                                       | SS:                                             | CP:    | VP:         |  |                                           |  |  |  |  |  |
| 3                                                                                                                                        | Is WL part of complex                                                                |  |  |  |  | Yes                                                                                                                                             | No            |              |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| 4                                                                                                                                        | % each wetland type in complex                                                       |  |  |  |  | SM:                                                                                                                                             | BO:           | FE:          | FM:                                                                        | FS: 100    | SS:                                                       | CP:                                             | VP:    |             |  |                                           |  |  |  |  |  |
| 5                                                                                                                                        | Is WL bordering or associated with a lake or pond?                                   |  |  |  |  | bordering                                                                                                                                       |               | within 100m  |                                                                            |            | N/A                                                       | specify                                         |        |             |  |                                           |  |  |  |  |  |
| 6                                                                                                                                        | Standing water?                                                                      |  |  |  |  | Yes                                                                                                                                             | Avg Dep: 5-10 |              |                                                                            |            |                                                           | % Inundated: No                                 |        |             |  |                                           |  |  |  |  |  |
| 7                                                                                                                                        | Inlet or Outlet (circle all that apply)?                                             |  |  |  |  | Inlet                                                                                                                                           | Outlet        |              |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| 8                                                                                                                                        | Adjacent Upland Land Use within 100m (%)                                             |  |  |  |  | For: 70                                                                                                                                         | Nat: 20       | PasHay:      | Crop:                                                                      | UrbCm:     | Road:                                                     | Other Dev: 10 Rock cliff                        |        |             |  |                                           |  |  |  |  |  |
| 9                                                                                                                                        | Are there stressors in WL or WL buffer area? Circle primary stressor(s).             |  |  |  |  | DD__, CW__, WcS__, O/C__, EB__, DP__, F__, M__, ES__, NE__, DwP__, M__, GC__, ATV__, DG__, EA__, R__, Rr__, U/CD__, F__, FA__, other (specify): |               |              |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| 10                                                                                                                                       | Hydrology Altered (circle all that apply)?                                           |  |  |  |  | Ditching                                                                                                                                        | Dams          | Tiles        | Culvert                                                                    | Well       | Diversion                                                 | Other Specify:                                  |        |             |  |                                           |  |  |  |  |  |
| SF3                                                                                                                                      | <b>Rate the general wetland condition/integrity</b>                                  |  |  |  |  | H                                                                                                                                               | M             | L            |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| SECTION THREE: ADJACENT LAND CONDITION AND INTEGRITY                                                                                     |                                                                                      |  |  |  |  |                                                                                                                                                 |               |              |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| 1                                                                                                                                        | Average width of adjacent naturalized buffer                                         |  |  |  |  | >1000_m                                                                                                                                         |               |              |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| 2                                                                                                                                        | Widths for water quality                                                             |  |  |  |  | H >1                                                                                                                                            | M 8-15        | L <8         |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| 3                                                                                                                                        | Widths for wildlife habitat                                                          |  |  |  |  | H >100                                                                                                                                          | M 15-100      | L <15        |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| 4                                                                                                                                        | Adjacent area vegetation condition (list % in each category)                         |  |  |  |  | H 100%                                                                                                                                          | M             | L            |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| 5                                                                                                                                        | Adjacent area diversity and structure (list % in each category)                      |  |  |  |  | H 100%                                                                                                                                          | M             | L            |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| 6                                                                                                                                        | Adjacent Upland Slope (list % in each category)                                      |  |  |  |  | Steep 30%                                                                                                                                       | Mod 60%       | Gentle 10%   |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| 7                                                                                                                                        | Adjacent land supports water quality                                                 |  |  |  |  | Yes                                                                                                                                             | No            | Specify:     |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| 8                                                                                                                                        | Adjacent land supports wildlife habitat                                              |  |  |  |  | Yes                                                                                                                                             | No            | Specify:     |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| SF4                                                                                                                                      | <b>Rate the overall condition and integrity land adjacent to wetland</b>             |  |  |  |  | H                                                                                                                                               | M             | L            | is buffer required to maintain red flag functions of wetland? If yes if no |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| SECTION FOUR: DOCUMENTED IMPORTANT FEATURES                                                                                              |                                                                                      |  |  |  |  |                                                                                                                                                 |               |              |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| SF5                                                                                                                                      | <b>Is the WL a WSS?</b>                                                              |  |  |  |  | Yes                                                                                                                                             | No            |              |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |

|                                                         |                                                                       |                                                                                                          |            |                |          |                        |    |            |    |     |
|---------------------------------------------------------|-----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|------------|----------------|----------|------------------------|----|------------|----|-----|
| SF6                                                     | Does the WL support commercial/recreational fish/shellfish?           | Yes                                                                                                      | No         |                |          |                        |    |            |    |     |
| SF7                                                     | Species of concern (Fed/Prov)? Specify.                               | End                                                                                                      | Thr - SARA | SpC            | Red      | Yellow                 | S1 | S2         | S3 | N/A |
| SF8                                                     | Wetland has conservation/compensation agreements/activity?            | Yes                                                                                                      | No         |                | specify: |                        |    |            |    |     |
| SF9                                                     | Wetland is calcerous fen, black ash or cedar swamp?                   | Yes                                                                                                      | No         |                |          |                        |    |            |    |     |
| SF10                                                    | Within Drinking Water Protected Area (designated watershed/wellfield) | Yes                                                                                                      | No         |                | specify: |                        |    |            |    |     |
| SF11                                                    | WL within a floodplain and upstream of or within of a populated area? | Yes                                                                                                      | No         |                |          |                        |    |            |    |     |
| SF12                                                    | Fed/Prov/Municipal area of interest?                                  | Yes                                                                                                      | No         |                | specify: |                        |    |            |    |     |
| <b>SECTION FIVE: HYDROLOGIC CONDITION AND INTEGRITY</b> |                                                                       |                                                                                                          |            |                |          |                        |    |            |    |     |
| 1                                                       | Is WL source of stream or headwater(wc order 1 or 2)                  | Yes                                                                                                      | No         |                | Specify: |                        |    |            |    |     |
| 2                                                       | Is WL geographically isolated?                                        | Yes                                                                                                      | No         |                | Specify: |                        |    |            |    |     |
| 3                                                       | WL ability to maintain characteristic hydrologic regime               | High                                                                                                     |            | Med            |          | Low                    |    |            |    |     |
| 4                                                       | Water Storage Depth (list % in each class)                            | >30cm                                                                                                    | 15-30cm    | up to 15cm     |          | No ponding             |    |            |    |     |
| 5                                                       | Signs of surface water retention observed?                            | SW __ cm, WSL __, WCD __, WM __ cm, SM __ cm, SD __, AD __, ID __, PMT_x __, AI __, BT __, AR __, Other: |            |                |          |                        |    |            |    |     |
| 6                                                       | Describe observable/historical anthropogenic sediment delivery        | Low                                                                                                      |            | Med            |          | High                   |    |            |    |     |
| 7                                                       | Disturbance of WL soils                                               | Low                                                                                                      |            | Med            |          | High                   |    |            |    |     |
| 8                                                       | Predominant soils adjacent to WL                                      | Sand                                                                                                     |            | Silt/loam      |          | Clay, bedrock          |    |            |    |     |
| 9                                                       | Capacity of WL to alter/retard flows                                  | High                                                                                                     |            | Med            |          | Low                    |    |            |    |     |
| 10                                                      | Roughness coefficient for surface water flow path                     | High                                                                                                     |            | Med            |          | Low                    |    |            |    |     |
| 11                                                      | Stormwater/Wastewater/Agricultural runoff detention                   | High                                                                                                     |            | Med            |          | Low                    |    |            |    |     |
| 12                                                      | Water Source                                                          | Natural                                                                                                  |            | Mostly natural |          | Partly altered         |    | Controlled |    |     |
| 13                                                      | Hydrology of tidal wetlands                                           | Unrestricted                                                                                             |            | Reduced        |          | Restricted             |    | N/A        |    |     |
| 14                                                      | Coastal storm surge                                                   | Yes                                                                                                      | No         |                |          |                        |    |            |    |     |
| SF13                                                    | WL hydrologic condition                                               | Natural                                                                                                  | Modified   |                |          | Significantly Modified |    |            |    |     |
| SF14                                                    | WL important for maintaining stream flow?                             | Yes                                                                                                      | No         |                |          |                        |    |            |    |     |
| SF15                                                    | WL ability to detain surface water                                    | High                                                                                                     | Med        | Low            |          |                        |    |            |    |     |
| <b>SECTION SIX: WATER QUALITY</b>                       |                                                                       |                                                                                                          |            |                |          |                        |    |            |    |     |
| 1                                                       | Stormwater/Wastewater/Agricultural runoff as water source?            | High                                                                                                     |            | Med            |          | Low                    |    |            |    |     |
| 2                                                       | Nutrients/sediments from surrounding land                             | High                                                                                                     |            | Med            |          | Low                    |    |            |    |     |
| 3                                                       | Significant flood/stormwater attenuation                              | Yes                                                                                                      | No         |                |          |                        |    |            |    |     |
| 4                                                       | Vegetation capacity to settle suspended sediments                     | High                                                                                                     |            | Med            |          | Low                    |    |            |    |     |
| 5                                                       | WL type /landscape position holds/filters runoff?                     | Yes                                                                                                      | No         |                |          |                        |    |            |    |     |
| SF16                                                    | Wetland improves water quality?                                       | Yes                                                                                                      | No         |                |          |                        |    |            |    |     |
| SF17                                                    | Evidence of excess nutrient loading/contamination?                    | Low                                                                                                      | Med        | High           |          |                        |    |            |    |     |
| SF18                                                    | WL contributes to water quality in downstream resources               | High                                                                                                     | Med        | Low            |          |                        |    |            |    |     |
| <b>SECTION SEVEN: GROUNDWATER INTERACTIONS</b>          |                                                                       |                                                                                                          |            |                |          |                        |    |            |    |     |
| 1                                                       | Describe soils in wetland                                             | Recharge                                                                                                 |            | Discharge      |          |                        |    |            |    |     |
| 2                                                       | Land use / run off in subwatershed upstream                           | Recharge                                                                                                 |            | Discharge      |          |                        |    |            |    |     |
| 3                                                       | Conditions of upland soils within 200m of wetland                     | Recharge                                                                                                 |            | Discharge      |          |                        |    |            |    |     |
| 4                                                       | Hydroperiod of wetland                                                | Recharge                                                                                                 |            | Discharge      |          |                        |    |            |    |     |
| 5                                                       | Describe inlet/outlet configuration                                   | Recharge                                                                                                 |            | Discharge      |          |                        |    |            |    |     |
| 6                                                       | Characterize topographic relief surrounding wetland                   | Recharge                                                                                                 |            | Discharge      |          |                        |    |            |    |     |



|                                                             |                                                                           |                                                                                                                           |          |                             |                       |            |              |             |     |
|-------------------------------------------------------------|---------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|----------|-----------------------------|-----------------------|------------|--------------|-------------|-----|
| SF19                                                        | WL serves as a recharge site                                              | Yes                                                                                                                       | No       |                             |                       |            |              |             |     |
| SF20                                                        | WL serves as a discharge site                                             | Yes                                                                                                                       | No       |                             |                       |            |              |             |     |
| <b>SECTION EIGHT: SHORELINE STABILIZATION AND INTEGRITY</b> |                                                                           |                                                                                                                           |          |                             |                       |            |              |             |     |
| 1                                                           | Wetland fringing ocean/estuary/lake/pond/river/stream?                    | Yes                                                                                                                       | No       | streamwidth >4m             | streamwidth <4m       | WB Exposed | WB Sheltered |             |     |
| 2                                                           | % cover of rooted vegetation in shallow water zone                        | H >50%                                                                                                                    | M 10-50  | L <10%                      |                       |            |              |             |     |
| 3                                                           | Avg veg WL width b/w shoreline/streambank & 2 m depth contour             | H >10m                                                                                                                    | M 3-10   | L <3m                       |                       |            |              |             |     |
| 4                                                           | Prevalence of strong-stemmed emerg. veg (shoreline marshes and fens only) | High                                                                                                                      | Med      | Low                         |                       |            |              |             |     |
| 5                                                           | Describe shoreline erosion potential                                      | High                                                                                                                      | Med      | Low                         |                       |            |              |             |     |
| 6                                                           | Shoreline/streambank veg condition upslope of water level                 | Low                                                                                                                       | Med      | High                        | Artificial            |            |              |             |     |
| SF21                                                        | WL ability to stabilize shoreline                                         | H                                                                                                                         | M        | L                           | N/A                   |            |              |             |     |
| <b>SECTION NINE: PLANT COMMUNITY</b>                        |                                                                           |                                                                                                                           |          |                             |                       |            |              |             |     |
| 1                                                           | Vegetation diversity                                                      | High                                                                                                                      | Med      | Low                         |                       |            |              |             |     |
| 1b                                                          | Dominant plant species and % cover in the WL                              | list: <i>Picea mariana</i> (60%)/ <i>Osmunda cinnamomea</i> (20%)                                                         |          |                             |                       |            |              |             |     |
| 3                                                           | Dominant Non-native or Invasive species and % cover                       | Yes                                                                                                                       | No       | specify: %                  |                       |            |              |             |     |
| 4                                                           | Vegetation Disturbance                                                    | H                                                                                                                         | M        | L                           | specify type(s) below |            |              |             |     |
| 5                                                           | Disturbance Types                                                         | H __, ATV __, G __, M __, In __, D/D __, Im __, OAH __, li __, Sd __, E __, other __,                                     |          |                             |                       |            |              |             |     |
| 7                                                           | Vegetative Integrity of plant community                                   | E                                                                                                                         | H        | M                           | L                     |            |              |             |     |
| SF22                                                        | Is the plant community unique or rare regionally or provincially?         | Yes                                                                                                                       | no       | specify:                    |                       |            |              |             |     |
| SF23                                                        | Does the WL contain a diversity of plant communities                      | H                                                                                                                         | M        | L                           |                       |            |              |             |     |
| SF24                                                        | Rate the overall integrity/quality of plant community?                    | H                                                                                                                         | M        | L                           |                       |            |              |             |     |
| SF25                                                        | Are there any observed rare or endangered plant species? Specify.         | End                                                                                                                       | Thr      | SpC                         | Red                   | Yellow     | S1           | S2          | S3  |
|                                                             |                                                                           |                                                                                                                           |          |                             |                       |            |              |             | N/A |
| <b>SECTION TEN: FISH AND WILDLIFE HABITAT AND INTEGRITY</b> |                                                                           |                                                                                                                           |          |                             |                       |            |              |             |     |
| 1                                                           | Interspersion of open water and vegetation (open water types only)        | H                                                                                                                         | M        | L                           |                       |            |              |             |     |
| 1b                                                          | % cover in vegetation versus open water                                   | _100_ %                                                                                                                   |          |                             |                       |            |              |             |     |
| 2                                                           | Interspersion that best fits entire wetland                               | H                                                                                                                         | M        | L                           | N/A                   |            |              |             |     |
| 3                                                           | Wetland condition related to detritus                                     | H                                                                                                                         | M        | L                           | N/A                   |            |              |             |     |
| 4                                                           | Interspersion of other wetlands in vicinity                               | H                                                                                                                         | M        | L                           |                       |            |              |             |     |
| 6                                                           | Barriers/restriction between wetland and other habitat                    | L                                                                                                                         | M        | H                           |                       |            |              |             |     |
| 7                                                           | Noteworthy wildlife or evidence (birds, mammals, amphibians, etc)         | Yes                                                                                                                       | No       | list: Passerines, Wood frog |                       |            |              |             |     |
| 8                                                           | Connected to permanent water (accessible to fish)?                        | Exceptional                                                                                                               | High     | Med                         | Low                   | N/A        |              |             |     |
| 9                                                           | Fish species observed or evidence seen (list)                             | Yes                                                                                                                       | No       | list:                       |                       |            |              |             |     |
| 10                                                          | Wetland part of contiguous upland or wetland:                             | >50ha                                                                                                                     | 25-50ha  | 10-25ha                     | <10ha                 |            |              |             |     |
| 11                                                          | WL provides habitat for:                                                  | Amphibians                                                                                                                | Reptiles | Waterfowl                   | Waterbirds            | Mammals    | Fish         | R/E species |     |
| SF26                                                        | Does wetland support fish/fish habitat?                                   | Yes                                                                                                                       | No       | specify:                    |                       |            |              |             |     |
| SF27                                                        | Rare or endangered fish/wildlife species found in the wetland?            | End                                                                                                                       | Thr-SARA | SpC                         | Red                   | Yellow     | S1           | S2          | S3  |
|                                                             |                                                                           |                                                                                                                           |          |                             |                       |            |              |             | N/A |
| SF28                                                        | Overall fish and wildlife habitat quality                                 | H                                                                                                                         | M        | L                           |                       |            |              |             |     |
| <b>SECTION ELEVEN: COMMUNITY USE/VALUE</b>                  |                                                                           |                                                                                                                           |          |                             |                       |            |              |             |     |
| 1                                                           | Describe community use                                                    | VV __, CP __, CO __, PO __, PA __, AV __, GB __, E __, HI __, WV __, BO __, HU __, PG __, BP __, F __, E __, R __, Other: |          |                             |                       |            |              |             |     |
| SF29                                                        | Rate the wetland's community use/value                                    | H                                                                                                                         | M        | L                           |                       |            |              |             |     |

SF ratings highlighted in red indicate critical wetland functions or watershed conditions that are highly degraded. Whenever a wetland is found to have red-highlighted SFs the proponent

| APPENDIX D: WL8                                                                                                                          |                                                                                      |  |  |  |  |                                                                                                                                                                      |              |              |                                                                            |            | Nova Scotia Wetland Evaluation Technique Field Data Sheet |                                                 |         |             |  |                                           |  |  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--|--|--|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|----------------------------------------------------------------------------|------------|-----------------------------------------------------------|-------------------------------------------------|---------|-------------|--|-------------------------------------------|--|--|--|--|--|
| Project Name: Black Point Quarry                                                                                                         |                                                                                      |  |  |  |  | Evaluator: Scott Burley                                                                                                                                              |              |              |                                                                            |            | GPS Coordinates: 644009 E x 5023134 N                     |                                                 |         |             |  |                                           |  |  |  |  |  |
| PID:35212497, 35212505, 35212521, 35212513, 35044056, 35214014, 35214022, 35214022 and 35213990                                          |                                                                                      |  |  |  |  | Site Address: Black Point, Guysborough County, NS                                                                                                                    |              |              |                                                                            |            |                                                           |                                                 |         |             |  |                                           |  |  |  |  |  |
| Sources and Dates of Mapping/Images: NS Wetlands Inventory (2012); NS Forest Inventory (Current Forest Data - 2004); Google Earth (2003) |                                                                                      |  |  |  |  |                                                                                                                                                                      |              |              |                                                                            |            |                                                           |                                                 |         |             |  |                                           |  |  |  |  |  |
| Evaluation Date: 04-Sep-14                                                                                                               |                                                                                      |  |  |  |  | Site Visit Date: 22-Aug-14                                                                                                                                           |              |              |                                                                            |            |                                                           |                                                 |         |             |  |                                           |  |  |  |  |  |
| Weather Conditions (past 48 hours): Sun and Clouds                                                                                       |                                                                                      |  |  |  |  |                                                                                                                                                                      |              |              |                                                                            |            |                                                           |                                                 |         |             |  |                                           |  |  |  |  |  |
| Seasonal Weather Conditions: Typical                                                                                                     |                                                                                      |  |  |  |  |                                                                                                                                                                      |              |              |                                                                            |            |                                                           |                                                 |         |             |  |                                           |  |  |  |  |  |
| SECTION ONE: WATERSHED CHARACTERISTICS                                                                                                   |                                                                                      |  |  |  |  |                                                                                                                                                                      |              |              |                                                                            |            |                                                           |                                                 |         |             |  |                                           |  |  |  |  |  |
| 1                                                                                                                                        | Watershed Name (tertiary): 1EQ-SD                                                    |  |  |  |  | Size: 518 km <sup>2</sup>                                                                                                                                            |              |              |                                                                            |            |                                                           |                                                 |         |             |  |                                           |  |  |  |  |  |
| 2                                                                                                                                        | % Watershed Land Cover                                                               |  |  |  |  | For: 43                                                                                                                                                              | Nat: 36      | Past/Hay: <1 | Crop: <1                                                                   | Urb/Com: 2 | Road: <1                                                  | Other Dev: <1 (Gravel Pit, Landfill, Industrial |         |             |  |                                           |  |  |  |  |  |
| 3                                                                                                                                        | % Watershed WL Cover and by Class                                                    |  |  |  |  | Total: 10%                                                                                                                                                           | SM: <1       | BO: 6        | FE: 1                                                                      | FM: 2      | FS: 1                                                     | SS: 1                                           | CP: <1  | VP: Present |  |                                           |  |  |  |  |  |
| SF1                                                                                                                                      | <b>Watershed condition</b>                                                           |  |  |  |  | H                                                                                                                                                                    | M            | L            |                                                                            |            |                                                           |                                                 |         |             |  |                                           |  |  |  |  |  |
| SF2                                                                                                                                      | <b>Proportion of WL area in watershed &amp; opportunity for floodwater detention</b> |  |  |  |  | H                                                                                                                                                                    | M            | L            |                                                                            |            |                                                           |                                                 |         |             |  |                                           |  |  |  |  |  |
| SECTION TWO: WETLAND CHARACTERISTICS                                                                                                     |                                                                                      |  |  |  |  |                                                                                                                                                                      |              |              |                                                                            |            |                                                           |                                                 |         |             |  |                                           |  |  |  |  |  |
| Wetland Type: Swamp/Bog/Fen                                                                                                              |                                                                                      |  |  |  |  | WL size: 10.3 hectares                                                                                                                                               |              |              |                                                                            |            | Landform: Flat                                            |                                                 |         |             |  | Landscape Position: Lotic Stream-Confinde |  |  |  |  |  |
| Water flow path: Throughflow                                                                                                             |                                                                                      |  |  |  |  | Wetland Origin: Natural                                                                                                                                              |              |              |                                                                            |            |                                                           |                                                 |         |             |  |                                           |  |  |  |  |  |
| 1                                                                                                                                        | Water Regime                                                                         |  |  |  |  | PF                                                                                                                                                                   | SF           | TF           | SS                                                                         | PS         | RfT                                                       | IfT                                             | AF      |             |  |                                           |  |  |  |  |  |
| 2                                                                                                                                        | # WL's within 30m project area                                                       |  |  |  |  | Total# 0                                                                                                                                                             | SM:          | BO:          | FE:                                                                        | FM:        | FS:                                                       | SS:                                             | CP:     | VP:         |  |                                           |  |  |  |  |  |
| 3                                                                                                                                        | Is WL part of complex                                                                |  |  |  |  | Yes                                                                                                                                                                  | No           |              |                                                                            |            |                                                           |                                                 |         |             |  |                                           |  |  |  |  |  |
| 4                                                                                                                                        | % each wetland type in complex                                                       |  |  |  |  | SM:                                                                                                                                                                  | BO: 26       | FE: 24       | FM:                                                                        | FS: 50     | SS:                                                       | CP:                                             | VP:     |             |  |                                           |  |  |  |  |  |
| 5                                                                                                                                        | Is WL bordering or associated with a lake or pond?                                   |  |  |  |  | bordering                                                                                                                                                            | within 100m  |              | N/A                                                                        |            | specify Portion of wetland borers Fogherty Lak            |                                                 |         |             |  |                                           |  |  |  |  |  |
| 6                                                                                                                                        | Standing water?                                                                      |  |  |  |  | Yes                                                                                                                                                                  | Avg Dep: 0-5 |              | % Inundated: 2%                                                            |            | No                                                        |                                                 |         |             |  |                                           |  |  |  |  |  |
| 7                                                                                                                                        | Inlet or Outlet (circle all that apply)?                                             |  |  |  |  | Inlet                                                                                                                                                                | Outlet       |              |                                                                            |            |                                                           |                                                 |         |             |  |                                           |  |  |  |  |  |
| 8                                                                                                                                        | Adjacent Upland Land Use within 100m (%)                                             |  |  |  |  | For: 40                                                                                                                                                              | Nat: 50      | PasHay:      | Crop:                                                                      | UrbCm:     | Road:                                                     | Other Dev:                                      | 10 lake |             |  |                                           |  |  |  |  |  |
| 9                                                                                                                                        | Are there stressors in WL or WL buffer area? Circle primary stressor(s).             |  |  |  |  | DD __, CW __, WcS __, O/C __, EB __, DP __, F __, M __, ES __, NE __, DwP __, M __, GC __, ATV __, DG __, EA __, R __, Rr __, U/CD __, F __, FA __, other (specify): |              |              |                                                                            |            |                                                           |                                                 |         |             |  |                                           |  |  |  |  |  |
| 10                                                                                                                                       | Hydrology Altered (circle all that apply)?                                           |  |  |  |  | Ditching                                                                                                                                                             | Dams         | Tiles        | Culvert                                                                    | Well       | Diversion                                                 | Other Specify:                                  |         |             |  |                                           |  |  |  |  |  |
| SF3                                                                                                                                      | <b>Rate the general wetland condition/integrity</b>                                  |  |  |  |  | H                                                                                                                                                                    | M            | L            |                                                                            |            |                                                           |                                                 |         |             |  |                                           |  |  |  |  |  |
| SECTION THREE: ADJACENT LAND CONDITION AND INTEGRITY                                                                                     |                                                                                      |  |  |  |  |                                                                                                                                                                      |              |              |                                                                            |            |                                                           |                                                 |         |             |  |                                           |  |  |  |  |  |
| 1                                                                                                                                        | Average width of adjacent naturalized buffer                                         |  |  |  |  | >1000_m                                                                                                                                                              |              |              |                                                                            |            |                                                           |                                                 |         |             |  |                                           |  |  |  |  |  |
| 2                                                                                                                                        | Widths for water quality                                                             |  |  |  |  | H >1                                                                                                                                                                 | M 8-15       | L <8         |                                                                            |            |                                                           |                                                 |         |             |  |                                           |  |  |  |  |  |
| 3                                                                                                                                        | Widths for wildlife habitat                                                          |  |  |  |  | H >100                                                                                                                                                               | M 15-100     | L <15        |                                                                            |            |                                                           |                                                 |         |             |  |                                           |  |  |  |  |  |
| 4                                                                                                                                        | Adjacent area vegetation condition (list % in each category)                         |  |  |  |  | H 100%                                                                                                                                                               | M            | L            |                                                                            |            |                                                           |                                                 |         |             |  |                                           |  |  |  |  |  |
| 5                                                                                                                                        | Adjacent area diversity and structure (list % in each category)                      |  |  |  |  | H 100%                                                                                                                                                               | M            | L            |                                                                            |            |                                                           |                                                 |         |             |  |                                           |  |  |  |  |  |
| 6                                                                                                                                        | Adjacent Upland Slope (list % in each category)                                      |  |  |  |  | Steep 10%                                                                                                                                                            | Mod 60%      | Gentle 30%   |                                                                            |            |                                                           |                                                 |         |             |  |                                           |  |  |  |  |  |
| 7                                                                                                                                        | Adjacent land supports water quality                                                 |  |  |  |  | Yes                                                                                                                                                                  | No           | Specify:     |                                                                            |            |                                                           |                                                 |         |             |  |                                           |  |  |  |  |  |
| 8                                                                                                                                        | Adjacent land supports wildlife habitat                                              |  |  |  |  | Yes                                                                                                                                                                  | No           | Specify:     |                                                                            |            |                                                           |                                                 |         |             |  |                                           |  |  |  |  |  |
| SF4                                                                                                                                      | <b>Rate the overall condition and integrity land adjacent to wetland</b>             |  |  |  |  | H                                                                                                                                                                    | M            | L            | is buffer required to maintain red flag functions of wetland? If yes if no |            |                                                           |                                                 |         |             |  |                                           |  |  |  |  |  |
| SECTION FOUR: DOCUMENTED IMPORTANT FEATURES                                                                                              |                                                                                      |  |  |  |  |                                                                                                                                                                      |              |              |                                                                            |            |                                                           |                                                 |         |             |  |                                           |  |  |  |  |  |
| SF5                                                                                                                                      | <b>Is the WL a WSS?</b>                                                              |  |  |  |  | Yes                                                                                                                                                                  | No           |              |                                                                            |            |                                                           |                                                 |         |             |  |                                           |  |  |  |  |  |



|                                                         |                                                                                       |                                                                                 |            |                |     |                                                                      |    |            |        |
|---------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|------------|----------------|-----|----------------------------------------------------------------------|----|------------|--------|
| SF6                                                     | Does the WL support commercial/recreational fish/shellfish?                           | Yes                                                                             | No         |                |     |                                                                      |    |            |        |
| SF7                                                     | Species of concern (Fed/Prov)? Specify. <i>Usnea flammea</i> ; <i>Cladonia stygia</i> | End                                                                             | Thr - SARA | SpC            | Red | Yellow                                                               | S1 | S2         | S3 N/A |
| SF8                                                     | Wetland has conservation/compensation agreements/activity?                            | Yes                                                                             | No         |                |     | specify:                                                             |    |            |        |
| SF9                                                     | Wetland is calcerous fen, black ash or cedar swamp?                                   | Yes                                                                             | No         |                |     |                                                                      |    |            |        |
| SF10                                                    | Within Drinking Water Protected Area (designated watershed/wellfield)                 | Yes                                                                             | No         |                |     | specify:                                                             |    |            |        |
| SF11                                                    | WL within a floodplain and upstream of or within of a populated area?                 | Yes                                                                             | No         |                |     |                                                                      |    |            |        |
| SF12                                                    | Fed/Prov/Municipal area of interest?                                                  | Yes                                                                             | No         |                |     | specify:                                                             |    |            |        |
| <b>SECTION FIVE: HYDROLOGIC CONDITION AND INTEGRITY</b> |                                                                                       |                                                                                 |            |                |     |                                                                      |    |            |        |
| 1                                                       | Is WL source of stream or headwater(wc order 1 or 2)                                  | Yes                                                                             | No         |                |     | Specify: Small watercourse flows through wetland from north to south |    |            |        |
| 2                                                       | Is WL geographically isolated?                                                        | Yes                                                                             | No         |                |     | Specify:                                                             |    |            |        |
| 3                                                       | WL ability to maintain characteristic hydrologic regime                               | High                                                                            |            | Med            |     | Low                                                                  |    |            |        |
| 4                                                       | Water Storage Depth (list % in each class)                                            | >30cm                                                                           | 15-30cm    | up to 15cm     |     | No ponding                                                           |    |            |        |
| 5                                                       | Signs of surface water retention observed?                                            | SW_5_cm, WSL_, WCD_, WM_cm, SM_cm, SD_, AD_, ID_, PMT_x_, AI_, BT_, AR_, Other: |            |                |     |                                                                      |    |            |        |
| 6                                                       | Describe observable/historical anthropogenic sediment delivery                        | Low                                                                             |            | Med            |     | High                                                                 |    |            |        |
| 7                                                       | Disturbance of WL soils                                                               | Low                                                                             |            | Med            |     | High                                                                 |    |            |        |
| 8                                                       | Predominant soils adjacent to WL                                                      | Sand                                                                            |            | Silt/loam      |     | Clay, bedrock                                                        |    |            |        |
| 9                                                       | Capacity of WL to alter/retard flows                                                  | High                                                                            |            | Med            |     | Low                                                                  |    |            |        |
| 10                                                      | Roughness coefficient for surface water flow path                                     | High                                                                            |            | Med            |     | Low                                                                  |    |            |        |
| 11                                                      | Stormwater/Wastewater/Agricultural runoff detention                                   | High                                                                            |            | Med            |     | Low                                                                  |    |            |        |
| 12                                                      | Water Source                                                                          | Natural                                                                         |            | Mostly natural |     | Partly altered                                                       |    | Controlled |        |
| 13                                                      | Hydrology of tidal wetlands                                                           | Unrestricted                                                                    |            | Reduced        |     | Restricted                                                           |    | N/A        |        |
| 14                                                      | Coastal storm surge                                                                   | Yes                                                                             | No         |                |     |                                                                      |    |            |        |
| SF13                                                    | WL hydrologic condition                                                               | Natural                                                                         | Modified   |                |     | Significantly Modified                                               |    |            |        |
| SF14                                                    | WL important for maintaining stream flow?                                             | Yes                                                                             | No         |                |     |                                                                      |    |            |        |
| SF15                                                    | WL ability to detain surface water                                                    | High                                                                            | Med        | Low            |     |                                                                      |    |            |        |
| <b>SECTION SIX: WATER QUALITY</b>                       |                                                                                       |                                                                                 |            |                |     |                                                                      |    |            |        |
| 1                                                       | Stormwater/Wastewater/Agricultural runoff as water source?                            | High                                                                            |            | Med            |     | Low                                                                  |    |            |        |
| 2                                                       | Nutrients/sediments from surrounding land                                             | High                                                                            |            | Med            |     | Low                                                                  |    |            |        |
| 3                                                       | Significant flood/stormwater attenuation                                              | Yes                                                                             | No         |                |     |                                                                      |    |            |        |
| 4                                                       | Vegetation capacity to settle suspended sediments                                     | High                                                                            |            | Med            |     | Low                                                                  |    |            |        |
| 5                                                       | WL type /landscape position holds/filters runoff?                                     | Yes                                                                             | No         |                |     |                                                                      |    |            |        |
| SF16                                                    | Wetland improves water quality?                                                       | Yes                                                                             | No         |                |     |                                                                      |    |            |        |
| SF17                                                    | Evidence of excess nutrient loading/contamination?                                    | Low                                                                             | Med        | High           |     |                                                                      |    |            |        |
| SF18                                                    | WL contributes to water quality in downstream resources                               | High                                                                            | Med        | Low            |     |                                                                      |    |            |        |
| <b>SECTION SEVEN: GROUNDWATER INTERACTIONS</b>          |                                                                                       |                                                                                 |            |                |     |                                                                      |    |            |        |
| 1                                                       | Describe soils in wetland                                                             | Recharge                                                                        |            | Discharge      |     |                                                                      |    |            |        |
| 2                                                       | Land use / run off in subwatershed upstream                                           | Recharge                                                                        |            | Discharge      |     |                                                                      |    |            |        |
| 3                                                       | Conditions of upland soils within 200m of wetland                                     | Recharge                                                                        |            | Discharge      |     |                                                                      |    |            |        |
| 4                                                       | Hydroperiod of wetland                                                                | Recharge                                                                        |            | Discharge      |     |                                                                      |    |            |        |
| 5                                                       | Describe inlet/outlet configuration                                                   | Recharge                                                                        |            | Discharge      |     |                                                                      |    |            |        |
| 6                                                       | Characterize topographic relief surrounding wetland                                   | Recharge                                                                        |            | Discharge      |     |                                                                      |    |            |        |

|                                                             |                                                                           |                                                                                                                                |          |                                   |                       |            |              |             |        |
|-------------------------------------------------------------|---------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|----------|-----------------------------------|-----------------------|------------|--------------|-------------|--------|
| SF19                                                        | WL serves as a recharge site                                              | Yes                                                                                                                            | No       |                                   |                       |            |              |             |        |
| SF20                                                        | WL serves as a discharge site                                             | Yes                                                                                                                            | No       |                                   |                       |            |              |             |        |
| <b>SECTION EIGHT: SHORELINE STABILIZATION AND INTEGRITY</b> |                                                                           |                                                                                                                                |          |                                   |                       |            |              |             |        |
| 1                                                           | Wetland fringing ocean/estuary/lake/pond/river/stream?                    | Yes                                                                                                                            | No       | streamwidth >4m                   | streamwidth<4m        | WB Exposed | WB Sheltered |             |        |
| 2                                                           | % cover of rooted vegetation in shallow water zone                        | H >50%                                                                                                                         | M 10-50  | L <10%                            |                       |            |              |             |        |
| 3                                                           | Avg veg WL width b/w shoreline/streambank & 2 m depth contour             | H >10m                                                                                                                         | M 3-10   | L <3m                             |                       |            |              |             |        |
| 4                                                           | Prevalence of strong-stemmed emerg. veg (shoreline marshes and fens only) | High                                                                                                                           | Med      | Low                               |                       |            |              |             |        |
| 5                                                           | Describe shoreline erosion potential                                      | High                                                                                                                           | Med      | Low                               |                       |            |              |             |        |
| 6                                                           | Shoreline/streambank veg condition upslope of water level                 | Low                                                                                                                            | Med      | High                              | Artificial            |            |              |             |        |
| SF21                                                        | WL ability to stabilize shoreline                                         | H                                                                                                                              | M        | L                                 | N/A                   |            |              |             |        |
| <b>SECTION NINE: PLANT COMMUNITY</b>                        |                                                                           |                                                                                                                                |          |                                   |                       |            |              |             |        |
| 1                                                           | Vegetation diversity                                                      | High                                                                                                                           | Med      | Low                               |                       |            |              |             |        |
| 1b                                                          | Dominant plant species and % cover in the WL                              | list: <i>Picea mariana</i> (60%)/ <i>Osmunda cinnamomea</i> (20%)/ <i>Carex trisperma</i> (40%)                                |          |                                   |                       |            |              |             |        |
| 3                                                           | Dominant Non-native or Invasive species and % cover                       | Yes                                                                                                                            | No       | specify: %                        |                       |            |              |             |        |
| 4                                                           | Vegetation Disturbance                                                    | H                                                                                                                              | M        | L                                 | specify type(s) below |            |              |             |        |
| 5                                                           | Disturbance Types                                                         | H __,ATV __,G __,M __,In __, D/D __, Im __, OAH __, li __, Sd __,E __,other __,                                                |          |                                   |                       |            |              |             |        |
| 7                                                           | Vegetative Integrity of plant community                                   | E                                                                                                                              | H        | M                                 | L                     |            |              |             |        |
| SF22                                                        | Is the plant community unique or rare regionally or provincially?         | Yes                                                                                                                            | no       | specify:                          |                       |            |              |             |        |
| SF23                                                        | Does the WL contain a diversity of plant communities                      | H                                                                                                                              | M        | L                                 |                       |            |              |             |        |
| SF24                                                        | Rate the overall integrity/quality of plant community?                    | H                                                                                                                              | M        | L                                 |                       |            |              |             |        |
| SF25                                                        | Are there any observed rare or endangered plant species? Specify.         | End                                                                                                                            | Thr      | SpC                               | Red                   | Yellow     | S1           | S2          | S3 N/A |
| <b>SECTION TEN: FISH AND WILDLIFE HABITAT AND INTEGRITY</b> |                                                                           |                                                                                                                                |          |                                   |                       |            |              |             |        |
| 1                                                           | Interspersion of open water and vegetation (open water types only)        | H                                                                                                                              | M        | L                                 |                       |            |              |             |        |
| 1b                                                          | % cover in vegetation versus open water                                   | _100_ %                                                                                                                        |          |                                   |                       |            |              |             |        |
| 2                                                           | Interspersion that best fits entire wetland                               | H                                                                                                                              | M        | L                                 | N/A                   |            |              |             |        |
| 3                                                           | Wetland condition related to detritus                                     | H                                                                                                                              | M        | L                                 | N/A                   |            |              |             |        |
| 4                                                           | Interspersion of other wetlands in vicinity                               | H                                                                                                                              | M        | L                                 |                       |            |              |             |        |
| 6                                                           | Barriers/restriction between wetland and other habitat                    | L                                                                                                                              | M        | H                                 |                       |            |              |             |        |
| 7                                                           | Noteworthy wildlife or evidence (birds, mammals, amphibians,etc)          | Yes                                                                                                                            | No       | list: Passerines, Wood frog, Deer |                       |            |              |             |        |
| 8                                                           | Connected to permanent water (accessible to fish)?                        | Exceptional                                                                                                                    | High     | Med                               | Low                   | N/A        |              |             |        |
| 9                                                           | Fish species observed or evidence seen (list)                             | Yes                                                                                                                            | No       | list:                             |                       |            |              |             |        |
| 10                                                          | Wetland part of contiguous upland or wetland:                             | >50ha                                                                                                                          | 25-50ha  | 10-25ha                           | <10ha                 |            |              |             |        |
| 11                                                          | WL provides habitat for:                                                  | Amphibians                                                                                                                     | Reptiles | Waterfowl                         | Waterbirds            | Mammals    | Fish         | R/E species |        |
| SF26                                                        | Does wetland support fish/fish habitat?                                   | Yes                                                                                                                            | No       | specify:                          |                       |            |              |             |        |
| SF27                                                        | Rare or endangered fish/wildlife species found in the wetland?            | End                                                                                                                            | Thr-SARA | SpC                               | Red                   | Yellow     | S1           | S2          | S3 N/A |
| SF28                                                        | Overall fish and wildlife habitat quality                                 | H                                                                                                                              | M        | L                                 |                       |            |              |             |        |
| <b>SECTION ELEVEN: COMMUNITY USE/VALUE</b>                  |                                                                           |                                                                                                                                |          |                                   |                       |            |              |             |        |
| 1                                                           | Describe community use                                                    | VV __,CP __,CO __,PO __,PA __,AV __,x __,GB __,E __,HI __, WV __, BO __,HU __, PG __,x __, BP __,x __,F __, E __, R __, Other: |          |                                   |                       |            |              |             |        |
| SF29                                                        | Rate the wetland's community use/value                                    | H                                                                                                                              | M        | L                                 |                       |            |              |             |        |

SF ratings highlighted in red indicate critical wetland functions or watershed conditions that are highly degraded. Whenever a wetland is found to have red-highlighted SFs the proponent

| APPENDIX D: WL9                                                                                                                          |                                                                                      |  |  |  |  |                                                                                                                                                    |                  |              |                                                                            |            | Nova Scotia Wetland Evaluation Technique Field Data Sheet |                                                 |        |             |  |                             |  |  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--|--|--|--|----------------------------------------------------------------------------------------------------------------------------------------------------|------------------|--------------|----------------------------------------------------------------------------|------------|-----------------------------------------------------------|-------------------------------------------------|--------|-------------|--|-----------------------------|--|--|--|--|--|
| Project Name: Black Point Quarry                                                                                                         |                                                                                      |  |  |  |  | Evaluator: Scott Burley                                                                                                                            |                  |              |                                                                            |            | GPS Coordinates: 643617 E x 5023397 N                     |                                                 |        |             |  |                             |  |  |  |  |  |
| PID:35212497, 35212505, 35212521, 35212513, 35044056, 35214014, 35214022, 35214022 and 35213990                                          |                                                                                      |  |  |  |  | Site Address: Black Point, Guysborough County, NS                                                                                                  |                  |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| Sources and Dates of Mapping/Images: NS Wetlands Inventory (2012); NS Forest Inventory (Current Forest Data - 2004); Google Earth (2003) |                                                                                      |  |  |  |  |                                                                                                                                                    |                  |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| Evaluation Date: 05-Sep-14                                                                                                               |                                                                                      |  |  |  |  | Site Visit Date: 22-Aug-14                                                                                                                         |                  |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| Weather Conditions (past 48 hours): Sun and Clouds                                                                                       |                                                                                      |  |  |  |  |                                                                                                                                                    |                  |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| Seasonal Weather Conditions: Typical                                                                                                     |                                                                                      |  |  |  |  |                                                                                                                                                    |                  |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| SECTION ONE: WATERSHED CHARACTERISTICS                                                                                                   |                                                                                      |  |  |  |  |                                                                                                                                                    |                  |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 1                                                                                                                                        | Watershed Name (tertiary): 1EQ-SD                                                    |  |  |  |  | Size: 518 km <sup>2</sup>                                                                                                                          |                  |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 2                                                                                                                                        | % Watershed Land Cover                                                               |  |  |  |  | For: 43                                                                                                                                            | Nat: 36          | Past/Hay: <1 | Crop: <1                                                                   | Urb/Com: 2 | Road: <1                                                  | Other Dev: <1 (Gravel Pit, Landfill, Industrial |        |             |  |                             |  |  |  |  |  |
| 3                                                                                                                                        | % Watershed WL Cover and by Class                                                    |  |  |  |  | Total: 10%                                                                                                                                         | SM: <1           | BO: 6        | FE: 1                                                                      | FM: 2      | FS: 1                                                     | SS: 1                                           | CP: <1 | VP: Present |  |                             |  |  |  |  |  |
| SF1                                                                                                                                      | <b>Watershed condition</b>                                                           |  |  |  |  | H                                                                                                                                                  | M                | L            |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| SF2                                                                                                                                      | <b>Proportion of WL area in watershed &amp; opportunity for floodwater detention</b> |  |  |  |  | H                                                                                                                                                  | M                | L            |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| SECTION TWO: WETLAND CHARACTERISTICS                                                                                                     |                                                                                      |  |  |  |  |                                                                                                                                                    |                  |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| Wetland Type: Bog                                                                                                                        |                                                                                      |  |  |  |  | WL size: 4.6 hectares                                                                                                                              |                  |              |                                                                            |            | Landform: Flat                                            |                                                 |        |             |  | Landscape Position: Terrene |  |  |  |  |  |
| Water flow path: Isolated                                                                                                                |                                                                                      |  |  |  |  | Wetland Origin: Natural                                                                                                                            |                  |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 1                                                                                                                                        | Water Regime                                                                         |  |  |  |  | PF                                                                                                                                                 | SF               | TF           | SS                                                                         | PS         | RfT                                                       | IfT                                             | AF     |             |  |                             |  |  |  |  |  |
| 2                                                                                                                                        | # WL's within 30m project area                                                       |  |  |  |  | Total# 0                                                                                                                                           | SM:              | BO:          | FE:                                                                        | FM:        | FS:                                                       | SS:                                             | CP:    | VP:         |  |                             |  |  |  |  |  |
| 3                                                                                                                                        | Is WL part of complex                                                                |  |  |  |  | Yes                                                                                                                                                | No               |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 4                                                                                                                                        | % each wetland type in complex                                                       |  |  |  |  | SM:                                                                                                                                                | BO: 100          | FE:          | FM:                                                                        | FS:        | SS:                                                       | CP:                                             | VP:    |             |  |                             |  |  |  |  |  |
| 5                                                                                                                                        | Is WL bordering or associated with a lake or pond?                                   |  |  |  |  | bordering                                                                                                                                          |                  | within 100m  |                                                                            |            | N/A                                                       | specify                                         |        |             |  |                             |  |  |  |  |  |
| 6                                                                                                                                        | Standing water?                                                                      |  |  |  |  | Yes                                                                                                                                                | Avg Dep: 0-10 cm |              | % Inundated: 5%                                                            |            |                                                           | No                                              |        |             |  |                             |  |  |  |  |  |
| 7                                                                                                                                        | Inlet or Outlet (circle all that apply)?                                             |  |  |  |  | Inlet                                                                                                                                              |                  | Outlet       |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 8                                                                                                                                        | Adjacent Upland Land Use within 100m (%)                                             |  |  |  |  | For: 60                                                                                                                                            | Nat: 40          | PasHay:      | Crop:                                                                      | UrbCm:     | Road:                                                     | Other Dev:                                      |        |             |  |                             |  |  |  |  |  |
| 9                                                                                                                                        | Are there stressors in WL or WL buffer area? Circle primary stressor(s).             |  |  |  |  | DD__, CW__, WcS__, O/C__, EB__, DP__, F__, M__, ES__, NE__, DwP__,<br>M__, GC__, ATV__, DG__, EA__, R__, Rr__, U/CD__, F__, FA__, other (specify): |                  |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 10                                                                                                                                       | Hydrology Altered (circle all that apply)?                                           |  |  |  |  | Ditching                                                                                                                                           | Dams             | Tiles        | Culvert                                                                    | Well       | Diversion                                                 | Other Specify:                                  |        |             |  |                             |  |  |  |  |  |
| SF3                                                                                                                                      | <b>Rate the general wetland condition/integrity</b>                                  |  |  |  |  | H                                                                                                                                                  | M                | L            |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| SECTION THREE: ADJACENT LAND CONDITION AND INTEGRITY                                                                                     |                                                                                      |  |  |  |  |                                                                                                                                                    |                  |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 1                                                                                                                                        | Average width of adjacent naturalized buffer                                         |  |  |  |  | >1000_m                                                                                                                                            |                  |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 2                                                                                                                                        | Widths for water quality                                                             |  |  |  |  | H >1                                                                                                                                               | M 8-15           | L <8         |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 3                                                                                                                                        | Widths for wildlife habitat                                                          |  |  |  |  | H >100                                                                                                                                             | M 15-100         | L <15        |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 4                                                                                                                                        | Adjacent area vegetation condition (list % in each category)                         |  |  |  |  | H 100%                                                                                                                                             | M                | L            |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 5                                                                                                                                        | Adjacent area diversity and structure (list % in each category)                      |  |  |  |  | H 100%                                                                                                                                             | M                | L            |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 6                                                                                                                                        | Adjacent Upland Slope (list % in each category)                                      |  |  |  |  | Steep 10%                                                                                                                                          | Mod 30%          | Gentle 60%   |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 7                                                                                                                                        | Adjacent land supports water quality                                                 |  |  |  |  | Yes                                                                                                                                                | No               | Specify:     |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 8                                                                                                                                        | Adjacent land supports wildlife habitat                                              |  |  |  |  | Yes                                                                                                                                                | No               | Specify:     |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| SF4                                                                                                                                      | <b>Rate the overall condition and integrity land adjacent to wetland</b>             |  |  |  |  | H                                                                                                                                                  | M                | L            | is buffer required to maintain red flag functions of wetland? If yes if no |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| SECTION FOUR: DOCUMENTED IMPORTANT FEATURES                                                                                              |                                                                                      |  |  |  |  |                                                                                                                                                    |                  |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| SF5                                                                                                                                      | <b>Is the WL a WSS?</b>                                                              |  |  |  |  | Yes                                                                                                                                                | No               |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |

|                                                         |                                                                       |                                                                                   |            |                        |     |                |    |            |    |
|---------------------------------------------------------|-----------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------|------------------------|-----|----------------|----|------------|----|
| SF6                                                     | Does the WL support commercial/recreational fish/shellfish?           | Yes                                                                               | No         |                        |     |                |    |            |    |
| SF7                                                     | Species of concern (Fed/Prov)? Specify.                               | End                                                                               | Thr - SARA | SpC                    | Red | Yellow         | S1 | S2         | S3 |
| SF8                                                     | Wetland has conservation/compensation agreements/activity?            | Yes                                                                               | No         | specify:               |     |                |    |            |    |
| SF9                                                     | Wetland is calcerous fen, black ash or cedar swamp?                   | Yes                                                                               | No         |                        |     |                |    |            |    |
| SF10                                                    | Within Drinking Water Protected Area (designated watershed/wellfield) | Yes                                                                               | No         | specify:               |     |                |    |            |    |
| SF11                                                    | WL within a floodplain and upstream of or within of a populated area? | Yes                                                                               | No         |                        |     |                |    |            |    |
| SF12                                                    | Fed/Prov/Municipal area of interest?                                  | Yes                                                                               | No         | specify:               |     |                |    |            |    |
| <b>SECTION FIVE: HYDROLOGIC CONDITION AND INTEGRITY</b> |                                                                       |                                                                                   |            |                        |     |                |    |            |    |
| 1                                                       | Is WL source of stream or headwater(wc order 1 or 2)                  | Yes                                                                               | No         | Specify:               |     |                |    |            |    |
| 2                                                       | Is WL geographically isolated?                                        | Yes                                                                               | No         | Specify:               |     |                |    |            |    |
| 3                                                       | WL ability to maintain characteristic hydrologic regime               | High                                                                              |            | Med                    |     | Low            |    |            |    |
| 4                                                       | Water Storage Depth (list % in each class)                            | >30cm                                                                             | 15-30cm    | up to 15cm             |     | No ponding     |    |            |    |
| 5                                                       | Signs of surface water retention observed?                            | SW_5_cm, WSL_x_, WCD_, WM_cm, SM_cm, SD_, AD_, ID_, PMT_x_, AI_, BT_, AR_, Other: |            |                        |     |                |    |            |    |
| 6                                                       | Describe observable/historical anthropogenic sediment delivery        | Low                                                                               |            | Med                    |     | High           |    |            |    |
| 7                                                       | Disturbance of WL soils                                               | Low                                                                               |            | Med                    |     | High           |    |            |    |
| 8                                                       | Predominant soils adjacent to WL                                      | Sand                                                                              |            | Silt/loam              |     | Clay, bedrock  |    |            |    |
| 9                                                       | Capacity of WL to alter/retard flows                                  | High                                                                              |            | Med                    |     | Low            |    |            |    |
| 10                                                      | Roughness coefficient for surface water flow path                     | High                                                                              |            | Med                    |     | Low            |    |            |    |
| 11                                                      | Stormwater/Wastewater/Agricultural runoff detention                   | High                                                                              |            | Med                    |     | Low            |    |            |    |
| 12                                                      | Water Source                                                          | Natural                                                                           |            | Mostly natural         |     | Partly altered |    | Controlled |    |
| 13                                                      | Hydrology of tidal wetlands                                           | Unrestricted                                                                      |            | Reduced                |     | Restricted     |    | N/A        |    |
| 14                                                      | Coastal storm surge                                                   | Yes                                                                               | No         |                        |     |                |    |            |    |
| SF13                                                    | WL hydrologic condition                                               | Natural                                                                           | Modified   | Significantly Modified |     |                |    |            |    |
| SF14                                                    | WL important for maintaining stream flow?                             | Yes                                                                               | No         |                        |     |                |    |            |    |
| SF15                                                    | WL ability to detain surface water                                    | High                                                                              | Med        | Low                    |     |                |    |            |    |
| <b>SECTION SIX: WATER QUALITY</b>                       |                                                                       |                                                                                   |            |                        |     |                |    |            |    |
| 1                                                       | Stormwater/Wastewater/Agricultural runoff as water source?            | High                                                                              |            | Med                    |     | Low            |    |            |    |
| 2                                                       | Nutrients/sediments from surrounding land                             | High                                                                              |            | Med                    |     | Low            |    |            |    |
| 3                                                       | Significant flood/stormwater attenuation                              | Yes                                                                               | No         |                        |     |                |    |            |    |
| 4                                                       | Vegetation capacity to settle suspended sediments                     | High                                                                              |            | Med                    |     | Low            |    |            |    |
| 5                                                       | WL type /landscape position holds/filters runoff?                     | Yes                                                                               | No         |                        |     |                |    |            |    |
| SF16                                                    | Wetland improves water quality?                                       | Yes                                                                               | No         |                        |     |                |    |            |    |
| SF17                                                    | Evidence of excess nutrient loading/contamination?                    | Low                                                                               | Med        | High                   |     |                |    |            |    |
| SF18                                                    | WL contributes to water quality in downstream resources               | High                                                                              | Med        | Low                    |     |                |    |            |    |
| <b>SECTION SEVEN: GROUNDWATER INTERACTIONS</b>          |                                                                       |                                                                                   |            |                        |     |                |    |            |    |
| 1                                                       | Describe soils in wetland                                             | Recharge                                                                          |            | Discharge              |     |                |    |            |    |
| 2                                                       | Land use / run off in subwatershed upstream                           | Recharge                                                                          |            | Discharge              |     |                |    |            |    |
| 3                                                       | Conditions of upland soils within 200m of wetland                     | Recharge                                                                          |            | Discharge              |     |                |    |            |    |
| 4                                                       | Hydroperiod of wetland                                                | Recharge                                                                          |            | Discharge              |     |                |    |            |    |
| 5                                                       | Describe inlet/outlet configuration                                   | Recharge                                                                          |            | Discharge              |     |                |    |            |    |
| 6                                                       | Characterize topographic relief surrounding wetland                   | Recharge                                                                          |            | Discharge              |     |                |    |            |    |

|                                                             |                                                                           |                                                                                                                                 |          |                           |                       |            |                  |
|-------------------------------------------------------------|---------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|----------|---------------------------|-----------------------|------------|------------------|
| SF19                                                        | WL serves as a recharge site                                              | Yes                                                                                                                             | No       | Possible recharge wetland |                       |            |                  |
| SF20                                                        | WL serves as a discharge site                                             | Yes                                                                                                                             | No       |                           |                       |            |                  |
| <b>SECTION EIGHT: SHORELINE STABILIZATION AND INTEGRITY</b> |                                                                           |                                                                                                                                 |          |                           |                       |            |                  |
| 1                                                           | Wetland fringing ocean/estuary/lake/pond/river/stream?                    | Yes                                                                                                                             | No       | streamwidth >4m           | streamwidth <4m       | WB Exposed | WB Sheltered     |
| 2                                                           | % cover of rooted vegetation in shallow water zone                        | H >50%                                                                                                                          | M 10-50  | L <10%                    |                       |            |                  |
| 3                                                           | Avg veg WL width b/w shoreline/streambank & 2 m depth contour             | H >10m                                                                                                                          | M 3-10   | L <3m                     |                       |            |                  |
| 4                                                           | Prevalence of strong-stemmed emerg. veg (shoreline marshes and fens only) | High                                                                                                                            | Med      | Low                       |                       |            |                  |
| 5                                                           | Describe shoreline erosion potential                                      | High                                                                                                                            | Med      | Low                       |                       |            |                  |
| 6                                                           | Shoreline/streambank veg condition upslope of water level                 | Low                                                                                                                             | Med      | High                      | Artificial            |            |                  |
| SF21                                                        | WL ability to stabilize shoreline                                         | H                                                                                                                               | M        | L                         | N/A                   |            |                  |
| <b>SECTION NINE: PLANT COMMUNITY</b>                        |                                                                           |                                                                                                                                 |          |                           |                       |            |                  |
| 1                                                           | Vegetation diversity                                                      | High                                                                                                                            | Med      | Low                       |                       |            |                  |
| 1b                                                          | Dominant plant species and % cover in the WL                              | list: <i>Gaylussacia baccata</i> (60%)/ <i>Trichophorum caespitosus</i> (20%)                                                   |          |                           |                       |            |                  |
| 3                                                           | Dominant Non-native or Invasive species and % cover                       | Yes                                                                                                                             | No       | specify: %                |                       |            |                  |
| 4                                                           | Vegetation Disturbance                                                    | H                                                                                                                               | M        | L                         | specify type(s) below |            |                  |
| 5                                                           | Disturbance Types                                                         | H __, ATV __, G __, M __, In __, D/D __, Im __, OAH __, li __, Sd __, E __, other __,                                           |          |                           |                       |            |                  |
| 7                                                           | Vegetative Integrity of plant community                                   | E                                                                                                                               | H        | M                         | L                     |            |                  |
| SF22                                                        | Is the plant community unique or rare regionally or provincially?         | Yes                                                                                                                             | No       | specify:                  |                       |            |                  |
| SF23                                                        | Does the WL contain a diversity of plant communities                      | H                                                                                                                               | M        | L                         |                       |            |                  |
| SF24                                                        | Rate the overall integrity/quality of plant community?                    | H                                                                                                                               | M        | L                         |                       |            |                  |
| SF25                                                        | Are there any observed rare or endangered plant species? Specify.         | End                                                                                                                             | Thr      | SpC                       | Red                   | Yellow     | S1 S2 S3 N/A     |
| <b>SECTION TEN: FISH AND WILDLIFE HABITAT AND INTEGRITY</b> |                                                                           |                                                                                                                                 |          |                           |                       |            |                  |
| 1                                                           | Interspersion of open water and vegetation (open water types only)        | H                                                                                                                               | M        | L                         |                       |            |                  |
| 1b                                                          | % cover in vegetation versus open water                                   | 95 %                                                                                                                            |          |                           |                       |            |                  |
| 2                                                           | Interspersion that best fits entire wetland                               | H                                                                                                                               | M        | L                         | N/A                   |            |                  |
| 3                                                           | Wetland condition related to detritus                                     | H                                                                                                                               | M        | L                         | N/A                   |            |                  |
| 4                                                           | Interspersion of other wetlands in vicinity                               | H                                                                                                                               | M        | L                         |                       |            |                  |
| 6                                                           | Barriers/restriction between wetland and other habitat                    | L                                                                                                                               | M        | H                         |                       |            |                  |
| 7                                                           | Noteworthy wildlife or evidence (birds, mammals, amphibians, etc)         | Yes                                                                                                                             | No       | list: Passerines, Deer    |                       |            |                  |
| 8                                                           | Connected to permanent water (accessible to fish)?                        | Exceptional                                                                                                                     | High     | Med                       | Low                   | N/A        |                  |
| 9                                                           | Fish species observed or evidence seen (list)                             | Yes                                                                                                                             | No       | list:                     |                       |            |                  |
| 10                                                          | Wetland part of contiguous upland or wetland:                             | >50ha                                                                                                                           | 25-50ha  | 10-25ha                   | <10ha                 |            |                  |
| 11                                                          | WL provides habitat for:                                                  | Amphibians                                                                                                                      | Reptiles | Waterfowl                 | Waterbirds            | Mammals    | Fish R/E species |
| SF26                                                        | Does wetland support fish/fish habitat?                                   | Yes                                                                                                                             | No       | specify:                  |                       |            |                  |
| SF27                                                        | Rare or endangered fish/wildlife species found in the wetland?            | End                                                                                                                             | Thr-SARA | SpC                       | Red                   | Yellow     | S1 S2 S3 N/A     |
| SF28                                                        | Overall fish and wildlife habitat quality                                 | H                                                                                                                               | M        | L                         |                       |            |                  |
| <b>SECTION ELEVEN: COMMUNITY USE/VALUE</b>                  |                                                                           |                                                                                                                                 |          |                           |                       |            |                  |
| 1                                                           | Describe community use                                                    | VV __, CP __, CO __, PO __, PA __, AV __, x __, GB __, E __, HI __, WV __, BO __, HU __, PG __, BP __, F __, E __, R __, Other: |          |                           |                       |            |                  |
| SF29                                                        | Rate the wetland's community use/value                                    | H                                                                                                                               | M        | L                         |                       |            |                  |

SF ratings highlighted in red indicate critical wetland functions or watershed conditions that are highly degraded. Whenever a wetland is found to have red-highlighted SFs the proponent

| APPENDIX D: WL10                                                                                                                         |  |  |  |  |  |                                                                                                                                                                            |  |               |  |              | Nova Scotia Wetland Evaluation Technique Field Data Sheet |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
|------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------|--|--------------|-----------------------------------------------------------|-----------------------------------------------------------------------------------|--|------------|--|-------------------------------------------|--|-------------------------------------------------|--|--------|--|-------------|--|
| Project Name: Black Point Quarry                                                                                                         |  |  |  |  |  | Evaluator: Scott Burley                                                                                                                                                    |  |               |  |              | GPS Coordinates: 643857 E x 5023694 N                     |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| PID:35212497, 35212505, 35212521, 35212513, 35044056, 35214014, 35214022, 35214022 and 35213990                                          |  |  |  |  |  | Site Address: Black Point, Guysborough County, NS                                                                                                                          |  |               |  |              |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| Sources and Dates of Mapping/Images: NS Wetlands Inventory (2012); NS Forest Inventory (Current Forest Data - 2004); Google Earth (2003) |  |  |  |  |  |                                                                                                                                                                            |  |               |  |              |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| Evaluation Date: 04-Sep-14                                                                                                               |  |  |  |  |  | Site Visit Date: 22-Aug-14                                                                                                                                                 |  |               |  |              |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| Weather Conditions (past 48 hours): Sun and Clouds                                                                                       |  |  |  |  |  |                                                                                                                                                                            |  |               |  |              |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| Seasonal Weather Conditions: Typical                                                                                                     |  |  |  |  |  |                                                                                                                                                                            |  |               |  |              |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| SECTION ONE: WATERSHED CHARACTERISTICS                                                                                                   |  |  |  |  |  |                                                                                                                                                                            |  |               |  |              |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| 1 Watershed Name (tertiary): 1EQ-SD                                                                                                      |  |  |  |  |  | Size: 518 km <sup>2</sup>                                                                                                                                                  |  |               |  |              |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| 2 % Watershed Land Cover                                                                                                                 |  |  |  |  |  | For: 43                                                                                                                                                                    |  | Nat: 36       |  | Past/Hay: <1 |                                                           | Crop: <1                                                                          |  | Urb/Com: 2 |  | Road: <1                                  |  | Other Dev: <1 (Gravel Pit, Landfill, Industrial |  |        |  |             |  |
| 3 % Watershed WL Cover and by Class                                                                                                      |  |  |  |  |  | Total: 10%                                                                                                                                                                 |  | SM: <1        |  | BO: 6        |                                                           | FE: 1                                                                             |  | FM: 2      |  | FS: 1                                     |  | SS: 1                                           |  | CP: <1 |  | VP: Present |  |
| <b>SF1 Watershed condition</b>                                                                                                           |  |  |  |  |  | <b>H</b>                                                                                                                                                                   |  | <b>M</b>      |  | <b>L</b>     |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| <b>SF2 Proportion of WL area in watershed &amp; opportunity for floodwater detention</b>                                                 |  |  |  |  |  | <b>H</b>                                                                                                                                                                   |  | <b>M</b>      |  | <b>L</b>     |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| SECTION TWO: WETLAND CHARACTERISTICS                                                                                                     |  |  |  |  |  |                                                                                                                                                                            |  |               |  |              |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| Wetland Type: Treed Swamp                                                                                                                |  |  |  |  |  | WL size: 0.1 hectares                                                                                                                                                      |  |               |  |              | Landform: Slope                                           |                                                                                   |  |            |  | Landscape Position: Lotic Stream-Confinde |  |                                                 |  |        |  |             |  |
| Water flow path: Throughflow                                                                                                             |  |  |  |  |  | Wetland Origin: Natural                                                                                                                                                    |  |               |  |              |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| 1 Water Regime                                                                                                                           |  |  |  |  |  | PF                                                                                                                                                                         |  | SF            |  | TF           |                                                           | SS                                                                                |  | <b>PS</b>  |  | RfT                                       |  | IfT                                             |  | AF     |  |             |  |
| 2 # WL's within 30m project area                                                                                                         |  |  |  |  |  | Total# 0                                                                                                                                                                   |  | SM:           |  | BO:          |                                                           | FE:                                                                               |  | FM:        |  | FS:                                       |  | SS:                                             |  | CP:    |  | VP:         |  |
| 3 Is WL part of complex                                                                                                                  |  |  |  |  |  | Yes                                                                                                                                                                        |  | <b>No</b>     |  |              |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| 4 % each wetland type in complex                                                                                                         |  |  |  |  |  | SM:                                                                                                                                                                        |  | BO:           |  | FE:          |                                                           | FM:                                                                               |  | FS: 100    |  | SS:                                       |  | CP:                                             |  | VP:    |  |             |  |
| 5 Is WL bordering or associated with a lake or pond?                                                                                     |  |  |  |  |  | bordering                                                                                                                                                                  |  |               |  | within 100m  |                                                           |                                                                                   |  | <b>N/A</b> |  | specify                                   |  |                                                 |  |        |  |             |  |
| 6 Standing water?                                                                                                                        |  |  |  |  |  | <b>Yes</b>                                                                                                                                                                 |  | Avg Dep: 5-10 |  |              |                                                           | % Inundated: 2%                                                                   |  |            |  | No                                        |  |                                                 |  |        |  |             |  |
| 7 Inlet or Outlet (circle all that apply)?                                                                                               |  |  |  |  |  | <b>Inlet</b>                                                                                                                                                               |  | <b>Outle</b>  |  |              |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| 8 Adjacent Upland Land Use within 100m (%)                                                                                               |  |  |  |  |  | For: 100                                                                                                                                                                   |  | Nat:          |  | PasHay:      |                                                           | Crop:                                                                             |  | UrbCm:     |  | Road:                                     |  | Other Dev:                                      |  |        |  |             |  |
| 9 Are there stressors in WL or WL buffer area? Circle primary stressor(s).                                                               |  |  |  |  |  | DD __, CW __, WcS __, O/C __, EB __, DP __, F __, M __, ES __, NE __, DwP __, M __, GC __, <b>AV x</b> , DG __, EA __, R __, Rr __, U/CD __, F __, FA __, other (specify): |  |               |  |              |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| 10 Hydrology Altered (circle all that apply)?                                                                                            |  |  |  |  |  | Ditching                                                                                                                                                                   |  | Dams          |  | Tiles        |                                                           | Culvert                                                                           |  | Well       |  | Diversion                                 |  | Other Specify:                                  |  |        |  |             |  |
| <b>SF3 Rate the general wetland condition/integrity</b>                                                                                  |  |  |  |  |  | <b>H</b>                                                                                                                                                                   |  | <b>M</b>      |  | <b>L</b>     |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| SECTION THREE: ADJACENT LAND CONDITION AND INTEGRITY                                                                                     |  |  |  |  |  |                                                                                                                                                                            |  |               |  |              |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| 1 Average width of adjacent naturalized buffer                                                                                           |  |  |  |  |  | >1000_m                                                                                                                                                                    |  |               |  |              |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| 2 Widths for water quality                                                                                                               |  |  |  |  |  | <b>H &gt;1</b>                                                                                                                                                             |  | M 8-15        |  | L <8         |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| 3 Widths for wildlife habitat                                                                                                            |  |  |  |  |  | <b>H &gt;100</b>                                                                                                                                                           |  | M 15-100      |  | L <15        |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| 4 Adjacent area vegetation condition (list % in each category)                                                                           |  |  |  |  |  | H 100%                                                                                                                                                                     |  | M             |  | L            |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| 5 Adjacent area diversity and structure (list % in each category)                                                                        |  |  |  |  |  | H 100%                                                                                                                                                                     |  | M             |  | L            |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| 6 Adjacent Upland Slope (list % in each category)                                                                                        |  |  |  |  |  | Steep 30%                                                                                                                                                                  |  | Mod 40%       |  | Gentle 20%   |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| 7 Adjacent land supports water quality                                                                                                   |  |  |  |  |  | <b>Yes</b>                                                                                                                                                                 |  | No            |  | Specify:     |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| 8 Adjacent land supports wildlife habitat                                                                                                |  |  |  |  |  | <b>Yes</b>                                                                                                                                                                 |  | No            |  | Specify:     |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| <b>SF4 Rate the overall condition and integrity land adjacent to wetland</b>                                                             |  |  |  |  |  | <b>H</b>                                                                                                                                                                   |  | <b>M</b>      |  | <b>L</b>     |                                                           | is buffer required to maintain red flag functions of wetland? <b>If yes if no</b> |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| SECTION FOUR: DOCUMENTED IMPORTANT FEATURES                                                                                              |  |  |  |  |  |                                                                                                                                                                            |  |               |  |              |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |
| <b>SF5 Is the WL a WSS?</b>                                                                                                              |  |  |  |  |  | <b>Yes</b>                                                                                                                                                                 |  | <b>No</b>     |  |              |                                                           |                                                                                   |  |            |  |                                           |  |                                                 |  |        |  |             |  |



|                                                         |                                                                       |                                                                                 |            |                        |     |                |    |            |        |
|---------------------------------------------------------|-----------------------------------------------------------------------|---------------------------------------------------------------------------------|------------|------------------------|-----|----------------|----|------------|--------|
| SF6                                                     | Does the WL support commercial/recreational fish/shellfish?           | Yes                                                                             | No         |                        |     |                |    |            |        |
| SF7                                                     | Species of concern (Fed/Prov)? Specify. <i>Nephroma bellum</i>        | End                                                                             | Thr - SARA | SpC                    | Red | Yellow         | S1 | S2         | S3 N/A |
| SF8                                                     | Wetland has conservation/compensation agreements/activity?            | Yes                                                                             | No         | specify:               |     |                |    |            |        |
| SF9                                                     | Wetland is calcerous fen, black ash or cedar swamp?                   | Yes                                                                             | No         |                        |     |                |    |            |        |
| SF10                                                    | Within Drinking Water Protected Area (designated watershed/wellfield) | Yes                                                                             | No         | specify:               |     |                |    |            |        |
| SF11                                                    | WL within a floodplain and upstream of or within of a populated area? | Yes                                                                             | No         |                        |     |                |    |            |        |
| SF12                                                    | Fed/Prov/Municipal area of interest?                                  | Yes                                                                             | No         | specify:               |     |                |    |            |        |
| <b>SECTION FIVE: HYDROLOGIC CONDITION AND INTEGRITY</b> |                                                                       |                                                                                 |            |                        |     |                |    |            |        |
| 1                                                       | Is WL source of stream or headwater(wc order 1 or 2)                  | Yes                                                                             | No         | Specify:               |     |                |    |            |        |
| 2                                                       | Is WL geographically isolated?                                        | Yes                                                                             | No         | Specify:               |     |                |    |            |        |
| 3                                                       | WL ability to maintain characteristic hydrologic regime               | High                                                                            |            | Med                    |     | Low            |    |            |        |
| 4                                                       | Water Storage Depth (list % in each class)                            | >30cm                                                                           | 15-30cm    | up to 15cm             |     | No ponding     |    |            |        |
| 5                                                       | Signs of surface water retention observed?                            | SW_5_cm, WSL_, WCD_, WM_cm, SM_cm, SD_, AD_, ID_, PMT_x_, AI_, BT_, AR_, Other: |            |                        |     |                |    |            |        |
| 6                                                       | Describe observable/historical anthropogenic sediment delivery        | Low                                                                             |            | Med                    |     | High           |    |            |        |
| 7                                                       | Disturbance of WL soils                                               | Low                                                                             |            | Med                    |     | High           |    |            |        |
| 8                                                       | Predominant soils adjacent to WL                                      | Sand                                                                            |            | Silt/loam              |     | Clay, bedrock  |    |            |        |
| 9                                                       | Capacity of WL to alter/retard flows                                  | High                                                                            |            | Med                    |     | Low            |    |            |        |
| 10                                                      | Roughness coefficient for surface water flow path                     | High                                                                            |            | Med                    |     | Low            |    |            |        |
| 11                                                      | Stormwater/Wastewater/Agricultural runoff detention                   | High                                                                            |            | Med                    |     | Low            |    |            |        |
| 12                                                      | Water Source                                                          | Natural                                                                         |            | Mostly natural         |     | Partly altered |    | Controlled |        |
| 13                                                      | Hydrology of tidal wetlands                                           | Unrestricted                                                                    |            | Reduced                |     | Restricted     |    | N/A        |        |
| 14                                                      | Coastal storm surge                                                   | Yes                                                                             | No         |                        |     |                |    |            |        |
| SF13                                                    | WL hydrologic condition                                               | Natural                                                                         | Modified   | Significantly Modified |     |                |    |            |        |
| SF14                                                    | WL important for maintaining stream flow?                             | Yes                                                                             | No         |                        |     |                |    |            |        |
| SF15                                                    | WL ability to detain surface water                                    | High                                                                            | Med        | Low                    |     |                |    |            |        |
| <b>SECTION SIX: WATER QUALITY</b>                       |                                                                       |                                                                                 |            |                        |     |                |    |            |        |
| 1                                                       | Stormwater/Wastewater/Agricultural runoff as water source?            | High                                                                            |            | Med                    |     | Low            |    |            |        |
| 2                                                       | Nutrients/sediments from surrounding land                             | High                                                                            |            | Med                    |     | Low            |    |            |        |
| 3                                                       | Significant flood/stormwater attenuation                              | Yes                                                                             | No         |                        |     |                |    |            |        |
| 4                                                       | Vegetation capacity to settle suspended sediments                     | High                                                                            |            | Med                    |     | Low            |    |            |        |
| 5                                                       | WL type /landscape position holds/filters runoff?                     | Yes                                                                             | No         |                        |     |                |    |            |        |
| SF16                                                    | Wetland improves water quality?                                       | Yes                                                                             | No         |                        |     |                |    |            |        |
| SF17                                                    | Evidence of excess nutrient loading/contamination?                    | Low                                                                             | Med        | High                   |     |                |    |            |        |
| SF18                                                    | WL contributes to water quality in downstream resources               | High                                                                            | Med        | Low                    |     |                |    |            |        |
| <b>SECTION SEVEN: GROUNDWATER INTERACTIONS</b>          |                                                                       |                                                                                 |            |                        |     |                |    |            |        |
| 1                                                       | Describe soils in wetland                                             | Recharge                                                                        |            | Discharge              |     |                |    |            |        |
| 2                                                       | Land use / run off in subwatershed upstream                           | Recharge                                                                        |            | Discharge              |     |                |    |            |        |
| 3                                                       | Conditions of upland soils within 200m of wetland                     | Recharge                                                                        |            | Discharge              |     |                |    |            |        |
| 4                                                       | Hydroperiod of wetland                                                | Recharge                                                                        |            | Discharge              |     |                |    |            |        |
| 5                                                       | Describe inlet/outlet configuration                                   | Recharge                                                                        |            | Discharge              |     |                |    |            |        |
| 6                                                       | Characterize topographic relief surrounding wetland                   | Recharge                                                                        |            | Discharge              |     |                |    |            |        |

|                                                             |                                                                                    |                                                                                                                 |          |                        |                       |            |              |             |        |
|-------------------------------------------------------------|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|----------|------------------------|-----------------------|------------|--------------|-------------|--------|
| SF19                                                        | WL serves as a recharge site                                                       | Yes                                                                                                             | No       |                        |                       |            |              |             |        |
| SF20                                                        | WL serves as a discharge site                                                      | Yes                                                                                                             | No       |                        |                       |            |              |             |        |
| <b>SECTION EIGHT: SHORELINE STABILIZATION AND INTEGRITY</b> |                                                                                    |                                                                                                                 |          |                        |                       |            |              |             |        |
| 1                                                           | Wetland fringing ocean/estuary/lake/pond/river/stream?                             | Yes                                                                                                             | No       | streamwidth >4m        | streamwidth<4m        | WB Exposed | WB Sheltered |             |        |
| 2                                                           | % cover of rooted vegetation in shallow water zone                                 | H >50%                                                                                                          | M 10-50  | L <10%                 |                       |            |              |             |        |
| 3                                                           | Avg veg WL width b/w shoreline/streambank & 2 m depth contour                      | H >10m                                                                                                          | M 3-10   | L <3m                  |                       |            |              |             |        |
| 4                                                           | Prevalence of strong-stemmed emerg. veg (shoreline marshes and fens only)          | High                                                                                                            | Med      | Low                    |                       |            |              |             |        |
| 5                                                           | Describe shoreline erosion potential                                               | High                                                                                                            | Med      | Low                    |                       |            |              |             |        |
| 6                                                           | Shoreline/streambank veg condition upslope of water level                          | Low                                                                                                             | Med      | High                   | Artificial            |            |              |             |        |
| SF21                                                        | WL ability to stabilize shoreline                                                  | H                                                                                                               | M        | L                      | N/A                   |            |              |             |        |
| <b>SECTION NINE: PLANT COMMUNITY</b>                        |                                                                                    |                                                                                                                 |          |                        |                       |            |              |             |        |
| 1                                                           | Vegetation diversity                                                               | High                                                                                                            | Med      | Low                    |                       |            |              |             |        |
| 1b                                                          | Dominant plant species and % cover in the WL                                       | list: <i>Abies balsamea</i> (40%)/ <i>Osmunda cinnamomea</i> (10%)/ <i>Carex trisperma</i> (20%)                |          |                        |                       |            |              |             |        |
| 3                                                           | Dominant Non-native or Invasive species and % cover                                | Yes                                                                                                             | No       | specify: %             |                       |            |              |             |        |
| 4                                                           | Vegetation Disturbance                                                             | H                                                                                                               | M        | L                      | specify type(s) below |            |              |             |        |
| 5                                                           | Disturbance Types                                                                  | H __,ATV_x __,G __,,M __,In __, D/D __, Im __, OAH __, li __, Sd __,E __,,other __,                             |          |                        |                       |            |              |             |        |
| 7                                                           | Vegetative Integrity of plant community                                            | E                                                                                                               | H        | M                      | L                     |            |              |             |        |
| SF22                                                        | Is the plant community unique or rare regionally or provincially?                  | Yes                                                                                                             | no       | specify:               |                       |            |              |             |        |
| SF23                                                        | Does the WL contain a diversity of plant communities                               | H                                                                                                               | M        | L                      |                       |            |              |             |        |
| SF24                                                        | Rate the overall integrity/quality of plant community?                             | H                                                                                                               | M        | L                      |                       |            |              |             |        |
| SF25                                                        | Are there any observed rare or endangered plant species? Specify. <i>N. bellum</i> | End                                                                                                             | Thr      | SpC                    | Red                   | Yellow     | S1           | S2          | S3 N/A |
| <b>SECTION TEN: FISH AND WILDLIFE HABITAT AND INTEGRITY</b> |                                                                                    |                                                                                                                 |          |                        |                       |            |              |             |        |
| 1                                                           | Interspersion of open water and vegetation (open water types only)                 | H                                                                                                               | M        | L                      |                       |            |              |             |        |
| 1b                                                          | % cover in vegetation versus open water                                            | _100_ %                                                                                                         |          |                        |                       |            |              |             |        |
| 2                                                           | Interspersion that best fits entire wetland                                        | H                                                                                                               | M        | L                      | N/A                   |            |              |             |        |
| 3                                                           | Wetland condition related to detritus                                              | H                                                                                                               | M        | L                      | N/A                   |            |              |             |        |
| 4                                                           | Interspersion of other wetlands in vicinity                                        | H                                                                                                               | M        | L                      |                       |            |              |             |        |
| 6                                                           | Barriers/restriction between wetland and other habitat                             | L                                                                                                               | M        | H                      |                       |            |              |             |        |
| 7                                                           | Noteworthy wildlife or evidence (birds, mammals, amphibians,etc)                   | Yes                                                                                                             | No       | list: Passerines, Deer |                       |            |              |             |        |
| 8                                                           | Connected to permanent water (accessible to fish)?                                 | Exceptional                                                                                                     | High     | Med                    | Low                   | N/A        |              |             |        |
| 9                                                           | Fish species observed or evidence seen (list)                                      | Yes                                                                                                             | No       | list:                  |                       |            |              |             |        |
| 10                                                          | Wetland part of contiguous upland or wetland:                                      | >50ha                                                                                                           | 25-50ha  | 10-25ha                | <10ha                 |            |              |             |        |
| 11                                                          | WL provides habitat for:                                                           | Amphibians                                                                                                      | Reptiles | Waterfowl              | Waterbirds            | Mammals    | Fish         | R/E species |        |
| SF26                                                        | Does wetland support fish/fish habitat?                                            | Yes                                                                                                             | No       | specify:               |                       |            |              |             |        |
| SF27                                                        | Rare or endangered fish/wildlife species found in the wetland?                     | End                                                                                                             | Thr-SARA | SpC                    | Red                   | Yellow     | S1           | S2          | S3 N/A |
| SF28                                                        | Overall fish and wildlife habitat quality                                          | H                                                                                                               | M        | L                      |                       |            |              |             |        |
| <b>SECTION ELEVEN: COMMUNITY USE/VALUE</b>                  |                                                                                    |                                                                                                                 |          |                        |                       |            |              |             |        |
| 1                                                           | Describe community use                                                             | VV __,CP __,CO __,PO __,PA __,AV __,GB __,E __,HI __, WV __, BO __,HU __, PG __, BP __,F __, E __, R __, Other: |          |                        |                       |            |              |             |        |
| SF29                                                        | Rate the wetland's community use/value                                             | H                                                                                                               | M        | L                      |                       |            |              |             |        |

SF ratings highlighted in red indicate critical wetland functions or watershed conditions that are highly degraded. Whenever a wetland is found to have red-highlighted SFs the proponent



| APPENDIX D: WL11                                                                                                                         |                                                                                      |  |  |  |  |                                                                                                                                                                      |                  |              |                                                                            |            | Nova Scotia Wetland Evaluation Technique Field Data Sheet |                                                 |        |                             |  |  |  |  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--|--|--|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|--------------|----------------------------------------------------------------------------|------------|-----------------------------------------------------------|-------------------------------------------------|--------|-----------------------------|--|--|--|--|--|--|--|
| Project Name: Black Point Quarry                                                                                                         |                                                                                      |  |  |  |  | Evaluator: Scott Burley                                                                                                                                              |                  |              |                                                                            |            | GPS Coordinates: 644458 E x 5023456 N                     |                                                 |        |                             |  |  |  |  |  |  |  |
| PID:35212497, 35212505, 35212521, 35212513, 35044056, 35214014, 35214022, 35214022 and 35213990                                          |                                                                                      |  |  |  |  | Site Address: Black Point, Guysborough County, NS                                                                                                                    |                  |              |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| Sources and Dates of Mapping/Images: NS Wetlands Inventory (2012); NS Forest Inventory (Current Forest Data - 2004); Google Earth (2003) |                                                                                      |  |  |  |  |                                                                                                                                                                      |                  |              |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| Evaluation Date: 05-Sep-14                                                                                                               |                                                                                      |  |  |  |  | Site Visit Date: 21-Aug-14                                                                                                                                           |                  |              |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| Weather Conditions (past 48 hours): Sun and Clouds                                                                                       |                                                                                      |  |  |  |  |                                                                                                                                                                      |                  |              |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| Seasonal Weather Conditions: Typical                                                                                                     |                                                                                      |  |  |  |  |                                                                                                                                                                      |                  |              |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| SECTION ONE: WATERSHED CHARACTERISTICS                                                                                                   |                                                                                      |  |  |  |  |                                                                                                                                                                      |                  |              |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| 1                                                                                                                                        | Watershed Name (tertiary): 1EQ-SD                                                    |  |  |  |  | Size: 518 km <sup>2</sup>                                                                                                                                            |                  |              |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| 2                                                                                                                                        | % Watershed Land Cover                                                               |  |  |  |  | For: 43                                                                                                                                                              | Nat: 36          | Past/Hay: <1 | Crop: <1                                                                   | Urb/Com: 2 | Road: <1                                                  | Other Dev: <1 (Gravel Pit, Landfill, Industrial |        |                             |  |  |  |  |  |  |  |
| 3                                                                                                                                        | % Watershed WL Cover and by Class                                                    |  |  |  |  | Total: 10%                                                                                                                                                           | SM: <1           | BO: 6        | FE: 1                                                                      | FM: 2      | FS: 1                                                     | SS: 1                                           | CP: <1 | VP: Present                 |  |  |  |  |  |  |  |
| SF1                                                                                                                                      | <b>Watershed condition</b>                                                           |  |  |  |  | H                                                                                                                                                                    | M                | L            |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| SF2                                                                                                                                      | <b>Proportion of WL area in watershed &amp; opportunity for floodwater detention</b> |  |  |  |  | H                                                                                                                                                                    | M                | L            |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| SECTION TWO: WETLAND CHARACTERISTICS                                                                                                     |                                                                                      |  |  |  |  |                                                                                                                                                                      |                  |              |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| Wetland Type: Bog                                                                                                                        |                                                                                      |  |  |  |  | WL size: 9.0 hectares                                                                                                                                                |                  |              |                                                                            |            | Landform: Flat                                            |                                                 |        | Landscape Position: Terrene |  |  |  |  |  |  |  |
| Water flow path: Isolated                                                                                                                |                                                                                      |  |  |  |  | Wetland Origin: Natural                                                                                                                                              |                  |              |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| 1                                                                                                                                        | Water Regime                                                                         |  |  |  |  | PF                                                                                                                                                                   | SF               | TF           | SS                                                                         | PS         | RfT                                                       | IfT                                             | AF     |                             |  |  |  |  |  |  |  |
| 2                                                                                                                                        | # WL's within 30m project area                                                       |  |  |  |  | Total# 0                                                                                                                                                             | SM:              | BO:          | FE:                                                                        | FM:        | FS:                                                       | SS:                                             | CP:    | VP:                         |  |  |  |  |  |  |  |
| 3                                                                                                                                        | Is WL part of complex                                                                |  |  |  |  | Yes                                                                                                                                                                  | No               |              |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| 4                                                                                                                                        | % each wetland type in complex                                                       |  |  |  |  | SM:                                                                                                                                                                  | BO: 100          | FE:          | FM:                                                                        | FS:        | SS:                                                       | CP:                                             | VP:    |                             |  |  |  |  |  |  |  |
| 5                                                                                                                                        | Is WL bordering or associated with a lake or pond?                                   |  |  |  |  | bordering                                                                                                                                                            |                  | within 100m  |                                                                            | N/A        | specify                                                   |                                                 |        |                             |  |  |  |  |  |  |  |
| 6                                                                                                                                        | Standing water?                                                                      |  |  |  |  | Yes                                                                                                                                                                  | Avg Dep: 0-10 cm |              | % Inundated: 5%                                                            |            | No                                                        |                                                 |        |                             |  |  |  |  |  |  |  |
| 7                                                                                                                                        | Inlet or Outlet (circle all that apply)?                                             |  |  |  |  | Inlet                                                                                                                                                                | Outlet           |              |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| 8                                                                                                                                        | Adjacent Upland Land Use within 100m (%)                                             |  |  |  |  | For: 40                                                                                                                                                              | Nat: 60          | PasHay:      | Crop:                                                                      | UrbCm:     | Road:                                                     | Other Dev:                                      |        |                             |  |  |  |  |  |  |  |
| 9                                                                                                                                        | Are there stressors in WL or WL buffer area? Circle primary stressor(s).             |  |  |  |  | DD __, CW __, WcS __, O/C __, EB __, DP __, F __, M __, ES __, NE __, DwP __, M __, GC __, ATV __, DG __, EA __, R __, Rr __, U/CD __, F __, FA __, other (specify): |                  |              |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| 10                                                                                                                                       | Hydrology Altered (circle all that apply)?                                           |  |  |  |  | Ditching                                                                                                                                                             | Dams             | Tiles        | Culvert                                                                    | Well       | Diversion                                                 | Other Specify:                                  |        |                             |  |  |  |  |  |  |  |
| SF3                                                                                                                                      | <b>Rate the general wetland condition/integrity</b>                                  |  |  |  |  | H                                                                                                                                                                    | M                | L            |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| SECTION THREE: ADJACENT LAND CONDITION AND INTEGRITY                                                                                     |                                                                                      |  |  |  |  |                                                                                                                                                                      |                  |              |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| 1                                                                                                                                        | Average width of adjacent naturalized buffer                                         |  |  |  |  | >1000_m                                                                                                                                                              |                  |              |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| 2                                                                                                                                        | Widths for water quality                                                             |  |  |  |  | H >1                                                                                                                                                                 | M 8-15           | L <8         |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| 3                                                                                                                                        | Widths for wildlife habitat                                                          |  |  |  |  | H >100                                                                                                                                                               | M 15-100         | L <15        |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| 4                                                                                                                                        | Adjacent area vegetation condition (list % in each category)                         |  |  |  |  | H 100%                                                                                                                                                               | M                | L            |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| 5                                                                                                                                        | Adjacent area diversity and structure (list % in each category)                      |  |  |  |  | H 100%                                                                                                                                                               | M                | L            |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| 6                                                                                                                                        | Adjacent Upland Slope (list % in each category)                                      |  |  |  |  | Steep 10%                                                                                                                                                            | Mod 30%          | Gentle 60%   |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| 7                                                                                                                                        | Adjacent land supports water quality                                                 |  |  |  |  | Yes                                                                                                                                                                  | No               | Specify:     |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| 8                                                                                                                                        | Adjacent land supports wildlife habitat                                              |  |  |  |  | Yes                                                                                                                                                                  | No               | Specify:     |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| SF4                                                                                                                                      | <b>Rate the overall condition and integrity land adjacent to wetland</b>             |  |  |  |  | H                                                                                                                                                                    | M                | L            | is buffer required to maintain red flag functions of wetland? If yes if no |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| SECTION FOUR: DOCUMENTED IMPORTANT FEATURES                                                                                              |                                                                                      |  |  |  |  |                                                                                                                                                                      |                  |              |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| SF5                                                                                                                                      | <b>Is the WL a WSS?</b>                                                              |  |  |  |  | Yes                                                                                                                                                                  | No               |              |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |

|                                                         |                                                                       |                                                                                   |            |                        |     |                |    |            |        |
|---------------------------------------------------------|-----------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------|------------------------|-----|----------------|----|------------|--------|
| SF6                                                     | Does the WL support commercial/recreational fish/shellfish?           | Yes                                                                               | No         |                        |     |                |    |            |        |
| SF7                                                     | Species of concern (Fed/Prov)? Specify. <i>Cladonia stygia</i>        | End                                                                               | Thr - SARA | SpC                    | Red | Yellow         | S1 | S2         | S3 N/A |
| SF8                                                     | Wetland has conservation/compensation agreements/activity?            | Yes                                                                               | No         | specify:               |     |                |    |            |        |
| SF9                                                     | Wetland is calcerous fen, black ash or cedar swamp?                   | Yes                                                                               | No         |                        |     |                |    |            |        |
| SF10                                                    | Within Drinking Water Protected Area (designated watershed/wellfield) | Yes                                                                               | No         | specify:               |     |                |    |            |        |
| SF11                                                    | WL within a floodplain and upstream of or within of a populated area? | Yes                                                                               | No         |                        |     |                |    |            |        |
| SF12                                                    | Fed/Prov/Municipal area of interest?                                  | Yes                                                                               | No         | specify:               |     |                |    |            |        |
| <b>SECTION FIVE: HYDROLOGIC CONDITION AND INTEGRITY</b> |                                                                       |                                                                                   |            |                        |     |                |    |            |        |
| 1                                                       | Is WL source of stream or headwater(wc order 1 or 2)                  | Yes                                                                               | No         | Specify:               |     |                |    |            |        |
| 2                                                       | Is WL geographically isolated?                                        | Yes                                                                               | No         | Specify:               |     |                |    |            |        |
| 3                                                       | WL ability to maintain characteristic hydrologic regime               | High                                                                              |            | Med                    |     | Low            |    |            |        |
| 4                                                       | Water Storage Depth (list % in each class)                            | >30cm                                                                             | 15-30cm    | up to 15cm             |     | No ponding     |    |            |        |
| 5                                                       | Signs of surface water retention observed?                            | SW_5_cm, WSL_x_, WCD_, WM_cm, SM_cm, SD_, AD_, ID_, PMT_x_, AI_, BT_, AR_, Other: |            |                        |     |                |    |            |        |
| 6                                                       | Describe observable/historical anthropogenic sediment delivery        | Low                                                                               |            | Med                    |     | High           |    |            |        |
| 7                                                       | Disturbance of WL soils                                               | Low                                                                               |            | Med                    |     | High           |    |            |        |
| 8                                                       | Predominant soils adjacent to WL                                      | Sand                                                                              |            | Silt/loam              |     | Clay, bedrock  |    |            |        |
| 9                                                       | Capacity of WL to alter/retard flows                                  | High                                                                              |            | Med                    |     | Low            |    |            |        |
| 10                                                      | Roughness coefficient for surface water flow path                     | High                                                                              |            | Med                    |     | Low            |    |            |        |
| 11                                                      | Stormwater/Wastewater/Agricultural runoff detention                   | High                                                                              |            | Med                    |     | Low            |    |            |        |
| 12                                                      | Water Source                                                          | Natural                                                                           |            | Mostly natural         |     | Partly altered |    | Controlled |        |
| 13                                                      | Hydrology of tidal wetlands                                           | Unrestricted                                                                      |            | Reduced                |     | Restricted     |    | N/A        |        |
| 14                                                      | Coastal storm surge                                                   | Yes                                                                               | No         |                        |     |                |    |            |        |
| SF13                                                    | WL hydrologic condition                                               | Natural                                                                           | Modified   | Significantly Modified |     |                |    |            |        |
| SF14                                                    | WL important for maintaining stream flow?                             | Yes                                                                               | No         |                        |     |                |    |            |        |
| SF15                                                    | WL ability to detain surface water                                    | High                                                                              | Med        | Low                    |     |                |    |            |        |
| <b>SECTION SIX: WATER QUALITY</b>                       |                                                                       |                                                                                   |            |                        |     |                |    |            |        |
| 1                                                       | Stormwater/Wastewater/Agricultural runoff as water source?            | High                                                                              |            | Med                    |     | Low            |    |            |        |
| 2                                                       | Nutrients/sediments from surrounding land                             | High                                                                              |            | Med                    |     | Low            |    |            |        |
| 3                                                       | Significant flood/stormwater attenuation                              | Yes                                                                               | No         |                        |     |                |    |            |        |
| 4                                                       | Vegetation capacity to settle suspended sediments                     | High                                                                              |            | Med                    |     | Low            |    |            |        |
| 5                                                       | WL type /landscape position holds/filters runoff?                     | Yes                                                                               | No         |                        |     |                |    |            |        |
| SF16                                                    | Wetland improves water quality?                                       | Yes                                                                               | No         |                        |     |                |    |            |        |
| SF17                                                    | Evidence of excess nutrient loading/contamination?                    | Low                                                                               | Med        | High                   |     |                |    |            |        |
| SF18                                                    | WL contributes to water quality in downstream resources               | High                                                                              | Med        | Low                    |     |                |    |            |        |
| <b>SECTION SEVEN: GROUNDWATER INTERACTIONS</b>          |                                                                       |                                                                                   |            |                        |     |                |    |            |        |
| 1                                                       | Describe soils in wetland                                             | Recharge                                                                          |            | Discharge              |     |                |    |            |        |
| 2                                                       | Land use / run off in subwatershed upstream                           | Recharge                                                                          |            | Discharge              |     |                |    |            |        |
| 3                                                       | Conditions of upland soils within 200m of wetland                     | Recharge                                                                          |            | Discharge              |     |                |    |            |        |
| 4                                                       | Hydroperiod of wetland                                                | Recharge                                                                          |            | Discharge              |     |                |    |            |        |
| 5                                                       | Describe inlet/outlet configuration                                   | Recharge                                                                          |            | Discharge              |     |                |    |            |        |
| 6                                                       | Characterize topographic relief surrounding wetland                   | Recharge                                                                          |            | Discharge              |     |                |    |            |        |

|                                                             |                                                                                   |                                                                                                                                             |          |                           |                       |            |              |             |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------------------|-----------------------|------------|--------------|-------------|
| SF19                                                        | WL serves as a recharge site                                                      | Yes                                                                                                                                         | No       | Possible recharge wetland |                       |            |              |             |
| SF20                                                        | WL serves as a discharge site                                                     | Yes                                                                                                                                         | No       |                           |                       |            |              |             |
| <b>SECTION EIGHT: SHORELINE STABILIZATION AND INTEGRITY</b> |                                                                                   |                                                                                                                                             |          |                           |                       |            |              |             |
| 1                                                           | Wetland fringing ocean/estuary/lake/pond/river/stream?                            | Yes                                                                                                                                         | No       | streamwidth >4m           | streamwidth <4m       | WB Exposed | WB Sheltered |             |
| 2                                                           | % cover of rooted vegetation in shallow water zone                                | H >50%                                                                                                                                      | M 10-50  | L <10%                    |                       |            |              |             |
| 3                                                           | Avg veg WL width b/w shoreline/streambank & 2 m depth contour                     | H >10m                                                                                                                                      | M 3-10   | L <3m                     |                       |            |              |             |
| 4                                                           | Prevalence of strong-stemmed emerg. veg (shoreline marshes and fens only)         | High                                                                                                                                        | Med      | Low                       |                       |            |              |             |
| 5                                                           | Describe shoreline erosion potential                                              | High                                                                                                                                        | Med      | Low                       |                       |            |              |             |
| 6                                                           | Shoreline/streambank veg condition upslope of water level                         | Low                                                                                                                                         | Med      | High                      | Artificial            |            |              |             |
| SF21                                                        | WL ability to stabilize shoreline                                                 | H                                                                                                                                           | M        | L                         | N/A                   |            |              |             |
| <b>SECTION NINE: PLANT COMMUNITY</b>                        |                                                                                   |                                                                                                                                             |          |                           |                       |            |              |             |
| 1                                                           | Vegetation diversity                                                              | High                                                                                                                                        | Med      | Low                       |                       |            |              |             |
| 1b                                                          | Dominant plant species and % cover in the WL                                      | list: <i>Gaylussacia baccata</i> (60%)/ <i>Trichophorum caespitosus</i> (20%)                                                               |          |                           |                       |            |              |             |
| 3                                                           | Dominant Non-native or Invasive species and % cover                               | Yes                                                                                                                                         | No       | specify: %                |                       |            |              |             |
| 4                                                           | Vegetation Disturbance                                                            | H                                                                                                                                           | M        | L                         | specify type(s) below |            |              |             |
| 5                                                           | Disturbance Types                                                                 | H __, ATV __, G __, M __, In __, D/D __, Im __, OAH __, li __, Sd __, E __, other __,                                                       |          |                           |                       |            |              |             |
| 7                                                           | Vegetative Integrity of plant community                                           | E                                                                                                                                           | H        | M                         | L                     |            |              |             |
| SF22                                                        | Is the plant community unique or rare regionally or provincially?                 | Yes                                                                                                                                         | No       | specify:                  |                       |            |              |             |
| SF23                                                        | Does the WL contain a diversity of plant communities                              | H                                                                                                                                           | M        | L                         |                       |            |              |             |
| SF24                                                        | Rate the overall integrity/quality of plant community?                            | H                                                                                                                                           | M        | L                         |                       |            |              |             |
| SF25                                                        | Are there any observed rare or endangered plant species? Specify. <i>C.stygia</i> | End                                                                                                                                         | Thr      | SpC                       | Red                   | Yellow     | S1           | S2          |
|                                                             |                                                                                   |                                                                                                                                             |          |                           |                       |            | S3           | N/A         |
| <b>SECTION TEN: FISH AND WILDLIFE HABITAT AND INTEGRITY</b> |                                                                                   |                                                                                                                                             |          |                           |                       |            |              |             |
| 1                                                           | Interspersion of open water and vegetation (open water types only)                | H                                                                                                                                           | M        | L                         |                       |            |              |             |
| 1b                                                          | % cover in vegetation versus open water                                           | 95%                                                                                                                                         |          |                           |                       |            |              |             |
| 2                                                           | Interspersion that best fits entire wetland                                       | H                                                                                                                                           | M        | L                         | N/A                   |            |              |             |
| 3                                                           | Wetland condition related to detritus                                             | H                                                                                                                                           | M        | L                         | N/A                   |            |              |             |
| 4                                                           | Interspersion of other wetlands in vicinity                                       | H                                                                                                                                           | M        | L                         |                       |            |              |             |
| 6                                                           | Barriers/restriction between wetland and other habitat                            | L                                                                                                                                           | M        | H                         |                       |            |              |             |
| 7                                                           | Noteworthy wildlife or evidence (birds, mammals, amphibians, etc)                 | Yes                                                                                                                                         | No       | list: Passerines, Deer    |                       |            |              |             |
| 8                                                           | Connected to permanent water (accessible to fish)?                                | Exceptional                                                                                                                                 | High     | Med                       | Low                   | N/A        |              |             |
| 9                                                           | Fish species observed or evidence seen (list)                                     | Yes                                                                                                                                         | No       | list:                     |                       |            |              |             |
| 10                                                          | Wetland part of contiguous upland or wetland:                                     | >50ha                                                                                                                                       | 25-50ha  | 10-25ha                   | <10ha                 |            |              |             |
| 11                                                          | WL provides habitat for:                                                          | Amphibians                                                                                                                                  | Reptiles | Waterfowl                 | Waterbirds            | Mammals    | Fish         | R/E species |
| SF26                                                        | Does wetland support fish/fish habitat?                                           | Yes                                                                                                                                         | No       | specify:                  |                       |            |              |             |
| SF27                                                        | Rare or endangered fish/wildlife species found in the wetland?                    | End                                                                                                                                         | Thr-SARA | SpC                       | Red                   | Yellow     | S1           | S2          |
|                                                             |                                                                                   |                                                                                                                                             |          |                           |                       |            | S3           | N/A         |
| SF28                                                        | Overall fish and wildlife habitat quality                                         | H                                                                                                                                           | M        | L                         |                       |            |              |             |
| <b>SECTION ELEVEN: COMMUNITY USE/VALUE</b>                  |                                                                                   |                                                                                                                                             |          |                           |                       |            |              |             |
| 1                                                           | Describe community use                                                            | VV __, CP __, CO __, PO __, PA __, AV __, x __, GB __, E __, HI __, WV __, BO __, HU __, PG __, x __, BP __, x __, F __, E __, R __, Other: |          |                           |                       |            |              |             |
| SF29                                                        | Rate the wetland's community use/value                                            | H                                                                                                                                           | M        | L                         |                       |            |              |             |

SF ratings highlighted in red indicate critical wetland functions or watershed conditions that are highly degraded. Whenever a wetland is found to have red-highlighted SFs the proponent

| APPENDIX D: WL12                                                                                                                         |                                                                                      |  |  |  |  |                                                                                                                                                                                                    |                       |              |                                                                            |            | Nova Scotia Wetland Evaluation Technique Field Data Sheet |                                                 |        |             |  |                                     |  |  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--|--|--|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|--------------|----------------------------------------------------------------------------|------------|-----------------------------------------------------------|-------------------------------------------------|--------|-------------|--|-------------------------------------|--|--|--|--|--|
| Project Name: Black Point Quarry                                                                                                         |                                                                                      |  |  |  |  | Evaluator: Scott Burley                                                                                                                                                                            |                       |              |                                                                            |            | GPS Coordinates: 644737 E x 5024077 N                     |                                                 |        |             |  |                                     |  |  |  |  |  |
| PID:35212497, 35212505, 35212521, 35212513, 35044056, 35214014, 35214022, 35214022 and 35213990                                          |                                                                                      |  |  |  |  | Site Address: Black Point, Guysborough County, NS                                                                                                                                                  |                       |              |                                                                            |            |                                                           |                                                 |        |             |  |                                     |  |  |  |  |  |
| Sources and Dates of Mapping/Images: NS Wetlands Inventory (2012); NS Forest Inventory (Current Forest Data - 2004); Google Earth (2003) |                                                                                      |  |  |  |  |                                                                                                                                                                                                    |                       |              |                                                                            |            |                                                           |                                                 |        |             |  |                                     |  |  |  |  |  |
| Evaluation Date: 04-Sep-14                                                                                                               |                                                                                      |  |  |  |  | Site Visit Date: 21-Aug-14                                                                                                                                                                         |                       |              |                                                                            |            |                                                           |                                                 |        |             |  |                                     |  |  |  |  |  |
| Weather Conditions (past 48 hours): Sun and Clouds                                                                                       |                                                                                      |  |  |  |  |                                                                                                                                                                                                    |                       |              |                                                                            |            |                                                           |                                                 |        |             |  |                                     |  |  |  |  |  |
| Seasonal Weather Conditions: Typical                                                                                                     |                                                                                      |  |  |  |  |                                                                                                                                                                                                    |                       |              |                                                                            |            |                                                           |                                                 |        |             |  |                                     |  |  |  |  |  |
| SECTION ONE: WATERSHED CHARACTERISTICS                                                                                                   |                                                                                      |  |  |  |  |                                                                                                                                                                                                    |                       |              |                                                                            |            |                                                           |                                                 |        |             |  |                                     |  |  |  |  |  |
| 1                                                                                                                                        | Watershed Name (tertiary): 1EQ-SD                                                    |  |  |  |  | Size: 518 km <sup>2</sup>                                                                                                                                                                          |                       |              |                                                                            |            |                                                           |                                                 |        |             |  |                                     |  |  |  |  |  |
| 2                                                                                                                                        | % Watershed Land Cover                                                               |  |  |  |  | For: 43                                                                                                                                                                                            | Nat: 36               | Past/Hay: <1 | Crop: <1                                                                   | Urb/Com: 2 | Road: <1                                                  | Other Dev: <1 (Gravel Pit, Landfill, Industrial |        |             |  |                                     |  |  |  |  |  |
| 3                                                                                                                                        | % Watershed WL Cover and by Class                                                    |  |  |  |  | Total: 10%                                                                                                                                                                                         | SM: <1                | BO: 6        | FE: 1                                                                      | FM: 2      | FS: 1                                                     | SS: 1                                           | CP: <1 | VP: Present |  |                                     |  |  |  |  |  |
| SF1                                                                                                                                      | <b>Watershed condition</b>                                                           |  |  |  |  | H                                                                                                                                                                                                  | M                     | L            |                                                                            |            |                                                           |                                                 |        |             |  |                                     |  |  |  |  |  |
| SF2                                                                                                                                      | <b>Proportion of WL area in watershed &amp; opportunity for floodwater detention</b> |  |  |  |  | H                                                                                                                                                                                                  | M                     | L            |                                                                            |            |                                                           |                                                 |        |             |  |                                     |  |  |  |  |  |
| SECTION TWO: WETLAND CHARACTERISTICS                                                                                                     |                                                                                      |  |  |  |  |                                                                                                                                                                                                    |                       |              |                                                                            |            |                                                           |                                                 |        |             |  |                                     |  |  |  |  |  |
| Wetland Type: Bog/fen                                                                                                                    |                                                                                      |  |  |  |  | WL size: 0.3 hectares                                                                                                                                                                              |                       |              |                                                                            |            | Landform: Basin                                           |                                                 |        |             |  | Landscape Position: Terrene outflow |  |  |  |  |  |
| Water flow path: Outflow                                                                                                                 |                                                                                      |  |  |  |  | Wetland Origin: Natural                                                                                                                                                                            |                       |              |                                                                            |            |                                                           |                                                 |        |             |  |                                     |  |  |  |  |  |
| 1                                                                                                                                        | Water Regime                                                                         |  |  |  |  | PF                                                                                                                                                                                                 | SF                    | TF           | SS                                                                         | PS         | RfT                                                       | IfT                                             | AF     |             |  |                                     |  |  |  |  |  |
| 2                                                                                                                                        | # WL's within 30m project area                                                       |  |  |  |  | Total# 0                                                                                                                                                                                           | SM:                   | BO:          | FE:                                                                        | FM:        | FS:                                                       | SS:                                             | CP:    | VP:         |  |                                     |  |  |  |  |  |
| 3                                                                                                                                        | Is WL part of complex                                                                |  |  |  |  | Yes                                                                                                                                                                                                | No                    |              |                                                                            |            |                                                           |                                                 |        |             |  |                                     |  |  |  |  |  |
| 4                                                                                                                                        | % each wetland type in complex                                                       |  |  |  |  | SM:                                                                                                                                                                                                | BO: 20                | FE: 80       | FM:                                                                        | FS:        | SS:                                                       | CP:                                             | VP:    |             |  |                                     |  |  |  |  |  |
| 5                                                                                                                                        | Is WL bordering or associated with a lake or pond?                                   |  |  |  |  | bordering                                                                                                                                                                                          |                       | within 100m  |                                                                            |            | N/A                                                       | specify                                         |        |             |  |                                     |  |  |  |  |  |
| 6                                                                                                                                        | Standing water?                                                                      |  |  |  |  | Yes                                                                                                                                                                                                | Avg Dep: % Inundated: |              |                                                                            |            |                                                           | No                                              |        |             |  |                                     |  |  |  |  |  |
| 7                                                                                                                                        | Inlet or Outlet (circle all that apply)?                                             |  |  |  |  | Inlet                                                                                                                                                                                              | Outlet                |              |                                                                            |            |                                                           |                                                 |        |             |  |                                     |  |  |  |  |  |
| 8                                                                                                                                        | Adjacent Upland Land Use within 100m (%)                                             |  |  |  |  | For: 40                                                                                                                                                                                            | Nat: 60               | PasHay:      | Crop:                                                                      | UrbCm:     | Road:                                                     | Other Dev:                                      |        |             |  |                                     |  |  |  |  |  |
| 9                                                                                                                                        | Are there stressors in WL or WL buffer area? Circle primary stressor(s).             |  |  |  |  | DD __, CW __, WcS __, O/C __, EB __, DP __, F __, M __, ES __, NE __, DwP __, M __, GC __, ATV __, DG __, EA __, R __, Rr __, U/CD __, F __, FA __, other (specify): Skidder trail through wetland |                       |              |                                                                            |            |                                                           |                                                 |        |             |  |                                     |  |  |  |  |  |
| 10                                                                                                                                       | Hydrology Altered (circle all that apply)?                                           |  |  |  |  | Ditching                                                                                                                                                                                           | Dams                  | Tiles        | Culvert                                                                    | Well       | Diversion                                                 | Other Specify:                                  |        |             |  |                                     |  |  |  |  |  |
| SF3                                                                                                                                      | <b>Rate the general wetland condition/integrity</b>                                  |  |  |  |  | H                                                                                                                                                                                                  | M                     | L            |                                                                            |            |                                                           |                                                 |        |             |  |                                     |  |  |  |  |  |
| SECTION THREE: ADJACENT LAND CONDITION AND INTEGRITY                                                                                     |                                                                                      |  |  |  |  |                                                                                                                                                                                                    |                       |              |                                                                            |            |                                                           |                                                 |        |             |  |                                     |  |  |  |  |  |
| 1                                                                                                                                        | Average width of adjacent naturalized buffer                                         |  |  |  |  | >1000_m                                                                                                                                                                                            |                       |              |                                                                            |            |                                                           |                                                 |        |             |  |                                     |  |  |  |  |  |
| 2                                                                                                                                        | Widths for water quality                                                             |  |  |  |  | H >1                                                                                                                                                                                               | M 8-15                | L <8         |                                                                            |            |                                                           |                                                 |        |             |  |                                     |  |  |  |  |  |
| 3                                                                                                                                        | Widths for wildlife habitat                                                          |  |  |  |  | H >100                                                                                                                                                                                             | M 15-100              | L <15        |                                                                            |            |                                                           |                                                 |        |             |  |                                     |  |  |  |  |  |
| 4                                                                                                                                        | Adjacent area vegetation condition (list % in each category)                         |  |  |  |  | H 100%                                                                                                                                                                                             | M                     | L            |                                                                            |            |                                                           |                                                 |        |             |  |                                     |  |  |  |  |  |
| 5                                                                                                                                        | Adjacent area diversity and structure (list % in each category)                      |  |  |  |  | H 100%                                                                                                                                                                                             | M                     | L            |                                                                            |            |                                                           |                                                 |        |             |  |                                     |  |  |  |  |  |
| 6                                                                                                                                        | Adjacent Upland Slope (list % in each category)                                      |  |  |  |  | Steep 70%                                                                                                                                                                                          | Mod 25%               | Gentle 5%    |                                                                            |            |                                                           |                                                 |        |             |  |                                     |  |  |  |  |  |
| 7                                                                                                                                        | Adjacent land supports water quality                                                 |  |  |  |  | Yes                                                                                                                                                                                                | No                    | Specify:     |                                                                            |            |                                                           |                                                 |        |             |  |                                     |  |  |  |  |  |
| 8                                                                                                                                        | Adjacent land supports wildlife habitat                                              |  |  |  |  | Yes                                                                                                                                                                                                | No                    | Specify:     |                                                                            |            |                                                           |                                                 |        |             |  |                                     |  |  |  |  |  |
| SF4                                                                                                                                      | <b>Rate the overall condition and integrity land adjacent to wetland</b>             |  |  |  |  | H                                                                                                                                                                                                  | M                     | L            | is buffer required to maintain red flag functions of wetland? If yes if no |            |                                                           |                                                 |        |             |  |                                     |  |  |  |  |  |
| SECTION FOUR: DOCUMENTED IMPORTANT FEATURES                                                                                              |                                                                                      |  |  |  |  |                                                                                                                                                                                                    |                       |              |                                                                            |            |                                                           |                                                 |        |             |  |                                     |  |  |  |  |  |
| SF5                                                                                                                                      | <b>Is the WL a WSS?</b>                                                              |  |  |  |  | Yes                                                                                                                                                                                                | No                    |              |                                                                            |            |                                                           |                                                 |        |             |  |                                     |  |  |  |  |  |

|                                                         |                                                                       |                                                                                                          |            |                |     |                        |    |            |        |
|---------------------------------------------------------|-----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|------------|----------------|-----|------------------------|----|------------|--------|
| SF6                                                     | Does the WL support commercial/recreational fish/shellfish?           | Yes                                                                                                      | No         |                |     |                        |    |            |        |
| SF7                                                     | Species of concern (Fed/Prov)? Specify. <i>Usnea flammea</i>          | End                                                                                                      | Thr - SARA | SpC            | Red | Yellow                 | S1 | S2         | S3 N/A |
| SF8                                                     | Wetland has conservation/compensation agreements/activity?            | Yes                                                                                                      | No         | specify:       |     |                        |    |            |        |
| SF9                                                     | Wetland is calcerous fen, black ash or cedar swamp?                   | Yes                                                                                                      | No         |                |     |                        |    |            |        |
| SF10                                                    | Within Drinking Water Protected Area (designated watershed/wellfield) | Yes                                                                                                      | No         | specify:       |     |                        |    |            |        |
| SF11                                                    | WL within a floodplain and upstream of or within of a populated area? | Yes                                                                                                      | No         |                |     |                        |    |            |        |
| SF12                                                    | Fed/Prov/Municipal area of interest?                                  | Yes                                                                                                      | No         | specify:       |     |                        |    |            |        |
| <b>SECTION FIVE: HYDROLOGIC CONDITION AND INTEGRITY</b> |                                                                       |                                                                                                          |            |                |     |                        |    |            |        |
| 1                                                       | Is WL source of stream or headwater(wc order 1 or 2)                  | Yes                                                                                                      | No         | Specify:       |     |                        |    |            |        |
| 2                                                       | Is WL geographically isolated?                                        | Yes                                                                                                      | No         | Specify:       |     |                        |    |            |        |
| 3                                                       | WL ability to maintain characteristic hydrologic regime               | High                                                                                                     |            | Med            |     | Low                    |    |            |        |
| 4                                                       | Water Storage Depth (list % in each class)                            | >30cm                                                                                                    | 15-30cm    | up to 15cm     |     | No ponding             |    |            |        |
| 5                                                       | Signs of surface water retention observed?                            | SW __ cm, WSL __, WCD __, WM __ cm, SM __ cm, SD __, AD __, ID __, PMT_x __, AI __, BT __, AR __, Other: |            |                |     |                        |    |            |        |
| 6                                                       | Describe observable/historical anthropogenic sediment delivery        | Low                                                                                                      |            | Med            |     | High                   |    |            |        |
| 7                                                       | Disturbance of WL soils                                               | Low                                                                                                      |            | Med            |     | High                   |    |            |        |
| 8                                                       | Predominant soils adjacent to WL                                      | Sand                                                                                                     |            | Silt/loam      |     | Clay, bedrock          |    |            |        |
| 9                                                       | Capacity of WL to alter/retard flows                                  | High                                                                                                     |            | Med            |     | Low                    |    |            |        |
| 10                                                      | Roughness coefficient for surface water flow path                     | High                                                                                                     |            | Med            |     | Low                    |    |            |        |
| 11                                                      | Stormwater/Wastewater/Agricultural runoff detention                   | High                                                                                                     |            | Med            |     | Low                    |    |            |        |
| 12                                                      | Water Source                                                          | Natural                                                                                                  |            | Mostly natural |     | Partly altered         |    | Controlled |        |
| 13                                                      | Hydrology of tidal wetlands                                           | Unrestricted                                                                                             |            | Reduced        |     | Restricted             |    | N/A        |        |
| 14                                                      | Coastal storm surge                                                   | Yes                                                                                                      | No         |                |     |                        |    |            |        |
| SF13                                                    | WL hydrologic condition                                               | Natural                                                                                                  | Modified   |                |     | Significantly Modified |    |            |        |
| SF14                                                    | WL important for maintaining stream flow?                             | Yes                                                                                                      | No         |                |     |                        |    |            |        |
| SF15                                                    | WL ability to detain surface water                                    | High                                                                                                     | Med        | Low            |     |                        |    |            |        |
| <b>SECTION SIX: WATER QUALITY</b>                       |                                                                       |                                                                                                          |            |                |     |                        |    |            |        |
| 1                                                       | Stormwater/Wastewater/Agricultural runoff as water source?            | High                                                                                                     |            | Med            |     | Low                    |    |            |        |
| 2                                                       | Nutrients/sediments from surrounding land                             | High                                                                                                     |            | Med            |     | Low                    |    |            |        |
| 3                                                       | Significant flood/stormwater attenuation                              | Yes                                                                                                      | No         |                |     |                        |    |            |        |
| 4                                                       | Vegetation capacity to settle suspended sediments                     | High                                                                                                     |            | Med            |     | Low                    |    |            |        |
| 5                                                       | WL type /landscape position holds/filters runoff?                     | Yes                                                                                                      | No         |                |     |                        |    |            |        |
| SF16                                                    | Wetland improves water quality?                                       | Yes                                                                                                      | No         |                |     |                        |    |            |        |
| SF17                                                    | Evidence of excess nutrient loading/contamination?                    | Low                                                                                                      | Med        | High           |     |                        |    |            |        |
| SF18                                                    | WL contributes to water quality in downstream resources               | High                                                                                                     | Med        | Low            |     |                        |    |            |        |
| <b>SECTION SEVEN: GROUNDWATER INTERACTIONS</b>          |                                                                       |                                                                                                          |            |                |     |                        |    |            |        |
| 1                                                       | Describe soils in wetland                                             | Recharge                                                                                                 |            | Discharge      |     |                        |    |            |        |
| 2                                                       | Land use / run off in subwatershed upstream                           | Recharge                                                                                                 |            | Discharge      |     |                        |    |            |        |
| 3                                                       | Conditions of upland soils within 200m of wetland                     | Recharge                                                                                                 |            | Discharge      |     |                        |    |            |        |
| 4                                                       | Hydroperiod of wetland                                                | Recharge                                                                                                 |            | Discharge      |     |                        |    |            |        |
| 5                                                       | Describe inlet/outlet configuration                                   | Recharge                                                                                                 |            | Discharge      |     |                        |    |            |        |
| 6                                                       | Characterize topographic relief surrounding wetland                   | Recharge                                                                                                 |            | Discharge      |     |                        |    |            |        |

|                                                             |                                                                                    |                                                                                                                 |          |                   |                       |            |              |             |        |
|-------------------------------------------------------------|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|----------|-------------------|-----------------------|------------|--------------|-------------|--------|
| SF19                                                        | WL serves as a recharge site                                                       | Yes                                                                                                             | No       |                   |                       |            |              |             |        |
| SF20                                                        | WL serves as a discharge site                                                      | Yes                                                                                                             | No       |                   |                       |            |              |             |        |
| <b>SECTION EIGHT: SHORELINE STABILIZATION AND INTEGRITY</b> |                                                                                    |                                                                                                                 |          |                   |                       |            |              |             |        |
| 1                                                           | Wetland fringing ocean/estuary/lake/pond/river/stream?                             | Yes                                                                                                             | No       | streamwidth >4m   | streamwidth<4m        | WB Exposed | WB Sheltered |             |        |
| 2                                                           | % cover of rooted vegetation in shallow water zone                                 | H >50%                                                                                                          | M 10-50  | L <10%            |                       |            |              |             |        |
| 3                                                           | Avg veg WL width b/w shoreline/streambank & 2 m depth contour                      | H >10m                                                                                                          | M 3-10   | L <3m             |                       |            |              |             |        |
| 4                                                           | Prevalence of strong-stemmed emerg. veg (shoreline marshes and fens only)          | High                                                                                                            | Med      | Low               |                       |            |              |             |        |
| 5                                                           | Describe shoreline erosion potential                                               | High                                                                                                            | Med      | Low               |                       |            |              |             |        |
| 6                                                           | Shoreline/streambank veg condition upslope of water level                          | Low                                                                                                             | Med      | High              | Artificial            |            |              |             |        |
| SF21                                                        | WL ability to stabilize shoreline                                                  | H                                                                                                               | M        | L                 | N/A                   |            |              |             |        |
| <b>SECTION NINE: PLANT COMMUNITY</b>                        |                                                                                    |                                                                                                                 |          |                   |                       |            |              |             |        |
| 1                                                           | Vegetation diversity                                                               | High                                                                                                            | Med      | Low               |                       |            |              |             |        |
| 1b                                                          | Dominant plant species and % cover in the WL                                       | list: <i>Osmunda cinnamomea</i> (20%)/ <i>Gaylussacia baccata</i> (40%)/ <i>Eriophorum virginicum</i> (10%)     |          |                   |                       |            |              |             |        |
| 3                                                           | Dominant Non-native or Invasive species and % cover                                | Yes                                                                                                             | No       | specify: %        |                       |            |              |             |        |
| 4                                                           | Vegetation Disturbance                                                             | H                                                                                                               | M        | L                 | specify type(s) below |            |              |             |        |
| 5                                                           | Disturbance Types                                                                  | H __,ATV __,G __,M __,In __, D/D __, Im __, OAH __, li __, Sd __,E __,other __,                                 |          |                   |                       |            |              |             |        |
| 7                                                           | Vegetative Integrity of plant community                                            | E                                                                                                               | H        | M                 | L                     |            |              |             |        |
| SF22                                                        | Is the plant community unique or rare regionally or provincially?                  | Yes                                                                                                             | no       | specify:          |                       |            |              |             |        |
| SF23                                                        | Does the WL contain a diversity of plant communities                               | H                                                                                                               | M        | L                 |                       |            |              |             |        |
| SF24                                                        | Rate the overall integrity/quality of plant community?                             | H                                                                                                               | M        | L                 |                       |            |              |             |        |
| SF25                                                        | Are there any observed rare or endangered plant species? Specify. <i>U.flammea</i> | End                                                                                                             | Thr      | SpC               | Red                   | Yellow     | S1           | S2          | S3 N/A |
| <b>SECTION TEN: FISH AND WILDLIFE HABITAT AND INTEGRITY</b> |                                                                                    |                                                                                                                 |          |                   |                       |            |              |             |        |
| 1                                                           | Interspersion of open water and vegetation (open water types only)                 | H                                                                                                               | M        | L                 |                       |            |              |             |        |
| 1b                                                          | % cover in vegetation versus open water                                            | _100_ %                                                                                                         |          |                   |                       |            |              |             |        |
| 2                                                           | Interspersion that best fits entire wetland                                        | H                                                                                                               | M        | L                 | N/A                   |            |              |             |        |
| 3                                                           | Wetland condition related to detritus                                              | H                                                                                                               | M        | L                 | N/A                   |            |              |             |        |
| 4                                                           | Interspersion of other wetlands in vicinity                                        | H                                                                                                               | M        | L                 |                       |            |              |             |        |
| 6                                                           | Barriers/restriction between wetland and other habitat                             | L                                                                                                               | M        | H                 |                       |            |              |             |        |
| 7                                                           | Noteworthy wildlife or evidence (birds, mammals, amphibians,etc)                   | Yes                                                                                                             | No       | list: Passerines, |                       |            |              |             |        |
| 8                                                           | Connected to permanent water (accessible to fish)?                                 | Exceptional                                                                                                     | High     | Med               | Low                   | N/A        |              |             |        |
| 9                                                           | Fish species observed or evidence seen (list)                                      | Yes                                                                                                             | No       | list:             |                       |            |              |             |        |
| 10                                                          | Wetland part of contiguous upland or wetland:                                      | >50ha                                                                                                           | 25-50ha  | 10-25ha           | <10ha                 |            |              |             |        |
| 11                                                          | WL provides habitat for:                                                           | Amphibians                                                                                                      | Reptiles | Waterfowl         | Waterbirds            | Mammals    | Fish         | R/E species |        |
| SF26                                                        | Does wetland support fish/fish habitat?                                            | Yes                                                                                                             | No       | specify:          |                       |            |              |             |        |
| SF27                                                        | Rare or endangered fish/wildlife species found in the wetland?                     | End                                                                                                             | Thr-SARA | SpC               | Red                   | Yellow     | S1           | S2          | S3 N/A |
| SF28                                                        | Overall fish and wildlife habitat quality                                          | H                                                                                                               | M        | L                 |                       |            |              |             |        |
| <b>SECTION ELEVEN: COMMUNITY USE/VALUE</b>                  |                                                                                    |                                                                                                                 |          |                   |                       |            |              |             |        |
| 1                                                           | Describe community use                                                             | VV __,CP __,CO __,PO __,PA __,AV __,GB __,E __,HI __, WV __, BO __,HU __, PG __, BP __,F __, E __, R __, Other: |          |                   |                       |            |              |             |        |
| SF29                                                        | Rate the wetland's community use/value                                             | H                                                                                                               | M        | L                 |                       |            |              |             |        |

SF ratings highlighted in red indicate critical wetland functions or watershed conditions that are highly degraded. Whenever a wetland is found to have red-highlighted SFs the proponent



| APPENDIX D: WL13                                                                                                                         |  |  |  |  |  |                                                                                                                                                                         |  |           |  |              | Nova Scotia Wetland Evaluation Technique Field Data Sheet |                                                                                   |  |            |  |                             |  |                                                 |  |        |  |             |  |
|------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------|--|--------------|-----------------------------------------------------------|-----------------------------------------------------------------------------------|--|------------|--|-----------------------------|--|-------------------------------------------------|--|--------|--|-------------|--|
| Project Name: Black Point Quarry                                                                                                         |  |  |  |  |  | Evaluator: Scott Burley                                                                                                                                                 |  |           |  |              | GPS Coordinates: 644860 E x 5023362 N                     |                                                                                   |  |            |  |                             |  |                                                 |  |        |  |             |  |
| PID:35212497, 35212505, 35212521, 35212513, 35044056, 35214014, 35214022, 35214022 and 35213990                                          |  |  |  |  |  | Site Address: Black Point, Guysborough County, NS                                                                                                                       |  |           |  |              |                                                           |                                                                                   |  |            |  |                             |  |                                                 |  |        |  |             |  |
| Sources and Dates of Mapping/Images: NS Wetlands Inventory (2012); NS Forest Inventory (Current Forest Data - 2004); Google Earth (2003) |  |  |  |  |  |                                                                                                                                                                         |  |           |  |              |                                                           |                                                                                   |  |            |  |                             |  |                                                 |  |        |  |             |  |
| Evaluation Date: 04-Sep-14                                                                                                               |  |  |  |  |  | Site Visit Date: 21-Aug-14                                                                                                                                              |  |           |  |              |                                                           |                                                                                   |  |            |  |                             |  |                                                 |  |        |  |             |  |
| Weather Conditions (past 48 hours): Sun and Clouds                                                                                       |  |  |  |  |  |                                                                                                                                                                         |  |           |  |              |                                                           |                                                                                   |  |            |  |                             |  |                                                 |  |        |  |             |  |
| Seasonal Weather Conditions: Typical                                                                                                     |  |  |  |  |  |                                                                                                                                                                         |  |           |  |              |                                                           |                                                                                   |  |            |  |                             |  |                                                 |  |        |  |             |  |
| SECTION ONE: WATERSHED CHARACTERISTICS                                                                                                   |  |  |  |  |  |                                                                                                                                                                         |  |           |  |              |                                                           |                                                                                   |  |            |  |                             |  |                                                 |  |        |  |             |  |
| 1 Watershed Name (tertiary): 1EQ-SD                                                                                                      |  |  |  |  |  | Size: 518 km <sup>2</sup>                                                                                                                                               |  |           |  |              |                                                           |                                                                                   |  |            |  |                             |  |                                                 |  |        |  |             |  |
| 2 % Watershed Land Cover                                                                                                                 |  |  |  |  |  | For: 43                                                                                                                                                                 |  | Nat: 36   |  | Past/Hay: <1 |                                                           | Crop: <1                                                                          |  | Urb/Com: 2 |  | Road: <1                    |  | Other Dev: <1 (Gravel Pit, Landfill, Industrial |  |        |  |             |  |
| 3 % Watershed WL Cover and by Class                                                                                                      |  |  |  |  |  | Total: 10%                                                                                                                                                              |  | SM: <1    |  | BO: 6        |                                                           | FE: 1                                                                             |  | FM: 2      |  | FS: 1                       |  | SS: 1                                           |  | CP: <1 |  | VP: Present |  |
| <b>SF1 Watershed condition</b>                                                                                                           |  |  |  |  |  | <b>H</b>                                                                                                                                                                |  | <b>M</b>  |  | <b>L</b>     |                                                           |                                                                                   |  |            |  |                             |  |                                                 |  |        |  |             |  |
| <b>SF2 Proportion of WL area in watershed &amp; opportunity for floodwater detention</b>                                                 |  |  |  |  |  | <b>H</b>                                                                                                                                                                |  | <b>M</b>  |  | <b>L</b>     |                                                           |                                                                                   |  |            |  |                             |  |                                                 |  |        |  |             |  |
| SECTION TWO: WETLAND CHARACTERISTICS                                                                                                     |  |  |  |  |  |                                                                                                                                                                         |  |           |  |              |                                                           |                                                                                   |  |            |  |                             |  |                                                 |  |        |  |             |  |
| Wetland Type: Treed Swamp                                                                                                                |  |  |  |  |  | WL size: 0.6 hectares                                                                                                                                                   |  |           |  |              | Landform: Slope                                           |                                                                                   |  |            |  | Landscape Position: Terrene |  |                                                 |  |        |  |             |  |
| Water flow path: Isolated                                                                                                                |  |  |  |  |  | Wetland Origin: Natural                                                                                                                                                 |  |           |  |              |                                                           |                                                                                   |  |            |  |                             |  |                                                 |  |        |  |             |  |
| 1 Water Regime                                                                                                                           |  |  |  |  |  | PF                                                                                                                                                                      |  | SF        |  | TF           |                                                           | SS                                                                                |  | <b>PS</b>  |  | RfT                         |  | IfT                                             |  | AF     |  |             |  |
| 2 # WL's within 30m project area                                                                                                         |  |  |  |  |  | Total# 0                                                                                                                                                                |  | SM:       |  | BO:          |                                                           | FE:                                                                               |  | FM:        |  | FS:                         |  | SS:                                             |  | CP:    |  | VP:         |  |
| 3 Is WL part of complex                                                                                                                  |  |  |  |  |  | Yes                                                                                                                                                                     |  | <b>No</b> |  |              |                                                           |                                                                                   |  |            |  |                             |  |                                                 |  |        |  |             |  |
| 4 % each wetland type in complex                                                                                                         |  |  |  |  |  | SM:                                                                                                                                                                     |  | BO:       |  | FE:          |                                                           | FM:                                                                               |  | FS: 100    |  | SS:                         |  | CP:                                             |  | VP:    |  |             |  |
| 5 Is WL bordering or associated with a lake or pond?                                                                                     |  |  |  |  |  | bordering                                                                                                                                                               |  |           |  | within 100m  |                                                           |                                                                                   |  | <b>N/A</b> |  | specify                     |  |                                                 |  |        |  |             |  |
| 6 Standing water?                                                                                                                        |  |  |  |  |  | Yes                                                                                                                                                                     |  | Avg Dep:  |  | % Inundated: |                                                           | <b>No</b>                                                                         |  |            |  |                             |  |                                                 |  |        |  |             |  |
| 7 Inlet or Outlet (circle all that apply)?                                                                                               |  |  |  |  |  | Inlet                                                                                                                                                                   |  | Outlet    |  |              |                                                           |                                                                                   |  |            |  |                             |  |                                                 |  |        |  |             |  |
| 8 Adjacent Upland Land Use within 100m (%)                                                                                               |  |  |  |  |  | For: 20                                                                                                                                                                 |  | Nat: 80   |  | PasHay:      |                                                           | Crop:                                                                             |  | UrbCm:     |  | Road:                       |  | Other Dev:                                      |  |        |  |             |  |
| 9 Are there stressors in WL or WL buffer area? Circle primary stressor(s).                                                               |  |  |  |  |  | DD __, CW __, WcS __, O/C __, EB __, DP __, F __, M __, ES __, NE __, DwP __,<br>M __, GC __, ATV __, DG __, EA __, R __, Rr __, U/CD __, F __, FA __, other (specify): |  |           |  |              |                                                           |                                                                                   |  |            |  |                             |  |                                                 |  |        |  |             |  |
| 10 Hydrology Altered (circle all that apply)?                                                                                            |  |  |  |  |  | Ditching                                                                                                                                                                |  | Dams      |  | Tiles        |                                                           | Culvert                                                                           |  | Well       |  | Diversion                   |  | Other Specify:                                  |  |        |  |             |  |
| <b>SF3 Rate the general wetland condition/integrity</b>                                                                                  |  |  |  |  |  | <b>H</b>                                                                                                                                                                |  | <b>M</b>  |  | <b>L</b>     |                                                           |                                                                                   |  |            |  |                             |  |                                                 |  |        |  |             |  |
| SECTION THREE: ADJACENT LAND CONDITION AND INTEGRITY                                                                                     |  |  |  |  |  |                                                                                                                                                                         |  |           |  |              |                                                           |                                                                                   |  |            |  |                             |  |                                                 |  |        |  |             |  |
| 1 Average width of adjacent naturalized buffer                                                                                           |  |  |  |  |  | >1000_m                                                                                                                                                                 |  |           |  |              |                                                           |                                                                                   |  |            |  |                             |  |                                                 |  |        |  |             |  |
| 2 Widths for water quality                                                                                                               |  |  |  |  |  | <b>H &gt;1</b>                                                                                                                                                          |  | M 8-15    |  | L <8         |                                                           |                                                                                   |  |            |  |                             |  |                                                 |  |        |  |             |  |
| 3 Widths for wildlife habitat                                                                                                            |  |  |  |  |  | <b>H &gt;100</b>                                                                                                                                                        |  | M 15-100  |  | L <15        |                                                           |                                                                                   |  |            |  |                             |  |                                                 |  |        |  |             |  |
| 4 Adjacent area vegetation condition (list % in each category)                                                                           |  |  |  |  |  | H 100%                                                                                                                                                                  |  | M         |  | L            |                                                           |                                                                                   |  |            |  |                             |  |                                                 |  |        |  |             |  |
| 5 Adjacent area diversity and structure (list % in each category)                                                                        |  |  |  |  |  | H 100%                                                                                                                                                                  |  | M         |  | L            |                                                           |                                                                                   |  |            |  |                             |  |                                                 |  |        |  |             |  |
| 6 Adjacent Upland Slope (list % in each category)                                                                                        |  |  |  |  |  | Steep 10%                                                                                                                                                               |  | Mod 70%   |  | Gentle 20%   |                                                           |                                                                                   |  |            |  |                             |  |                                                 |  |        |  |             |  |
| 7 Adjacent land supports water quality                                                                                                   |  |  |  |  |  | <b>Yes</b>                                                                                                                                                              |  | No        |  | Specify:     |                                                           |                                                                                   |  |            |  |                             |  |                                                 |  |        |  |             |  |
| 8 Adjacent land supports wildlife habitat                                                                                                |  |  |  |  |  | <b>Yes</b>                                                                                                                                                              |  | No        |  | Specify:     |                                                           |                                                                                   |  |            |  |                             |  |                                                 |  |        |  |             |  |
| <b>SF4 Rate the overall condition and integrity land adjacent to wetland</b>                                                             |  |  |  |  |  | <b>H</b>                                                                                                                                                                |  | <b>M</b>  |  | <b>L</b>     |                                                           | is buffer required to maintain red flag functions of wetland? <b>If yes if no</b> |  |            |  |                             |  |                                                 |  |        |  |             |  |
| SECTION FOUR: DOCUMENTED IMPORTANT FEATURES                                                                                              |  |  |  |  |  |                                                                                                                                                                         |  |           |  |              |                                                           |                                                                                   |  |            |  |                             |  |                                                 |  |        |  |             |  |
| <b>SF5 Is the WL a WSS?</b>                                                                                                              |  |  |  |  |  | <b>Yes</b>                                                                                                                                                              |  | <b>No</b> |  |              |                                                           |                                                                                   |  |            |  |                             |  |                                                 |  |        |  |             |  |

|                                                         |                                                                       |                                                                                                          |            |                |     |                        |    |            |    |     |
|---------------------------------------------------------|-----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|------------|----------------|-----|------------------------|----|------------|----|-----|
| SF6                                                     | Does the WL support commercial/recreational fish/shellfish?           | Yes                                                                                                      | No         |                |     |                        |    |            |    |     |
| SF7                                                     | Species of concern (Fed/Prov)? Specify.                               | End                                                                                                      | Thr - SARA | SpC            | Red | Yellow                 | S1 | S2         | S3 | N/A |
| SF8                                                     | Wetland has conservation/compensation agreements/activity?            | Yes                                                                                                      | No         | specify:       |     |                        |    |            |    |     |
| SF9                                                     | Wetland is calcerous fen, black ash or cedar swamp?                   | Yes                                                                                                      | No         |                |     |                        |    |            |    |     |
| SF10                                                    | Within Drinking Water Protected Area (designated watershed/wellfield) | Yes                                                                                                      | No         | specify:       |     |                        |    |            |    |     |
| SF11                                                    | WL within a floodplain and upstream of or within of a populated area? | Yes                                                                                                      | No         |                |     |                        |    |            |    |     |
| SF12                                                    | Fed/Prov/Municipal area of interest?                                  | Yes                                                                                                      | No         | specify:       |     |                        |    |            |    |     |
| <b>SECTION FIVE: HYDROLOGIC CONDITION AND INTEGRITY</b> |                                                                       |                                                                                                          |            |                |     |                        |    |            |    |     |
| 1                                                       | Is WL source of stream or headwater(wc order 1 or 2)                  | Yes                                                                                                      | No         | Specify:       |     |                        |    |            |    |     |
| 2                                                       | Is WL geographically isolated?                                        | Yes                                                                                                      | No         | Specify:       |     |                        |    |            |    |     |
| 3                                                       | WL ability to maintain characteristic hydrologic regime               | High                                                                                                     |            | Med            |     | Low                    |    |            |    |     |
| 4                                                       | Water Storage Depth (list % in each class)                            | >30cm                                                                                                    | 15-30cm    | up to 15cm     |     | No ponding             |    |            |    |     |
| 5                                                       | Signs of surface water retention observed?                            | SW __ cm, WSL __, WCD __, WM __ cm, SM __ cm, SD __, AD __, ID __, PMT_x __, AI __, BT __, AR __, Other: |            |                |     |                        |    |            |    |     |
| 6                                                       | Describe observable/historical anthropogenic sediment delivery        | Low                                                                                                      |            | Med            |     | High                   |    |            |    |     |
| 7                                                       | Disturbance of WL soils                                               | Low                                                                                                      |            | Med            |     | High                   |    |            |    |     |
| 8                                                       | Predominant soils adjacent to WL                                      | Sand                                                                                                     |            | Silt/loam      |     | Clay, bedrock          |    |            |    |     |
| 9                                                       | Capacity of WL to alter/retard flows                                  | High                                                                                                     |            | Med            |     | Low                    |    |            |    |     |
| 10                                                      | Roughness coefficient for surface water flow path                     | High                                                                                                     |            | Med            |     | Low                    |    |            |    |     |
| 11                                                      | Stormwater/Wastewater/Agricultural runoff detention                   | High                                                                                                     |            | Med            |     | Low                    |    |            |    |     |
| 12                                                      | Water Source                                                          | Natural                                                                                                  |            | Mostly natural |     | Partly altered         |    | Controlled |    |     |
| 13                                                      | Hydrology of tidal wetlands                                           | Unrestricted                                                                                             |            | Reduced        |     | Restricted             |    | N/A        |    |     |
| 14                                                      | Coastal storm surge                                                   | Yes                                                                                                      | No         |                |     |                        |    |            |    |     |
| SF13                                                    | WL hydrologic condition                                               | Natural                                                                                                  | Modified   |                |     | Significantly Modified |    |            |    |     |
| SF14                                                    | WL important for maintaining stream flow?                             | Yes                                                                                                      | No         |                |     |                        |    |            |    |     |
| SF15                                                    | WL ability to detain surface water                                    | High                                                                                                     | Med        | Low            |     |                        |    |            |    |     |
| <b>SECTION SIX: WATER QUALITY</b>                       |                                                                       |                                                                                                          |            |                |     |                        |    |            |    |     |
| 1                                                       | Stormwater/Wastewater/Agricultural runoff as water source?            | High                                                                                                     |            | Med            |     | Low                    |    |            |    |     |
| 2                                                       | Nutrients/sediments from surrounding land                             | High                                                                                                     |            | Med            |     | Low                    |    |            |    |     |
| 3                                                       | Significant flood/stormwater attenuation                              | Yes                                                                                                      | No         |                |     |                        |    |            |    |     |
| 4                                                       | Vegetation capacity to settle suspended sediments                     | High                                                                                                     |            | Med            |     | Low                    |    |            |    |     |
| 5                                                       | WL type /landscape position holds/filters runoff?                     | Yes                                                                                                      | No         |                |     |                        |    |            |    |     |
| SF16                                                    | Wetland improves water quality?                                       | Yes                                                                                                      | No         |                |     |                        |    |            |    |     |
| SF17                                                    | Evidence of excess nutrient loading/contamination?                    | Low                                                                                                      | Med        | High           |     |                        |    |            |    |     |
| SF18                                                    | WL contributes to water quality in downstream resources               | High                                                                                                     | Med        | Low            |     |                        |    |            |    |     |
| <b>SECTION SEVEN: GROUNDWATER INTERACTIONS</b>          |                                                                       |                                                                                                          |            |                |     |                        |    |            |    |     |
| 1                                                       | Describe soils in wetland                                             | Recharge                                                                                                 |            | Discharge      |     |                        |    |            |    |     |
| 2                                                       | Land use / run off in subwatershed upstream                           | Recharge                                                                                                 |            | Discharge      |     |                        |    |            |    |     |
| 3                                                       | Conditions of upland soils within 200m of wetland                     | Recharge                                                                                                 |            | Discharge      |     |                        |    |            |    |     |
| 4                                                       | Hydroperiod of wetland                                                | Recharge                                                                                                 |            | Discharge      |     |                        |    |            |    |     |
| 5                                                       | Describe inlet/outlet configuration                                   | Recharge                                                                                                 |            | Discharge      |     |                        |    |            |    |     |
| 6                                                       | Characterize topographic relief surrounding wetland                   | Recharge                                                                                                 |            | Discharge      |     |                        |    |            |    |     |



|                                                             |                                                                           |                                                                                                                 |          |                  |                       |            |              |             |    |
|-------------------------------------------------------------|---------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|----------|------------------|-----------------------|------------|--------------|-------------|----|
| SF19                                                        | WL serves as a recharge site                                              | Yes                                                                                                             | No       |                  |                       |            |              |             |    |
| SF20                                                        | WL serves as a discharge site                                             | Yes                                                                                                             | No       |                  |                       |            |              |             |    |
| <b>SECTION EIGHT: SHORELINE STABILIZATION AND INTEGRITY</b> |                                                                           |                                                                                                                 |          |                  |                       |            |              |             |    |
| 1                                                           | Wetland fringing ocean/estuary/lake/pond/river/stream?                    | Yes                                                                                                             | No       | streamwidth >4m  | streamwidth<4m        | WB Exposed | WB Sheltered |             |    |
| 2                                                           | % cover of rooted vegetation in shallow water zone                        | H >50%                                                                                                          | M 10-50  | L <10%           |                       |            |              |             |    |
| 3                                                           | Avg veg WL width b/w shoreline/streambank & 2 m depth contour             | H >10m                                                                                                          | M 3-10   | L <3m            |                       |            |              |             |    |
| 4                                                           | Prevalence of strong-stemmed emerg. veg (shoreline marshes and fens only) | High                                                                                                            | Med      | Low              |                       |            |              |             |    |
| 5                                                           | Describe shoreline erosion potential                                      | High                                                                                                            | Med      | Low              |                       |            |              |             |    |
| 6                                                           | Shoreline/streambank veg condition upslope of water level                 | Low                                                                                                             | Med      | High             | Artificial            |            |              |             |    |
| SF21                                                        | WL ability to stabilize shoreline                                         | H                                                                                                               | M        | L                | N/A                   |            |              |             |    |
| <b>SECTION NINE: PLANT COMMUNITY</b>                        |                                                                           |                                                                                                                 |          |                  |                       |            |              |             |    |
| 1                                                           | Vegetation diversity                                                      | High                                                                                                            | Med      | Low              |                       |            |              |             |    |
| 1b                                                          | Dominant plant species and % cover in the WL                              | list: <i>Picea mariana</i> (60%)/ <i>Acer rubrum</i> (30%)                                                      |          |                  |                       |            |              |             |    |
| 3                                                           | Dominant Non-native or Invasive species and % cover                       | Yes                                                                                                             | No       | specify: %       |                       |            |              |             |    |
| 4                                                           | Vegetation Disturbance                                                    | H                                                                                                               | M        | L                | specify type(s) below |            |              |             |    |
| 5                                                           | Disturbance Types                                                         | H __,ATV __,G __,M __,In __, D/D __, Im __, OAH __, li __, Sd __,E __,other __,                                 |          |                  |                       |            |              |             |    |
| 7                                                           | Vegetative Integrity of plant community                                   | E                                                                                                               | H        | M                | L                     |            |              |             |    |
| SF22                                                        | Is the plant community unique or rare regionally or provincially?         | Yes                                                                                                             | no       | specify:         |                       |            |              |             |    |
| SF23                                                        | Does the WL contain a diversity of plant communities                      | H                                                                                                               | M        | L                |                       |            |              |             |    |
| SF24                                                        | Rate the overall integrity/quality of plant community?                    | H                                                                                                               | M        | L                |                       |            |              |             |    |
| SF25                                                        | Are there any observed rare or endangered plant species? Specify.         | End                                                                                                             | Thr      | SpC              | Red                   | Yellow     | S1           | S2          | S3 |
| <b>SECTION TEN: FISH AND WILDLIFE HABITAT AND INTEGRITY</b> |                                                                           |                                                                                                                 |          |                  |                       |            |              |             |    |
| 1                                                           | Interspersion of open water and vegetation (open water types only)        | H                                                                                                               | M        | L                |                       |            |              |             |    |
| 1b                                                          | % cover in vegetation versus open water                                   | _100_ %                                                                                                         |          |                  |                       |            |              |             |    |
| 2                                                           | Interspersion that best fits entire wetland                               | H                                                                                                               | M        | L                | N/A                   |            |              |             |    |
| 3                                                           | Wetland condition related to detritus                                     | H                                                                                                               | M        | L                | N/A                   |            |              |             |    |
| 4                                                           | Interspersion of other wetlands in vicinity                               | H                                                                                                               | M        | L                |                       |            |              |             |    |
| 6                                                           | Barriers/restriction between wetland and other habitat                    | L                                                                                                               | M        | H                |                       |            |              |             |    |
| 7                                                           | Noteworthy wildlife or evidence (birds, mammals, amphibians,etc)          | Yes                                                                                                             | No       | list: Passerines |                       |            |              |             |    |
| 8                                                           | Connected to permanent water (accessible to fish)?                        | Exceptional                                                                                                     | High     | Med              | Low                   | N/A        |              |             |    |
| 9                                                           | Fish species observed or evidence seen (list)                             | Yes                                                                                                             | No       | list:            |                       |            |              |             |    |
| 10                                                          | Wetland part of contiguous upland or wetland:                             | >50ha                                                                                                           | 25-50ha  | 10-25ha          | <10ha                 |            |              |             |    |
| 11                                                          | WL provides habitat for:                                                  | Amphibians                                                                                                      | Reptiles | Waterfowl        | Waterbirds            | Mammals    | Fish         | R/E species |    |
| SF26                                                        | Does wetland support fish/fish habitat?                                   | Yes                                                                                                             | No       | specify:         |                       |            |              |             |    |
| SF27                                                        | Rare or endangered fish/wildlife species found in the wetland?            | End                                                                                                             | Thr-SARA | SpC              | Red                   | Yellow     | S1           | S2          | S3 |
| SF28                                                        | Overall fish and wildlife habitat quality                                 | H                                                                                                               | M        | L                |                       |            |              |             |    |
| <b>SECTION ELEVEN: COMMUNITY USE/VALUE</b>                  |                                                                           |                                                                                                                 |          |                  |                       |            |              |             |    |
| 1                                                           | Describe community use                                                    | VV __,CP __,CO __,PO __,PA __,AV __,GB __,E __,HI __, WV __, BO __,HU __, PG __, BP __,F __, E __, R __, Other: |          |                  |                       |            |              |             |    |
| SF29                                                        | Rate the wetland's community use/value                                    | H                                                                                                               | M        | L                |                       |            |              |             |    |

SF ratings highlighted in red indicate critical wetland functions or watershed conditions that are highly degraded. Whenever a wetland is found to have red-highlighted SFs the proponent

| APPENDIX D: WL14                                                                                                                         |                                                                           | Nova Scotia Wetland Evaluation Technique Field Data Sheet                                                                                                                |                            |                         |                                                                            |                                                   |           |                                                 |        |             |  |
|------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-------------------------|----------------------------------------------------------------------------|---------------------------------------------------|-----------|-------------------------------------------------|--------|-------------|--|
| Project Name: Black Point Quarry                                                                                                         |                                                                           |                                                                                                                                                                          |                            | Evaluator: Scott Burley |                                                                            |                                                   |           | GPS Coordinates: 645506 E x 5023190 N           |        |             |  |
| PID:35212497, 35212505, 35212521, 35212513, 35044056, 35214014, 35214022, 35214022 and 35213990                                          |                                                                           |                                                                                                                                                                          |                            |                         |                                                                            | Site Address: Black Point, Guysborough County, NS |           |                                                 |        |             |  |
| Sources and Dates of Mapping/Images: NS Wetlands Inventory (2012); NS Forest Inventory (Current Forest Data - 2004); Google Earth (2003) |                                                                           |                                                                                                                                                                          |                            |                         |                                                                            |                                                   |           |                                                 |        |             |  |
| Evaluation Date: 04-Sep-14                                                                                                               |                                                                           |                                                                                                                                                                          | Site Visit Date: 19-Aug-14 |                         |                                                                            |                                                   |           |                                                 |        |             |  |
| Weather Conditions (past 48 hours): Periods of rain with clouds; sun and cloud                                                           |                                                                           |                                                                                                                                                                          |                            |                         |                                                                            |                                                   |           |                                                 |        |             |  |
| Seasonal Weather Conditions: Typical                                                                                                     |                                                                           |                                                                                                                                                                          |                            |                         |                                                                            |                                                   |           |                                                 |        |             |  |
| SECTION ONE: WATERSHED CHARACTERISTICS                                                                                                   |                                                                           |                                                                                                                                                                          |                            |                         |                                                                            |                                                   |           |                                                 |        |             |  |
| 1                                                                                                                                        | Watershed Name (tertiary): 1EQ-SD                                         | Size: 518 km <sup>2</sup>                                                                                                                                                |                            |                         |                                                                            |                                                   |           |                                                 |        |             |  |
| 2                                                                                                                                        | % Watershed Land Cover                                                    | For: 43                                                                                                                                                                  | Nat: 36                    | Past/Hay: <1            | Crop: <1                                                                   | Urb/Com: 2                                        | Road: <1  | Other Dev: <1 (Gravel Pit, Landfill, Industrial |        |             |  |
| 3                                                                                                                                        | % Watershed WL Cover and by Class                                         | Total: 10%                                                                                                                                                               | SM: <1                     | BO: 6                   | FE: 1                                                                      | FM: 2                                             | FS: 1     | SS: 1                                           | CP: <1 | VP: Present |  |
| SF1                                                                                                                                      | Watershed condition                                                       | H                                                                                                                                                                        | M                          | L                       |                                                                            |                                                   |           |                                                 |        |             |  |
| SF2                                                                                                                                      | Proportion of WL area in watershed & opportunity for floodwater detention | H                                                                                                                                                                        | M                          | L                       |                                                                            |                                                   |           |                                                 |        |             |  |
| SECTION TWO: WETLAND CHARACTERISTICS                                                                                                     |                                                                           |                                                                                                                                                                          |                            |                         |                                                                            |                                                   |           |                                                 |        |             |  |
| Wetland Type: Fen/Bog                                                                                                                    |                                                                           |                                                                                                                                                                          | WL size: 6.2 hectares      |                         |                                                                            | Landform: Slope                                   |           | Landscape Position: Lotic Stream-Confined       |        |             |  |
| Water flow path: Throughflow                                                                                                             |                                                                           |                                                                                                                                                                          | Wetland Origin: Natural    |                         |                                                                            |                                                   |           |                                                 |        |             |  |
| 1                                                                                                                                        | Water Regime                                                              | PF                                                                                                                                                                       | SF                         | TF                      | SS                                                                         | PS                                                | RfT       | IfT                                             | AF     |             |  |
| 2                                                                                                                                        | # WL's within 30m project area                                            | Total# 0                                                                                                                                                                 | SM:                        | BO:                     | FE:                                                                        | FM:                                               | FS:       | SS:                                             | CP:    | VP:         |  |
| 3                                                                                                                                        | Is WL part of complex                                                     | Yes                                                                                                                                                                      | No                         |                         |                                                                            |                                                   |           |                                                 |        |             |  |
| 4                                                                                                                                        | % each wetland type in complex                                            | SM:                                                                                                                                                                      | BO: 79                     | FE: 21                  | FM:                                                                        | FS:                                               | SS:       | CP:                                             | VP:    |             |  |
| 5                                                                                                                                        | Is WL bordering or associated with a lake or pond?                        | bordering                                                                                                                                                                |                            | within 100m             |                                                                            | N/A                                               | specify:  |                                                 |        |             |  |
| 6                                                                                                                                        | Standing water?                                                           | Yes                                                                                                                                                                      | Avg Dep:                   |                         | % Inundated:                                                               |                                                   | No        |                                                 |        |             |  |
| 7                                                                                                                                        | Inlet or Outlet (circle all that apply)?                                  | Inlet                                                                                                                                                                    | Outlet                     |                         |                                                                            |                                                   |           |                                                 |        |             |  |
| 8                                                                                                                                        | Adjacent Upland Land Use within 100m (%)                                  | For: 80                                                                                                                                                                  | Nat: 20                    | PasHay:                 | Crop:                                                                      | UrbCm:                                            | Road:     | Other Dev:                                      |        |             |  |
| 9                                                                                                                                        | Are there stressors in WL or WL buffer area? Circle primary stressor(s).  | DD __, CW __, WcS __, O/C __, EB __, DP __, F __, M __, ES __, NE __, DwP __, M __, GC __, ATV __, DG_x __, EA __, R __, Rr __, U/CD __, F_x __, FA __, other (specify): |                            |                         |                                                                            |                                                   |           |                                                 |        |             |  |
| 10                                                                                                                                       | Hydrology Altered (circle all that apply)?                                | Ditching                                                                                                                                                                 | Dams                       | Tiles                   | Culvert                                                                    | Well                                              | Diversion | Other Specify:                                  |        |             |  |
| SF3                                                                                                                                      | Rate the general wetland condition/integrity                              | H                                                                                                                                                                        | M                          | L                       |                                                                            |                                                   |           |                                                 |        |             |  |
| SECTION THREE: ADJACENT LAND CONDITION AND INTEGRITY                                                                                     |                                                                           |                                                                                                                                                                          |                            |                         |                                                                            |                                                   |           |                                                 |        |             |  |
| 1                                                                                                                                        | Average width of adjacent naturalized buffer                              | >1000_m                                                                                                                                                                  |                            |                         |                                                                            |                                                   |           |                                                 |        |             |  |
| 2                                                                                                                                        | Widths for water quality                                                  | H >1                                                                                                                                                                     | M 8-15                     | L <8                    |                                                                            |                                                   |           |                                                 |        |             |  |
| 3                                                                                                                                        | Widths for wildlife habitat                                               | H >100                                                                                                                                                                   | M 15-100                   | L <15                   |                                                                            |                                                   |           |                                                 |        |             |  |
| 4                                                                                                                                        | Adjacent area vegetation condition (list % in each category)              | H 100%                                                                                                                                                                   | M                          | L                       |                                                                            |                                                   |           |                                                 |        |             |  |
| 5                                                                                                                                        | Adjacent area diversity and structure (list % in each category)           | H 100%                                                                                                                                                                   | M                          | L                       |                                                                            |                                                   |           |                                                 |        |             |  |
| 6                                                                                                                                        | Adjacent Upland Slope (list % in each category)                           | Steep 5%                                                                                                                                                                 | Mod 45%                    | Gentle 50%              |                                                                            |                                                   |           |                                                 |        |             |  |
| 7                                                                                                                                        | Adjacent land supports water quality                                      | Yes                                                                                                                                                                      | No                         | Specify:                |                                                                            |                                                   |           |                                                 |        |             |  |
| 8                                                                                                                                        | Adjacent land supports wildlife habitat                                   | Yes                                                                                                                                                                      | No                         | Specify:                |                                                                            |                                                   |           |                                                 |        |             |  |
| SF4                                                                                                                                      | Rate the overall condition and integrity land adjacent to wetland         | H                                                                                                                                                                        | M                          | L                       | is buffer required to maintain red flag functions of wetland? If yes if no |                                                   |           |                                                 |        |             |  |
| SECTION FOUR: DOCUMENTED IMPORTANT FEATURES                                                                                              |                                                                           |                                                                                                                                                                          |                            |                         |                                                                            |                                                   |           |                                                 |        |             |  |
| SF5                                                                                                                                      | Is the WL a WSS?                                                          | Yes                                                                                                                                                                      | No                         |                         |                                                                            |                                                   |           |                                                 |        |             |  |

|                                                         |                                                                       |                                                                                                             |          |                        |                                                               |                |    |            |    |     |
|---------------------------------------------------------|-----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|----------|------------------------|---------------------------------------------------------------|----------------|----|------------|----|-----|
| SF6                                                     | Does the WL support commercial/recreational fish/shellfish?           | Yes                                                                                                         | No       |                        |                                                               |                |    |            |    |     |
| SF7                                                     | Species of concern (Fed/Prov)? Specify.                               | End                                                                                                         | Thr      | SpC                    | Red                                                           | Yellow         | S1 | S2         | S3 | N/A |
| SF8                                                     | Wetland has conservation/compensation agreements/activity?            | Yes                                                                                                         | No       |                        | specify:                                                      |                |    |            |    |     |
| SF9                                                     | Wetland is calcerous fen, black ash or cedar swamp?                   | Yes                                                                                                         | No       |                        |                                                               |                |    |            |    |     |
| SF10                                                    | Within Drinking Water Protected Area (designated watershed/wellfield) | Yes                                                                                                         | No       |                        | specify:                                                      |                |    |            |    |     |
| SF11                                                    | WL within a floodplain and upstream of or within of a populated area? | Yes                                                                                                         | No       |                        |                                                               |                |    |            |    |     |
| SF12                                                    | Fed/Prov/Municipal area of interest?                                  | Yes                                                                                                         | No       |                        | specify:                                                      |                |    |            |    |     |
| <b>SECTION FIVE: HYDROLOGIC CONDITION AND INTEGRITY</b> |                                                                       |                                                                                                             |          |                        |                                                               |                |    |            |    |     |
| 1                                                       | Is WL source of stream or headwater(wc order 1 or 2)                  | Yes                                                                                                         | No       |                        | Specify: Unnamed stream flow through wetland to the southeast |                |    |            |    |     |
| 2                                                       | Is WL geographically isolated?                                        | Yes                                                                                                         | No       |                        | Specify:                                                      |                |    |            |    |     |
| 3                                                       | WL ability to maintain characteristic hydrologic regime               | High                                                                                                        |          | Med                    |                                                               | Low            |    |            |    |     |
| 4                                                       | Water Storage Depth (list % in each class)                            | >30cm                                                                                                       | 15-30cm  | up to 15cm             |                                                               | No ponding     |    |            |    |     |
| 5                                                       | Signs of surface water retention observed?                            | SW __ cm, WSL __, WCD __, WM __ cm, SM __ cm, SD __, AD __, ID __, PMT __ x __, AI __, BT __, AR __, Other: |          |                        |                                                               |                |    |            |    |     |
| 6                                                       | Describe observable/historical anthropogenic sediment delivery        | Low                                                                                                         |          | Med                    |                                                               | High           |    |            |    |     |
| 7                                                       | Disturbance of WL soils                                               | Low                                                                                                         |          | Med                    |                                                               | High           |    |            |    |     |
| 8                                                       | Predominant soils adjacent to WL                                      | Sand                                                                                                        |          | Silt/loam              |                                                               | Clay/bedrock   |    |            |    |     |
| 9                                                       | Capacity of WL to alter/retard flows                                  | High                                                                                                        |          | Med                    |                                                               | Low            |    |            |    |     |
| 10                                                      | Roughness coefficient for surface water flow path                     | High                                                                                                        |          | Med                    |                                                               | Low            |    |            |    |     |
| 11                                                      | Stormwater/Wastewater/Agricultural runoff detention                   | High                                                                                                        |          | Med                    |                                                               | Low            |    |            |    |     |
| 12                                                      | Water Source                                                          | Natural                                                                                                     |          | Mostly natural         |                                                               | Partly altered |    | Controlled |    |     |
| 13                                                      | Hydrology of tidal wetlands                                           | Unrestricted                                                                                                |          | Reduced                |                                                               | Restricted     |    | N/A        |    |     |
| 14                                                      | Coastal storm surge                                                   | Yes                                                                                                         | No       |                        |                                                               |                |    |            |    |     |
| SF13                                                    | WL hydrologic condition                                               | Natural                                                                                                     | Modified | Significantly Modified |                                                               |                |    |            |    |     |
| SF14                                                    | WL important for maintaining stream flow?                             | Yes                                                                                                         | No       |                        |                                                               |                |    |            |    |     |
| SF15                                                    | WL ability to detain surface water                                    | High                                                                                                        | Med      | Low                    |                                                               |                |    |            |    |     |
| <b>SECTION SIX: WATER QUALITY</b>                       |                                                                       |                                                                                                             |          |                        |                                                               |                |    |            |    |     |
| 1                                                       | Stormwater/Wastewater/Agricultural runoff as water source?            | High                                                                                                        |          | Med                    |                                                               | Low            |    |            |    |     |
| 2                                                       | Nutrients/sediments from surrounding land                             | High                                                                                                        |          | Med                    |                                                               | Low            |    |            |    |     |
| 3                                                       | Significant flood/stormwater attenuation                              | Yes                                                                                                         | No       |                        |                                                               |                |    |            |    |     |
| 4                                                       | Vegetation capacity to settle suspended sediments                     | High                                                                                                        |          | Med                    |                                                               | Low            |    |            |    |     |
| 5                                                       | WL type /landscape position holds/filters runoff?                     | Yes                                                                                                         | No       |                        |                                                               |                |    |            |    |     |
| SF16                                                    | Wetland improves water quality?                                       | Yes                                                                                                         | No       |                        |                                                               |                |    |            |    |     |
| SF17                                                    | Evidence of excess nutrient loading/contamination?                    | Low                                                                                                         | Med      | High                   |                                                               |                |    |            |    |     |
| SF18                                                    | WL contributes to water quality in downstream resources               | High                                                                                                        | Med      | Low                    |                                                               |                |    |            |    |     |
| <b>SECTION SEVEN: GROUNDWATER INTERACTIONS</b>          |                                                                       |                                                                                                             |          |                        |                                                               |                |    |            |    |     |
| 1                                                       | Describe soils in wetland                                             | Recharge                                                                                                    |          | Discharge              |                                                               |                |    |            |    |     |
| 2                                                       | Land use / run off in subwatershed upstream                           | Recharge                                                                                                    |          | Discharge              |                                                               |                |    |            |    |     |
| 3                                                       | Conditions of upland soils within 200m of wetland                     | Recharge                                                                                                    |          | Discharge              |                                                               |                |    |            |    |     |
| 4                                                       | Hydroperiod of wetland                                                | Recharge                                                                                                    |          | Discharge              |                                                               |                |    |            |    |     |
| 5                                                       | Describe inlet/outlet configuration                                   | Recharge                                                                                                    |          | Discharge              |                                                               |                |    |            |    |     |
| 6                                                       | Characterize topographic relief surrounding wetland                   | Recharge                                                                                                    |          | Discharge              |                                                               |                |    |            |    |     |

|                                                             |                                                                           |                                                                                                                 |          |                                |                        |            |              |             |     |
|-------------------------------------------------------------|---------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|----------|--------------------------------|------------------------|------------|--------------|-------------|-----|
| SF19                                                        | WL serves as a recharge site                                              | Yes                                                                                                             | No       |                                |                        |            |              |             |     |
| SF20                                                        | WL serves as a discharge site                                             | Yes                                                                                                             | No       |                                |                        |            |              |             |     |
| <b>SECTION EIGHT: SHORELINE STABILIZATION AND INTEGRITY</b> |                                                                           |                                                                                                                 |          |                                |                        |            |              |             |     |
| 1                                                           | Wetland fringing ocean/estuary/lake/pond/river/stream?                    | Yes                                                                                                             | No       | streamwidth >4m                | streamwidth <4m        | WB Exposed | WB Sheltered |             |     |
| 2                                                           | % cover of rooted vegetation in shallow water zone                        | H >50%                                                                                                          | M 10-50  | L <10%                         |                        |            |              |             |     |
| 3                                                           | Avg veg WL width b/w shoreline/streambank & 2 m depth contour             | H >10m                                                                                                          | M 3-10   | L <3m                          |                        |            |              |             |     |
| 4                                                           | Prevalence of strong-stemmed emerg. veg (shoreline marshes and fens only) | High                                                                                                            | Med      | Low                            |                        |            |              |             |     |
| 5                                                           | Describe shoreline erosion potential                                      | High                                                                                                            | Med      | Low                            |                        |            |              |             |     |
| 6                                                           | Shoreline/streambank veg condition upslope of water level                 | Low                                                                                                             | Med      | High                           | Artificial             |            |              |             |     |
| SF21                                                        | WL ability to stabilize shoreline                                         | H                                                                                                               | M        | L                              | N/A                    |            |              |             |     |
| <b>SECTION NINE: PLANT COMMUNITY</b>                        |                                                                           |                                                                                                                 |          |                                |                        |            |              |             |     |
| 1                                                           | Vegetation diversity                                                      | High                                                                                                            | Med      | Low                            |                        |            |              |             |     |
| 1b                                                          | Dominant plant species and % cover in the WL                              | list: <i>Gaylussacia baccata</i> (30%)/ <i>Morella pensylvanica</i> (20%)/ <i>Eriophorum virginicum</i> (15%)   |          |                                |                        |            |              |             |     |
| 3                                                           | Dominant Non-native or Invasive species and % cover                       | Yes                                                                                                             | No       | specify: %                     |                        |            |              |             |     |
| 4                                                           | Vegetation Disturbance                                                    | H                                                                                                               | M        | L                              | Specify type(s) below: |            |              |             |     |
| 5                                                           | Disturbance Types                                                         | H __,ATV __,G __,M __,In __, D/D __, Im __, OAH __, li __, Sd __,E __,other __,                                 |          |                                |                        |            |              |             |     |
| 7                                                           | Vegetative Integrity of plant community                                   | E                                                                                                               | H        | M                              | L                      |            |              |             |     |
| SF22                                                        | Is the plant community unique or rare regionally or provincially?         | Yes                                                                                                             | no       | specify:                       |                        |            |              |             |     |
| SF23                                                        | Does the WL contain a diversity of plant communities                      | H                                                                                                               | M        | L                              |                        |            |              |             |     |
| SF24                                                        | Rate the overall integrity/quality of plant community?                    | H                                                                                                               | M        | L                              |                        |            |              |             |     |
| SF25                                                        | Are there any observed rare or endangered plant species? Specify.         | End                                                                                                             | Thr      | SpC                            | Red                    | Yellow     | S1           | S2          | S3  |
|                                                             |                                                                           |                                                                                                                 |          |                                |                        |            |              |             | N/A |
| <b>SECTION TEN: FISH AND WILDLIFE HABITAT AND INTEGRITY</b> |                                                                           |                                                                                                                 |          |                                |                        |            |              |             |     |
| 1                                                           | Interspersion of open water and vegetation (open water types only)        | H                                                                                                               | M        | L                              |                        |            |              |             |     |
| 1b                                                          | % cover in vegetation versus open water                                   | 85 %                                                                                                            |          |                                |                        |            |              |             |     |
| 2                                                           | Interspersion that best fits entire wetland                               | H                                                                                                               | M        | L                              | N/A                    |            |              |             |     |
| 3                                                           | Wetland condition related to detritus                                     | H                                                                                                               | M        | L                              | N/A                    |            |              |             |     |
| 4                                                           | Interspersion of other wetlands in vicinity                               | H                                                                                                               | M        | L                              |                        |            |              |             |     |
| 6                                                           | Barriers/restriction between wetland and other habitat                    | L                                                                                                               | M        | H                              |                        |            |              |             |     |
| 7                                                           | Noteworthy wildlife or evidence (birds, mammals, amphibians,etc)          | Yes                                                                                                             | No       | list: Dragon flies, Passerines |                        |            |              |             |     |
| 8                                                           | Connected to permanent water (accessible to fish)?                        | Exceptional                                                                                                     | High     | Med                            | Low                    | N/A        |              |             |     |
| 9                                                           | Fish species observed or evidence seen (list)                             | Yes                                                                                                             | No       | list:                          |                        |            |              |             |     |
| 10                                                          | Wetland part of contiguous upland or wetland:                             | >50ha                                                                                                           | 25-50ha  | 10-25ha                        | <10ha                  |            |              |             |     |
| 11                                                          | WL provides habitat for:                                                  | Amphibians                                                                                                      | Reptiles | Waterfowl                      | Waterbirds             | Mammals    | Fish         | R/E species |     |
| SF26                                                        | Does wetland support fish/fish habitat?                                   | Yes                                                                                                             | No       | specify:                       |                        |            |              |             |     |
| SF27                                                        | Rare or endangered fish/wildlife species found in the wetland?            | End                                                                                                             | Thr      | SpC                            | Red                    | Yellow     | S1           | S2          | S3  |
|                                                             |                                                                           |                                                                                                                 |          |                                |                        |            |              |             | N/A |
| SF28                                                        | Overall fish and wildlife habitat quality                                 | H                                                                                                               | M        | L                              |                        |            |              |             |     |
| <b>SECTION ELEVEN: COMMUNITY USE/VALUE</b>                  |                                                                           |                                                                                                                 |          |                                |                        |            |              |             |     |
| 1                                                           | Describe community use                                                    | VV __,CP __,CO __,PO __,PA __,AV __,GB __,E __,HI __, WV __, BO __,HU __, PG __, BP __,F __, E __, R __, Other: |          |                                |                        |            |              |             |     |
| SF29                                                        | Rate the wetland's community use/value                                    | H                                                                                                               | M        | L                              |                        |            |              |             |     |

SF ratings highlighted in red indicate critical wetland functions or watershed conditions that are highly degraded. Whenever a wetland is found to have red-highlighted SFs the proponent

| APPENDIX D: WL15                                                                                                                         |                                                                                      | Nova Scotia Wetland Evaluation Technique Field Data Sheet |                            |                                                                                                                                                                                                                 |               |                                                   |                                                                            |            |                                           |                                                 |     |     |
|------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-----------------------------------------------------------|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------------------------------------------------|----------------------------------------------------------------------------|------------|-------------------------------------------|-------------------------------------------------|-----|-----|
| Project Name: Black Point Quarry                                                                                                         |                                                                                      |                                                           |                            | Evaluator: Scott Burley                                                                                                                                                                                         |               |                                                   | GPS Coordinates: 645265 E x 5023544 N                                      |            |                                           |                                                 |     |     |
| PID:35212497, 35212505, 35212521, 35212513, 35044056, 35214014, 35214022, 35214022 and 35213990                                          |                                                                                      |                                                           |                            |                                                                                                                                                                                                                 |               | Site Address: Black Point, Guysborough County, NS |                                                                            |            |                                           |                                                 |     |     |
| Sources and Dates of Mapping/Images: NS Wetlands Inventory (2012); NS Forest Inventory (Current Forest Data - 2004); Google Earth (2003) |                                                                                      |                                                           |                            |                                                                                                                                                                                                                 |               |                                                   |                                                                            |            |                                           |                                                 |     |     |
| Evaluation Date: 10-Sep-14                                                                                                               |                                                                                      |                                                           | Site Visit Date: 21-Aug-14 |                                                                                                                                                                                                                 |               |                                                   |                                                                            |            |                                           |                                                 |     |     |
| Weather Conditions (past 48 hours): Sun and Clouds                                                                                       |                                                                                      |                                                           |                            |                                                                                                                                                                                                                 |               |                                                   |                                                                            |            |                                           |                                                 |     |     |
| Seasonal Weather Conditions: Typical                                                                                                     |                                                                                      |                                                           |                            |                                                                                                                                                                                                                 |               |                                                   |                                                                            |            |                                           |                                                 |     |     |
| SECTION ONE: WATERSHED CHARACTERISTICS                                                                                                   |                                                                                      |                                                           |                            |                                                                                                                                                                                                                 |               |                                                   |                                                                            |            |                                           |                                                 |     |     |
| 1                                                                                                                                        | Watershed Name (tertiary): 1EQ-SD                                                    |                                                           |                            | Size: 518 km <sup>2</sup>                                                                                                                                                                                       |               |                                                   |                                                                            |            |                                           |                                                 |     |     |
| 2                                                                                                                                        | % Watershed Land Cover                                                               |                                                           |                            | For: 43                                                                                                                                                                                                         | Nat: 36       | Past/Hay: <1                                      | Crop: <1                                                                   | Urb/Com: 2 | Road: <1                                  | Other Dev: <1 (Gravel Pit, Landfill, Industrial |     |     |
| 3                                                                                                                                        | % Watershed WL Cover and by Class                                                    |                                                           |                            | Total: 10%                                                                                                                                                                                                      | SM: <1        | BO: 6                                             | FE: 1                                                                      | FM: 2      | FS: 1                                     | SS: 1 CP: <1 VP: Present                        |     |     |
| SF1                                                                                                                                      | <b>Watershed condition</b>                                                           |                                                           |                            | H                                                                                                                                                                                                               | M             | L                                                 |                                                                            |            |                                           |                                                 |     |     |
| SF2                                                                                                                                      | <b>Proportion of WL area in watershed &amp; opportunity for floodwater detention</b> |                                                           |                            | H                                                                                                                                                                                                               | M             | L                                                 |                                                                            |            |                                           |                                                 |     |     |
| SECTION TWO: WETLAND CHARACTERISTICS                                                                                                     |                                                                                      |                                                           |                            |                                                                                                                                                                                                                 |               |                                                   |                                                                            |            |                                           |                                                 |     |     |
| Wetland Type: Fen                                                                                                                        |                                                                                      |                                                           |                            | WL size: 0.07 hectares                                                                                                                                                                                          |               |                                                   | Landform: Slope                                                            |            | Landscape Position: Lotic Stream-Confined |                                                 |     |     |
| Water flow path: Throughflow                                                                                                             |                                                                                      |                                                           |                            | Wetland Origin: Natural                                                                                                                                                                                         |               |                                                   |                                                                            |            |                                           |                                                 |     |     |
| 1                                                                                                                                        | Water Regime                                                                         |                                                           |                            | PF                                                                                                                                                                                                              | SF            | TF                                                | SS                                                                         | PS         | RfT                                       | IfT                                             | AF  |     |
| 2                                                                                                                                        | # WL's within 30m project area                                                       |                                                           |                            | Total# 0                                                                                                                                                                                                        | SM:           | BO:                                               | FE:                                                                        | FM:        | FS:                                       | SS:                                             | CP: | VP: |
| 3                                                                                                                                        | Is WL part of complex                                                                |                                                           |                            | Yes                                                                                                                                                                                                             | No            |                                                   |                                                                            |            |                                           |                                                 |     |     |
| 4                                                                                                                                        | % each wetland type in complex                                                       |                                                           |                            | SM:                                                                                                                                                                                                             | BO:           | FE: 100                                           | FM:                                                                        | FS:        | SS:                                       | CP:                                             | VP: |     |
| 5                                                                                                                                        | Is WL bordering or associated with a lake or pond?                                   |                                                           |                            | bordering                                                                                                                                                                                                       |               | within 100m                                       |                                                                            | N/A        | specify                                   |                                                 |     |     |
| 6                                                                                                                                        | Standing water?                                                                      |                                                           |                            | Yes                                                                                                                                                                                                             | Avg Dep: 5-10 |                                                   | % Inundated: <5%                                                           |            | No                                        |                                                 |     |     |
| 7                                                                                                                                        | Inlet or Outlet (circle all that apply)?                                             |                                                           |                            | Inlet                                                                                                                                                                                                           | Outlet        |                                                   |                                                                            |            |                                           |                                                 |     |     |
| 8                                                                                                                                        | Adjacent Upland Land Use within 100m (%)                                             |                                                           |                            | For: 30                                                                                                                                                                                                         | Nat: 70       | PasHay:                                           | Crop:                                                                      | UrbCm:     | Road:                                     | Other Dev:                                      |     |     |
| 9                                                                                                                                        | Are there stressors in WL or WL buffer area? Circle primary stressor(s).             |                                                           |                            | DD __, CW __, WcS __, O/C __, EB __, DP __, F __, M __, ES __, NE __, Dwp __, M __, GC __, ATV __, DG __, EA __, R __, Rr __, U/CD __, F __, FA __, other (specify): Skidder track though south side of wetland |               |                                                   |                                                                            |            |                                           |                                                 |     |     |
| 10                                                                                                                                       | Hydrology Altered (circle all that apply)?                                           |                                                           |                            | Ditching                                                                                                                                                                                                        | Dams          | Tiles                                             | Culvert                                                                    | Well       | Diversion                                 | Other Specify:                                  |     |     |
| SF3                                                                                                                                      | <b>Rate the general wetland condition/integrity</b>                                  |                                                           |                            | H                                                                                                                                                                                                               | M             | L                                                 |                                                                            |            |                                           |                                                 |     |     |
| SECTION THREE: ADJACENT LAND CONDITION AND INTEGRITY                                                                                     |                                                                                      |                                                           |                            |                                                                                                                                                                                                                 |               |                                                   |                                                                            |            |                                           |                                                 |     |     |
| 1                                                                                                                                        | Average width of adjacent naturalized buffer                                         |                                                           |                            | >1000_m                                                                                                                                                                                                         |               |                                                   |                                                                            |            |                                           |                                                 |     |     |
| 2                                                                                                                                        | Widths for water quality                                                             |                                                           |                            | H >1                                                                                                                                                                                                            | M 8-15        | L <8                                              |                                                                            |            |                                           |                                                 |     |     |
| 3                                                                                                                                        | Widths for wildlife habitat                                                          |                                                           |                            | H >100                                                                                                                                                                                                          | M 15-100      | L <15                                             |                                                                            |            |                                           |                                                 |     |     |
| 4                                                                                                                                        | Adjacent area vegetation condition (list % in each category)                         |                                                           |                            | H 100%                                                                                                                                                                                                          | M             | L                                                 |                                                                            |            |                                           |                                                 |     |     |
| 5                                                                                                                                        | Adjacent area diversity and structure (list % in each category)                      |                                                           |                            | H 100%                                                                                                                                                                                                          | M             | L                                                 |                                                                            |            |                                           |                                                 |     |     |
| 6                                                                                                                                        | Adjacent Upland Slope (list % in each category)                                      |                                                           |                            | Steep 60%                                                                                                                                                                                                       | Mod 30%       | Gentle 10%                                        |                                                                            |            |                                           |                                                 |     |     |
| 7                                                                                                                                        | Adjacent land supports water quality                                                 |                                                           |                            | Yes                                                                                                                                                                                                             | No            | Specify:                                          |                                                                            |            |                                           |                                                 |     |     |
| 8                                                                                                                                        | Adjacent land supports wildlife habitat                                              |                                                           |                            | Yes                                                                                                                                                                                                             | No            | Specify:                                          |                                                                            |            |                                           |                                                 |     |     |
| SF4                                                                                                                                      | <b>Rate the overall condition and integrity land adjacent to wetland</b>             |                                                           |                            | H                                                                                                                                                                                                               | M             | L                                                 | is buffer required to maintain red flag functions of wetland? If yes if no |            |                                           |                                                 |     |     |
| SECTION FOUR: DOCUMENTED IMPORTANT FEATURES                                                                                              |                                                                                      |                                                           |                            |                                                                                                                                                                                                                 |               |                                                   |                                                                            |            |                                           |                                                 |     |     |
| SF5                                                                                                                                      | <b>Is the WL a WSS?</b>                                                              |                                                           |                            | Yes                                                                                                                                                                                                             | No            |                                                   |                                                                            |            |                                           |                                                 |     |     |

|                                                         |                                                                       |                                                                                  |            |                        |                |            |    |    |    |     |
|---------------------------------------------------------|-----------------------------------------------------------------------|----------------------------------------------------------------------------------|------------|------------------------|----------------|------------|----|----|----|-----|
| SF6                                                     | Does the WL support commercial/recreational fish/shellfish?           | Yes                                                                              | No         |                        |                |            |    |    |    |     |
| SF7                                                     | Species of concern (Fed/Prov)? Specify.                               | End                                                                              | Thr - SARA | SpC                    | Red            | Yellow     | S1 | S2 | S3 | N/A |
| SF8                                                     | Wetland has conservation/compensation agreements/activity?            | Yes                                                                              | No         | specify:               |                |            |    |    |    |     |
| SF9                                                     | Wetland is calcerous fen, black ash or cedar swamp?                   | Yes                                                                              | No         |                        |                |            |    |    |    |     |
| SF10                                                    | Within Drinking Water Protected Area (designated watershed/wellfield) | Yes                                                                              | No         | specify:               |                |            |    |    |    |     |
| SF11                                                    | WL within a floodplain and upstream of or within of a populated area? | Yes                                                                              | No         |                        |                |            |    |    |    |     |
| SF12                                                    | Fed/Prov/Municipal area of interest?                                  | Yes                                                                              | No         | specify:               |                |            |    |    |    |     |
| <b>SECTION FIVE: HYDROLOGIC CONDITION AND INTEGRITY</b> |                                                                       |                                                                                  |            |                        |                |            |    |    |    |     |
| 1                                                       | Is WL source of stream or headwater(wc order 1 or 2)                  | Yes                                                                              | No         | Specify:               |                |            |    |    |    |     |
| 2                                                       | Is WL geographically isolated?                                        | Yes                                                                              | No         | Specify:               |                |            |    |    |    |     |
| 3                                                       | WL ability to maintain characteristic hydrologic regime               | High                                                                             |            | Med                    | Low            |            |    |    |    |     |
| 4                                                       | Water Storage Depth (list % in each class)                            | >30cm                                                                            | 15-30cm    | Up to 15cm             | No ponding     |            |    |    |    |     |
| 5                                                       | Signs of surface water retention observed?                            | SW _cm, WSL_, WCD_, WM _cm, SM _cm, SD_, AD_, ID_, PMT_x_, AI_, BT_, AR_, Other: |            |                        |                |            |    |    |    |     |
| 6                                                       | Describe observable/historical anthropogenic sediment delivery        | Low                                                                              |            | Med                    | High           |            |    |    |    |     |
| 7                                                       | Disturbance of WL soils                                               | Low                                                                              |            | Med                    | High           |            |    |    |    |     |
| 8                                                       | Predominant soils adjacent to WL                                      | Sand                                                                             |            | Silt/loam              | Clay, bedrock  |            |    |    |    |     |
| 9                                                       | Capacity of WL to alter/retard flows                                  | High                                                                             |            | Med                    | Low            |            |    |    |    |     |
| 10                                                      | Roughness coefficient for surface water flow path                     | High                                                                             |            | Med                    | Low            |            |    |    |    |     |
| 11                                                      | Stormwater/Wastewater/Agricultural runoff detention                   | High                                                                             |            | Med                    | Low            |            |    |    |    |     |
| 12                                                      | Water Source                                                          | Natural                                                                          |            | Mostly natural         | Partly altered | Controlled |    |    |    |     |
| 13                                                      | Hydrology of tidal wetlands                                           | Unrestricted                                                                     |            | Reduced                | Restricted     | N/A        |    |    |    |     |
| 14                                                      | Coastal storm surge                                                   | Yes                                                                              | No         |                        |                |            |    |    |    |     |
| SF13                                                    | WL hydrologic condition                                               | Natural                                                                          | Modified   | Significantly Modified |                |            |    |    |    |     |
| SF14                                                    | WL important for maintaining stream flow?                             | Yes                                                                              | No         |                        |                |            |    |    |    |     |
| SF15                                                    | WL ability to detain surface water                                    | High                                                                             | Med        | Low                    |                |            |    |    |    |     |
| <b>SECTION SIX: WATER QUALITY</b>                       |                                                                       |                                                                                  |            |                        |                |            |    |    |    |     |
| 1                                                       | Stormwater/Wastewater/Agricultural runoff as water source?            | High                                                                             |            | Med                    | Low            |            |    |    |    |     |
| 2                                                       | Nutrients/sediments from surrounding land                             | High                                                                             |            | Med                    | Low            |            |    |    |    |     |
| 3                                                       | Significant flood/stormwater attenuation                              | Yes                                                                              | No         |                        |                |            |    |    |    |     |
| 4                                                       | Vegetation capacity to settle suspended sediments                     | High                                                                             |            | Med                    | Low            |            |    |    |    |     |
| 5                                                       | WL type /landscape position holds/filters runoff?                     | Yes                                                                              | No         |                        |                |            |    |    |    |     |
| SF16                                                    | Wetland improves water quality?                                       | Yes                                                                              | No         |                        |                |            |    |    |    |     |
| SF17                                                    | Evidence of excess nutrient loading/contamination?                    | Low                                                                              | Med        | High                   |                |            |    |    |    |     |
| SF18                                                    | WL contributes to water quality in downstream resources               | High                                                                             | Med        | Low                    |                |            |    |    |    |     |
| <b>SECTION SEVEN: GROUNDWATER INTERACTIONS</b>          |                                                                       |                                                                                  |            |                        |                |            |    |    |    |     |
| 1                                                       | Describe soils in wetland                                             | Recharge                                                                         |            | Discharge              |                |            |    |    |    |     |
| 2                                                       | Land use / run off in subwatershed upstream                           | Recharge                                                                         |            | Discharge              |                |            |    |    |    |     |
| 3                                                       | Conditions of upland soils within 200m of wetland                     | Recharge                                                                         |            | Discharge              |                |            |    |    |    |     |
| 4                                                       | Hydroperiod of wetland                                                | Recharge                                                                         |            | Discharge              |                |            |    |    |    |     |
| 5                                                       | Describe inlet/outlet configuration                                   | Recharge                                                                         |            | Discharge              |                |            |    |    |    |     |
| 6                                                       | Characterize topographic relief surrounding wetland                   | Recharge                                                                         |            | Discharge              |                |            |    |    |    |     |



|                                                             |                                                                           |                                                                                                                           |          |                  |                       |            |              |             |     |
|-------------------------------------------------------------|---------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|----------|------------------|-----------------------|------------|--------------|-------------|-----|
| SF19                                                        | WL serves as a recharge site                                              | Yes                                                                                                                       | No       |                  |                       |            |              |             |     |
| SF20                                                        | WL serves as a discharge site                                             | Yes                                                                                                                       | No       |                  |                       |            |              |             |     |
| <b>SECTION EIGHT: SHORELINE STABILIZATION AND INTEGRITY</b> |                                                                           |                                                                                                                           |          |                  |                       |            |              |             |     |
| 1                                                           | Wetland fringing ocean/estuary/lake/pond/river/stream?                    | Yes                                                                                                                       | No       | streamwidth >4m  | streamwidth <4m       | WB Exposed | WB Sheltered |             |     |
| 2                                                           | % cover of rooted vegetation in shallow water zone                        | H >50%                                                                                                                    | M 10-50  | L <10%           |                       |            |              |             |     |
| 3                                                           | Avg veg WL width b/w shoreline/streambank & 2 m depth contour             | H >10m                                                                                                                    | M 3-10   | L <3m            |                       |            |              |             |     |
| 4                                                           | Prevalence of strong-stemmed emerg. veg (shoreline marshes and fens only) | High                                                                                                                      | Med      | Low              |                       |            |              |             |     |
| 5                                                           | Describe shoreline erosion potential                                      | High                                                                                                                      | Med      | Low              |                       |            |              |             |     |
| 6                                                           | Shoreline/streambank veg condition upslope of water level                 | Low                                                                                                                       | Med      | High             | Artificial            |            |              |             |     |
| SF21                                                        | WL ability to stabilize shoreline                                         | H                                                                                                                         | M        | L                | N/A                   |            |              |             |     |
| <b>SECTION NINE: PLANT COMMUNITY</b>                        |                                                                           |                                                                                                                           |          |                  |                       |            |              |             |     |
| 1                                                           | Vegetation diversity                                                      | High                                                                                                                      | Med      | Low              |                       |            |              |             |     |
| 1b                                                          | Dominant plant species and % cover in the WL                              | list: <i>Nemopanthes mucronata</i> (10%)/ <i>Osmunda cinnamomea</i> (20%)/ <i>Myrica gale</i> (20%)                       |          |                  |                       |            |              |             |     |
| 3                                                           | Dominant Non-native or Invasive species and % cover                       | Yes                                                                                                                       | No       | specify: %       |                       |            |              |             |     |
| 4                                                           | Vegetation Disturbance                                                    | H                                                                                                                         | M        | L                | specify type(s) below |            |              |             |     |
| 5                                                           | Disturbance Types                                                         | H __, ATV __, G __, M __, In __, D/D __, Im __, OAH __, li __, Sd __, E __, other_x __, Skidder trail                     |          |                  |                       |            |              |             |     |
| 7                                                           | Vegetative Integrity of plant community                                   | E                                                                                                                         | H        | M                | L                     |            |              |             |     |
| SF22                                                        | Is the plant community unique or rare regionally or provincially?         | Yes                                                                                                                       | no       | specify:         |                       |            |              |             |     |
| SF23                                                        | Does the WL contain a diversity of plant communities                      | H                                                                                                                         | M        | L                |                       |            |              |             |     |
| SF24                                                        | Rate the overall integrity/quality of plant community?                    | H                                                                                                                         | M        | L                |                       |            |              |             |     |
| SF25                                                        | Are there any observed rare or endangered plant species? Specify.         | End                                                                                                                       | Thr      | SpC              | Red                   | Yellow     | S1           | S2          | S3  |
|                                                             |                                                                           |                                                                                                                           |          |                  |                       |            |              |             | N/A |
| <b>SECTION TEN: FISH AND WILDLIFE HABITAT AND INTEGRITY</b> |                                                                           |                                                                                                                           |          |                  |                       |            |              |             |     |
| 1                                                           | Interspersion of open water and vegetation (open water types only)        | H                                                                                                                         | M        | L                |                       |            |              |             |     |
| 1b                                                          | % cover in vegetation versus open water                                   | 95 %                                                                                                                      |          |                  |                       |            |              |             |     |
| 2                                                           | Interspersion that best fits entire wetland                               | H                                                                                                                         | M        | L                | N/A                   |            |              |             |     |
| 3                                                           | Wetland condition related to detritus                                     | H                                                                                                                         | M        | L                | N/A                   |            |              |             |     |
| 4                                                           | Interspersion of other wetlands in vicinity                               | H                                                                                                                         | M        | L                |                       |            |              |             |     |
| 6                                                           | Barriers/restriction between wetland and other habitat                    | L                                                                                                                         | M        | H                |                       |            |              |             |     |
| 7                                                           | Noteworthy wildlife or evidence (birds, mammals, amphibians, etc)         | Yes                                                                                                                       | No       | list: Passerines |                       |            |              |             |     |
| 8                                                           | Connected to permanent water (accessible to fish)?                        | Exceptional                                                                                                               | High     | Med              | Low                   | N/A        |              |             |     |
| 9                                                           | Fish species observed or evidence seen (list)                             | Yes                                                                                                                       | No       | list:            |                       |            |              |             |     |
| 10                                                          | Wetland part of contiguous upland or wetland:                             | >50ha                                                                                                                     | 25-50ha  | 10-25ha          | <10ha                 |            |              |             |     |
| 11                                                          | WL provides habitat for:                                                  | Amphibians                                                                                                                | Reptiles | Waterfowl        | Waterbirds            | Mammals    | Fish         | R/E species |     |
| SF26                                                        | Does wetland support fish/fish habitat?                                   | Yes                                                                                                                       | No       | specify:         |                       |            |              |             |     |
| SF27                                                        | Rare or endangered fish/wildlife species found in the wetland?            | End                                                                                                                       | Thr-SARA | SpC              | Red                   | Yellow     | S1           | S2          | S3  |
|                                                             |                                                                           |                                                                                                                           |          |                  |                       |            |              |             | N/A |
| SF28                                                        | Overall fish and wildlife habitat quality                                 | H                                                                                                                         | M        | L                |                       |            |              |             |     |
| <b>SECTION ELEVEN: COMMUNITY USE/VALUE</b>                  |                                                                           |                                                                                                                           |          |                  |                       |            |              |             |     |
| 1                                                           | Describe community use                                                    | VV __, CP __, CO __, PO __, PA __, AV __, GB __, E __, HI __, WV __, BO __, HU __, PG __, BP __, F __, E __, R __, Other: |          |                  |                       |            |              |             |     |
| SF29                                                        | Rate the wetland's community use/value                                    | H                                                                                                                         | M        | L                |                       |            |              |             |     |

SF ratings highlighted in red indicate critical wetland functions or watershed conditions that are highly degraded. Whenever a wetland is found to have red-highlighted SFs the proponent

| APPENDIX D: WL16                                                                                                                         |                                                                                      |  |  |  |  |                                                                                                                                                 |                  |              |                                                                            |            | Nova Scotia Wetland Evaluation Technique Field Data Sheet |                                                 |        |                             |  |  |  |  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--|--|--|--|-------------------------------------------------------------------------------------------------------------------------------------------------|------------------|--------------|----------------------------------------------------------------------------|------------|-----------------------------------------------------------|-------------------------------------------------|--------|-----------------------------|--|--|--|--|--|--|--|
| Project Name: Black Point Quarry                                                                                                         |                                                                                      |  |  |  |  | Evaluator: Scott Burley                                                                                                                         |                  |              |                                                                            |            | GPS Coordinates: 645920 E x 5022505 N                     |                                                 |        |                             |  |  |  |  |  |  |  |
| PID:35212497, 35212505, 35212521, 35212513, 35044056, 35214014, 35214022, 35214022 and 35213990                                          |                                                                                      |  |  |  |  | Site Address: Black Point, Guysborough County, NS                                                                                               |                  |              |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| Sources and Dates of Mapping/Images: NS Wetlands Inventory (2012); NS Forest Inventory (Current Forest Data - 2004); Google Earth (2003) |                                                                                      |  |  |  |  |                                                                                                                                                 |                  |              |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| Evaluation Date: 10-Sep-14                                                                                                               |                                                                                      |  |  |  |  | Site Visit Date: 19-Aug-14                                                                                                                      |                  |              |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| Weather Conditions (past 48 hours): Periods of rain; Sun and Clouds                                                                      |                                                                                      |  |  |  |  |                                                                                                                                                 |                  |              |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| Seasonal Weather Conditions: Typical                                                                                                     |                                                                                      |  |  |  |  |                                                                                                                                                 |                  |              |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| SECTION ONE: WATERSHED CHARACTERISTICS                                                                                                   |                                                                                      |  |  |  |  |                                                                                                                                                 |                  |              |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| 1                                                                                                                                        | Watershed Name (tertiary): 1EQ-SD                                                    |  |  |  |  | Size: 518 km <sup>2</sup>                                                                                                                       |                  |              |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| 2                                                                                                                                        | % Watershed Land Cover                                                               |  |  |  |  | For: 43                                                                                                                                         | Nat: 36          | Past/Hay: <1 | Crop: <1                                                                   | Urb/Com: 2 | Road: <1                                                  | Other Dev: <1 (Gravel Pit, Landfill, Industrial |        |                             |  |  |  |  |  |  |  |
| 3                                                                                                                                        | % Watershed WL Cover and by Class                                                    |  |  |  |  | Total: 10%                                                                                                                                      | SM: <1           | BO: 6        | FE: 1                                                                      | FM: 2      | FS: 1                                                     | SS: 1                                           | CP: <1 | VP: Present                 |  |  |  |  |  |  |  |
| SF1                                                                                                                                      | <b>Watershed condition</b>                                                           |  |  |  |  | H                                                                                                                                               | M                | L            |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| SF2                                                                                                                                      | <b>Proportion of WL area in watershed &amp; opportunity for floodwater detention</b> |  |  |  |  | H                                                                                                                                               | M                | L            |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| SECTION TWO: WETLAND CHARACTERISTICS                                                                                                     |                                                                                      |  |  |  |  |                                                                                                                                                 |                  |              |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| Wetland Type: Bog                                                                                                                        |                                                                                      |  |  |  |  | WL size: 0.45 hectares                                                                                                                          |                  |              |                                                                            |            | Landform: Basin                                           |                                                 |        | Landscape Position: Terrene |  |  |  |  |  |  |  |
| Water flow path: Isolated                                                                                                                |                                                                                      |  |  |  |  | Wetland Origin: Natural                                                                                                                         |                  |              |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| 1                                                                                                                                        | Water Regime                                                                         |  |  |  |  | PF                                                                                                                                              | SF               | TF           | SS                                                                         | PS         | RfT                                                       | IfT                                             | AF     |                             |  |  |  |  |  |  |  |
| 2                                                                                                                                        | # WL's within 30m project area                                                       |  |  |  |  | Total# 0                                                                                                                                        | SM:              | BO:          | FE:                                                                        | FM:        | FS:                                                       | SS:                                             | CP:    | VP:                         |  |  |  |  |  |  |  |
| 3                                                                                                                                        | Is WL part of complex                                                                |  |  |  |  | Yes                                                                                                                                             | No               |              |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| 4                                                                                                                                        | % each wetland type in complex                                                       |  |  |  |  | SM:                                                                                                                                             | BO: 100          | FE:          | FM:                                                                        | FS:        | SS:                                                       | CP:                                             | VP:    |                             |  |  |  |  |  |  |  |
| 5                                                                                                                                        | Is WL bordering or associated with a lake or pond?                                   |  |  |  |  | bordering                                                                                                                                       |                  | within 100m  |                                                                            | N/A        | specify                                                   |                                                 |        |                             |  |  |  |  |  |  |  |
| 6                                                                                                                                        | Standing water?                                                                      |  |  |  |  | Yes                                                                                                                                             | Avg Dep: 0-10 cm |              | % Inundated: 5%                                                            |            | No                                                        |                                                 |        |                             |  |  |  |  |  |  |  |
| 7                                                                                                                                        | Inlet or Outlet (circle all that apply)?                                             |  |  |  |  | Inlet                                                                                                                                           |                  | Outlet       |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| 8                                                                                                                                        | Adjacent Upland Land Use within 100m (%)                                             |  |  |  |  | For: 90                                                                                                                                         | Nat:             | PasHay:      | Crop:                                                                      | UrbCm:     | Road:                                                     | Other Dev: 10% Power line corridor              |        |                             |  |  |  |  |  |  |  |
| 9                                                                                                                                        | Are there stressors in WL or WL buffer area? Circle primary stressor(s).             |  |  |  |  | DD__, CW__, WcS__, O/C__, EB__, DP__, F__, M__, ES__, NE__, DwP__, M__, GC__, ATV__, DG__, EA__, R__, Rr__, U/CD__, F__, FA__, other (specify): |                  |              |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| 10                                                                                                                                       | Hydrology Altered (circle all that apply)?                                           |  |  |  |  | Ditching                                                                                                                                        | Dams             | Tiles        | Culvert                                                                    | Well       | Diversion                                                 | Other Specify:                                  |        |                             |  |  |  |  |  |  |  |
| SF3                                                                                                                                      | <b>Rate the general wetland condition/integrity</b>                                  |  |  |  |  | H                                                                                                                                               | M                | L            |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| SECTION THREE: ADJACENT LAND CONDITION AND INTEGRITY                                                                                     |                                                                                      |  |  |  |  |                                                                                                                                                 |                  |              |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| 1                                                                                                                                        | Average width of adjacent naturalized buffer                                         |  |  |  |  | >1000_m                                                                                                                                         |                  |              |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| 2                                                                                                                                        | Widths for water quality                                                             |  |  |  |  | H >1                                                                                                                                            | M 8-15           | L <8         |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| 3                                                                                                                                        | Widths for wildlife habitat                                                          |  |  |  |  | H >100                                                                                                                                          | M 15-100         | L <15        |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| 4                                                                                                                                        | Adjacent area vegetation condition (list % in each category)                         |  |  |  |  | H 100%                                                                                                                                          | M                | L            |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| 5                                                                                                                                        | Adjacent area diversity and structure (list % in each category)                      |  |  |  |  | H 100%                                                                                                                                          | M                | L            |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| 6                                                                                                                                        | Adjacent Upland Slope (list % in each category)                                      |  |  |  |  | Steep 70%                                                                                                                                       | Mod 20%          | Gentle 10%   |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| 7                                                                                                                                        | Adjacent land supports water quality                                                 |  |  |  |  | Yes                                                                                                                                             | No               | Specify:     |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| 8                                                                                                                                        | Adjacent land supports wildlife habitat                                              |  |  |  |  | Yes                                                                                                                                             | No               | Specify:     |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| SF4                                                                                                                                      | <b>Rate the overall condition and integrity land adjacent to wetland</b>             |  |  |  |  | H                                                                                                                                               | M                | L            | is buffer required to maintain red flag functions of wetland? If yes if no |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| SECTION FOUR: DOCUMENTED IMPORTANT FEATURES                                                                                              |                                                                                      |  |  |  |  |                                                                                                                                                 |                  |              |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |
| SF5                                                                                                                                      | <b>Is the WL a WSS?</b>                                                              |  |  |  |  | Yes                                                                                                                                             | No               |              |                                                                            |            |                                                           |                                                 |        |                             |  |  |  |  |  |  |  |

|                                                         |                                                                       |                                                                                  |            |                        |     |                |    |            |    |     |
|---------------------------------------------------------|-----------------------------------------------------------------------|----------------------------------------------------------------------------------|------------|------------------------|-----|----------------|----|------------|----|-----|
| SF6                                                     | Does the WL support commercial/recreational fish/shellfish?           | Yes                                                                              | No         |                        |     |                |    |            |    |     |
| SF7                                                     | Species of concern (Fed/Prov)? Specify.                               | End                                                                              | Thr - SARA | SpC                    | Red | Yellow         | S1 | S2         | S3 | N/A |
| SF8                                                     | Wetland has conservation/compensation agreements/activity?            | Yes                                                                              | No         | specify:               |     |                |    |            |    |     |
| SF9                                                     | Wetland is calcerous fen, black ash or cedar swamp?                   | Yes                                                                              | No         |                        |     |                |    |            |    |     |
| SF10                                                    | Within Drinking Water Protected Area (designated watershed/wellfield) | Yes                                                                              | No         | specify:               |     |                |    |            |    |     |
| SF11                                                    | WL within a floodplain and upstream of or within of a populated area? | Yes                                                                              | No         |                        |     |                |    |            |    |     |
| SF12                                                    | Fed/Prov/Municipal area of interest?                                  | Yes                                                                              | No         | specify:               |     |                |    |            |    |     |
| <b>SECTION FIVE: HYDROLOGIC CONDITION AND INTEGRITY</b> |                                                                       |                                                                                  |            |                        |     |                |    |            |    |     |
| 1                                                       | Is WL source of stream or headwater(wc order 1 or 2)                  | Yes                                                                              | No         | Specify:               |     |                |    |            |    |     |
| 2                                                       | Is WL geographically isolated?                                        | Yes                                                                              | No         | Specify:               |     |                |    |            |    |     |
| 3                                                       | WL ability to maintain characteristic hydrologic regime               | High                                                                             |            | Med                    |     | Low            |    |            |    |     |
| 4                                                       | Water Storage Depth (list % in each class)                            | >30cm                                                                            | 15-30cm    | up to 15cm             |     | No ponding     |    |            |    |     |
| 5                                                       | Signs of surface water retention observed?                            | SW _cm, WSL_, WCD_, WM _cm, SM _cm, SD_, AD_, ID_, PMT_x_, AI_, BT_, AR_, Other: |            |                        |     |                |    |            |    |     |
| 6                                                       | Describe observable/historical anthropogenic sediment delivery        | Low                                                                              |            | Med                    |     | High           |    |            |    |     |
| 7                                                       | Disturbance of WL soils                                               | Low                                                                              |            | Med                    |     | High           |    |            |    |     |
| 8                                                       | Predominant soils adjacent to WL                                      | Sand                                                                             |            | Silt/loam              |     | Clay, bedrock  |    |            |    |     |
| 9                                                       | Capacity of WL to alter/retard flows                                  | High                                                                             |            | Med                    |     | Low            |    |            |    |     |
| 10                                                      | Roughness coefficient for surface water flow path                     | High                                                                             |            | Med                    |     | Low            |    |            |    |     |
| 11                                                      | Stormwater/Wastewater/Agricultural runoff detention                   | High                                                                             |            | Med                    |     | Low            |    |            |    |     |
| 12                                                      | Water Source                                                          | Natural                                                                          |            | Mostly natural         |     | Partly altered |    | Controlled |    |     |
| 13                                                      | Hydrology of tidal wetlands                                           | Unrestricted                                                                     |            | Reduced                |     | Restricted     |    | N/A        |    |     |
| 14                                                      | Coastal storm surge                                                   | Yes                                                                              | No         |                        |     |                |    |            |    |     |
| SF13                                                    | WL hydrologic condition                                               | Natural                                                                          | Modified   | Significantly Modified |     |                |    |            |    |     |
| SF14                                                    | WL important for maintaining stream flow?                             | Yes                                                                              | No         |                        |     |                |    |            |    |     |
| SF15                                                    | WL ability to detain surface water                                    | High                                                                             | Med        | Low                    |     |                |    |            |    |     |
| <b>SECTION SIX: WATER QUALITY</b>                       |                                                                       |                                                                                  |            |                        |     |                |    |            |    |     |
| 1                                                       | Stormwater/Wastewater/Agricultural runoff as water source?            | High                                                                             |            | Med                    |     | Low            |    |            |    |     |
| 2                                                       | Nutrients/sediments from surrounding land                             | High                                                                             |            | Med                    |     | Low            |    |            |    |     |
| 3                                                       | Significant flood/stormwater attenuation                              | Yes                                                                              | No         |                        |     |                |    |            |    |     |
| 4                                                       | Vegetation capacity to settle suspended sediments                     | High                                                                             |            | Med                    |     | Low            |    |            |    |     |
| 5                                                       | WL type /landscape position holds/filters runoff?                     | Yes                                                                              | No         |                        |     |                |    |            |    |     |
| SF16                                                    | Wetland improves water quality?                                       | Yes                                                                              | No         |                        |     |                |    |            |    |     |
| SF17                                                    | Evidence of excess nutrient loading/contamination?                    | Low                                                                              | Med        | High                   |     |                |    |            |    |     |
| SF18                                                    | WL contributes to water quality in downstream resources               | High                                                                             | Med        | Low                    |     |                |    |            |    |     |
| <b>SECTION SEVEN: GROUNDWATER INTERACTIONS</b>          |                                                                       |                                                                                  |            |                        |     |                |    |            |    |     |
| 1                                                       | Describe soils in wetland                                             | Recharge                                                                         |            | Discharge              |     |                |    |            |    |     |
| 2                                                       | Land use / run off in subwatershed upstream                           | Recharge                                                                         |            | Discharge              |     |                |    |            |    |     |
| 3                                                       | Conditions of upland soils within 200m of wetland                     | Recharge                                                                         |            | Discharge              |     |                |    |            |    |     |
| 4                                                       | Hydroperiod of wetland                                                | Recharge                                                                         |            | Discharge              |     |                |    |            |    |     |
| 5                                                       | Describe inlet/outlet configuration                                   | Recharge                                                                         |            | Discharge              |     |                |    |            |    |     |
| 6                                                       | Characterize topographic relief surrounding wetland                   | Recharge                                                                         |            | Discharge              |     |                |    |            |    |     |

|                                                             |                                                                           |                                                                                                                           |          |                                                   |                       |            |                  |
|-------------------------------------------------------------|---------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|----------|---------------------------------------------------|-----------------------|------------|------------------|
| SF19                                                        | WL serves as a recharge site                                              | Yes                                                                                                                       | No       | Possible recharge wetland                         |                       |            |                  |
| SF20                                                        | WL serves as a discharge site                                             | Yes                                                                                                                       | No       |                                                   |                       |            |                  |
| <b>SECTION EIGHT: SHORELINE STABILIZATION AND INTEGRITY</b> |                                                                           |                                                                                                                           |          |                                                   |                       |            |                  |
| 1                                                           | Wetland fringing ocean/estuary/lake/pond/river/stream?                    | Yes                                                                                                                       | No       | streamwidth >4m                                   | streamwidth <4m       | WB Exposed | WB Sheltered     |
| 2                                                           | % cover of rooted vegetation in shallow water zone                        | H >50%                                                                                                                    | M 10-50  | L <10%                                            |                       |            |                  |
| 3                                                           | Avg veg WL width b/w shoreline/streambank & 2 m depth contour             | H >10m                                                                                                                    | M 3-10   | L <3m                                             |                       |            |                  |
| 4                                                           | Prevalence of strong-stemmed emerg. veg (shoreline marshes and fens only) | High                                                                                                                      | Med      | Low                                               |                       |            |                  |
| 5                                                           | Describe shoreline erosion potential                                      | High                                                                                                                      | Med      | Low                                               |                       |            |                  |
| 6                                                           | Shoreline/streambank veg condition upslope of water level                 | Low                                                                                                                       | Med      | High                                              | Artificial            |            |                  |
| SF21                                                        | WL ability to stabilize shoreline                                         | H                                                                                                                         | M        | L                                                 | N/A                   |            |                  |
| <b>SECTION NINE: PLANT COMMUNITY</b>                        |                                                                           |                                                                                                                           |          |                                                   |                       |            |                  |
| 1                                                           | Vegetation diversity                                                      | High                                                                                                                      | Med      | Low                                               |                       |            |                  |
| 1b                                                          | Dominant plant species and % cover in the WL                              | list: <i>Picea mariana</i> (40%)/ <i>Mainanthemum trifolium</i> (20%)                                                     |          |                                                   |                       |            |                  |
| 3                                                           | Dominant Non-native or Invasive species and % cover                       | Yes                                                                                                                       | No       | specify: %                                        |                       |            |                  |
| 4                                                           | Vegetation Disturbance                                                    | H                                                                                                                         | M        | L                                                 | specify type(s) below |            |                  |
| 5                                                           | Disturbance Types                                                         | H __, ATV __, G __, M __, In __, D/D __, Im __, OAH __, li __, Sd __, E __, other __,                                     |          |                                                   |                       |            |                  |
| 7                                                           | Vegetative Integrity of plant community                                   | E                                                                                                                         | H        | M                                                 | L                     |            |                  |
| SF22                                                        | Is the plant community unique or rare regionally or provincially?         | Yes                                                                                                                       | no       | specify:                                          |                       |            |                  |
| SF23                                                        | Does the WL contain a diversity of plant communities                      | H                                                                                                                         | M        | L                                                 |                       |            |                  |
| SF24                                                        | Rate the overall integrity/quality of plant community?                    | H                                                                                                                         | M        | L                                                 |                       |            |                  |
| SF25                                                        | Are there any observed rare or endangered plant species? Specify.         | End                                                                                                                       | Thr      | SpC                                               | Red                   | Yellow     | S1 S2 S3 N/A     |
| <b>SECTION TEN: FISH AND WILDLIFE HABITAT AND INTEGRITY</b> |                                                                           |                                                                                                                           |          |                                                   |                       |            |                  |
| 1                                                           | Interspersion of open water and vegetation (open water types only)        | H                                                                                                                         | M        | L                                                 |                       |            |                  |
| 1b                                                          | % cover in vegetation versus open water                                   | _95_ %                                                                                                                    |          |                                                   |                       |            |                  |
| 2                                                           | Interspersion that best fits entire wetland                               | H                                                                                                                         | M        | L                                                 | N/A                   |            |                  |
| 3                                                           | Wetland condition related to detritus                                     | H                                                                                                                         | M        | L                                                 | N/A                   |            |                  |
| 4                                                           | Interspersion of other wetlands in vicinity                               | H                                                                                                                         | M        | L                                                 |                       |            |                  |
| 6                                                           | Barriers/restriction between wetland and other habitat                    | L                                                                                                                         | M        | H                                                 |                       |            |                  |
| 7                                                           | Noteworthy wildlife or evidence (birds, mammals, amphibians, etc)         | Yes                                                                                                                       | No       | list: Passerines, Deer, Dragonflies, Moose tracks |                       |            |                  |
| 8                                                           | Connected to permanent water (accessible to fish)?                        | Exceptional                                                                                                               | High     | Med                                               | Low                   | N/A        |                  |
| 9                                                           | Fish species observed or evidence seen (list)                             | Yes                                                                                                                       | No       | list:                                             |                       |            |                  |
| 10                                                          | Wetland part of contiguous upland or wetland:                             | >50ha                                                                                                                     | 25-50ha  | 10-25ha                                           | <10ha                 |            |                  |
| 11                                                          | WL provides habitat for:                                                  | Amphibians                                                                                                                | Reptiles | Waterfowl                                         | Waterbirds            | Mammals    | Fish R/E species |
| SF26                                                        | Does wetland support fish/fish habitat?                                   | Yes                                                                                                                       | No       | specify:                                          |                       |            |                  |
| SF27                                                        | Rare or endangered fish/wildlife species found in the wetland?            | End                                                                                                                       | Thr-SARA | SpC                                               | Red                   | Yellow     | S1 S2 S3 N/A     |
| SF28                                                        | Overall fish and wildlife habitat quality                                 | H                                                                                                                         | M        | L                                                 |                       |            |                  |
| <b>SECTION ELEVEN: COMMUNITY USE/VALUE</b>                  |                                                                           |                                                                                                                           |          |                                                   |                       |            |                  |
| 1                                                           | Describe community use                                                    | VV __, CP __, CO __, PO __, PA __, AV __, GB __, E __, HI __, WV __, BO __, HU __, PG __, BP __, F __, E __, R __, Other: |          |                                                   |                       |            |                  |
| SF29                                                        | Rate the wetland's community use/value                                    | H                                                                                                                         | M        | L                                                 |                       |            |                  |

SF ratings highlighted in red indicate critical wetland functions or watershed conditions that are highly degraded. Whenever a wetland is found to have red-highlighted SFs the proponent

| APPENDIX D: WL17                                                                                                                         |                                                                                      |  |  |  |  |                                                                                                                                                   |          |              |                                                                            |            | Nova Scotia Wetland Evaluation Technique Field Data Sheet |                                                 |        |                                     |  |  |  |  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--|--|--|--|---------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------------|----------------------------------------------------------------------------|------------|-----------------------------------------------------------|-------------------------------------------------|--------|-------------------------------------|--|--|--|--|--|--|--|
| Project Name: Black Point Quarry                                                                                                         |                                                                                      |  |  |  |  | Evaluator: Scott Burley                                                                                                                           |          |              |                                                                            |            | GPS Coordinates: 644193 E x 5021827 N                     |                                                 |        |                                     |  |  |  |  |  |  |  |
| PID:35212497, 35212505, 35212521, 35212513, 35044056, 35214014, 35214022, 35214022 and 35213990                                          |                                                                                      |  |  |  |  | Site Address: Black Point, Guysborough County, NS                                                                                                 |          |              |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| Sources and Dates of Mapping/Images: NS Wetlands Inventory (2012); NS Forest Inventory (Current Forest Data - 2004); Google Earth (2003) |                                                                                      |  |  |  |  |                                                                                                                                                   |          |              |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| Evaluation Date: 10-Sep-14                                                                                                               |                                                                                      |  |  |  |  | Site Visit Date: 18-Aug-14                                                                                                                        |          |              |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| Weather Conditions (past 48 hours): sun and cloud; Periods of rain with clouds                                                           |                                                                                      |  |  |  |  |                                                                                                                                                   |          |              |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| Seasonal Weather Conditions: Typical                                                                                                     |                                                                                      |  |  |  |  |                                                                                                                                                   |          |              |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| SECTION ONE: WATERSHED CHARACTERISTICS                                                                                                   |                                                                                      |  |  |  |  |                                                                                                                                                   |          |              |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| 1                                                                                                                                        | Watershed Name (tertiary): 1EQ-SD                                                    |  |  |  |  | Size: 518 km <sup>2</sup>                                                                                                                         |          |              |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| 2                                                                                                                                        | % Watershed Land Cover                                                               |  |  |  |  | For: 43                                                                                                                                           | Nat: 36  | Past/Hay: <1 | Crop: <1                                                                   | Urb/Com: 2 | Road: <1                                                  | Other Dev: <1 (Gravel Pit, Landfill, Industrial |        |                                     |  |  |  |  |  |  |  |
| 3                                                                                                                                        | % Watershed WL Cover and by Class                                                    |  |  |  |  | Total: 10%                                                                                                                                        | SM: <1   | BO: 6        | FE: 1                                                                      | FM: 2      | FS: 1                                                     | SS: 1                                           | CP: <1 | VP: Present                         |  |  |  |  |  |  |  |
| SF1                                                                                                                                      | <b>Watershed condition</b>                                                           |  |  |  |  | H                                                                                                                                                 | M        | L            |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| SF2                                                                                                                                      | <b>Proportion of WL area in watershed &amp; opportunity for floodwater detention</b> |  |  |  |  | H                                                                                                                                                 | M        | L            |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| SECTION TWO: WETLAND CHARACTERISTICS                                                                                                     |                                                                                      |  |  |  |  |                                                                                                                                                   |          |              |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| Wetland Type: Bog/Swamp                                                                                                                  |                                                                                      |  |  |  |  | WL size: 0.74 hectares                                                                                                                            |          |              |                                                                            |            | Landform: Basin                                           |                                                 |        | Landscape Position: Terrene Outflow |  |  |  |  |  |  |  |
| Water flow path: Outflow                                                                                                                 |                                                                                      |  |  |  |  | Wetland Origin: Natural                                                                                                                           |          |              |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| 1                                                                                                                                        | Water Regime                                                                         |  |  |  |  | PF                                                                                                                                                | SF       | TF           | SS                                                                         | PS         | RfT                                                       | IfT                                             | AF     |                                     |  |  |  |  |  |  |  |
| 2                                                                                                                                        | # WL's within 30m project area                                                       |  |  |  |  | Total# 0                                                                                                                                          | SM:      | BO:          | FE:                                                                        | FM:        | FS:                                                       | SS:                                             | CP:    | VP:                                 |  |  |  |  |  |  |  |
| 3                                                                                                                                        | Is WL part of complex                                                                |  |  |  |  | Yes                                                                                                                                               | No       |              |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| 4                                                                                                                                        | % each wetland type in complex                                                       |  |  |  |  | SM:                                                                                                                                               | BO: 64   | FE:          | FM:                                                                        | FS: 36     | SS:                                                       | CP:                                             | VP:    |                                     |  |  |  |  |  |  |  |
| 5                                                                                                                                        | Is WL bordering or associated with a lake or pond?                                   |  |  |  |  | bordering                                                                                                                                         |          | within 100m  |                                                                            | N/A        | specify:                                                  |                                                 |        |                                     |  |  |  |  |  |  |  |
| 6                                                                                                                                        | Standing water?                                                                      |  |  |  |  | Yes                                                                                                                                               | Avg Dep: |              | % Inundated:                                                               |            | No                                                        |                                                 |        |                                     |  |  |  |  |  |  |  |
| 7                                                                                                                                        | Inlet or Outlet (circle all that apply)?                                             |  |  |  |  | Inlet                                                                                                                                             | Outle    |              |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| 8                                                                                                                                        | Adjacent Upland Land Use within 100m (%)                                             |  |  |  |  | For: 80                                                                                                                                           | Nat: 20  | PasHay:      | Crop:                                                                      | UrbCm:     | Road:                                                     | Other Dev:                                      |        |                                     |  |  |  |  |  |  |  |
| 9                                                                                                                                        | Are there stressors in WL or WL buffer area? Circle primary stressor(s).             |  |  |  |  | DD__, CW__, WcS__, O/C__, EB__, DP__, F__, M__, ES__, NE__, DwP__, M__, GC__, ATV__, DG__, EA__, R__, Rr__, U/CD__, F_x__, FA__, other (specify): |          |              |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| 10                                                                                                                                       | Hydrology Altered (circle all that apply)?                                           |  |  |  |  | Ditching                                                                                                                                          | Dams     | Tiles        | Culvert                                                                    | Well       | Diversion                                                 | Other Specify:                                  |        |                                     |  |  |  |  |  |  |  |
| SF3                                                                                                                                      | <b>Rate the general wetland condition/integrity</b>                                  |  |  |  |  | H                                                                                                                                                 | M        | L            |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| SECTION THREE: ADJACENT LAND CONDITION AND INTEGRITY                                                                                     |                                                                                      |  |  |  |  |                                                                                                                                                   |          |              |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| 1                                                                                                                                        | Average width of adjacent naturalized buffer                                         |  |  |  |  | >1000_m                                                                                                                                           |          |              |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| 2                                                                                                                                        | Widths for water quality                                                             |  |  |  |  | H >1                                                                                                                                              | M 8-15   | L <8         |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| 3                                                                                                                                        | Widths for wildlife habitat                                                          |  |  |  |  | H >100                                                                                                                                            | M 15-100 | L <15        |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| 4                                                                                                                                        | Adjacent area vegetation condition (list % in each category)                         |  |  |  |  | H 100%                                                                                                                                            | M        | L            |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| 5                                                                                                                                        | Adjacent area diversity and structure (list % in each category)                      |  |  |  |  | H 100%                                                                                                                                            | M        | L            |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| 6                                                                                                                                        | Adjacent Upland Slope (list % in each category)                                      |  |  |  |  | Steep 60%                                                                                                                                         | Mod 20%  | Gentle 20%   |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| 7                                                                                                                                        | Adjacent land supports water quality                                                 |  |  |  |  | Yes                                                                                                                                               | No       | Specify:     |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| 8                                                                                                                                        | Adjacent land supports wildlife habitat                                              |  |  |  |  | Yes                                                                                                                                               | No       | Specify:     |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| SF4                                                                                                                                      | <b>Rate the overall condition and integrity land adjacent to wetland</b>             |  |  |  |  | H                                                                                                                                                 | M        | L            | is buffer required to maintain red flag functions of wetland? If yes if no |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| SECTION FOUR: DOCUMENTED IMPORTANT FEATURES                                                                                              |                                                                                      |  |  |  |  |                                                                                                                                                   |          |              |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |
| SF5                                                                                                                                      | <b>Is the WL a WSS?</b>                                                              |  |  |  |  | Yes                                                                                                                                               | No       |              |                                                                            |            |                                                           |                                                 |        |                                     |  |  |  |  |  |  |  |

|                                                         |                                                                                        |                                                                                                        |          |                |     |                        |    |            |        |
|---------------------------------------------------------|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|----------|----------------|-----|------------------------|----|------------|--------|
| SF6                                                     | Does the WL support commercial/recreational fish/shellfish?                            | Yes                                                                                                    | No       |                |     |                        |    |            |        |
| SF7                                                     | Species of concern (Fed/Prov)? Specify. <i>Nephroma bellum</i> ; <i>Usnea flammaea</i> | End                                                                                                    | Thr      | SpC            | Red | Yellow                 | S1 | S2         | S3 N/A |
| SF8                                                     | Wetland has conservation/compensation agreements/activity?                             | Yes                                                                                                    | No       |                |     |                        |    |            |        |
| SF9                                                     | Wetland is calcerous fen, black ash or cedar swamp?                                    | Yes                                                                                                    | No       |                |     |                        |    |            |        |
| SF10                                                    | Within Drinking Water Protected Area (designated watershed/wellfield)                  | Yes                                                                                                    | No       |                |     |                        |    |            |        |
| SF11                                                    | WL within a floodplain and upstream of or within of a populated area?                  | Yes                                                                                                    | No       |                |     |                        |    |            |        |
| SF12                                                    | Fed/Prov/Municipal area of interest?                                                   | Yes                                                                                                    | No       |                |     |                        |    |            |        |
| <b>SECTION FIVE: HYDROLOGIC CONDITION AND INTEGRITY</b> |                                                                                        |                                                                                                        |          |                |     |                        |    |            |        |
| 1                                                       | Is WL source of stream or headwater(wc order 1 or 2)                                   | Yes                                                                                                    | No       |                |     |                        |    |            |        |
| 2                                                       | Is WL geographically isolated?                                                         | Yes                                                                                                    | No       |                |     |                        |    |            |        |
| 3                                                       | WL ability to maintain characteristic hydrologic regime                                | High                                                                                                   |          | Med            |     | Low                    |    |            |        |
| 4                                                       | Water Storage Depth (list % in each class)                                             | >30cm                                                                                                  | 15-30cm  | up to 15cm     |     | No ponding             |    |            |        |
| 5                                                       | Signs of surface water retention observed?                                             | SW __ cm, WSL __, WCD __, WM __ cm, SM __ cm, SD __, AD __, ID __, PMT __, AI __, BT __, AR __, Other: |          |                |     |                        |    |            |        |
| 6                                                       | Describe observable/historical anthropogenic sediment delivery                         | Low                                                                                                    |          | Med            |     | High                   |    |            |        |
| 7                                                       | Disturbance of WL soils                                                                | Low                                                                                                    |          | Med            |     | High                   |    |            |        |
| 8                                                       | Predominant soils adjacent to WL                                                       | Sand                                                                                                   |          | Silt/loam      |     | Clay/bedrock           |    |            |        |
| 9                                                       | Capacity of WL to alter/retard flows                                                   | High                                                                                                   |          | Med            |     | Low                    |    |            |        |
| 10                                                      | Roughness coefficient for surface water flow path                                      | High                                                                                                   |          | Med            |     | Low                    |    |            |        |
| 11                                                      | Stormwater/Wastewater/Agricultural runoff detention                                    | High                                                                                                   |          | Med            |     | Low                    |    |            |        |
| 12                                                      | Water Source                                                                           | Natural                                                                                                |          | Mostly natural |     | Partly altered         |    | Controlled |        |
| 13                                                      | Hydrology of tidal wetlands                                                            | Unrestricted                                                                                           |          | Reduced        |     | Restricted             |    | N/A        |        |
| 14                                                      | Coastal storm surge                                                                    | Yes                                                                                                    | No       |                |     |                        |    |            |        |
| SF13                                                    | WL hydrologic condition                                                                | Natural                                                                                                | Modified |                |     | Significantly Modified |    |            |        |
| SF14                                                    | WL important for maintaining stream flow?                                              | Yes                                                                                                    | No       |                |     |                        |    |            |        |
| SF15                                                    | WL ability to detain surface water                                                     | High                                                                                                   | Med      | Low            |     |                        |    |            |        |
| <b>SECTION SIX: WATER QUALITY</b>                       |                                                                                        |                                                                                                        |          |                |     |                        |    |            |        |
| 1                                                       | Stormwater/Wastewater/Agricultural runoff as water source?                             | High                                                                                                   |          | Med            |     | Low                    |    |            |        |
| 2                                                       | Nutrients/sediments from surrounding land                                              | High                                                                                                   |          | Med            |     | Low                    |    |            |        |
| 3                                                       | Significant flood/stormwater attenuation                                               | Yes                                                                                                    | No       |                |     |                        |    |            |        |
| 4                                                       | Vegetation capacity to settle suspended sediments                                      | High                                                                                                   |          | Med            |     | Low                    |    |            |        |
| 5                                                       | WL type /landscape position holds/filters runoff?                                      | Yes                                                                                                    | No       |                |     |                        |    |            |        |
| SF16                                                    | Wetland improves water quality?                                                        | Yes                                                                                                    | No       |                |     |                        |    |            |        |
| SF17                                                    | Evidence of excess nutrient loading/contamination?                                     | Low                                                                                                    | Med      | High           |     |                        |    |            |        |
| SF18                                                    | WL contributes to water quality in downstream resources                                | High                                                                                                   | Med      | Low            |     |                        |    |            |        |
| <b>SECTION SEVEN: GROUNDWATER INTERACTIONS</b>          |                                                                                        |                                                                                                        |          |                |     |                        |    |            |        |
| 1                                                       | Describe soils in wetland                                                              | Recharge                                                                                               |          | Discharge      |     |                        |    |            |        |
| 2                                                       | Land use / run off in subwatershed upstream                                            | Recharge                                                                                               |          | Discharge      |     |                        |    |            |        |
| 3                                                       | Conditions of upland soils within 200m of wetland                                      | Recharge                                                                                               |          | Discharge      |     |                        |    |            |        |
| 4                                                       | Hydroperiod of wetland                                                                 | Recharge                                                                                               |          | Discharge      |     |                        |    |            |        |
| 5                                                       | Describe inlet/outlet configuration                                                    | Recharge                                                                                               |          | Discharge      |     |                        |    |            |        |
| 6                                                       | Characterize topographic relief surrounding wetland                                    | Recharge                                                                                               |          | Discharge      |     |                        |    |            |        |



|                                                             |                                                                           |                                                                                                                           |          |                                                   |                        |            |              |             |        |
|-------------------------------------------------------------|---------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|----------|---------------------------------------------------|------------------------|------------|--------------|-------------|--------|
| SF19                                                        | WL serves as a recharge site                                              | Yes                                                                                                                       | No       |                                                   |                        |            |              |             |        |
| SF20                                                        | WL serves as a discharge site                                             | Yes                                                                                                                       | No       |                                                   |                        |            |              |             |        |
| <b>SECTION EIGHT: SHORELINE STABILIZATION AND INTEGRITY</b> |                                                                           |                                                                                                                           |          |                                                   |                        |            |              |             |        |
| 1                                                           | Wetland fringing ocean/estuary/lake/pond/river/stream?                    | Yes                                                                                                                       | No       | streamwidth >4m                                   | streamwidth<4m         | WB Exposed | WB Sheltered |             |        |
| 2                                                           | % cover of rooted vegetation in shallow water zone                        | H >50%                                                                                                                    | M 10-50  | L <10%                                            |                        |            |              |             |        |
| 3                                                           | Avg veg WL width b/w shoreline/streambank & 2 m depth contour             | H >10m                                                                                                                    | M 3-10   | L <3m                                             |                        |            |              |             |        |
| 4                                                           | Prevalence of strong-stemmed emerg. veg (shoreline marshes and fens only) | High                                                                                                                      | Med      | Low                                               |                        |            |              |             |        |
| 5                                                           | Describe shoreline erosion potential                                      | High                                                                                                                      | Med      | Low                                               |                        |            |              |             |        |
| 6                                                           | Shoreline/streambank veg condition upslope of water level                 | Low                                                                                                                       | Med      | High                                              | Artificial             |            |              |             |        |
| SF21                                                        | WL ability to stabilize shoreline                                         | H                                                                                                                         | M        | L                                                 | N/A                    |            |              |             |        |
| <b>SECTION NINE: PLANT COMMUNITY</b>                        |                                                                           |                                                                                                                           |          |                                                   |                        |            |              |             |        |
| 1                                                           | Vegetation diversity                                                      | High                                                                                                                      | Med      | Low                                               |                        |            |              |             |        |
| 1b                                                          | Dominant plant species and % cover in the WL                              | list: <i>Mainanthemum trifolium</i> (30%)/ <i>Picea mariana</i> (25%)/ <i>Eriophorum virginicum</i> (15%)                 |          |                                                   |                        |            |              |             |        |
| 3                                                           | Dominant Non-native or Invasive species and % cover                       | Yes                                                                                                                       | No       | specify: %                                        |                        |            |              |             |        |
| 4                                                           | Vegetation Disturbance                                                    | H                                                                                                                         | M        | L                                                 | Specify type(s) below: |            |              |             |        |
| 5                                                           | Disturbance Types                                                         | H __,ATV __, G __, M __, In __, D/D __, Im __, OAH __, li __, Sd __, E __, other __,                                      |          |                                                   |                        |            |              |             |        |
| 7                                                           | Vegetative Integrity of plant community                                   | E                                                                                                                         | H        | M                                                 | L                      |            |              |             |        |
| SF22                                                        | Is the plant community unique or rare regionally or provincially?         | Yes                                                                                                                       | no       | specify:                                          |                        |            |              |             |        |
| SF23                                                        | Does the WL contain a diversity of plant communities                      | H                                                                                                                         | M        | L                                                 |                        |            |              |             |        |
| SF24                                                        | Rate the overall integrity/quality of plant community?                    | H                                                                                                                         | M        | L                                                 |                        |            |              |             |        |
| SF25                                                        | Are there any observed rare or endangered plant species? Specify.         | End                                                                                                                       | Thr      | SpC                                               | Red                    | Yellow     | S1           | S2          | S3 N/A |
| <b>SECTION TEN: FISH AND WILDLIFE HABITAT AND INTEGRITY</b> |                                                                           |                                                                                                                           |          |                                                   |                        |            |              |             |        |
| 1                                                           | Interspersion of open water and vegetation (open water types only)        | H                                                                                                                         | M        | L                                                 |                        |            |              |             |        |
| 1b                                                          | % cover in vegetation verus open water                                    | 85 %                                                                                                                      |          |                                                   |                        |            |              |             |        |
| 2                                                           | Interspersion that best fits entire wetland                               | H                                                                                                                         | M        | L                                                 | N/A                    |            |              |             |        |
| 3                                                           | Wetland condition related to detritus                                     | H                                                                                                                         | M        | L                                                 | N/A                    |            |              |             |        |
| 4                                                           | Interspersion of other wetlands in vicinity                               | H                                                                                                                         | M        | L                                                 |                        |            |              |             |        |
| 6                                                           | Barriers/restriction between wetland and other habitat                    | L                                                                                                                         | M        | H                                                 |                        |            |              |             |        |
| 7                                                           | Noteworthy wildlife or evidence (birds, mammals, amphibians,etc)          | Yes                                                                                                                       | No       | list: Coyote scat, Rabbit droppings, Leopard Frog |                        |            |              |             |        |
| 8                                                           | Connected to permanent water (accessible to fish)?                        | Exceptional                                                                                                               | High     | Med                                               | Low                    | N/A        |              |             |        |
| 9                                                           | Fish species observed or evidence seen (list)                             | Yes                                                                                                                       | No       | list:                                             |                        |            |              |             |        |
| 10                                                          | Wetland part of contiguous upland or wetland:                             | >50ha                                                                                                                     | 25-50ha  | 10-25ha                                           | <10ha                  |            |              |             |        |
| 11                                                          | WL provides habitat for:                                                  | Amphibians                                                                                                                | Reptiles | Waterfowl                                         | Waterbirds             | Mammals    | Fish         | R/E species |        |
| SF26                                                        | Does wetland support fish/fish habitat?                                   | Yes                                                                                                                       | No       | specify:                                          |                        |            |              |             |        |
| SF27                                                        | Rare or endangered fish/wildlife species found in the wetland?            | End                                                                                                                       | Thr      | SpC                                               | Red                    | Yellow     | S1           | S2          | S3 N/A |
| SF28                                                        | Overall fish and wildlife habitat quality                                 | H                                                                                                                         | M        | L                                                 |                        |            |              |             |        |
| <b>SECTION ELEVEN: COMMUNITY USE/VALUE</b>                  |                                                                           |                                                                                                                           |          |                                                   |                        |            |              |             |        |
| 1                                                           | Describe community use                                                    | VV __, CP __, CO __, PO __, PA __, AV __, GB __, E __, HI __, WV __, BO __, HU __, PG __, BP __, F __, E __, R __, Other: |          |                                                   |                        |            |              |             |        |
| SF29                                                        | Rate the wetland's community use/value                                    | H                                                                                                                         | M        | L                                                 |                        |            |              |             |        |

SF ratings highlighted in red indicate critical wetland functions or watershed conditions that are highly degraded. Whenever a wetland is found to have red-highlighted SFs the proponent

| APPENDIX D: WL18                                                                                                                         |                                                                                      |  |  |  |  |                                                                                                                                                    |                       |              |                                                                            |            | Nova Scotia Wetland Evaluation Technique Field Data Sheet |                                                 |        |             |         |                             |  |  |  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--|--|--|--|----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|--------------|----------------------------------------------------------------------------|------------|-----------------------------------------------------------|-------------------------------------------------|--------|-------------|---------|-----------------------------|--|--|--|--|--|--|
| Project Name: Black Point Quarry                                                                                                         |                                                                                      |  |  |  |  | Evaluator: Scott Burley                                                                                                                            |                       |              |                                                                            |            | GPS Coordinates: 644396 E x 5022050 N                     |                                                 |        |             |         |                             |  |  |  |  |  |  |
| PID:35212497, 35212505, 35212521, 35212513, 35044056, 35214014, 35214022, 35214022 and 35213990                                          |                                                                                      |  |  |  |  | Site Address: Black Point, Guysborough County, NS                                                                                                  |                       |              |                                                                            |            |                                                           |                                                 |        |             |         |                             |  |  |  |  |  |  |
| Sources and Dates of Mapping/Images: NS Wetlands Inventory (2012); NS Forest Inventory (Current Forest Data - 2004); Google Earth (2003) |                                                                                      |  |  |  |  |                                                                                                                                                    |                       |              |                                                                            |            |                                                           |                                                 |        |             |         |                             |  |  |  |  |  |  |
| Evaluation Date: 10-Sep-14                                                                                                               |                                                                                      |  |  |  |  | Site Visit Date: 18-Aug-14                                                                                                                         |                       |              |                                                                            |            |                                                           |                                                 |        |             |         |                             |  |  |  |  |  |  |
| Weather Conditions (past 48 hours): Sun and Clouds; Periods of rain                                                                      |                                                                                      |  |  |  |  |                                                                                                                                                    |                       |              |                                                                            |            |                                                           |                                                 |        |             |         |                             |  |  |  |  |  |  |
| Seasonal Weather Conditions: Typical                                                                                                     |                                                                                      |  |  |  |  |                                                                                                                                                    |                       |              |                                                                            |            |                                                           |                                                 |        |             |         |                             |  |  |  |  |  |  |
| SECTION ONE: WATERSHED CHARACTERISTICS                                                                                                   |                                                                                      |  |  |  |  |                                                                                                                                                    |                       |              |                                                                            |            |                                                           |                                                 |        |             |         |                             |  |  |  |  |  |  |
| 1                                                                                                                                        | Watershed Name (tertiary): 1EQ-SD                                                    |  |  |  |  | Size: 518 km <sup>2</sup>                                                                                                                          |                       |              |                                                                            |            |                                                           |                                                 |        |             |         |                             |  |  |  |  |  |  |
| 2                                                                                                                                        | % Watershed Land Cover                                                               |  |  |  |  | For: 43                                                                                                                                            | Nat: 36               | Past/Hay: <1 | Crop: <1                                                                   | Urb/Com: 2 | Road: <1                                                  | Other Dev: <1 (Gravel Pit, Landfill, Industrial |        |             |         |                             |  |  |  |  |  |  |
| 3                                                                                                                                        | % Watershed WL Cover and by Class                                                    |  |  |  |  | Total: 10%                                                                                                                                         | SM: <1                | BO: 6        | FE: 1                                                                      | FM: 2      | FS: 1                                                     | SS: 1                                           | CP: <1 | VP: Present |         |                             |  |  |  |  |  |  |
| SF1                                                                                                                                      | <b>Watershed condition</b>                                                           |  |  |  |  | H                                                                                                                                                  | M                     | L            |                                                                            |            |                                                           |                                                 |        |             |         |                             |  |  |  |  |  |  |
| SF2                                                                                                                                      | <b>Proportion of WL area in watershed &amp; opportunity for floodwater detention</b> |  |  |  |  | H                                                                                                                                                  | M                     | L            |                                                                            |            |                                                           |                                                 |        |             |         |                             |  |  |  |  |  |  |
| SECTION TWO: WETLAND CHARACTERISTICS                                                                                                     |                                                                                      |  |  |  |  |                                                                                                                                                    |                       |              |                                                                            |            |                                                           |                                                 |        |             |         |                             |  |  |  |  |  |  |
| Wetland Type: Bog                                                                                                                        |                                                                                      |  |  |  |  | WL size: 0.07 hectares                                                                                                                             |                       |              |                                                                            |            | Landform: Basin                                           |                                                 |        |             |         | Landscape Position: Terrene |  |  |  |  |  |  |
| Water flow path: Isolated                                                                                                                |                                                                                      |  |  |  |  | Wetland Origin: Natural                                                                                                                            |                       |              |                                                                            |            |                                                           |                                                 |        |             |         |                             |  |  |  |  |  |  |
| 1                                                                                                                                        | Water Regime                                                                         |  |  |  |  | PF                                                                                                                                                 | SF                    | TF           | SS                                                                         | PS         | RfT                                                       | IfT                                             | AF     |             |         |                             |  |  |  |  |  |  |
| 2                                                                                                                                        | # WL's within 30m project area                                                       |  |  |  |  | Total# 0                                                                                                                                           | SM:                   | BO:          | FE:                                                                        | FM:        | FS:                                                       | SS:                                             | CP:    | VP:         |         |                             |  |  |  |  |  |  |
| 3                                                                                                                                        | Is WL part of complex                                                                |  |  |  |  | Yes                                                                                                                                                | No                    |              |                                                                            |            |                                                           |                                                 |        |             |         |                             |  |  |  |  |  |  |
| 4                                                                                                                                        | % each wetland type in complex                                                       |  |  |  |  | SM:                                                                                                                                                | BO: 100               | FE:          | FM:                                                                        | FS:        | SS:                                                       | CP:                                             | VP:    |             |         |                             |  |  |  |  |  |  |
| 5                                                                                                                                        | Is WL bordering or associated with a lake or pond?                                   |  |  |  |  | bordering                                                                                                                                          |                       |              | within 100m                                                                |            |                                                           | N/A                                             |        |             | specify |                             |  |  |  |  |  |  |
| 6                                                                                                                                        | Standing water?                                                                      |  |  |  |  | Yes                                                                                                                                                | Avg Dep: % Inundated: |              |                                                                            |            |                                                           | No                                              |        |             |         |                             |  |  |  |  |  |  |
| 7                                                                                                                                        | Inlet or Outlet (circle all that apply)?                                             |  |  |  |  | Inlet                                                                                                                                              |                       |              | Outlet                                                                     |            |                                                           |                                                 |        |             |         |                             |  |  |  |  |  |  |
| 8                                                                                                                                        | Adjacent Upland Land Use within 100m (%)                                             |  |  |  |  | For: 80                                                                                                                                            | Nat: 20               | PasHay:      | Crop:                                                                      | UrbCm:     | Road:                                                     | Other Dev:                                      |        |             |         |                             |  |  |  |  |  |  |
| 9                                                                                                                                        | Are there stressors in WL or WL buffer area? Circle primary stressor(s).             |  |  |  |  | DD__, CW__, WcS__, O/C__, EB__, DP__, F__, M__, ES__, NE__, DwP__,<br>M__, GC__, ATV__, DG__, EA__, R__, Rr__, U/CD__, F__, FA__, other (specify): |                       |              |                                                                            |            |                                                           |                                                 |        |             |         |                             |  |  |  |  |  |  |
| 10                                                                                                                                       | Hydrology Altered (circle all that apply)?                                           |  |  |  |  | Ditching                                                                                                                                           | Dams                  | Tiles        | Culvert                                                                    | Well       | Diversion                                                 | Other Specify:                                  |        |             |         |                             |  |  |  |  |  |  |
| SF3                                                                                                                                      | <b>Rate the general wetland condition/integrity</b>                                  |  |  |  |  | H                                                                                                                                                  | M                     | L            |                                                                            |            |                                                           |                                                 |        |             |         |                             |  |  |  |  |  |  |
| SECTION THREE: ADJACENT LAND CONDITION AND INTEGRITY                                                                                     |                                                                                      |  |  |  |  |                                                                                                                                                    |                       |              |                                                                            |            |                                                           |                                                 |        |             |         |                             |  |  |  |  |  |  |
| 1                                                                                                                                        | Average width of adjacent naturalized buffer                                         |  |  |  |  | >1000_m                                                                                                                                            |                       |              |                                                                            |            |                                                           |                                                 |        |             |         |                             |  |  |  |  |  |  |
| 2                                                                                                                                        | Widths for water quality                                                             |  |  |  |  | H >1                                                                                                                                               | M 8-15                | L <8         |                                                                            |            |                                                           |                                                 |        |             |         |                             |  |  |  |  |  |  |
| 3                                                                                                                                        | Widths for wildlife habitat                                                          |  |  |  |  | H >100                                                                                                                                             | M 15-100              | L <15        |                                                                            |            |                                                           |                                                 |        |             |         |                             |  |  |  |  |  |  |
| 4                                                                                                                                        | Adjacent area vegetation condition (list % in each category)                         |  |  |  |  | H 100%                                                                                                                                             | M                     | L            |                                                                            |            |                                                           |                                                 |        |             |         |                             |  |  |  |  |  |  |
| 5                                                                                                                                        | Adjacent area diversity and structure (list % in each category)                      |  |  |  |  | H 100%                                                                                                                                             | M                     | L            |                                                                            |            |                                                           |                                                 |        |             |         |                             |  |  |  |  |  |  |
| 6                                                                                                                                        | Adjacent Upland Slope (list % in each category)                                      |  |  |  |  | Steep 10%                                                                                                                                          | Mod 60%               | Gentle 20%   |                                                                            |            |                                                           |                                                 |        |             |         |                             |  |  |  |  |  |  |
| 7                                                                                                                                        | Adjacent land supports water quality                                                 |  |  |  |  | Yes                                                                                                                                                | No                    | Specify:     |                                                                            |            |                                                           |                                                 |        |             |         |                             |  |  |  |  |  |  |
| 8                                                                                                                                        | Adjacent land supports wildlife habitat                                              |  |  |  |  | Yes                                                                                                                                                | No                    | Specify:     |                                                                            |            |                                                           |                                                 |        |             |         |                             |  |  |  |  |  |  |
| SF4                                                                                                                                      | <b>Rate the overall condition and integrity land adjacent to wetland</b>             |  |  |  |  | H                                                                                                                                                  | M                     | L            | is buffer required to maintain red flag functions of wetland? If yes if no |            |                                                           |                                                 |        |             |         |                             |  |  |  |  |  |  |
| SECTION FOUR: DOCUMENTED IMPORTANT FEATURES                                                                                              |                                                                                      |  |  |  |  |                                                                                                                                                    |                       |              |                                                                            |            |                                                           |                                                 |        |             |         |                             |  |  |  |  |  |  |
| SF5                                                                                                                                      | <b>Is the WL a WSS?</b>                                                              |  |  |  |  | Yes                                                                                                                                                | No                    |              |                                                                            |            |                                                           |                                                 |        |             |         |                             |  |  |  |  |  |  |

|                                                         |                                                                            |                                                                                                          |            |                |     |                        |    |            |        |
|---------------------------------------------------------|----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|------------|----------------|-----|------------------------|----|------------|--------|
| SF6                                                     | Does the WL support commercial/recreational fish/shellfish?                | Yes                                                                                                      | No         |                |     |                        |    |            |        |
| SF7                                                     | Species of concern (Fed/Prov)? Specify. Cladonia stygia; Geocaulon lividum | End                                                                                                      | Thr - SARA | SpC            | Red | Yellow                 | S1 | S2         | S3 N/A |
| SF8                                                     | Wetland has conservation/compensation agreements/activity?                 | Yes                                                                                                      | No         | specify:       |     |                        |    |            |        |
| SF9                                                     | Wetland is calcerous fen, black ash or cedar swamp?                        | Yes                                                                                                      | No         |                |     |                        |    |            |        |
| SF10                                                    | Within Drinking Water Protected Area (designated watershed/wellfield)      | Yes                                                                                                      | No         | specify:       |     |                        |    |            |        |
| SF11                                                    | WL within a floodplain and upstream of or within of a populated area?      | Yes                                                                                                      | No         |                |     |                        |    |            |        |
| SF12                                                    | Fed/Prov/Municipal area of interest?                                       | Yes                                                                                                      | No         | specify:       |     |                        |    |            |        |
| <b>SECTION FIVE: HYDROLOGIC CONDITION AND INTEGRITY</b> |                                                                            |                                                                                                          |            |                |     |                        |    |            |        |
| 1                                                       | Is WL source of stream or headwater(wc order 1 or 2)                       | Yes                                                                                                      | No         | Specify:       |     |                        |    |            |        |
| 2                                                       | Is WL geographically isolated?                                             | Yes                                                                                                      | No         | Specify:       |     |                        |    |            |        |
| 3                                                       | WL ability to maintain characteristic hydrologic regime                    | High                                                                                                     |            | Med            |     | Low                    |    |            |        |
| 4                                                       | Water Storage Depth (list % in each class)                                 | >30cm                                                                                                    | 15-30cm    | up to 15cm     |     | No ponding             |    |            |        |
| 5                                                       | Signs of surface water retention observed?                                 | SW __ cm, WSL __, WCD __, WM __ cm, SM __ cm, SD __, AD __, ID __, PMT __ x, AI __, BT __, AR __, Other: |            |                |     |                        |    |            |        |
| 6                                                       | Describe observable/historical anthropogenic sediment delivery             | Low                                                                                                      |            | Med            |     | High                   |    |            |        |
| 7                                                       | Disturbance of WL soils                                                    | Low                                                                                                      |            | Med            |     | High                   |    |            |        |
| 8                                                       | Predominant soils adjacent to WL                                           | Sand                                                                                                     |            | Silt/loam      |     | Clay, bedrock          |    |            |        |
| 9                                                       | Capacity of WL to alter/retard flows                                       | High                                                                                                     |            | Med            |     | Low                    |    |            |        |
| 10                                                      | Roughness coefficient for surface water flow path                          | High                                                                                                     |            | Med            |     | Low                    |    |            |        |
| 11                                                      | Stormwater/Wastewater/Agricultural runoff detention                        | High                                                                                                     |            | Med            |     | Low                    |    |            |        |
| 12                                                      | Water Source                                                               | Natural                                                                                                  |            | Mostly natural |     | Partly altered         |    | Controlled |        |
| 13                                                      | Hydrology of tidal wetlands                                                | Unrestricted                                                                                             |            | Reduced        |     | Restricted             |    | N/A        |        |
| 14                                                      | Coastal storm surge                                                        | Yes                                                                                                      | No         |                |     |                        |    |            |        |
| SF13                                                    | WL hydrologic condition                                                    | Natural                                                                                                  | Modified   |                |     | Significantly Modified |    |            |        |
| SF14                                                    | WL important for maintaining stream flow?                                  | Yes                                                                                                      | No         |                |     |                        |    |            |        |
| SF15                                                    | WL ability to detain surface water                                         | High                                                                                                     | Med        | Low            |     |                        |    |            |        |
| <b>SECTION SIX: WATER QUALITY</b>                       |                                                                            |                                                                                                          |            |                |     |                        |    |            |        |
| 1                                                       | Stormwater/Wastewater/Agricultural runoff as water source?                 | High                                                                                                     |            | Med            |     | Low                    |    |            |        |
| 2                                                       | Nutrients/sediments from surrounding land                                  | High                                                                                                     |            | Med            |     | Low                    |    |            |        |
| 3                                                       | Significant flood/stormwater attenuation                                   | Yes                                                                                                      | No         |                |     |                        |    |            |        |
| 4                                                       | Vegetation capacity to settle suspended sediments                          | High                                                                                                     |            | Med            |     | Low                    |    |            |        |
| 5                                                       | WL type /landscape position holds/filters runoff?                          | Yes                                                                                                      | No         |                |     |                        |    |            |        |
| SF16                                                    | Wetland improves water quality?                                            | Yes                                                                                                      | No         |                |     |                        |    |            |        |
| SF17                                                    | Evidence of excess nutrient loading/contamination?                         | Low                                                                                                      | Med        | High           |     |                        |    |            |        |
| SF18                                                    | WL contributes to water quality in downstream resources                    | High                                                                                                     | Med        | Low            |     |                        |    |            |        |
| <b>SECTION SEVEN: GROUNDWATER INTERACTIONS</b>          |                                                                            |                                                                                                          |            |                |     |                        |    |            |        |
| 1                                                       | Describe soils in wetland                                                  | Recharge                                                                                                 |            | Discharge      |     |                        |    |            |        |
| 2                                                       | Land use / run off in subwatershed upstream                                | Recharge                                                                                                 |            | Discharge      |     |                        |    |            |        |
| 3                                                       | Conditions of upland soils within 200m of wetland                          | Recharge                                                                                                 |            | Discharge      |     |                        |    |            |        |
| 4                                                       | Hydroperiod of wetland                                                     | Recharge                                                                                                 |            | Discharge      |     |                        |    |            |        |
| 5                                                       | Describe inlet/outlet configuration                                        | Recharge                                                                                                 |            | Discharge      |     |                        |    |            |        |
| 6                                                       | Characterize topographic relief surrounding wetland                        | Recharge                                                                                                 |            | Discharge      |     |                        |    |            |        |

|                                                             |                                                                                   |                                                                                                                           |          |                           |                       |            |              |             |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|----------|---------------------------|-----------------------|------------|--------------|-------------|
| SF19                                                        | WL serves as a recharge site                                                      | Yes                                                                                                                       | No       | Possible recharge wetland |                       |            |              |             |
| SF20                                                        | WL serves as a discharge site                                                     | Yes                                                                                                                       | No       |                           |                       |            |              |             |
| <b>SECTION EIGHT: SHORELINE STABILIZATION AND INTEGRITY</b> |                                                                                   |                                                                                                                           |          |                           |                       |            |              |             |
| 1                                                           | Wetland fringing ocean/estuary/lake/pond/river/stream?                            | Yes                                                                                                                       | No       | streamwidth >4m           | streamwidth<4m        | WB Exposed | WB Sheltered |             |
| 2                                                           | % cover of rooted vegetation in shallow water zone                                | H >50%                                                                                                                    | M 10-50  | L <10%                    |                       |            |              |             |
| 3                                                           | Avg veg WL width b/w shoreline/streambank & 2 m depth contour                     | H >10m                                                                                                                    | M 3-10   | L <3m                     |                       |            |              |             |
| 4                                                           | Prevalence of strong-stemmed emerg. veg (shoreline marshes and fens only)         | High                                                                                                                      | Med      | Low                       |                       |            |              |             |
| 5                                                           | Describe shoreline erosion potential                                              | High                                                                                                                      | Med      | Low                       |                       |            |              |             |
| 6                                                           | Shoreline/streambank veg condition upslope of water level                         | Low                                                                                                                       | Med      | High                      | Artificial            |            |              |             |
| SF21                                                        | WL ability to stabilize shoreline                                                 | H                                                                                                                         | M        | L                         | N/A                   |            |              |             |
| <b>SECTION NINE: PLANT COMMUNITY</b>                        |                                                                                   |                                                                                                                           |          |                           |                       |            |              |             |
| 1                                                           | Vegetation diversity                                                              | High                                                                                                                      | Med      | Low                       |                       |            |              |             |
| 1b                                                          | Dominant plant species and % cover in the WL                                      | list: <i>Picea mariana</i> (30%)/ <i>Kalmia angustifolia</i> (15%)/ <i>Nemopantes mucronata</i> (15%)                     |          |                           |                       |            |              |             |
| 3                                                           | Dominant Non-native or Invasive species and % cover                               | Yes                                                                                                                       | No       | specify: %                |                       |            |              |             |
| 4                                                           | Vegetation Disturbance                                                            | H                                                                                                                         | M        | L                         | specify type(s) below |            |              |             |
| 5                                                           | Disturbance Types                                                                 | H __,ATV __, G __, M __, In __, D/D __, Im __, OAH __, li __, Sd __, E __, other __,                                      |          |                           |                       |            |              |             |
| 7                                                           | Vegetative Integrity of plant community                                           | E                                                                                                                         | H        | M                         | L                     |            |              |             |
| SF22                                                        | Is the plant community unique or rare regionally or provincially?                 | Yes                                                                                                                       | no       | specify:                  |                       |            |              |             |
| SF23                                                        | Does the WL contain a diversity of plant communities                              | H                                                                                                                         | M        | L                         |                       |            |              |             |
| SF24                                                        | Rate the overall integrity/quality of plant community?                            | H                                                                                                                         | M        | L                         |                       |            |              |             |
| SF25                                                        | Are there any observed rare or endangered plant species? Specify. <i>C.stygia</i> | End                                                                                                                       | Thr      | SpC                       | Red                   | Yellow     | S1           | S2          |
|                                                             |                                                                                   |                                                                                                                           |          |                           |                       |            | S3           | N/A         |
| <b>SECTION TEN: FISH AND WILDLIFE HABITAT AND INTEGRITY</b> |                                                                                   |                                                                                                                           |          |                           |                       |            |              |             |
| 1                                                           | Interspersion of open water and vegetation (open water types only)                | H                                                                                                                         | M        | L                         |                       |            |              |             |
| 1b                                                          | % cover in vegetation versus open water                                           | _100_ %                                                                                                                   |          |                           |                       |            |              |             |
| 2                                                           | Interspersion that best fits entire wetland                                       | H                                                                                                                         | M        | L                         | N/A                   |            |              |             |
| 3                                                           | Wetland condition related to detritus                                             | H                                                                                                                         | M        | L                         | N/A                   |            |              |             |
| 4                                                           | Interspersion of other wetlands in vicinity                                       | H                                                                                                                         | M        | L                         |                       |            |              |             |
| 6                                                           | Barriers/restriction between wetland and other habitat                            | L                                                                                                                         | M        | H                         |                       |            |              |             |
| 7                                                           | Noteworthy wildlife or evidence (birds, mammals, amphibians,etc)                  | Yes                                                                                                                       | No       | list: Passerines          |                       |            |              |             |
| 8                                                           | Connected to permanent water (accessible to fish)?                                | Exceptional                                                                                                               | High     | Med                       | Low                   | N/A        |              |             |
| 9                                                           | Fish species observed or evidence seen (list)                                     | Yes                                                                                                                       | No       | list:                     |                       |            |              |             |
| 10                                                          | Wetland part of contiguous upland or wetland:                                     | >50ha                                                                                                                     | 25-50ha  | 10-25ha                   | <10ha                 |            |              |             |
| 11                                                          | WL provides habitat for:                                                          | Amphibians                                                                                                                | Reptiles | Waterfowl                 | Waterbirds            | Mammals    | Fish         | R/E species |
| SF26                                                        | Does wetland support fish/fish habitat?                                           | Yes                                                                                                                       | No       | specify:                  |                       |            |              |             |
| SF27                                                        | Rare or endangered fish/wildlife species found in the wetland?                    | End                                                                                                                       | Thr-SARA | SpC                       | Red                   | Yellow     | S1           | S2          |
|                                                             |                                                                                   |                                                                                                                           |          |                           |                       |            | S3           | N/A         |
| SF28                                                        | Overall fish and wildlife habitat quality                                         | H                                                                                                                         | M        | L                         |                       |            |              |             |
| <b>SECTION ELEVEN: COMMUNITY USE/VALUE</b>                  |                                                                                   |                                                                                                                           |          |                           |                       |            |              |             |
| 1                                                           | Describe community use                                                            | VV __, CP __, CO __, PO __, PA __, AV __, GB __, E __, HI __, WV __, BO __, HU __, PG __, BP __, F __, E __, R __, Other: |          |                           |                       |            |              |             |
| SF29                                                        | Rate the wetland's community use/value                                            | H                                                                                                                         | M        | L                         |                       |            |              |             |

SF ratings highlighted in red indicate critical wetland functions or watershed conditions that are highly degraded. Whenever a wetland is found to have red-highlighted SFs the proponent

| APPENDIX D: WL19                                                                                                                         |                                                                                      |  |  |  |  |                                                                                                                                                 |                       |              |                                                                            |            | Nova Scotia Wetland Evaluation Technique Field Data Sheet |                                                 |        |             |  |                             |  |  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--|--|--|--|-------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|--------------|----------------------------------------------------------------------------|------------|-----------------------------------------------------------|-------------------------------------------------|--------|-------------|--|-----------------------------|--|--|--|--|--|
| Project Name: Black Point Quarry                                                                                                         |                                                                                      |  |  |  |  | Evaluator: Scott Burley                                                                                                                         |                       |              |                                                                            |            | GPS Coordinates: 644440 E x 5022148 N                     |                                                 |        |             |  |                             |  |  |  |  |  |
| PID:35212497, 35212505, 35212521, 35212513, 35044056, 35214014, 35214022, 35214022 and 35213990                                          |                                                                                      |  |  |  |  | Site Address: Black Point, Guysborough County, NS                                                                                               |                       |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| Sources and Dates of Mapping/Images: NS Wetlands Inventory (2012); NS Forest Inventory (Current Forest Data - 2004); Google Earth (2003) |                                                                                      |  |  |  |  |                                                                                                                                                 |                       |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| Evaluation Date: 10-Sep-14                                                                                                               |                                                                                      |  |  |  |  | Site Visit Date: 18-Aug-14                                                                                                                      |                       |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| Weather Conditions (past 48 hours): Sun and Clouds; Periods of rain                                                                      |                                                                                      |  |  |  |  |                                                                                                                                                 |                       |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| Seasonal Weather Conditions: Typical                                                                                                     |                                                                                      |  |  |  |  |                                                                                                                                                 |                       |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| SECTION ONE: WATERSHED CHARACTERISTICS                                                                                                   |                                                                                      |  |  |  |  |                                                                                                                                                 |                       |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 1                                                                                                                                        | Watershed Name (tertiary): 1EQ-SD                                                    |  |  |  |  | Size: 518 km <sup>2</sup>                                                                                                                       |                       |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 2                                                                                                                                        | % Watershed Land Cover                                                               |  |  |  |  | For: 43                                                                                                                                         | Nat: 36               | Past/Hay: <1 | Crop: <1                                                                   | Urb/Com: 2 | Road: <1                                                  | Other Dev: <1 (Gravel Pit, Landfill, Industrial |        |             |  |                             |  |  |  |  |  |
| 3                                                                                                                                        | % Watershed WL Cover and by Class                                                    |  |  |  |  | Total: 10%                                                                                                                                      | SM: <1                | BO: 6        | FE: 1                                                                      | FM: 2      | FS: 1                                                     | SS: 1                                           | CP: <1 | VP: Present |  |                             |  |  |  |  |  |
| SF1                                                                                                                                      | <b>Watershed condition</b>                                                           |  |  |  |  | H                                                                                                                                               | M                     | L            |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| SF2                                                                                                                                      | <b>Proportion of WL area in watershed &amp; opportunity for floodwater detention</b> |  |  |  |  | H                                                                                                                                               | M                     | L            |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| SECTION TWO: WETLAND CHARACTERISTICS                                                                                                     |                                                                                      |  |  |  |  |                                                                                                                                                 |                       |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| Wetland Type: Bog                                                                                                                        |                                                                                      |  |  |  |  | WL size: 0.04 hectares                                                                                                                          |                       |              |                                                                            |            | Landform: Basin                                           |                                                 |        |             |  | Landscape Position: Terrene |  |  |  |  |  |
| Water flow path: Isolated                                                                                                                |                                                                                      |  |  |  |  | Wetland Origin: Natural                                                                                                                         |                       |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 1                                                                                                                                        | Water Regime                                                                         |  |  |  |  | PF                                                                                                                                              | SF                    | TF           | SS                                                                         | PS         | RfT                                                       | IfT                                             | AF     |             |  |                             |  |  |  |  |  |
| 2                                                                                                                                        | # WL's within 30m project area                                                       |  |  |  |  | Total# 0                                                                                                                                        | SM:                   | BO:          | FE:                                                                        | FM:        | FS:                                                       | SS:                                             | CP:    | VP:         |  |                             |  |  |  |  |  |
| 3                                                                                                                                        | Is WL part of complex                                                                |  |  |  |  | Yes                                                                                                                                             | No                    |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 4                                                                                                                                        | % each wetland type in complex                                                       |  |  |  |  | SM:                                                                                                                                             | BO: 100               | FE:          | FM:                                                                        | FS:        | SS:                                                       | CP:                                             | VP:    |             |  |                             |  |  |  |  |  |
| 5                                                                                                                                        | Is WL bordering or associated with a lake or pond?                                   |  |  |  |  | bordering                                                                                                                                       |                       | within 100m  |                                                                            |            | N/A                                                       | specify                                         |        |             |  |                             |  |  |  |  |  |
| 6                                                                                                                                        | Standing water?                                                                      |  |  |  |  | Yes                                                                                                                                             | Avg Dep: % Inundated: |              |                                                                            |            |                                                           | No                                              |        |             |  |                             |  |  |  |  |  |
| 7                                                                                                                                        | Inlet or Outlet (circle all that apply)?                                             |  |  |  |  | Inlet                                                                                                                                           | Outlet                |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 8                                                                                                                                        | Adjacent Upland Land Use within 100m (%)                                             |  |  |  |  | For: 60                                                                                                                                         | Nat: 40               | PasHay:      | Crop:                                                                      | UrbCm:     | Road:                                                     | Other Dev:                                      |        |             |  |                             |  |  |  |  |  |
| 9                                                                                                                                        | Are there stressors in WL or WL buffer area? Circle primary stressor(s).             |  |  |  |  | DD__, CW__, WcS__, O/C__, EB__, DP__, F__, M__, ES__, NE__, DwP__, M__, GC__, ATV__, DG__, EA__, R__, Rr__, U/CD__, F__, FA__, other (specify): |                       |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 10                                                                                                                                       | Hydrology Altered (circle all that apply)?                                           |  |  |  |  | Ditching                                                                                                                                        | Dams                  | Tiles        | Culvert                                                                    | Well       | Diversion                                                 | Other Specify:                                  |        |             |  |                             |  |  |  |  |  |
| SF3                                                                                                                                      | <b>Rate the general wetland condition/integrity</b>                                  |  |  |  |  | H                                                                                                                                               | M                     | L            |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| SECTION THREE: ADJACENT LAND CONDITION AND INTEGRITY                                                                                     |                                                                                      |  |  |  |  |                                                                                                                                                 |                       |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 1                                                                                                                                        | Average width of adjacent naturalized buffer                                         |  |  |  |  | >1000_m                                                                                                                                         |                       |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 2                                                                                                                                        | Widths for water quality                                                             |  |  |  |  | H >1                                                                                                                                            | M 8-15                | L <8         |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 3                                                                                                                                        | Widths for wildlife habitat                                                          |  |  |  |  | H >100                                                                                                                                          | M 15-100              | L <15        |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 4                                                                                                                                        | Adjacent area vegetation condition (list % in each category)                         |  |  |  |  | H 100%                                                                                                                                          | M                     | L            |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 5                                                                                                                                        | Adjacent area diversity and structure (list % in each category)                      |  |  |  |  | H 100%                                                                                                                                          | M                     | L            |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 6                                                                                                                                        | Adjacent Upland Slope (list % in each category)                                      |  |  |  |  | Steep 30%                                                                                                                                       | Mod 40%               | Gentle 10%   |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 7                                                                                                                                        | Adjacent land supports water quality                                                 |  |  |  |  | Yes                                                                                                                                             | No                    | Specify:     |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 8                                                                                                                                        | Adjacent land supports wildlife habitat                                              |  |  |  |  | Yes                                                                                                                                             | No                    | Specify:     |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| SF4                                                                                                                                      | <b>Rate the overall condition and integrity land adjacent to wetland</b>             |  |  |  |  | H                                                                                                                                               | M                     | L            | is buffer required to maintain red flag functions of wetland? If yes if no |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| SECTION FOUR: DOCUMENTED IMPORTANT FEATURES                                                                                              |                                                                                      |  |  |  |  |                                                                                                                                                 |                       |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| SF5                                                                                                                                      | <b>Is the WL a WSS?</b>                                                              |  |  |  |  | Yes                                                                                                                                             | No                    |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |

|                                                         |                                                                       |                                                                                                          |            |                        |     |                |    |            |        |
|---------------------------------------------------------|-----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|------------|------------------------|-----|----------------|----|------------|--------|
| SF6                                                     | Does the WL support commercial/recreational fish/shellfish?           | Yes                                                                                                      | No         |                        |     |                |    |            |        |
| SF7                                                     | Species of concern (Fed/Prov)? Specify. <i>Cladonia stygia</i>        | End                                                                                                      | Thr - SARA | SpC                    | Red | Yellow         | S1 | S2         | S3 N/A |
| SF8                                                     | Wetland has conservation/compensation agreements/activity?            | Yes                                                                                                      | No         | specify:               |     |                |    |            |        |
| SF9                                                     | Wetland is calcerous fen, black ash or cedar swamp?                   | Yes                                                                                                      | No         |                        |     |                |    |            |        |
| SF10                                                    | Within Drinking Water Protected Area (designated watershed/wellfield) | Yes                                                                                                      | No         | specify:               |     |                |    |            |        |
| SF11                                                    | WL within a floodplain and upstream of or within of a populated area? | Yes                                                                                                      | No         |                        |     |                |    |            |        |
| SF12                                                    | Fed/Prov/Municipal area of interest?                                  | Yes                                                                                                      | No         | specify:               |     |                |    |            |        |
| <b>SECTION FIVE: HYDROLOGIC CONDITION AND INTEGRITY</b> |                                                                       |                                                                                                          |            |                        |     |                |    |            |        |
| 1                                                       | Is WL source of stream or headwater(wc order 1 or 2)                  | Yes                                                                                                      | No         | Specify:               |     |                |    |            |        |
| 2                                                       | Is WL geographically isolated?                                        | Yes                                                                                                      | No         | Specify:               |     |                |    |            |        |
| 3                                                       | WL ability to maintain characteristic hydrologic regime               | High                                                                                                     |            | Med                    |     | Low            |    |            |        |
| 4                                                       | Water Storage Depth (list % in each class)                            | >30cm                                                                                                    | 15-30cm    | up to 15cm             |     | No ponding     |    |            |        |
| 5                                                       | Signs of surface water retention observed?                            | SW __ cm, WSL __, WCD __, WM __ cm, SM __ cm, SD __, AD __, ID __, PMT __ x, AI __, BT __, AR __, Other: |            |                        |     |                |    |            |        |
| 6                                                       | Describe observable/historical anthropogenic sediment delivery        | Low                                                                                                      |            | Med                    |     | High           |    |            |        |
| 7                                                       | Disturbance of WL soils                                               | Low                                                                                                      |            | Med                    |     | High           |    |            |        |
| 8                                                       | Predominant soils adjacent to WL                                      | Sand                                                                                                     |            | Silt/loam              |     | Clay, bedrock  |    |            |        |
| 9                                                       | Capacity of WL to alter/retard flows                                  | High                                                                                                     |            | Med                    |     | Low            |    |            |        |
| 10                                                      | Roughness coefficient for surface water flow path                     | High                                                                                                     |            | Med                    |     | Low            |    |            |        |
| 11                                                      | Stormwater/Wastewater/Agricultural runoff detention                   | High                                                                                                     |            | Med                    |     | Low            |    |            |        |
| 12                                                      | Water Source                                                          | Natural                                                                                                  |            | Mostly natural         |     | Partly altered |    | Controlled |        |
| 13                                                      | Hydrology of tidal wetlands                                           | Unrestricted                                                                                             |            | Reduced                |     | Restricted     |    | N/A        |        |
| 14                                                      | Coastal storm surge                                                   | Yes                                                                                                      | No         |                        |     |                |    |            |        |
| SF13                                                    | WL hydrologic condition                                               | Natural                                                                                                  | Modified   | Significantly Modified |     |                |    |            |        |
| SF14                                                    | WL important for maintaining stream flow?                             | Yes                                                                                                      | No         |                        |     |                |    |            |        |
| SF15                                                    | WL ability to detain surface water                                    | High                                                                                                     | Med        | Low                    |     |                |    |            |        |
| <b>SECTION SIX: WATER QUALITY</b>                       |                                                                       |                                                                                                          |            |                        |     |                |    |            |        |
| 1                                                       | Stormwater/Wastewater/Agricultural runoff as water source?            | High                                                                                                     |            | Med                    |     | Low            |    |            |        |
| 2                                                       | Nutrients/sediments from surrounding land                             | High                                                                                                     |            | Med                    |     | Low            |    |            |        |
| 3                                                       | Significant flood/stormwater attenuation                              | Yes                                                                                                      | No         |                        |     |                |    |            |        |
| 4                                                       | Vegetation capacity to settle suspended sediments                     | High                                                                                                     |            | Med                    |     | Low            |    |            |        |
| 5                                                       | WL type /landscape position holds/filters runoff?                     | Yes                                                                                                      | No         |                        |     |                |    |            |        |
| SF16                                                    | Wetland improves water quality?                                       | Yes                                                                                                      | No         |                        |     |                |    |            |        |
| SF17                                                    | Evidence of excess nutrient loading/contamination?                    | Low                                                                                                      | Med        | High                   |     |                |    |            |        |
| SF18                                                    | WL contributes to water quality in downstream resources               | High                                                                                                     | Med        | Low                    |     |                |    |            |        |
| <b>SECTION SEVEN: GROUNDWATER INTERACTIONS</b>          |                                                                       |                                                                                                          |            |                        |     |                |    |            |        |
| 1                                                       | Describe soils in wetland                                             | Recharge                                                                                                 |            | Discharge              |     |                |    |            |        |
| 2                                                       | Land use / run off in subwatershed upstream                           | Recharge                                                                                                 |            | Discharge              |     |                |    |            |        |
| 3                                                       | Conditions of upland soils within 200m of wetland                     | Recharge                                                                                                 |            | Discharge              |     |                |    |            |        |
| 4                                                       | Hydroperiod of wetland                                                | Recharge                                                                                                 |            | Discharge              |     |                |    |            |        |
| 5                                                       | Describe inlet/outlet configuration                                   | Recharge                                                                                                 |            | Discharge              |     |                |    |            |        |
| 6                                                       | Characterize topographic relief surrounding wetland                   | Recharge                                                                                                 |            | Discharge              |     |                |    |            |        |



|                                                             |                                                                                   |                                                                                                                           |          |                                    |                       |            |                  |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|----------|------------------------------------|-----------------------|------------|------------------|
| SF19                                                        | WL serves as a recharge site                                                      | Yes                                                                                                                       | No       | Possible recharge wetland          |                       |            |                  |
| SF20                                                        | WL serves as a discharge site                                                     | Yes                                                                                                                       | No       |                                    |                       |            |                  |
| <b>SECTION EIGHT: SHORELINE STABILIZATION AND INTEGRITY</b> |                                                                                   |                                                                                                                           |          |                                    |                       |            |                  |
| 1                                                           | Wetland fringing ocean/estuary/lake/pond/river/stream?                            | Yes                                                                                                                       | No       | streamwidth >4m                    | streamwidth <4m       | WB Exposed | WB Sheltered     |
| 2                                                           | % cover of rooted vegetation in shallow water zone                                | H >50%                                                                                                                    | M 10-50  | L <10%                             |                       |            |                  |
| 3                                                           | Avg veg WL width b/w shoreline/streambank & 2 m depth contour                     | H >10m                                                                                                                    | M 3-10   | L <3m                              |                       |            |                  |
| 4                                                           | Prevalence of strong-stemmed emerg. veg (shoreline marshes and fens only)         | High                                                                                                                      | Med      | Low                                |                       |            |                  |
| 5                                                           | Describe shoreline erosion potential                                              | High                                                                                                                      | Med      | Low                                |                       |            |                  |
| 6                                                           | Shoreline/streambank veg condition upslope of water level                         | Low                                                                                                                       | Med      | High                               | Artificial            |            |                  |
| SF21                                                        | WL ability to stabilize shoreline                                                 | H                                                                                                                         | M        | L                                  | N/A                   |            |                  |
| <b>SECTION NINE: PLANT COMMUNITY</b>                        |                                                                                   |                                                                                                                           |          |                                    |                       |            |                  |
| 1                                                           | Vegetation diversity                                                              | High                                                                                                                      | Med      | Low                                |                       |            |                  |
| 1b                                                          | Dominant plant species and % cover in the WL                                      | list: <i>Gaylussacia baccata</i> (30%)/ <i>Nemopantes mucronata</i> (15%)                                                 |          |                                    |                       |            |                  |
| 3                                                           | Dominant Non-native or Invasive species and % cover                               | Yes                                                                                                                       | No       | specify: %                         |                       |            |                  |
| 4                                                           | Vegetation Disturbance                                                            | H                                                                                                                         | M        | L                                  | specify type(s) below |            |                  |
| 5                                                           | Disturbance Types                                                                 | H __, ATV __, G __, M __, In __, D/D __, Im __, OAH __, li __, Sd __, E __, other __,                                     |          |                                    |                       |            |                  |
| 7                                                           | Vegetative Integrity of plant community                                           | E                                                                                                                         | H        | M                                  | L                     |            |                  |
| SF22                                                        | Is the plant community unique or rare regionally or provincially?                 | Yes                                                                                                                       | no       | specify:                           |                       |            |                  |
| SF23                                                        | Does the WL contain a diversity of plant communities                              | H                                                                                                                         | M        | L                                  |                       |            |                  |
| SF24                                                        | Rate the overall integrity/quality of plant community?                            | H                                                                                                                         | M        | L                                  |                       |            |                  |
| SF25                                                        | Are there any observed rare or endangered plant species? Specify. <i>C.stygia</i> | End                                                                                                                       | Thr      | SpC                                | Red                   | Yellow     | S1 S2 S3 N/A     |
| <b>SECTION TEN: FISH AND WILDLIFE HABITAT AND INTEGRITY</b> |                                                                                   |                                                                                                                           |          |                                    |                       |            |                  |
| 1                                                           | Interspersion of open water and vegetation (open water types only)                | H                                                                                                                         | M        | L                                  |                       |            |                  |
| 1b                                                          | % cover in vegetation versus open water                                           | _100_ %                                                                                                                   |          |                                    |                       |            |                  |
| 2                                                           | Interspersion that best fits entire wetland                                       | H                                                                                                                         | M        | L                                  | N/A                   |            |                  |
| 3                                                           | Wetland condition related to detritus                                             | H                                                                                                                         | M        | L                                  | N/A                   |            |                  |
| 4                                                           | Interspersion of other wetlands in vicinity                                       | H                                                                                                                         | M        | L                                  |                       |            |                  |
| 6                                                           | Barriers/restriction between wetland and other habitat                            | L                                                                                                                         | M        | H                                  |                       |            |                  |
| 7                                                           | Noteworthy wildlife or evidence (birds, mammals, amphibians, etc)                 | Yes                                                                                                                       | No       | list: Passerines, Rabbit droppings |                       |            |                  |
| 8                                                           | Connected to permanent water (accessible to fish)?                                | Exceptional                                                                                                               | High     | Med                                | Low                   | N/A        |                  |
| 9                                                           | Fish species observed or evidence seen (list)                                     | Yes                                                                                                                       | No       | list:                              |                       |            |                  |
| 10                                                          | Wetland part of contiguous upland or wetland:                                     | >50ha                                                                                                                     | 25-50ha  | 10-25ha                            | <10ha                 |            |                  |
| 11                                                          | WL provides habitat for:                                                          | Amphibians                                                                                                                | Reptiles | Waterfowl                          | Waterbirds            | Mammals    | Fish R/E species |
| SF26                                                        | Does wetland support fish/fish habitat?                                           | Yes                                                                                                                       | No       | specify:                           |                       |            |                  |
| SF27                                                        | Rare or endangered fish/wildlife species found in the wetland?                    | End                                                                                                                       | Thr-SARA | SpC                                | Red                   | Yellow     | S1 S2 S3 N/A     |
| SF28                                                        | Overall fish and wildlife habitat quality                                         | H                                                                                                                         | M        | L                                  |                       |            |                  |
| <b>SECTION ELEVEN: COMMUNITY USE/VALUE</b>                  |                                                                                   |                                                                                                                           |          |                                    |                       |            |                  |
| 1                                                           | Describe community use                                                            | VV __, CP __, CO __, PO __, PA __, AV __, GB __, E __, HI __, WV __, BO __, HU __, PG __, BP __, F __, E __, R __, Other: |          |                                    |                       |            |                  |
| SF29                                                        | Rate the wetland's community use/value                                            | H                                                                                                                         | M        | L                                  |                       |            |                  |

SF ratings highlighted in red indicate critical wetland functions or watershed conditions that are highly degraded. Whenever a wetland is found to have red-highlighted SFs the proponent

| APPENDIX D: WL20                                                                                                                         |                                                                                      |  |  |  |  |                                                                                                                                                 |          |              |                                                                            |            | Nova Scotia Wetland Evaluation Technique Field Data Sheet |                                                 |        |             |  |                             |  |  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--|--|--|--|-------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------------|----------------------------------------------------------------------------|------------|-----------------------------------------------------------|-------------------------------------------------|--------|-------------|--|-----------------------------|--|--|--|--|--|
| Project Name: Black Point Quarry                                                                                                         |                                                                                      |  |  |  |  | Evaluator: Scott Burley                                                                                                                         |          |              |                                                                            |            | GPS Coordinates: 644447 E x 5022225 N                     |                                                 |        |             |  |                             |  |  |  |  |  |
| PID:35212497, 35212505, 35212521, 35212513, 35044056, 35214014, 35214022, 35214022 and 35213990                                          |                                                                                      |  |  |  |  | Site Address: Black Point, Guysborough County, NS                                                                                               |          |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| Sources and Dates of Mapping/Images: NS Wetlands Inventory (2012); NS Forest Inventory (Current Forest Data - 2004); Google Earth (2003) |                                                                                      |  |  |  |  |                                                                                                                                                 |          |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| Evaluation Date: 10-Sep-14                                                                                                               |                                                                                      |  |  |  |  | Site Visit Date: 18-Aug-14                                                                                                                      |          |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| Weather Conditions (past 48 hours): Sun and Clouds; Periods of rain                                                                      |                                                                                      |  |  |  |  |                                                                                                                                                 |          |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| Seasonal Weather Conditions: Typical                                                                                                     |                                                                                      |  |  |  |  |                                                                                                                                                 |          |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| SECTION ONE: WATERSHED CHARACTERISTICS                                                                                                   |                                                                                      |  |  |  |  |                                                                                                                                                 |          |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 1                                                                                                                                        | Watershed Name (tertiary): 1EQ-SD                                                    |  |  |  |  | Size: 518 km <sup>2</sup>                                                                                                                       |          |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 2                                                                                                                                        | % Watershed Land Cover                                                               |  |  |  |  | For: 43                                                                                                                                         | Nat: 36  | Past/Hay: <1 | Crop: <1                                                                   | Urb/Com: 2 | Road: <1                                                  | Other Dev: <1 (Gravel Pit, Landfill, Industrial |        |             |  |                             |  |  |  |  |  |
| 3                                                                                                                                        | % Watershed WL Cover and by Class                                                    |  |  |  |  | Total: 10%                                                                                                                                      | SM: <1   | BO: 6        | FE: 1                                                                      | FM: 2      | FS: 1                                                     | SS: 1                                           | CP: <1 | VP: Present |  |                             |  |  |  |  |  |
| SF1                                                                                                                                      | <b>Watershed condition</b>                                                           |  |  |  |  | H                                                                                                                                               | M        | L            |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| SF2                                                                                                                                      | <b>Proportion of WL area in watershed &amp; opportunity for floodwater detention</b> |  |  |  |  | H                                                                                                                                               | M        | L            |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| SECTION TWO: WETLAND CHARACTERISTICS                                                                                                     |                                                                                      |  |  |  |  |                                                                                                                                                 |          |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| Wetland Type: Bog                                                                                                                        |                                                                                      |  |  |  |  | WL size: 0.15 hectares                                                                                                                          |          |              |                                                                            |            | Landform: Basin                                           |                                                 |        |             |  | Landscape Position: Terrene |  |  |  |  |  |
| Water flow path: Isolated                                                                                                                |                                                                                      |  |  |  |  | Wetland Origin: Natural                                                                                                                         |          |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 1                                                                                                                                        | Water Regime                                                                         |  |  |  |  | PF                                                                                                                                              | SF       | TF           | SS                                                                         | PS         | RfT                                                       | IfT                                             | AF     |             |  |                             |  |  |  |  |  |
| 2                                                                                                                                        | # WL's within 30m project area                                                       |  |  |  |  | Total# 0                                                                                                                                        | SM:      | BO:          | FE:                                                                        | FM:        | FS:                                                       | SS:                                             | CP:    | VP:         |  |                             |  |  |  |  |  |
| 3                                                                                                                                        | Is WL part of complex                                                                |  |  |  |  | Yes                                                                                                                                             | No       |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 4                                                                                                                                        | % each wetland type in complex                                                       |  |  |  |  | SM:                                                                                                                                             | BO: 100  | FE:          | FM:                                                                        | FS:        | SS:                                                       | CP:                                             | VP:    |             |  |                             |  |  |  |  |  |
| 5                                                                                                                                        | Is WL bordering or associated with a lake or pond?                                   |  |  |  |  | bordering                                                                                                                                       |          | within 100m  |                                                                            | N/A        | specify                                                   |                                                 |        |             |  |                             |  |  |  |  |  |
| 6                                                                                                                                        | Standing water?                                                                      |  |  |  |  | Yes                                                                                                                                             | Avg Dep: |              | % Inundated:                                                               |            | No                                                        |                                                 |        |             |  |                             |  |  |  |  |  |
| 7                                                                                                                                        | Inlet or Outlet (circle all that apply)?                                             |  |  |  |  | Inlet                                                                                                                                           | Outlet   |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 8                                                                                                                                        | Adjacent Upland Land Use within 100m (%)                                             |  |  |  |  | For: 60                                                                                                                                         | Nat: 40  | PasHay:      | Crop:                                                                      | UrbCm:     | Road:                                                     | Other Dev:                                      |        |             |  |                             |  |  |  |  |  |
| 9                                                                                                                                        | Are there stressors in WL or WL buffer area? Circle primary stressor(s).             |  |  |  |  | DD__, CW__, WcS__, O/C__, EB__, DP__, F__, M__, ES__, NE__, DwP__, M__, GC__, ATV__, DG__, EA__, R__, Rr__, U/CD__, F__, FA__, other (specify): |          |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 10                                                                                                                                       | Hydrology Altered (circle all that apply)?                                           |  |  |  |  | Ditching                                                                                                                                        | Dams     | Tiles        | Culvert                                                                    | Well       | Diversion                                                 | Other Specify:                                  |        |             |  |                             |  |  |  |  |  |
| SF3                                                                                                                                      | <b>Rate the general wetland condition/integrity</b>                                  |  |  |  |  | H                                                                                                                                               | M        | L            |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| SECTION THREE: ADJACENT LAND CONDITION AND INTEGRITY                                                                                     |                                                                                      |  |  |  |  |                                                                                                                                                 |          |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 1                                                                                                                                        | Average width of adjacent naturalized buffer                                         |  |  |  |  | >1000_m                                                                                                                                         |          |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 2                                                                                                                                        | Widths for water quality                                                             |  |  |  |  | H >1                                                                                                                                            | M 8-15   | L <8         |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 3                                                                                                                                        | Widths for wildlife habitat                                                          |  |  |  |  | H >100                                                                                                                                          | M 15-100 | L <15        |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 4                                                                                                                                        | Adjacent area vegetation condition (list % in each category)                         |  |  |  |  | H 100%                                                                                                                                          | M        | L            |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 5                                                                                                                                        | Adjacent area diversity and structure (list % in each category)                      |  |  |  |  | H 100%                                                                                                                                          | M        | L            |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 6                                                                                                                                        | Adjacent Upland Slope (list % in each category)                                      |  |  |  |  | Steep 30%                                                                                                                                       | Mod 40%  | Gentle 10%   |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 7                                                                                                                                        | Adjacent land supports water quality                                                 |  |  |  |  | Yes                                                                                                                                             | No       | Specify:     |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| 8                                                                                                                                        | Adjacent land supports wildlife habitat                                              |  |  |  |  | Yes                                                                                                                                             | No       | Specify:     |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| SF4                                                                                                                                      | <b>Rate the overall condition and integrity land adjacent to wetland</b>             |  |  |  |  | H                                                                                                                                               | M        | L            | is buffer required to maintain red flag functions of wetland? If yes if no |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| SECTION FOUR: DOCUMENTED IMPORTANT FEATURES                                                                                              |                                                                                      |  |  |  |  |                                                                                                                                                 |          |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |
| SF5                                                                                                                                      | <b>Is the WL a WSS?</b>                                                              |  |  |  |  | Yes                                                                                                                                             | No       |              |                                                                            |            |                                                           |                                                 |        |             |  |                             |  |  |  |  |  |

|                                                         |                                                                       |                                                                                                          |            |                        |     |                |    |            |        |
|---------------------------------------------------------|-----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|------------|------------------------|-----|----------------|----|------------|--------|
| SF6                                                     | Does the WL support commercial/recreational fish/shellfish?           | Yes                                                                                                      | No         |                        |     |                |    |            |        |
| SF7                                                     | Species of concern (Fed/Prov)? Specify. <i>Cladonia stygia</i>        | End                                                                                                      | Thr - SARA | SpC                    | Red | Yellow         | S1 | S2         | S3 N/A |
| SF8                                                     | Wetland has conservation/compensation agreements/activity?            | Yes                                                                                                      | No         | specify:               |     |                |    |            |        |
| SF9                                                     | Wetland is calcerous fen, black ash or cedar swamp?                   | Yes                                                                                                      | No         |                        |     |                |    |            |        |
| SF10                                                    | Within Drinking Water Protected Area (designated watershed/wellfield) | Yes                                                                                                      | No         | specify:               |     |                |    |            |        |
| SF11                                                    | WL within a floodplain and upstream of or within of a populated area? | Yes                                                                                                      | No         |                        |     |                |    |            |        |
| SF12                                                    | Fed/Prov/Municipal area of interest?                                  | Yes                                                                                                      | No         | specify:               |     |                |    |            |        |
| <b>SECTION FIVE: HYDROLOGIC CONDITION AND INTEGRITY</b> |                                                                       |                                                                                                          |            |                        |     |                |    |            |        |
| 1                                                       | Is WL source of stream or headwater(wc order 1 or 2)                  | Yes                                                                                                      | No         | Specify:               |     |                |    |            |        |
| 2                                                       | Is WL geographically isolated?                                        | Yes                                                                                                      | No         | Specify:               |     |                |    |            |        |
| 3                                                       | WL ability to maintain characteristic hydrologic regime               | High                                                                                                     |            | Med                    |     | Low            |    |            |        |
| 4                                                       | Water Storage Depth (list % in each class)                            | >30cm                                                                                                    | 15-30cm    | up to 15cm             |     | No ponding     |    |            |        |
| 5                                                       | Signs of surface water retention observed?                            | SW __ cm, WSL __, WCD __, WM __ cm, SM __ cm, SD __, AD __, ID __, PMT_x __, AI __, BT __, AR __, Other: |            |                        |     |                |    |            |        |
| 6                                                       | Describe observable/historical anthropogenic sediment delivery        | Low                                                                                                      |            | Med                    |     | High           |    |            |        |
| 7                                                       | Disturbance of WL soils                                               | Low                                                                                                      |            | Med                    |     | High           |    |            |        |
| 8                                                       | Predominant soils adjacent to WL                                      | Sand                                                                                                     |            | Silt/loam              |     | Clay, bedrock  |    |            |        |
| 9                                                       | Capacity of WL to alter/retard flows                                  | High                                                                                                     |            | Med                    |     | Low            |    |            |        |
| 10                                                      | Roughness coefficient for surface water flow path                     | High                                                                                                     |            | Med                    |     | Low            |    |            |        |
| 11                                                      | Stormwater/Wastewater/Agricultural runoff detention                   | High                                                                                                     |            | Med                    |     | Low            |    |            |        |
| 12                                                      | Water Source                                                          | Natural                                                                                                  |            | Mostly natural         |     | Partly altered |    | Controlled |        |
| 13                                                      | Hydrology of tidal wetlands                                           | Unrestricted                                                                                             |            | Reduced                |     | Restricted     |    | N/A        |        |
| 14                                                      | Coastal storm surge                                                   | Yes                                                                                                      | No         |                        |     |                |    |            |        |
| SF13                                                    | WL hydrologic condition                                               | Natural                                                                                                  | Modified   | Significantly Modified |     |                |    |            |        |
| SF14                                                    | WL important for maintaining stream flow?                             | Yes                                                                                                      | No         |                        |     |                |    |            |        |
| SF15                                                    | WL ability to detain surface water                                    | High                                                                                                     | Med        | Low                    |     |                |    |            |        |
| <b>SECTION SIX: WATER QUALITY</b>                       |                                                                       |                                                                                                          |            |                        |     |                |    |            |        |
| 1                                                       | Stormwater/Wastewater/Agricultural runoff as water source?            | High                                                                                                     |            | Med                    |     | Low            |    |            |        |
| 2                                                       | Nutrients/sediments from surrounding land                             | High                                                                                                     |            | Med                    |     | Low            |    |            |        |
| 3                                                       | Significant flood/stormwater attenuation                              | Yes                                                                                                      | No         |                        |     |                |    |            |        |
| 4                                                       | Vegetation capacity to settle suspended sediments                     | High                                                                                                     |            | Med                    |     | Low            |    |            |        |
| 5                                                       | WL type /landscape position holds/filters runoff?                     | Yes                                                                                                      | No         |                        |     |                |    |            |        |
| SF16                                                    | Wetland improves water quality?                                       | Yes                                                                                                      | No         |                        |     |                |    |            |        |
| SF17                                                    | Evidence of excess nutrient loading/contamination?                    | Low                                                                                                      | Med        | High                   |     |                |    |            |        |
| SF18                                                    | WL contributes to water quality in downstream resources               | High                                                                                                     | Med        | Low                    |     |                |    |            |        |
| <b>SECTION SEVEN: GROUNDWATER INTERACTIONS</b>          |                                                                       |                                                                                                          |            |                        |     |                |    |            |        |
| 1                                                       | Describe soils in wetland                                             | Recharge                                                                                                 |            | Discharge              |     |                |    |            |        |
| 2                                                       | Land use / run off in subwatershed upstream                           | Recharge                                                                                                 |            | Discharge              |     |                |    |            |        |
| 3                                                       | Conditions of upland soils within 200m of wetland                     | Recharge                                                                                                 |            | Discharge              |     |                |    |            |        |
| 4                                                       | Hydroperiod of wetland                                                | Recharge                                                                                                 |            | Discharge              |     |                |    |            |        |
| 5                                                       | Describe inlet/outlet configuration                                   | Recharge                                                                                                 |            | Discharge              |     |                |    |            |        |
| 6                                                       | Characterize topographic relief surrounding wetland                   | Recharge                                                                                                 |            | Discharge              |     |                |    |            |        |

|                                                             |                                                                                   |                                                                                                                                           |          |                                    |                       |            |                  |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|----------|------------------------------------|-----------------------|------------|------------------|
| SF19                                                        | WL serves as a recharge site                                                      | Yes                                                                                                                                       | No       | Possible recharge wetland          |                       |            |                  |
| SF20                                                        | WL serves as a discharge site                                                     | Yes                                                                                                                                       | No       |                                    |                       |            |                  |
| <b>SECTION EIGHT: SHORELINE STABILIZATION AND INTEGRITY</b> |                                                                                   |                                                                                                                                           |          |                                    |                       |            |                  |
| 1                                                           | Wetland fringing ocean/estuary/lake/pond/river/stream?                            | Yes                                                                                                                                       | No       | streamwidth >4m                    | streamwidth <4m       | WB Exposed | WB Sheltered     |
| 2                                                           | % cover of rooted vegetation in shallow water zone                                | H >50%                                                                                                                                    | M 10-50  | L <10%                             |                       |            |                  |
| 3                                                           | Avg veg WL width b/w shoreline/streambank & 2 m depth contour                     | H >10m                                                                                                                                    | M 3-10   | L <3m                              |                       |            |                  |
| 4                                                           | Prevalence of strong-stemmed emerg. veg (shoreline marshes and fens only)         | High                                                                                                                                      | Med      | Low                                |                       |            |                  |
| 5                                                           | Describe shoreline erosion potential                                              | High                                                                                                                                      | Med      | Low                                |                       |            |                  |
| 6                                                           | Shoreline/streambank veg condition upslope of water level                         | Low                                                                                                                                       | Med      | High                               | Artificial            |            |                  |
| SF21                                                        | WL ability to stabilize shoreline                                                 | H                                                                                                                                         | M        | L                                  | N/A                   |            |                  |
| <b>SECTION NINE: PLANT COMMUNITY</b>                        |                                                                                   |                                                                                                                                           |          |                                    |                       |            |                  |
| 1                                                           | Vegetation diversity                                                              | High                                                                                                                                      | Med      | Low                                |                       |            |                  |
| 1b                                                          | Dominant plant species and % cover in the WL                                      | list: <i>Gaylussacia baccata</i> (20%)/ <i>Nemopantes mucronata</i> (15%)/ <i>Picea mariana</i> (20%)/ <i>Trchoforum cespitosum</i> (30%) |          |                                    |                       |            |                  |
| 3                                                           | Dominant Non-native or Invasive species and % cover                               | Yes                                                                                                                                       | No       | specify: %                         |                       |            |                  |
| 4                                                           | Vegetation Disturbance                                                            | H                                                                                                                                         | M        | L                                  | specify type(s) below |            |                  |
| 5                                                           | Disturbance Types                                                                 | H __,ATV __, G __, M __, In __, D/D __, Im __, OAH __, li __, Sd __, E __, other __,                                                      |          |                                    |                       |            |                  |
| 7                                                           | Vegetative Integrity of plant community                                           | E                                                                                                                                         | H        | M                                  | L                     |            |                  |
| SF22                                                        | Is the plant community unique or rare regionally or provincially?                 | Yes                                                                                                                                       | no       | specify:                           |                       |            |                  |
| SF23                                                        | Does the WL contain a diversity of plant communities                              | H                                                                                                                                         | M        | L                                  |                       |            |                  |
| SF24                                                        | Rate the overall integrity/quality of plant community?                            | H                                                                                                                                         | M        | L                                  |                       |            |                  |
| SF25                                                        | Are there any observed rare or endangered plant species? Specify. <i>C.stygia</i> | End                                                                                                                                       | Thr      | SpC                                | Red                   | Yellow     | S1 S2 S3 N/A     |
| <b>SECTION TEN: FISH AND WILDLIFE HABITAT AND INTEGRITY</b> |                                                                                   |                                                                                                                                           |          |                                    |                       |            |                  |
| 1                                                           | Interspersion of open water and vegetation (open water types only)                | H                                                                                                                                         | M        | L                                  |                       |            |                  |
| 1b                                                          | % cover in vegetation versus open water                                           | _100_ %                                                                                                                                   |          |                                    |                       |            |                  |
| 2                                                           | Interspersion that best fits entire wetland                                       | H                                                                                                                                         | M        | L                                  | N/A                   |            |                  |
| 3                                                           | Wetland condition related to detritus                                             | H                                                                                                                                         | M        | L                                  | N/A                   |            |                  |
| 4                                                           | Interspersion of other wetlands in vicinity                                       | H                                                                                                                                         | M        | L                                  |                       |            |                  |
| 6                                                           | Barriers/restriction between wetland and other habitat                            | L                                                                                                                                         | M        | H                                  |                       |            |                  |
| 7                                                           | Noteworthy wildlife or evidence (birds, mammals, amphibians, etc)                 | Yes                                                                                                                                       | No       | list: Passerines, Rabbit droppings |                       |            |                  |
| 8                                                           | Connected to permanent water (accessible to fish)?                                | Exceptional                                                                                                                               | High     | Med                                | Low                   | N/A        |                  |
| 9                                                           | Fish species observed or evidence seen (list)                                     | Yes                                                                                                                                       | No       | list:                              |                       |            |                  |
| 10                                                          | Wetland part of contiguous upland or wetland:                                     | >50ha                                                                                                                                     | 25-50ha  | 10-25ha                            | <10ha                 |            |                  |
| 11                                                          | WL provides habitat for:                                                          | Amphibians                                                                                                                                | Reptiles | Waterfowl                          | Waterbirds            | Mammals    | Fish R/E species |
| SF26                                                        | Does wetland support fish/fish habitat?                                           | Yes                                                                                                                                       | No       | specify:                           |                       |            |                  |
| SF27                                                        | Rare or endangered fish/wildlife species found in the wetland?                    | End                                                                                                                                       | Thr-SARA | SpC                                | Red                   | Yellow     | S1 S2 S3 N/A     |
| SF28                                                        | Overall fish and wildlife habitat quality                                         | H                                                                                                                                         | M        | L                                  |                       |            |                  |
| <b>SECTION ELEVEN: COMMUNITY USE/VALUE</b>                  |                                                                                   |                                                                                                                                           |          |                                    |                       |            |                  |
| 1                                                           | Describe community use                                                            | VV __, CP __, CO __, PO __, PA __, AV __, GB __, E __, HI __, WV __, BO __, HU __, PG __, BP __, F __, E __, R __, Other:                 |          |                                    |                       |            |                  |
| SF29                                                        | Rate the wetland's community use/value                                            | H                                                                                                                                         | M        | L                                  |                       |            |                  |

SF ratings highlighted in red indicate critical wetland functions or watershed conditions that are highly degraded. Whenever a wetland is found to have red-highlighted SFs the proponent

| APPENDIX D: WL21                                                                                                                         |                                                                                      |  |  |  |  |                                                                                                                                                                                                    |          |              |                                                                            |            | Nova Scotia Wetland Evaluation Technique Field Data Sheet |                                                 |        |             |  |                                           |  |  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--|--|--|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------------|----------------------------------------------------------------------------|------------|-----------------------------------------------------------|-------------------------------------------------|--------|-------------|--|-------------------------------------------|--|--|--|--|--|
| Project Name: Black Point Quarry                                                                                                         |                                                                                      |  |  |  |  | Evaluator: Scott Burley                                                                                                                                                                            |          |              |                                                                            |            | GPS Coordinates: 645820 E x 5023684 N                     |                                                 |        |             |  |                                           |  |  |  |  |  |
| PID:35212497, 35212505, 35212521, 35212513, 35044056, 35214014, 35214022, 35214022 and 35213990                                          |                                                                                      |  |  |  |  | Site Address: Black Point, Guysborough County, NS                                                                                                                                                  |          |              |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| Sources and Dates of Mapping/Images: NS Wetlands Inventory (2012); NS Forest Inventory (Current Forest Data - 2004); Google Earth (2003) |                                                                                      |  |  |  |  |                                                                                                                                                                                                    |          |              |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| Evaluation Date: 10-Sep-14                                                                                                               |                                                                                      |  |  |  |  | Site Visit Date: 20-Aug-14                                                                                                                                                                         |          |              |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| Weather Conditions (past 48 hours): Sun and Clouds                                                                                       |                                                                                      |  |  |  |  |                                                                                                                                                                                                    |          |              |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| Seasonal Weather Conditions: Typical                                                                                                     |                                                                                      |  |  |  |  |                                                                                                                                                                                                    |          |              |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| SECTION ONE: WATERSHED CHARACTERISTICS                                                                                                   |                                                                                      |  |  |  |  |                                                                                                                                                                                                    |          |              |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| 1                                                                                                                                        | Watershed Name (tertiary): 1EQ-SD                                                    |  |  |  |  | Size: 518 km <sup>2</sup>                                                                                                                                                                          |          |              |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| 2                                                                                                                                        | % Watershed Land Cover                                                               |  |  |  |  | For: 43                                                                                                                                                                                            | Nat: 36  | Past/Hay: <1 | Crop: <1                                                                   | Urb/Com: 2 | Road: <1                                                  | Other Dev: <1 (Gravel Pit, Landfill, Industrial |        |             |  |                                           |  |  |  |  |  |
| 3                                                                                                                                        | % Watershed WL Cover and by Class                                                    |  |  |  |  | Total: 10%                                                                                                                                                                                         | SM: <1   | BO: 6        | FE: 1                                                                      | FM: 2      | FS: 1                                                     | SS: 1                                           | CP: <1 | VP: Present |  |                                           |  |  |  |  |  |
| SF1                                                                                                                                      | <b>Watershed condition</b>                                                           |  |  |  |  | H                                                                                                                                                                                                  | M        | L            |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| SF2                                                                                                                                      | <b>Proportion of WL area in watershed &amp; opportunity for floodwater detention</b> |  |  |  |  | H                                                                                                                                                                                                  | M        | L            |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| SECTION TWO: WETLAND CHARACTERISTICS                                                                                                     |                                                                                      |  |  |  |  |                                                                                                                                                                                                    |          |              |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| Wetland Type: Fen                                                                                                                        |                                                                                      |  |  |  |  | WL size: 0.19 hectares                                                                                                                                                                             |          |              |                                                                            |            | Landform: Slope                                           |                                                 |        |             |  | Landscape Position: Lotic Stream Confined |  |  |  |  |  |
| Water flow path: Inflow                                                                                                                  |                                                                                      |  |  |  |  | Wetland Origin: Natural                                                                                                                                                                            |          |              |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| 1                                                                                                                                        | Water Regime                                                                         |  |  |  |  | PF                                                                                                                                                                                                 | SF       | TF           | SS                                                                         | PS         | RfT                                                       | IfT                                             | AF     |             |  |                                           |  |  |  |  |  |
| 2                                                                                                                                        | # WL's within 30m project area                                                       |  |  |  |  | Total# 0                                                                                                                                                                                           | SM:      | BO:          | FE:                                                                        | FM:        | FS:                                                       | SS:                                             | CP:    | VP:         |  |                                           |  |  |  |  |  |
| 3                                                                                                                                        | Is WL part of complex                                                                |  |  |  |  | Yes                                                                                                                                                                                                | No       |              |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| 4                                                                                                                                        | % each wetland type in complex                                                       |  |  |  |  | SM:                                                                                                                                                                                                | BO: 20   | FE: 80       | FM:                                                                        | FS:        | SS:                                                       | CP:                                             | VP:    |             |  |                                           |  |  |  |  |  |
| 5                                                                                                                                        | Is WL bordering or associated with a lake or pond?                                   |  |  |  |  | bordering                                                                                                                                                                                          |          | within 100m  |                                                                            | N/A        | specify                                                   |                                                 |        |             |  |                                           |  |  |  |  |  |
| 6                                                                                                                                        | Standing water?                                                                      |  |  |  |  | Yes                                                                                                                                                                                                | Avg Dep: |              | % Inundated:                                                               |            | No                                                        |                                                 |        |             |  |                                           |  |  |  |  |  |
| 7                                                                                                                                        | Inlet or Outlet (circle all that apply)?                                             |  |  |  |  | Inlet                                                                                                                                                                                              | Outlet   |              |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| 8                                                                                                                                        | Adjacent Upland Land Use within 100m (%)                                             |  |  |  |  | For: 80                                                                                                                                                                                            | Nat:     | PasHay:      | Crop:                                                                      | UrbCm:     | Road:                                                     | Other Dev: 20 Beach                             |        |             |  |                                           |  |  |  |  |  |
| 9                                                                                                                                        | Are there stressors in WL or WL buffer area? Circle primary stressor(s).             |  |  |  |  | DD __, CW __, WcS __, O/C __, EB __, DP __, F __, M __, ES __, NE __, Dwp __, M __, GC __, ATV __, DG __, EA __, R __, Rr __, U/CD __, F __, FA __, other (specify): Skidder trail through wetland |          |              |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| 10                                                                                                                                       | Hydrology Altered (circle all that apply)?                                           |  |  |  |  | Ditching                                                                                                                                                                                           | Dams     | Tiles        | Culvert                                                                    | Well       | Diversion                                                 | Other Specify:                                  |        |             |  |                                           |  |  |  |  |  |
| SF3                                                                                                                                      | <b>Rate the general wetland condition/integrity</b>                                  |  |  |  |  | H                                                                                                                                                                                                  | M        | L            |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| SECTION THREE: ADJACENT LAND CONDITION AND INTEGRITY                                                                                     |                                                                                      |  |  |  |  |                                                                                                                                                                                                    |          |              |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| 1                                                                                                                                        | Average width of adjacent naturalized buffer                                         |  |  |  |  | >1000_m                                                                                                                                                                                            |          |              |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| 2                                                                                                                                        | Widths for water quality                                                             |  |  |  |  | H >1                                                                                                                                                                                               | M 8-15   | L <8         |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| 3                                                                                                                                        | Widths for wildlife habitat                                                          |  |  |  |  | H >100                                                                                                                                                                                             | M 15-100 | L <15        |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| 4                                                                                                                                        | Adjacent area vegetation condition (list % in each category)                         |  |  |  |  | H 100%                                                                                                                                                                                             | M        | L            |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| 5                                                                                                                                        | Adjacent area diversity and structure (list % in each category)                      |  |  |  |  | H 100%                                                                                                                                                                                             | M        | L            |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| 6                                                                                                                                        | Adjacent Upland Slope (list % in each category)                                      |  |  |  |  | Steep 60%                                                                                                                                                                                          | Mod 25%  | Gentle 15%   |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| 7                                                                                                                                        | Adjacent land supports water quality                                                 |  |  |  |  | Yes                                                                                                                                                                                                | No       | Specify:     |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| 8                                                                                                                                        | Adjacent land supports wildlife habitat                                              |  |  |  |  | Yes                                                                                                                                                                                                | No       | Specify:     |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| SF4                                                                                                                                      | <b>Rate the overall condition and integrity land adjacent to wetland</b>             |  |  |  |  | H                                                                                                                                                                                                  | M        | L            | is buffer required to maintain red flag functions of wetland? If yes if no |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| SECTION FOUR: DOCUMENTED IMPORTANT FEATURES                                                                                              |                                                                                      |  |  |  |  |                                                                                                                                                                                                    |          |              |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |
| SF5                                                                                                                                      | <b>Is the WL a WSS?</b>                                                              |  |  |  |  | Yes                                                                                                                                                                                                | No       |              |                                                                            |            |                                                           |                                                 |        |             |  |                                           |  |  |  |  |  |

|                                                         |                                                                       |                                                                                                          |            |                        |     |                |    |            |    |     |
|---------------------------------------------------------|-----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|------------|------------------------|-----|----------------|----|------------|----|-----|
| SF6                                                     | Does the WL support commercial/recreational fish/shellfish?           | Yes                                                                                                      | No         |                        |     |                |    |            |    |     |
| SF7                                                     | Species of concern (Fed/Prov)? Specify.                               | End                                                                                                      | Thr - SARA | SpC                    | Red | Yellow         | S1 | S2         | S3 | N/A |
| SF8                                                     | Wetland has conservation/compensation agreements/activity?            | Yes                                                                                                      | No         | specify:               |     |                |    |            |    |     |
| SF9                                                     | Wetland is calcerous fen, black ash or cedar swamp?                   | Yes                                                                                                      | No         |                        |     |                |    |            |    |     |
| SF10                                                    | Within Drinking Water Protected Area (designated watershed/wellfield) | Yes                                                                                                      | No         | specify:               |     |                |    |            |    |     |
| SF11                                                    | WL within a floodplain and upstream of or within of a populated area? | Yes                                                                                                      | No         |                        |     |                |    |            |    |     |
| SF12                                                    | Fed/Prov/Municipal area of interest?                                  | Yes                                                                                                      | No         | specify:               |     |                |    |            |    |     |
| <b>SECTION FIVE: HYDROLOGIC CONDITION AND INTEGRITY</b> |                                                                       |                                                                                                          |            |                        |     |                |    |            |    |     |
| 1                                                       | Is WL source of stream or headwater(wc order 1 or 2)                  | Yes                                                                                                      | No         | Specify:               |     |                |    |            |    |     |
| 2                                                       | Is WL geographically isolated?                                        | Yes                                                                                                      | No         | Specify:               |     |                |    |            |    |     |
| 3                                                       | WL ability to maintain characteristic hydrologic regime               | High                                                                                                     |            | Med                    |     | Low            |    |            |    |     |
| 4                                                       | Water Storage Depth (list % in each class)                            | >30cm                                                                                                    | 15-30cm    | up to 15cm             |     | No ponding     |    |            |    |     |
| 5                                                       | Signs of surface water retention observed?                            | SW __ cm, WSL __, WCD __, WM __ cm, SM __ cm, SD __, AD __, ID __, PMT_x __, AI __, BT __, AR __, Other: |            |                        |     |                |    |            |    |     |
| 6                                                       | Describe observable/historical anthropogenic sediment delivery        | Low                                                                                                      |            | Med                    |     | High           |    |            |    |     |
| 7                                                       | Disturbance of WL soils                                               | Low                                                                                                      |            | Med                    |     | High           |    |            |    |     |
| 8                                                       | Predominant soils adjacent to WL                                      | Sand                                                                                                     |            | Silt/loam              |     | Clay, bedrock  |    |            |    |     |
| 9                                                       | Capacity of WL to alter/retard flows                                  | High                                                                                                     |            | Med                    |     | Low            |    |            |    |     |
| 10                                                      | Roughness coefficient for surface water flow path                     | High                                                                                                     |            | Med                    |     | Low            |    |            |    |     |
| 11                                                      | Stormwater/Wastewater/Agricultural runoff detention                   | High                                                                                                     |            | Med                    |     | Low            |    |            |    |     |
| 12                                                      | Water Source                                                          | Natural                                                                                                  |            | Mostly natural         |     | Partly altered |    | Controlled |    |     |
| 13                                                      | Hydrology of tidal wetlands                                           | Unrestricted                                                                                             |            | Reduced                |     | Restricted     |    | N/A        |    |     |
| 14                                                      | Coastal storm surge                                                   | Yes                                                                                                      | No         |                        |     |                |    |            |    |     |
| SF13                                                    | WL hydrologic condition                                               | Natural                                                                                                  | Modified   | Significantly Modified |     |                |    |            |    |     |
| SF14                                                    | WL important for maintaining stream flow?                             | Yes                                                                                                      | No         |                        |     |                |    |            |    |     |
| SF15                                                    | WL ability to detain surface water                                    | High                                                                                                     | Med        | Low                    |     |                |    |            |    |     |
| <b>SECTION SIX: WATER QUALITY</b>                       |                                                                       |                                                                                                          |            |                        |     |                |    |            |    |     |
| 1                                                       | Stormwater/Wastewater/Agricultural runoff as water source?            | High                                                                                                     |            | Med                    |     | Low            |    |            |    |     |
| 2                                                       | Nutrients/sediments from surrounding land                             | High                                                                                                     |            | Med                    |     | Low            |    |            |    |     |
| 3                                                       | Significant flood/stormwater attenuation                              | Yes                                                                                                      | No         |                        |     |                |    |            |    |     |
| 4                                                       | Vegetation capacity to settle suspended sediments                     | High                                                                                                     |            | Med                    |     | Low            |    |            |    |     |
| 5                                                       | WL type /landscape position holds/filters runoff?                     | Yes                                                                                                      | No         |                        |     |                |    |            |    |     |
| SF16                                                    | Wetland improves water quality?                                       | Yes                                                                                                      | No         |                        |     |                |    |            |    |     |
| SF17                                                    | Evidence of excess nutrient loading/contamination?                    | Low                                                                                                      | Med        | High                   |     |                |    |            |    |     |
| SF18                                                    | WL contributes to water quality in downstream resources               | High                                                                                                     | Med        | Low                    |     |                |    |            |    |     |
| <b>SECTION SEVEN: GROUNDWATER INTERACTIONS</b>          |                                                                       |                                                                                                          |            |                        |     |                |    |            |    |     |
| 1                                                       | Describe soils in wetland                                             | Recharge                                                                                                 |            | Discharge              |     |                |    |            |    |     |
| 2                                                       | Land use / run off in subwatershed upstream                           | Recharge                                                                                                 |            | Discharge              |     |                |    |            |    |     |
| 3                                                       | Conditions of upland soils within 200m of wetland                     | Recharge                                                                                                 |            | Discharge              |     |                |    |            |    |     |
| 4                                                       | Hydroperiod of wetland                                                | Recharge                                                                                                 |            | Discharge              |     |                |    |            |    |     |
| 5                                                       | Describe inlet/outlet configuration                                   | Recharge                                                                                                 |            | Discharge              |     |                |    |            |    |     |
| 6                                                       | Characterize topographic relief surrounding wetland                   | Recharge                                                                                                 |            | Discharge              |     |                |    |            |    |     |



|                                                             |                                                                           |                                                                                                                                              |          |                                           |                       |            |              |             |     |
|-------------------------------------------------------------|---------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------------------------------------|-----------------------|------------|--------------|-------------|-----|
| SF19                                                        | WL serves as a recharge site                                              | Yes                                                                                                                                          | No       |                                           |                       |            |              |             |     |
| SF20                                                        | WL serves as a discharge site                                             | Yes                                                                                                                                          | No       |                                           |                       |            |              |             |     |
| <b>SECTION EIGHT: SHORELINE STABILIZATION AND INTEGRITY</b> |                                                                           |                                                                                                                                              |          |                                           |                       |            |              |             |     |
| 1                                                           | Wetland fringing ocean/estuary/lake/pond/river/stream?                    | Yes                                                                                                                                          | No       | streamwidth >4m                           | streamwidth<4m        | WB Exposed | WB Sheltered |             |     |
| 2                                                           | % cover of rooted vegetation in shallow water zone                        | H >50%                                                                                                                                       | M 10-50  | L <10%                                    |                       |            |              |             |     |
| 3                                                           | Avg veg WL width b/w shoreline/streambank & 2 m depth contour             | H >10m                                                                                                                                       | M 3-10   | L <3m                                     |                       |            |              |             |     |
| 4                                                           | Prevalence of strong-stemmed emerg. veg (shoreline marshes and fens only) | High                                                                                                                                         | Med      | Low                                       |                       |            |              |             |     |
| 5                                                           | Describe shoreline erosion potential                                      | High                                                                                                                                         | Med      | Low                                       |                       |            |              |             |     |
| 6                                                           | Shoreline/streambank veg condition upslope of water level                 | Low                                                                                                                                          | Med      | High                                      | Artificial            |            |              |             |     |
| SF21                                                        | WL ability to stabilize shoreline                                         | H                                                                                                                                            | M        | L                                         | N/A                   |            |              |             |     |
| <b>SECTION NINE: PLANT COMMUNITY</b>                        |                                                                           |                                                                                                                                              |          |                                           |                       |            |              |             |     |
| 1                                                           | Vegetation diversity                                                      | High                                                                                                                                         | Med      | Low                                       |                       |            |              |             |     |
| 1b                                                          | Dominant plant species and % cover in the WL                              | list: <i>Osmunda cinnamomea</i> (20%)/ <i>Calamagrostis canadensis</i> (40%)/ <i>Eriophorum virginicum</i> (30%)/ <i>Juncu effusus</i> (20%) |          |                                           |                       |            |              |             |     |
| 3                                                           | Dominant Non-native or Invasive species and % cover                       | Yes                                                                                                                                          | No       | specify: %                                |                       |            |              |             |     |
| 4                                                           | Vegetation Disturbance                                                    | H                                                                                                                                            | M        | L                                         | specify type(s) below |            |              |             |     |
| 5                                                           | Disturbance Types                                                         | H __,ATV __,G __,M __,In __, D/D __, Im __, OAH __, li __, Sd __,E __,other __,                                                              |          |                                           |                       |            |              |             |     |
| 7                                                           | Vegetative Integrity of plant community                                   | E                                                                                                                                            | H        | M                                         | L                     |            |              |             |     |
| SF22                                                        | Is the plant community unique or rare regionally or provincially?         | Yes                                                                                                                                          | no       | specify:                                  |                       |            |              |             |     |
| SF23                                                        | Does the WL contain a diversity of plant communities                      | H                                                                                                                                            | M        | L                                         |                       |            |              |             |     |
| SF24                                                        | Rate the overall integrity/quality of plant community?                    | H                                                                                                                                            | M        | L                                         |                       |            |              |             |     |
| SF25                                                        | Are there any observed rare or endangered plant species? Specify.         | End                                                                                                                                          | Thr      | SpC                                       | Red                   | Yellow     | S1           | S2          | S3  |
|                                                             |                                                                           |                                                                                                                                              |          |                                           |                       |            |              |             | N/A |
| <b>SECTION TEN: FISH AND WILDLIFE HABITAT AND INTEGRITY</b> |                                                                           |                                                                                                                                              |          |                                           |                       |            |              |             |     |
| 1                                                           | Interspersion of open water and vegetation (open water types only)        | H                                                                                                                                            | M        | L                                         |                       |            |              |             |     |
| 1b                                                          | % cover in vegetation versus open water                                   | _100_ %                                                                                                                                      |          |                                           |                       |            |              |             |     |
| 2                                                           | Interspersion that best fits entire wetland                               | H                                                                                                                                            | M        | L                                         | N/A                   |            |              |             |     |
| 3                                                           | Wetland condition related to detritus                                     | H                                                                                                                                            | M        | L                                         | N/A                   |            |              |             |     |
| 4                                                           | Interspersion of other wetlands in vicinity                               | H                                                                                                                                            | M        | L                                         |                       |            |              |             |     |
| 6                                                           | Barriers/restriction between wetland and other habitat                    | L                                                                                                                                            | M        | H                                         |                       |            |              |             |     |
| 7                                                           | Noteworthy wildlife or evidence (birds, mammals, amphibians,etc)          | Yes                                                                                                                                          | No       | list: Passerines, Deer tracks and pellets |                       |            |              |             |     |
| 8                                                           | Connected to permanent water (accessible to fish)?                        | Exceptional                                                                                                                                  | High     | Med                                       | Low                   | N/A        |              |             |     |
| 9                                                           | Fish species observed or evidence seen (list)                             | Yes                                                                                                                                          | No       | list:                                     |                       |            |              |             |     |
| 10                                                          | Wetland part of contiguous upland or wetland:                             | >50ha                                                                                                                                        | 25-50ha  | 10-25ha                                   | <10ha                 |            |              |             |     |
| 11                                                          | WL provides habitat for:                                                  | Amphibians                                                                                                                                   | Reptiles | Waterfowl                                 | Waterbirds            | Mammals    | Fish         | R/E species |     |
| SF26                                                        | Does wetland support fish/fish habitat?                                   | Yes                                                                                                                                          | No       | specify:                                  |                       |            |              |             |     |
| SF27                                                        | Rare or endangered fish/wildlife species found in the wetland?            | End                                                                                                                                          | Thr-SARA | SpC                                       | Red                   | Yellow     | S1           | S2          | S3  |
|                                                             |                                                                           |                                                                                                                                              |          |                                           |                       |            |              |             | N/A |
| SF28                                                        | Overall fish and wildlife habitat quality                                 | H                                                                                                                                            | M        | L                                         |                       |            |              |             |     |
| <b>SECTION ELEVEN: COMMUNITY USE/VALUE</b>                  |                                                                           |                                                                                                                                              |          |                                           |                       |            |              |             |     |
| 1                                                           | Describe community use                                                    | VV __,CP __,CO __,PO __,PA __,AV __,GB __,E __,HI __, WV __, BO __,HU __, PG __, BP __,F __, E __, R __, Other:                              |          |                                           |                       |            |              |             |     |
| SF29                                                        | Rate the wetland's community use/value                                    | H                                                                                                                                            | M        | L                                         |                       |            |              |             |     |

SF ratings highlighted in red indicate critical wetland functions or watershed conditions that are highly degraded. Whenever a wetland is found to have red-highlighted SFs the proponent

| APPENDIX D: WL22                                                                                                                         |                                                                                      | Nova Scotia Wetland Evaluation Technique Field Data Sheet |                            |                                                                                                                                                                                                    |          |                                                   |                                                                            |            |                                           |                                                 |     |     |
|------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-----------------------------------------------------------|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------------------------------------------|----------------------------------------------------------------------------|------------|-------------------------------------------|-------------------------------------------------|-----|-----|
| Project Name: Black Point Quarry                                                                                                         |                                                                                      |                                                           |                            | Evaluator: Scott Burley                                                                                                                                                                            |          |                                                   | GPS Coordinates: 645630 E x 5023728 N                                      |            |                                           |                                                 |     |     |
| PID:35212497, 35212505, 35212521, 35212513, 35044056, 35214014, 35214022, 35214022 and 35213990                                          |                                                                                      |                                                           |                            |                                                                                                                                                                                                    |          | Site Address: Black Point, Guysborough County, NS |                                                                            |            |                                           |                                                 |     |     |
| Sources and Dates of Mapping/Images: NS Wetlands Inventory (2012); NS Forest Inventory (Current Forest Data - 2004); Google Earth (2003) |                                                                                      |                                                           |                            |                                                                                                                                                                                                    |          |                                                   |                                                                            |            |                                           |                                                 |     |     |
| Evaluation Date: 10-Sep-14                                                                                                               |                                                                                      |                                                           | Site Visit Date: 20-Aug-14 |                                                                                                                                                                                                    |          |                                                   |                                                                            |            |                                           |                                                 |     |     |
| Weather Conditions (past 48 hours): Sun and Clouds                                                                                       |                                                                                      |                                                           |                            |                                                                                                                                                                                                    |          |                                                   |                                                                            |            |                                           |                                                 |     |     |
| Seasonal Weather Conditions: Typical                                                                                                     |                                                                                      |                                                           |                            |                                                                                                                                                                                                    |          |                                                   |                                                                            |            |                                           |                                                 |     |     |
| SECTION ONE: WATERSHED CHARACTERISTICS                                                                                                   |                                                                                      |                                                           |                            |                                                                                                                                                                                                    |          |                                                   |                                                                            |            |                                           |                                                 |     |     |
| 1                                                                                                                                        | Watershed Name (tertiary): 1EQ-SD                                                    |                                                           |                            | Size: 518 km <sup>2</sup>                                                                                                                                                                          |          |                                                   |                                                                            |            |                                           |                                                 |     |     |
| 2                                                                                                                                        | % Watershed Land Cover                                                               |                                                           |                            | For: 43                                                                                                                                                                                            | Nat: 36  | Past/Hay: <1                                      | Crop: <1                                                                   | Urb/Com: 2 | Road: <1                                  | Other Dev: <1 (Gravel Pit, Landfill, Industrial |     |     |
| 3                                                                                                                                        | % Watershed WL Cover and by Class                                                    |                                                           |                            | Total: 10%                                                                                                                                                                                         | SM: <1   | BO: 6                                             | FE: 1                                                                      | FM: 2      | FS: 1                                     | SS: 1 CP: <1 VP: Present                        |     |     |
| SF1                                                                                                                                      | <b>Watershed condition</b>                                                           |                                                           |                            | H                                                                                                                                                                                                  | M        | L                                                 |                                                                            |            |                                           |                                                 |     |     |
| SF2                                                                                                                                      | <b>Proportion of WL area in watershed &amp; opportunity for floodwater detention</b> |                                                           |                            | H                                                                                                                                                                                                  | M        | L                                                 |                                                                            |            |                                           |                                                 |     |     |
| SECTION TWO: WETLAND CHARACTERISTICS                                                                                                     |                                                                                      |                                                           |                            |                                                                                                                                                                                                    |          |                                                   |                                                                            |            |                                           |                                                 |     |     |
| Wetland Type: Fen                                                                                                                        |                                                                                      |                                                           |                            | WL size: 0.1 hectares                                                                                                                                                                              |          |                                                   | Landform: Slope                                                            |            | Landscape Position: Lotic Stream Confined |                                                 |     |     |
| Water flow path: Throughflow                                                                                                             |                                                                                      |                                                           |                            | Wetland Origin: Natural                                                                                                                                                                            |          |                                                   |                                                                            |            |                                           |                                                 |     |     |
| 1                                                                                                                                        | Water Regime                                                                         |                                                           |                            | PF                                                                                                                                                                                                 | SF       | TF                                                | SS                                                                         | PS         | RfT                                       | IfT                                             | AF  |     |
| 2                                                                                                                                        | # WL's within 30m project area                                                       |                                                           |                            | Total# 0                                                                                                                                                                                           | SM:      | BO:                                               | FE:                                                                        | FM:        | FS:                                       | SS:                                             | CP: | VP: |
| 3                                                                                                                                        | Is WL part of complex                                                                |                                                           |                            | Yes                                                                                                                                                                                                | No       |                                                   |                                                                            |            |                                           |                                                 |     |     |
| 4                                                                                                                                        | % each wetland type in complex                                                       |                                                           |                            | SM:                                                                                                                                                                                                | BO:      | FE: 100                                           | FM:                                                                        | FS:        | SS:                                       | CP:                                             | VP: |     |
| 5                                                                                                                                        | Is WL bordering or associated with a lake or pond?                                   |                                                           |                            | bordering                                                                                                                                                                                          |          | within 100m                                       |                                                                            | N/A        | specify                                   |                                                 |     |     |
| 6                                                                                                                                        | Standing water?                                                                      |                                                           |                            | Yes                                                                                                                                                                                                | Avg Dep: |                                                   | % Inundated:                                                               |            | No                                        |                                                 |     |     |
| 7                                                                                                                                        | Inlet or Outlet (circle all that apply)?                                             |                                                           |                            | Inlet                                                                                                                                                                                              | Outlet   |                                                   |                                                                            |            |                                           |                                                 |     |     |
| 8                                                                                                                                        | Adjacent Upland Land Use within 100m (%)                                             |                                                           |                            | For: 95                                                                                                                                                                                            | Nat:     | PasHay:                                           | Crop:                                                                      | UrbCm:     | Road:                                     | Other Dev: 5% beach                             |     |     |
| 9                                                                                                                                        | Are there stressors in WL or WL buffer area? Circle primary stressor(s).             |                                                           |                            | DD __, CW __, WcS __, O/C __, EB __, DP __, F __, M __, ES __, NE __, DwP __, M __, GC __, ATV __, DG __, EA __, R __, Rr __, U/CD __, F __, FA __, other (specify): Skidder trail through wetland |          |                                                   |                                                                            |            |                                           |                                                 |     |     |
| 10                                                                                                                                       | Hydrology Altered (circle all that apply)?                                           |                                                           |                            | Ditching                                                                                                                                                                                           | Dams     | Tiles                                             | Culvert                                                                    | Well       | Diversion                                 | Other Specify:                                  |     |     |
| SF3                                                                                                                                      | <b>Rate the general wetland condition/integrity</b>                                  |                                                           |                            | H                                                                                                                                                                                                  | M        | L                                                 |                                                                            |            |                                           |                                                 |     |     |
| SECTION THREE: ADJACENT LAND CONDITION AND INTEGRITY                                                                                     |                                                                                      |                                                           |                            |                                                                                                                                                                                                    |          |                                                   |                                                                            |            |                                           |                                                 |     |     |
| 1                                                                                                                                        | Average width of adjacent naturalized buffer                                         |                                                           |                            | >1000_m                                                                                                                                                                                            |          |                                                   |                                                                            |            |                                           |                                                 |     |     |
| 2                                                                                                                                        | Widths for water quality                                                             |                                                           |                            | H >1                                                                                                                                                                                               | M 8-15   | L <8                                              |                                                                            |            |                                           |                                                 |     |     |
| 3                                                                                                                                        | Widths for wildlife habitat                                                          |                                                           |                            | H >100                                                                                                                                                                                             | M 15-100 | L <15                                             |                                                                            |            |                                           |                                                 |     |     |
| 4                                                                                                                                        | Adjacent area vegetation condition (list % in each category)                         |                                                           |                            | H 100%                                                                                                                                                                                             | M        | L                                                 |                                                                            |            |                                           |                                                 |     |     |
| 5                                                                                                                                        | Adjacent area diversity and structure (list % in each category)                      |                                                           |                            | H 100%                                                                                                                                                                                             | M        | L                                                 |                                                                            |            |                                           |                                                 |     |     |
| 6                                                                                                                                        | Adjacent Upland Slope (list % in each category)                                      |                                                           |                            | Steep 70%                                                                                                                                                                                          | Mod 25%  | Gentle 5%                                         |                                                                            |            |                                           |                                                 |     |     |
| 7                                                                                                                                        | Adjacent land supports water quality                                                 |                                                           |                            | Yes                                                                                                                                                                                                | No       | Specify:                                          |                                                                            |            |                                           |                                                 |     |     |
| 8                                                                                                                                        | Adjacent land supports wildlife habitat                                              |                                                           |                            | Yes                                                                                                                                                                                                | No       | Specify:                                          |                                                                            |            |                                           |                                                 |     |     |
| SF4                                                                                                                                      | <b>Rate the overall condition and integrity land adjacent to wetland</b>             |                                                           |                            | H                                                                                                                                                                                                  | M        | L                                                 | is buffer required to maintain red flag functions of wetland? If yes if no |            |                                           |                                                 |     |     |
| SECTION FOUR: DOCUMENTED IMPORTANT FEATURES                                                                                              |                                                                                      |                                                           |                            |                                                                                                                                                                                                    |          |                                                   |                                                                            |            |                                           |                                                 |     |     |
| SF5                                                                                                                                      | <b>Is the WL a WSS?</b>                                                              |                                                           |                            | Yes                                                                                                                                                                                                | No       |                                                   |                                                                            |            |                                           |                                                 |     |     |

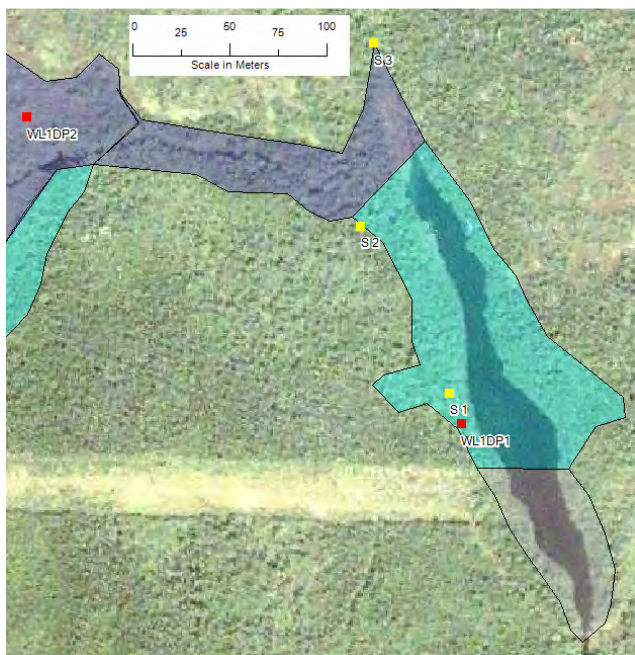
|                                                         |                                                                       |                                                                                  |            |                        |                |            |    |    |    |
|---------------------------------------------------------|-----------------------------------------------------------------------|----------------------------------------------------------------------------------|------------|------------------------|----------------|------------|----|----|----|
| SF6                                                     | Does the WL support commercial/recreational fish/shellfish?           | Yes                                                                              | No         |                        |                |            |    |    |    |
| SF7                                                     | Species of concern (Fed/Prov)? Specify.                               | End                                                                              | Thr - SARA | SpC                    | Red            | Yellow     | S1 | S2 | S3 |
| SF8                                                     | Wetland has conservation/compensation agreements/activity?            | Yes                                                                              | No         | specify:               |                |            |    |    |    |
| SF9                                                     | Wetland is calcerous fen, black ash or cedar swamp?                   | Yes                                                                              | No         |                        |                |            |    |    |    |
| SF10                                                    | Within Drinking Water Protected Area (designated watershed/wellfield) | Yes                                                                              | No         | specify:               |                |            |    |    |    |
| SF11                                                    | WL within a floodplain and upstream of or within of a populated area? | Yes                                                                              | No         |                        |                |            |    |    |    |
| SF12                                                    | Fed/Prov/Municipal area of interest?                                  | Yes                                                                              | No         | specify:               |                |            |    |    |    |
| <b>SECTION FIVE: HYDROLOGIC CONDITION AND INTEGRITY</b> |                                                                       |                                                                                  |            |                        |                |            |    |    |    |
| 1                                                       | Is WL source of stream or headwater(wc order 1 or 2)                  | Yes                                                                              | No         | Specify:               |                |            |    |    |    |
| 2                                                       | Is WL geographically isolated?                                        | Yes                                                                              | No         | Specify:               |                |            |    |    |    |
| 3                                                       | WL ability to maintain characteristic hydrologic regime               | High                                                                             |            | Med                    | Low            |            |    |    |    |
| 4                                                       | Water Storage Depth (list % in each class)                            | >30cm                                                                            | 15-30cm    | up to 15cm             | No ponding     |            |    |    |    |
| 5                                                       | Signs of surface water retention observed?                            | SW_20_cm, WSL_, WCD_, WM_cm, SM_cm, SD_, AD_, ID_, PMT_x_, AI_, BT_, AR_, Other: |            |                        |                |            |    |    |    |
| 6                                                       | Describe observable/historical anthropogenic sediment delivery        | Low                                                                              |            | Med                    | High           |            |    |    |    |
| 7                                                       | Disturbance of WL soils                                               | Low                                                                              |            | Med                    | High           |            |    |    |    |
| 8                                                       | Predominant soils adjacent to WL                                      | Sand                                                                             |            | Silt/loam              | Clay, bedrock  |            |    |    |    |
| 9                                                       | Capacity of WL to alter/retard flows                                  | High                                                                             |            | Med                    | Low            |            |    |    |    |
| 10                                                      | Roughness coefficient for surface water flow path                     | High                                                                             |            | Med                    | Low            |            |    |    |    |
| 11                                                      | Stormwater/Wastewater/Agricultural runoff detention                   | High                                                                             |            | Med                    | Low            |            |    |    |    |
| 12                                                      | Water Source                                                          | Natural                                                                          |            | Mostly natural         | Partly altered | Controlled |    |    |    |
| 13                                                      | Hydrology of tidal wetlands                                           | Unrestricted                                                                     |            | Reduced                | Restricted     | N/A        |    |    |    |
| 14                                                      | Coastal storm surge                                                   | Yes                                                                              | No         |                        |                |            |    |    |    |
| SF13                                                    | WL hydrologic condition                                               | Natural                                                                          | Modified   | Significantly Modified |                |            |    |    |    |
| SF14                                                    | WL important for maintaining stream flow?                             | Yes                                                                              | No         |                        |                |            |    |    |    |
| SF15                                                    | WL ability to detain surface water                                    | High                                                                             | Med        | Low                    |                |            |    |    |    |
| <b>SECTION SIX: WATER QUALITY</b>                       |                                                                       |                                                                                  |            |                        |                |            |    |    |    |
| 1                                                       | Stormwater/Wastewater/Agricultural runoff as water source?            | High                                                                             |            | Med                    | Low            |            |    |    |    |
| 2                                                       | Nutrients/sediments from surrounding land                             | High                                                                             |            | Med                    | Low            |            |    |    |    |
| 3                                                       | Significant flood/stormwater attenuation                              | Yes                                                                              | No         |                        |                |            |    |    |    |
| 4                                                       | Vegetation capacity to settle suspended sediments                     | High                                                                             |            | Med                    | Low            |            |    |    |    |
| 5                                                       | WL type /landscape position holds/filters runoff?                     | Yes                                                                              | No         |                        |                |            |    |    |    |
| SF16                                                    | Wetland improves water quality?                                       | Yes                                                                              | No         |                        |                |            |    |    |    |
| SF17                                                    | Evidence of excess nutrient loading/contamination?                    | Low                                                                              | Med        | High                   |                |            |    |    |    |
| SF18                                                    | WL contributes to water quality in downstream resources               | High                                                                             | Med        | Low                    |                |            |    |    |    |
| <b>SECTION SEVEN: GROUNDWATER INTERACTIONS</b>          |                                                                       |                                                                                  |            |                        |                |            |    |    |    |
| 1                                                       | Describe soils in wetland                                             | Recharge                                                                         |            | Discharge              |                |            |    |    |    |
| 2                                                       | Land use / run off in subwatershed upstream                           | Recharge                                                                         |            | Discharge              |                |            |    |    |    |
| 3                                                       | Conditions of upland soils within 200m of wetland                     | Recharge                                                                         |            | Discharge              |                |            |    |    |    |
| 4                                                       | Hydroperiod of wetland                                                | Recharge                                                                         |            | Discharge              |                |            |    |    |    |
| 5                                                       | Describe inlet/outlet configuration                                   | Recharge                                                                         |            | Discharge              |                |            |    |    |    |
| 6                                                       | Characterize topographic relief surrounding wetland                   | Recharge                                                                         |            | Discharge              |                |            |    |    |    |

|                                                             |                                                                           |                                                                                                                           |          |                                             |                       |            |              |             |     |
|-------------------------------------------------------------|---------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|----------|---------------------------------------------|-----------------------|------------|--------------|-------------|-----|
| SF19                                                        | WL serves as a recharge site                                              | Yes                                                                                                                       | No       |                                             |                       |            |              |             |     |
| SF20                                                        | WL serves as a discharge site                                             | Yes                                                                                                                       | No       |                                             |                       |            |              |             |     |
| <b>SECTION EIGHT: SHORELINE STABILIZATION AND INTEGRITY</b> |                                                                           |                                                                                                                           |          |                                             |                       |            |              |             |     |
| 1                                                           | Wetland fringing ocean/estuary/lake/pond/river/stream?                    | Yes                                                                                                                       | No       | streamwidth >4m                             | streamwidth<4m        | WB Exposed | WB Sheltered |             |     |
| 2                                                           | % cover of rooted vegetation in shallow water zone                        | H >50%                                                                                                                    | M 10-50  | L <10%                                      |                       |            |              |             |     |
| 3                                                           | Avg veg WL width b/w shoreline/streambank & 2 m depth contour             | H >10m                                                                                                                    | M 3-10   | L <3m                                       |                       |            |              |             |     |
| 4                                                           | Prevalence of strong-stemmed emerg. veg (shoreline marshes and fens only) | High                                                                                                                      | Med      | Low                                         |                       |            |              |             |     |
| 5                                                           | Describe shoreline erosion potential                                      | High                                                                                                                      | Med      | Low                                         |                       |            |              |             |     |
| 6                                                           | Shoreline/streambank veg condition upslope of water level                 | Low                                                                                                                       | Med      | High                                        | Artificial            |            |              |             |     |
| SF21                                                        | WL ability to stabilize shoreline                                         | H                                                                                                                         | M        | L                                           | N/A                   |            |              |             |     |
| <b>SECTION NINE: PLANT COMMUNITY</b>                        |                                                                           |                                                                                                                           |          |                                             |                       |            |              |             |     |
| 1                                                           | Vegetation diversity                                                      | High                                                                                                                      | Med      | Low                                         |                       |            |              |             |     |
| 1b                                                          | Dominant plant species and % cover in the WL                              | list: <i>Osmunda cinnamomea</i> (30%)/ <i>Calamagrostis</i> (40%)/ <i>Oclemena nemoralis</i> (20%)                        |          |                                             |                       |            |              |             |     |
| 3                                                           | Dominant Non-native or Invasive species and % cover                       | Yes                                                                                                                       | No       | specify: %                                  |                       |            |              |             |     |
| 4                                                           | Vegetation Disturbance                                                    | H                                                                                                                         | M        | L                                           | specify type(s) below |            |              |             |     |
| 5                                                           | Disturbance Types                                                         | H __,ATV __, G __, M __, In __, D/D __, Im __, OAH __, li __, Sd __, E __, other __,                                      |          |                                             |                       |            |              |             |     |
| 7                                                           | Vegetative Integrity of plant community                                   | E                                                                                                                         | H        | M                                           | L                     |            |              |             |     |
| SF22                                                        | Is the plant community unique or rare regionally or provincially?         | Yes                                                                                                                       | no       | specify:                                    |                       |            |              |             |     |
| SF23                                                        | Does the WL contain a diversity of plant communities                      | H                                                                                                                         | M        | L                                           |                       |            |              |             |     |
| SF24                                                        | Rate the overall integrity/quality of plant community?                    | H                                                                                                                         | M        | L                                           |                       |            |              |             |     |
| SF25                                                        | Are there any observed rare or endangered plant species? Specify.         | End                                                                                                                       | Thr      | SpC                                         | Red                   | Yellow     | S1           | S2          | S3  |
|                                                             |                                                                           |                                                                                                                           |          |                                             |                       |            |              |             | N/A |
| <b>SECTION TEN: FISH AND WILDLIFE HABITAT AND INTEGRITY</b> |                                                                           |                                                                                                                           |          |                                             |                       |            |              |             |     |
| 1                                                           | Interspersion of open water and vegetation (open water types only)        | H                                                                                                                         | M        | L                                           |                       |            |              |             |     |
| 1b                                                          | % cover in vegetation versus open water                                   | _95_ %                                                                                                                    |          |                                             |                       |            |              |             |     |
| 2                                                           | Interspersion that best fits entire wetland                               | H                                                                                                                         | M        | L                                           | N/A                   |            |              |             |     |
| 3                                                           | Wetland condition related to detritus                                     | H                                                                                                                         | M        | L                                           | N/A                   |            |              |             |     |
| 4                                                           | Interspersion of other wetlands in vicinity                               | H                                                                                                                         | M        | L                                           |                       |            |              |             |     |
| 6                                                           | Barriers/restriction between wetland and other habitat                    | L                                                                                                                         | M        | H                                           |                       |            |              |             |     |
| 7                                                           | Noteworthy wildlife or evidence (birds, mammals, amphibians,etc)          | Yes                                                                                                                       | No       | list: Passerines, Deer tracks, Leopard Frog |                       |            |              |             |     |
| 8                                                           | Connected to permanent water (accessible to fish)?                        | Exceptional                                                                                                               | High     | Med                                         | Low                   | N/A        |              |             |     |
| 9                                                           | Fish species observed or evidence seen (list)                             | Yes                                                                                                                       | No       | list:                                       |                       |            |              |             |     |
| 10                                                          | Wetland part of contiguous upland or wetland:                             | >50ha                                                                                                                     | 25-50ha  | 10-25ha                                     | <10ha                 |            |              |             |     |
| 11                                                          | WL provides habitat for:                                                  | Amphibians                                                                                                                | Reptiles | Waterfowl                                   | Waterbirds            | Mammals    | Fish         | R/E species |     |
| SF26                                                        | Does wetland support fish/fish habitat?                                   | Yes                                                                                                                       | No       | specify:                                    |                       |            |              |             |     |
| SF27                                                        | Rare or endangered fish/wildlife species found in the wetland?            | End                                                                                                                       | Thr-SARA | SpC                                         | Red                   | Yellow     | S1           | S2          | S3  |
|                                                             |                                                                           |                                                                                                                           |          |                                             |                       |            |              |             | N/A |
| SF28                                                        | Overall fish and wildlife habitat quality                                 | H                                                                                                                         | M        | L                                           |                       |            |              |             |     |
| <b>SECTION ELEVEN: COMMUNITY USE/VALUE</b>                  |                                                                           |                                                                                                                           |          |                                             |                       |            |              |             |     |
| 1                                                           | Describe community use                                                    | VV __, CP __, CO __, PO __, PA __, AV __, GB __, E __, HI __, WV __, BO __, HU __, PG __, BP __, F __, E __, R __, Other: |          |                                             |                       |            |              |             |     |
| SF29                                                        | Rate the wetland's community use/value                                    | H                                                                                                                         | M        | L                                           |                       |            |              |             |     |

SF ratings highlighted in red indicate critical wetland functions or watershed conditions that are highly degraded. Whenever a wetland is found to have red-highlighted SFs the proponent

**APPENDIX E**  
**Additional Delineation Data Sheets**

## Wetland 1



Two streams feed into this large beaver pond from the north. The wetland surrounding the pond is narrow and in some cases non-existent due to steep rock outcrops at the edge of the water. The beaver dam is at the southern end of the open water. Forested wetland is present at the bottom of a steep slope in the southern quadrant near the power line and riparian shrub wetland is associated with both streams.





Open water seen from the south with some riparian Shrub Wetland



Beaver dam seen from the north.



Beaver lodge



Forested Wetland at Wetland 1



Upland habitat adjacent to Forested Wetland at the base of the steep incline at Wetland 1



Shrub Riparian Wetland where Wetland 1 joins Wetland 17

|                           |                                                                                                                       |                      |        |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------|----------------------|--------|
| Project Site: Point Black | Date: July, 2011                                                                                                      | Sample Point: WL1DP1 | Job #: |
| Client/owner:             | Field Investigator(s): Theo Popma, Candice, Carrie B.                                                                 |                      |        |
| County: Guysborough       | Coordinates: 645779 5022433                                                                                           |                      |        |
| PID 35092063              | Do normal environmental conditions exist on-site? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |                      |        |

If no, explain:

Atypical Situation? Yes  No  Explain: Beaver Dam

Is this a potential Problem Area? Yes  No  Explain:

**Wetland Determination**

(Check One Only For Each Criteria)

|                                              |     |                                     |    |                          |
|----------------------------------------------|-----|-------------------------------------|----|--------------------------|
| Dominant Hydrophytic Vegetation (50/20 rule) | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/> |
| Wetland Hydrology                            | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/> |
| Hydric Soils                                 | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/> |

Wetland Type: Riparian | Forested Wetland

Rational for Determination:

|                                         |                             |
|-----------------------------------------|-----------------------------|
| <b>Wetland Determination</b>            |                             |
| <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO |

**Vegetation**

| Tree Stratum: (Plot size: 9m2 ) | %Cover | Dominant Species | Indicator Status |
|---------------------------------|--------|------------------|------------------|
| 1 <i>Osmunda cinnamomea</i>     | 5      | x                | FACW             |
| 2 <i>Oxalis montana</i>         | 5      | x                | FAC-             |
| 3 <i>Carex trisperma</i>        | 5      | x                | OBL              |
| 4 <i>Aralia nudicaulis</i>      | 5      | x                | FACU             |
| 5                               |        |                  |                  |
| 6                               |        |                  |                  |

**Dominance Test Worksheet:**

|                                                |      |
|------------------------------------------------|------|
| # of Dominant Species that are OBL,FACW,FAC:   | 6    |
| Total # of Dominant Species across all strata: | 7    |
| % of Dominant Species that are OBL,FACW,FAC:   | 85.7 |

| Shrub Stratum: (Plot size: 5m2 ) | %Cover | Dominant Species | Indicator Status |
|----------------------------------|--------|------------------|------------------|
| 1 <i>Nemopanthus mucronatus</i>  | 5      | x                | OBL              |
| 2 <i>Abies balsamea</i>          | 10     | x                | FAC              |
| 3                                |        |                  |                  |
| 4                                |        |                  |                  |
| 5                                |        |                  |                  |
| 15 = Total Cover                 |        |                  |                  |

**Prevalence Index Worksheet:**

|                                 |              |           |
|---------------------------------|--------------|-----------|
| Total %Cover of:                | Multiply by: |           |
| OBL Species                     | x 1 =        | 0         |
| FACW Species                    | x 2 =        | 0         |
| FAC Species                     | x 3 =        | 0         |
| FACU Species                    | x 4 =        | 0         |
| ULP Species                     | x 5 =        | 0         |
| Column Totals:                  |              | 0         |
| <b>Prevalence Index = B/A =</b> |              | <b>##</b> |

| Herb Stratum: (Plot Size: 1m2 ) | %Cover | Dominant Species | Indicator Status |
|---------------------------------|--------|------------------|------------------|
| 1 <i>Abies balsamea</i>         | 50     | x                | FAC              |
| 2 <i>Picea mariana</i>          | 20     |                  |                  |
| 3 <i>Larix laricina</i>         | 10     |                  |                  |
| 4                               |        |                  |                  |
| 5                               |        |                  |                  |
| 80 = Total Cover                |        |                  |                  |

**Hydrophytic Vegetation Indicators:**

- Rapid Test for Hydrologic Vegetation
- Dominance Test is >50%
- Prevalence Index is ≤3.0 <sup>1</sup>
- Morphological Adaptations<sup>1</sup> (explain)
- Problematic Hydrophytic Vegetation<sup>1</sup>(explain)

Comments

Sphagnum common

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

**Hydrophytic Vegetation Present?** Yes  No

**Hydrology**

**Primary Hydrological Indicators:** (minimum of one is required; check all that apply)

|                                                                    |                                                                     |
|--------------------------------------------------------------------|---------------------------------------------------------------------|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Water Stained Leaves (B9)                  |
| <input checked="" type="checkbox"/> High Water Table (A2)          | <input type="checkbox"/> Aquatic Fauna (B13)                        |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Marl Deposits (B15)                        |
| <input type="checkbox"/> Watermarks                                | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                 |
| <input type="checkbox"/> Sediment Deposits (B2)                    | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3)                       | <input type="checkbox"/> Presence of Reduced Iron (C4)              |
| <input type="checkbox"/> Algal Mat of Crust (B4)                   | <input type="checkbox"/> Recent Iron reduction in tilled Soils (C6) |
| <input type="checkbox"/> Iron Deposits (B5)                        | <input type="checkbox"/> Thin Muck Surface (C7)                     |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks)                 |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)   |                                                                     |

**Secondary Indicators:** (minimum of two required)

|                                                                    |                                                          |
|--------------------------------------------------------------------|----------------------------------------------------------|
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Stunted or Stressed Plants (D1) |
| <input type="checkbox"/> Drainage Patterns (B10)                   | <input type="checkbox"/> Geomorphic Position (D2)        |
| <input type="checkbox"/> Moss Trim Lines (B16)                     | <input type="checkbox"/> Shallow Aquitard (D3)           |
| <input type="checkbox"/> Dry-Season Water Table (C2)               | <input type="checkbox"/> Microtopographic Relief (D4)    |
| <input type="checkbox"/> Crayfish Burrows (C8)                     | <input type="checkbox"/> FAC-Neutral Test (D5)           |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |                                                          |

**Field Observations:**

|                        |                                         |                                        |       |    |
|------------------------|-----------------------------------------|----------------------------------------|-------|----|
| Surface Water Present? | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> | Depth |    |
| Water Table Present?   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            | Depth | 10 |
| Saturation Present?    | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            | Depth | 0  |

**Wetland Hydrology Present?** Yes  No

Comments:

**Soil Profile**

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators)

| Depth(cm) | Matrix       |   | Redox Features |   |                   |                  | Texture | Remarks         |
|-----------|--------------|---|----------------|---|-------------------|------------------|---------|-----------------|
|           | Color(moist) | % | Color(moist)   | % | Type <sup>1</sup> | Loc <sup>2</sup> |         |                 |
|           |              |   |                |   |                   |                  |         | Organic to 30cm |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

|                                                            |                                                       |
|------------------------------------------------------------|-------------------------------------------------------|
| <input checked="" type="checkbox"/> Histosol (A1)          | <input type="checkbox"/> Sandy Redox (S5)             |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)         |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Dark Surfaces (S7)           |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Polyvalue Below Surface (S8) |
| <input type="checkbox"/> Stratified Layers (A5)            | <input type="checkbox"/> Thin Dark Surface (S9)       |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Loamy Gleyed Matrix (F2)     |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Depleted Matrix (F3)         |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Redox Dark Surface (F6)      |
| <input type="checkbox"/> 5cm Mucky Peat or Peat (S3)       | <input type="checkbox"/> Depleted Dark Surface (F7)   |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          | <input type="checkbox"/> Redox Depressions (F8)       |

Restrictive Layer Type (if observed) \_\_\_\_\_ Depth: \_\_\_\_\_ **Hydric Soil Present?** Yes  No

Comments:

Raining

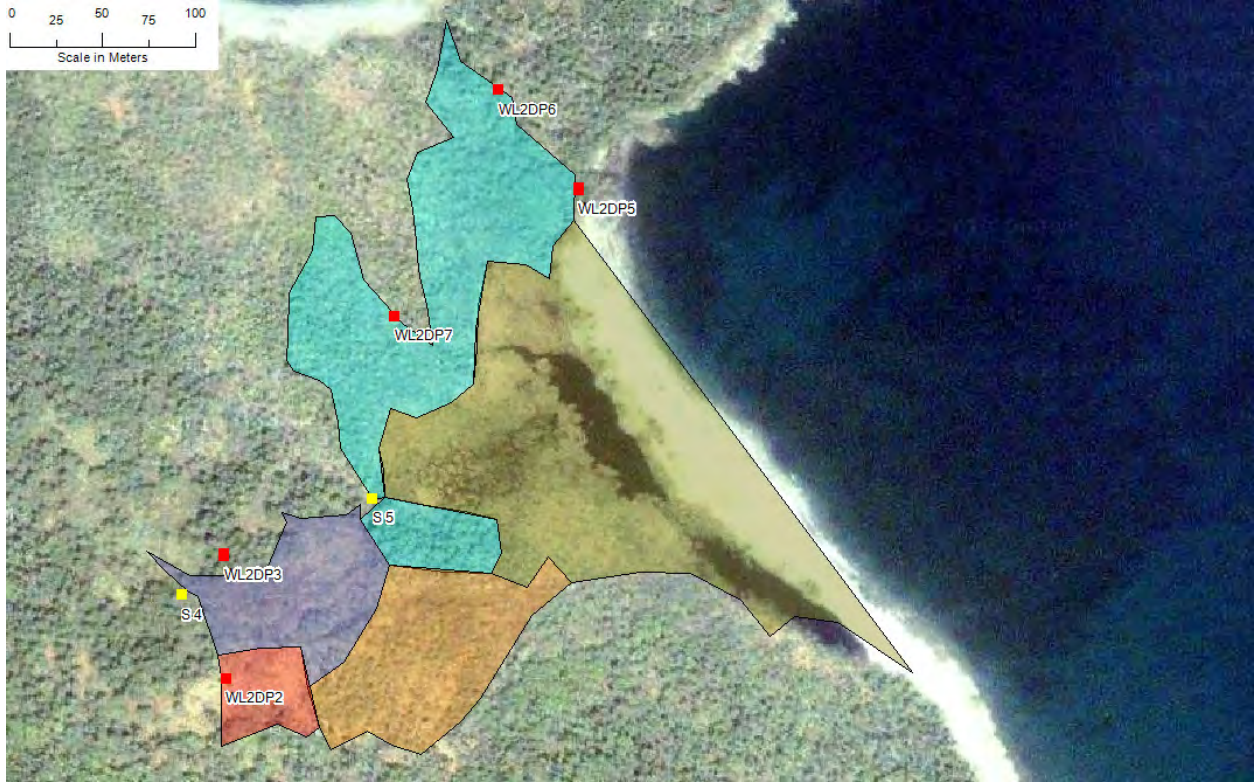
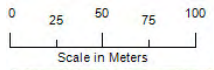
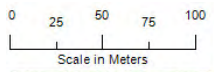


|                                                                                                                |                               |                                                                                                                       |                             |                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                        |
|----------------------------------------------------------------------------------------------------------------|-------------------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Project Site: Point Black                                                                                      |                               | Date: July, 2011                                                                                                      | Sample Point: WL1DP2        | Job #:                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                        |
| Client/owner:                                                                                                  |                               | Field Investigator(s): Theo Popma, Candice, Carrie B.                                                                 |                             |                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                        |
| County: Guysborough                                                                                            |                               | Coordinates: 645555 5022591                                                                                           |                             |                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                        |
| PID 35092063                                                                                                   |                               | Do normal environmental conditions exist on-site? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |                             |                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                        |
| If no, explain:                                                                                                |                               |                                                                                                                       |                             |                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                        |
| Atypical Situation? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Explain:               |                               |                                                                                                                       |                             |                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                        |
| Is this a potential Problem Area? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Explain: |                               |                                                                                                                       |                             |                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                        |
| <b>Wetland Determination</b><br>(Check One Only For Each Criteria)                                             |                               |                                                                                                                       |                             |                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                        |
| Dominant Hydrophytic Vegetation (50/20 rule)                                                                   |                               | Yes <input checked="" type="checkbox"/>                                                                               | No <input type="checkbox"/> | <div style="border: 1px solid black; padding: 5px; width: fit-content;"> <p style="text-align: center;"><b>Wetland Determination</b></p> <p><input checked="" type="checkbox"/> YES    <input type="checkbox"/> NO</p> </div> |                                                                                                                                                                                                                                                                                                        |
| Wetland Hydrology                                                                                              |                               | Yes <input checked="" type="checkbox"/>                                                                               | No <input type="checkbox"/> |                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                        |
| Hydric Soils                                                                                                   |                               | Yes <input checked="" type="checkbox"/>                                                                               | No <input type="checkbox"/> |                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                        |
| <b>Wetland Type:</b> Riparian Shrub Wetland                                                                    |                               |                                                                                                                       |                             |                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                        |
| <b>Rational for Determination:</b>                                                                             |                               |                                                                                                                       |                             |                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                        |
| <b>Vegetation</b>                                                                                              |                               |                                                                                                                       |                             |                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                        |
| <u>Tree Stratum: (Plot size: 9m2 )</u>                                                                         |                               | %Cover                                                                                                                | Dominant Species            | Indicator Status                                                                                                                                                                                                              | <b>Dominance Test Worksheet:</b>                                                                                                                                                                                                                                                                       |
| 1                                                                                                              | <i>Sarracenia purpurea</i>    | 5                                                                                                                     | x                           | OBL                                                                                                                                                                                                                           | # of Dominant Species that are OBL,FACW,FAC: 9<br><br>Total # of Dominant Species across all strata: 9<br><br>% of Dominant Species that are OBL,FACW,FAC: 100                                                                                                                                         |
| 2                                                                                                              | <i>Maianthemum trifolium</i>  | 5                                                                                                                     | x                           | FACW+                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                        |
| 3                                                                                                              | <i>Kalmia angustifolia</i>    | 5                                                                                                                     | x                           | FAC                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                        |
| 4                                                                                                              | <i>Aster radula</i>           | 5                                                                                                                     | x                           | OBL                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                        |
| 5                                                                                                              |                               |                                                                                                                       |                             |                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                        |
| 6                                                                                                              |                               |                                                                                                                       |                             |                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                        |
|                                                                                                                |                               | 20                                                                                                                    | = Total Cover               |                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                        |
| <u>Shrub Stratum: (Plot size: 5m2 )</u>                                                                        |                               |                                                                                                                       |                             |                                                                                                                                                                                                                               | <b>Prevalence Index Worksheet:</b>                                                                                                                                                                                                                                                                     |
| 1                                                                                                              | <i>Viburnum nudum</i>         | 10                                                                                                                    | x                           | OBL                                                                                                                                                                                                                           | Total %Cover of:    Multiply by:<br>OBL Species            x 1 = 0<br>FACW Species        x 2 = 0<br>FAC Species            x 3 = 0<br>FACU Species        x 4 = 0<br>ULP Species            x 5 = 0<br>Column Totals:        0                            0<br><br><b>Prevalence Index = B/A = ##</b> |
| 2                                                                                                              | <i>Nemopanthus mucronatus</i> | 15                                                                                                                    | x                           | OBL                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                        |
| 3                                                                                                              | <i>Abies balsamea</i>         | 15                                                                                                                    | x                           | FAC                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                        |
| 4                                                                                                              |                               |                                                                                                                       |                             |                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                        |
| 5                                                                                                              |                               |                                                                                                                       |                             |                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                        |
|                                                                                                                |                               | 40                                                                                                                    | = Total Cover               |                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                        |
| <u>Herb Stratum: (Plot Size: 1m2 )</u>                                                                         |                               |                                                                                                                       |                             |                                                                                                                                                                                                                               | <b>Hydrophytic Vegetation Indicators:</b>                                                                                                                                                                                                                                                              |
| 1                                                                                                              | <i>Larix laricina</i>         | 20                                                                                                                    | x                           | FACW                                                                                                                                                                                                                          | <input checked="" type="checkbox"/> Rapid Test for Hydrolic Vegetation<br><input checked="" type="checkbox"/> Dominance Test is >50%<br>Prevalence Index is ≤3.0 <sup>1</sup><br>Morphological Adaptations <sup>1</sup> (explain)<br>Problematic Hydrophytic Vegetation <sup>1</sup> (explain)         |
| 2                                                                                                              | <i>Abies balsamea</i>         | 20                                                                                                                    | x                           | FAC                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                        |
| 3                                                                                                              |                               |                                                                                                                       |                             |                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                        |
| 4                                                                                                              |                               |                                                                                                                       |                             |                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                        |
| 5                                                                                                              |                               |                                                                                                                       |                             |                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                        |
|                                                                                                                |                               | 40                                                                                                                    | = Total Cover               |                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                        |
| Comments                                                                                                       |                               |                                                                                                                       |                             |                                                                                                                                                                                                                               | <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic                                                                                                                                                                                          |
|                                                                                                                |                               |                                                                                                                       |                             |                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                        |
|                                                                                                                |                               | <b>Hydrophytic Vegetation Present?</b>                                                                                |                             |                                                                                                                                                                                                                               | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>                                                                                                                                                                                                                                    |





# Wetland 2



Wetland 2 is a complex of habitat types including marsh, swamp, forested wetland and riparian wetland. This delineation was problematic because of transitional habitat which stretched between the two coastlines behind the headland. Historic habitation was also present but had little effect on wetland habitat although some fern-dominated wet meadow habitat was identified in isolated areas. Some microtopographical relief was present along the western and southern edges of the complex. Open water was found not to be brackish.



Seepy fern-dominated slope near western wetland edge





Upland habitat near wetland 2 dominated by coniferous forest



Transitional wetland habitat dominated by shrubs and blown down conifers behind the headland west of the main estuary



Upland near Wetland 2



Marshy fen portion of the Wetland 2 complex

|                                                                                                                                                                   |                                   |                                                                                                                       |                             |                                                                                                         |                                                                                                               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------------------|---------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| Project Site: Point Black                                                                                                                                         |                                   | Date: July, 2011                                                                                                      | Sample Point: CBWL2DP1      | Job #:                                                                                                  |                                                                                                               |
| Client/owner:                                                                                                                                                     |                                   | Field Investigator(s): Theo Popma, Candice, Carrie B.                                                                 |                             |                                                                                                         |                                                                                                               |
| County: Guysborough                                                                                                                                               |                                   | Coordinates: 645276 5024015                                                                                           |                             |                                                                                                         |                                                                                                               |
| PID 35092063                                                                                                                                                      |                                   | Do normal environmental conditions exist on-site? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |                             |                                                                                                         |                                                                                                               |
| If no, explain:                                                                                                                                                   |                                   |                                                                                                                       |                             |                                                                                                         |                                                                                                               |
| <b>Atypical Situation?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Explain: Post-Settlement clearing on slope and probably in wetland |                                   |                                                                                                                       |                             |                                                                                                         |                                                                                                               |
| Is this a potential <b>Problem Area?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Explain:                                             |                                   |                                                                                                                       |                             |                                                                                                         |                                                                                                               |
| <b>Wetland Determination</b><br>(Check One Only For Each Criteria)                                                                                                |                                   |                                                                                                                       |                             |                                                                                                         |                                                                                                               |
| Dominant Hydrophytic Vegetation (50/20 rule)                                                                                                                      |                                   | Yes <input checked="" type="checkbox"/>                                                                               | No <input type="checkbox"/> | <b>Wetland Determination</b><br><br><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO |                                                                                                               |
| Wetland Hydrology                                                                                                                                                 |                                   | Yes <input checked="" type="checkbox"/>                                                                               | No <input type="checkbox"/> |                                                                                                         |                                                                                                               |
| Hydric Soils                                                                                                                                                      |                                   | Yes <input checked="" type="checkbox"/>                                                                               | No <input type="checkbox"/> |                                                                                                         |                                                                                                               |
| <b>Wetland Type:</b> Shrub Swamp                                                                                                                                  |                                   |                                                                                                                       |                             |                                                                                                         |                                                                                                               |
| <b>Rational for Determination:</b>                                                                                                                                |                                   |                                                                                                                       |                             |                                                                                                         |                                                                                                               |
| <b>Vegetation</b>                                                                                                                                                 |                                   |                                                                                                                       |                             |                                                                                                         |                                                                                                               |
| <u>Tree Stratum: (Plot size: 9m2 )</u>                                                                                                                            |                                   | %Cover                                                                                                                | Dominant Species            | Indicator Status                                                                                        | <b>Dominance Test Worksheet:</b>                                                                              |
| 1                                                                                                                                                                 | <i>Osmunda cinnamomea</i>         | 20                                                                                                                    | x                           | FACW                                                                                                    | # of Dominant Species                                                                                         |
| 2                                                                                                                                                                 | <i>Carex nigra</i>                | 20                                                                                                                    | x                           | FACW+                                                                                                   | that are OBL,FACW,FAC: 9                                                                                      |
| 3                                                                                                                                                                 | <i>thelypteris noveboracensis</i> | 15                                                                                                                    | x                           | FAC                                                                                                     | Total # of Dominant Species across all strata: 10                                                             |
| 4                                                                                                                                                                 |                                   |                                                                                                                       |                             |                                                                                                         | % of Dominant Species that are OBL,FACW,FAC: 90                                                               |
| 5                                                                                                                                                                 |                                   |                                                                                                                       |                             |                                                                                                         |                                                                                                               |
| 6                                                                                                                                                                 |                                   |                                                                                                                       |                             |                                                                                                         |                                                                                                               |
|                                                                                                                                                                   |                                   | 55                                                                                                                    | = Total Cover               |                                                                                                         |                                                                                                               |
| <u>Shrub Stratum: (Plot size: 5m2 )</u>                                                                                                                           |                                   |                                                                                                                       |                             |                                                                                                         | <b>Prevalence Index Worksheet:</b>                                                                            |
| 1                                                                                                                                                                 | <i>Nemopanthus mucronatus</i>     | 10                                                                                                                    | x                           | OBL                                                                                                     | <u>Total %Cover of:</u> <u>Multiply by:</u>                                                                   |
| 2                                                                                                                                                                 | <i>Kalmia angustifolia</i>        | 5                                                                                                                     | x                           | FAC                                                                                                     | OBL Species    x 1 = 0                                                                                        |
| 3                                                                                                                                                                 | <i>Alnus crispa</i>               | 5                                                                                                                     | x                           | FAC                                                                                                     | FACW Species    x 2 = 0                                                                                       |
| 4                                                                                                                                                                 | <i>Rubus allegheniensis</i>       | 5                                                                                                                     | x                           | FACU-                                                                                                   | FAC Species    x 3 = 0                                                                                        |
| 5                                                                                                                                                                 | <i>Ilex verticillata</i>          | 5                                                                                                                     | x                           | FACW+                                                                                                   | FACU Species    x 4 = 0                                                                                       |
|                                                                                                                                                                   |                                   | 30                                                                                                                    | = Total Cover               |                                                                                                         | ULP Species    x 5 = 0                                                                                        |
| <u>Herb Stratum: (Plot Size: 1m2 )</u>                                                                                                                            |                                   |                                                                                                                       |                             |                                                                                                         | Column Totals:    0    0                                                                                      |
| 1                                                                                                                                                                 | none                              |                                                                                                                       |                             |                                                                                                         | <b>Prevalence Index = B/A = ##</b>                                                                            |
| 2                                                                                                                                                                 |                                   |                                                                                                                       |                             |                                                                                                         |                                                                                                               |
| 3                                                                                                                                                                 |                                   |                                                                                                                       |                             |                                                                                                         |                                                                                                               |
| 4                                                                                                                                                                 |                                   |                                                                                                                       |                             |                                                                                                         | <b>Hydrophytic Vegetation Indicators:</b>                                                                     |
| 5                                                                                                                                                                 |                                   |                                                                                                                       |                             |                                                                                                         | x Rapid Test for Hydrologic Vegetation                                                                        |
|                                                                                                                                                                   |                                   | 0                                                                                                                     | = Total Cover               |                                                                                                         | x Dominance Test is >50%                                                                                      |
|                                                                                                                                                                   |                                   |                                                                                                                       |                             |                                                                                                         | Prevalence Index is $\leq 3.0^1$                                                                              |
|                                                                                                                                                                   |                                   |                                                                                                                       |                             |                                                                                                         | Morphological Adaptations <sup>1</sup> (explain)                                                              |
|                                                                                                                                                                   |                                   |                                                                                                                       |                             |                                                                                                         | Problematic Hydrophytic Vegetation <sup>1</sup> (explain)                                                     |
| Comments                                                                                                                                                          |                                   |                                                                                                                       |                             |                                                                                                         | <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic |
| Sphagnum - 100%                                                                                                                                                   |                                   |                                                                                                                       |                             |                                                                                                         | <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>    |



**Hydrology**

**Primary Hydrological Indicators:** (minimum of one is required; check all that apply)

|                                                                    |                                                                     |
|--------------------------------------------------------------------|---------------------------------------------------------------------|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Water Stained Leaves (B9)                  |
| <input checked="" type="checkbox"/> High Water Table (A2)          | <input type="checkbox"/> Aquatic Fauna (B13)                        |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Marl Deposits (B15)                        |
| <input type="checkbox"/> Watermarks                                | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                 |
| <input type="checkbox"/> Sediment Deposits (B2)                    | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3)                       | <input type="checkbox"/> Presence of Reduced Iron (C4)              |
| <input type="checkbox"/> Algal Mat of Crust (B4)                   | <input type="checkbox"/> Recent Iron reduction in tilled Soils (C6) |
| <input type="checkbox"/> Iron Deposits (B5)                        | <input type="checkbox"/> Thin Muck Surface (C7)                     |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks)                 |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)   |                                                                     |

**Secondary Indicators:** (minimum of two required)

|                                                                    |                                                          |
|--------------------------------------------------------------------|----------------------------------------------------------|
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Stunted or Stressed Plants (D1) |
| <input type="checkbox"/> Drainage Patterns (B10)                   | <input type="checkbox"/> Geomorphic Position (D2)        |
| <input type="checkbox"/> Moss Trim Lines (B16)                     | <input type="checkbox"/> Shallow Aquitard (D3)           |
| <input type="checkbox"/> Dry-Season Water Table (C2)               | <input type="checkbox"/> Microtopographic Relief (D4)    |
| <input type="checkbox"/> Crayfish Burrows (C8)                     | <input type="checkbox"/> FAC-Neutral Test (D5)           |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |                                                          |

**Field Observations:**

|                        |                                                                     |       |                          |                                   |                                                                     |
|------------------------|---------------------------------------------------------------------|-------|--------------------------|-----------------------------------|---------------------------------------------------------------------|
| Surface Water Present? | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Depth | <input type="checkbox"/> |                                   |                                                                     |
| Water Table Present?   | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | Depth | 22                       | <b>Wetland Hydrology Present?</b> | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Saturation Present?    | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | Depth | 0                        |                                   |                                                                     |

Comments:

**Soil Profile**

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators)

| Depth(cm) | Matrix       |   | Redox Features |   |                   |                  | Texture | Remarks |
|-----------|--------------|---|----------------|---|-------------------|------------------|---------|---------|
|           | Color(moist) | % | Color(moist)   | % | Type <sup>1</sup> | Loc <sup>2</sup> |         |         |
| 30cm      |              |   |                |   |                   |                  | Organic |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

|                                                            |                                                       |
|------------------------------------------------------------|-------------------------------------------------------|
| <input checked="" type="checkbox"/> Histosol (A1)          | <input type="checkbox"/> Sandy Redox (S5)             |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)         |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Dark Surfaces (S7)           |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Polyvalue Below Surface (S8) |
| <input type="checkbox"/> Stratified Layers (A5)            | <input type="checkbox"/> Thin Dark Surface (S9)       |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Loamy Gleyed Matrix (F2)     |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Depleted Matrix (F3)         |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Redox Dark Surface (F6)      |
| <input type="checkbox"/> 5cm Mucky Peat or Peat (S3)       | <input type="checkbox"/> Depleted Dark Surface (F7)   |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          | <input type="checkbox"/> Redox Depressions (F8)       |
| Restrictive Layer Type (if observed)                       | Depth:                                                |

**Hydric Soil Present?** Yes  No

Comments:

|                           |                                                                                                                       |                        |        |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------|------------------------|--------|
| Project Site: Point Black | Date: July, 2011                                                                                                      | Sample Point: CBWL2DP2 | Job #: |
| Client/owner:             | Field Investigator(s): Theo Popma, Candice, Carrie B.                                                                 |                        |        |
| County: Guysborough       | Coordinates:                                                                                                          |                        |        |
| PID 35092063              | Do normal environmental conditions exist on-site? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |                        |        |

If no, explain:

**Atypical Situation?** Yes  No  Explain: Slope was habitated/cleared  
 Is this a potential **Problem Area?** Yes  No  Explain:

**Wetland Determination**

(Check One Only For Each Criteria)

|                                              |     |                                     |    |                                     |
|----------------------------------------------|-----|-------------------------------------|----|-------------------------------------|
| Dominant Hydrophytic Vegetation (50/20 rule) | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/>            |
| Wetland Hydrology                            | Yes | <input type="checkbox"/>            | No | <input checked="" type="checkbox"/> |
| Hydric Soils                                 | Yes | <input type="checkbox"/>            | No | <input checked="" type="checkbox"/> |

|                              |                                        |
|------------------------------|----------------------------------------|
| <b>Wetland Determination</b> |                                        |
| <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO |

**Wetland Type:**

**Rational for Determination:**

**Vegetation**

|   | Tree Stratum: (Plot size: 9m2 )  | %Cover | Dominant Species | Indicator Status |
|---|----------------------------------|--------|------------------|------------------|
| 1 | <i>Dennstaedtia punctilobula</i> | ##     | x                | FAC              |
| 2 | <i>Rubus allegheniensis</i>      | 20     | x                | FACU-            |
| 3 | <i>Calamagrostis canadensis</i>  | 10     | x                | FACW+            |
| 4 |                                  |        |                  |                  |
| 5 |                                  |        |                  |                  |
| 6 |                                  |        |                  |                  |

**Dominance Test Worksheet:**

|                                                |    |
|------------------------------------------------|----|
| # of Dominant Species that are OBL,FACW,FAC:   | 3  |
| Total # of Dominant Species across all strata: | 6  |
| % of Dominant Species that are OBL,FACW,FAC:   | 50 |

## = Total Cover

**Shrub Stratum: (Plot size: 5m2 )**

|   |                          | %Cover | Dominant Species | Indicator Status |
|---|--------------------------|--------|------------------|------------------|
| 1 | <i>Alnus crispa</i>      | 5      | x                | FAC              |
| 2 | <i>Picea glauca</i>      | 5      | x                | FACU             |
| 3 | <i>Betula papyrifera</i> | 10     |                  | FACU             |
| 4 |                          |        |                  |                  |
| 5 |                          |        |                  |                  |

**Prevalence Index Worksheet:**

|                         |       |                     |
|-------------------------|-------|---------------------|
| <b>Total %Cover of:</b> |       | <b>Multiply by:</b> |
| OBL Species             | x 1 = | 0                   |
| FACW Species            | x 2 = | 0                   |
| FAC Species             | x 3 = | 0                   |
| FACU Species            | x 4 = | 0                   |
| ULP Species             | x 5 = | 0                   |
| Column Totals:          | 0     | 0                   |

**Herb Stratum: (Plot Size: 1m2 )**

|   |  | %Cover | Dominant Species | Indicator Status |
|---|--|--------|------------------|------------------|
| 1 |  |        |                  |                  |
| 2 |  |        |                  |                  |
| 3 |  |        |                  |                  |
| 4 |  |        |                  |                  |
| 5 |  |        |                  |                  |

**Prevalence Index = B/A = ##**

0 = Total Cover

**Hydrophytic Vegetation Indicators:**

- \_\_\_\_\_ Rapid Test for Hydrolic Vegetation
- \_\_\_\_\_ Dominance Test is >50%
- \_\_\_\_\_ Prevalence Index is ≤3.0<sup>1</sup>
- \_\_\_\_\_ Morphological Adaptations<sup>1</sup> (explain)
- \_\_\_\_\_ Problematic Hydrophytic Vegetation<sup>1</sup> (explain)

Comments

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

**Hydrophytic Vegetation Present?** Yes  No



|                           |                                                       |                      |                                                                     |
|---------------------------|-------------------------------------------------------|----------------------|---------------------------------------------------------------------|
| Project Site: Point Black | Date: July, 2011                                      | Sample Point: WL2DP3 | Job #:                                                              |
| Client/owner:             | Field Investigator(s): Theo Popma, Candice, Carrie B. |                      |                                                                     |
| County: Guysborough       | Coordinates:                                          |                      |                                                                     |
| PID 35092063              | Do normal environmental conditions exist on-site?     |                      | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |

If no, explain:

**Atypical Situation?** Yes  No  Explain:

Is this a potential **Problem Area**? Yes  No  Explain:

**Wetland Determination**

(Check One Only For Each Criteria)

|                                              |     |                          |    |                                     |
|----------------------------------------------|-----|--------------------------|----|-------------------------------------|
| Dominant Hydrophytic Vegetation (50/20 rule) | Yes | <input type="checkbox"/> | No | <input checked="" type="checkbox"/> |
| Wetland Hydrology                            | Yes | <input type="checkbox"/> | No | <input checked="" type="checkbox"/> |
| Hydric Soils                                 | Yes | <input type="checkbox"/> | No | <input checked="" type="checkbox"/> |

|                              |                                        |
|------------------------------|----------------------------------------|
| <b>Wetland Determination</b> |                                        |
| <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO |

**Wetland Type:**

**Rational for Determination:**

**Vegetation**

| Tree Stratum: (Plot size: 9m2 ) | %Cover | Dominant Species | Indicator Status |
|---------------------------------|--------|------------------|------------------|
| 1 <i>Maianthemum canadense</i>  | 80     |                  | FAC-             |
| 2 <i>Aralia nudicaulis</i>      | 20     |                  | FACU             |
| 3                               |        |                  |                  |
| 4                               |        |                  |                  |
| 5                               |        |                  |                  |
| 6                               |        |                  |                  |

**Dominance Test Worksheet:**

|                                                |      |
|------------------------------------------------|------|
| # of Dominant Species that are OBL,FACW,FAC:   | 2    |
| Total # of Dominant Species across all strata: | 6    |
| % of Dominant Species that are OBL,FACW,FAC:   | 33.3 |

## = Total Cover

**Shrub Stratum: (Plot size: 5m2 )**

| Shrub Stratum: (Plot size: 5m2 ) | %Cover | Dominant Species | Indicator Status |
|----------------------------------|--------|------------------|------------------|
| 1 <i>Sorbus americana</i>        | 15     |                  | FACU             |
| 2 <i>Picea glauca</i>            | 5      |                  | FACU             |
| 3 <i>Abies balsamea</i>          | 5      |                  | FAC              |
| 4                                |        |                  |                  |
| 5                                |        |                  |                  |
|                                  | 25     |                  |                  |

**Prevalence Index Worksheet:**

| Total %Cover of: | Multiply by: |   |
|------------------|--------------|---|
| OBL Species      | x 1 =        | 0 |
| FACW Species     | x 2 =        | 0 |
| FAC Species      | x 3 =        | 0 |
| FACU Species     | x 4 =        | 0 |
| ULP Species      | x 5 =        | 0 |
| Column Totals:   |              | 0 |

**Prevalence Index = B/A = ##**

**Herb Stratum: (Plot Size: 1m2 )**

| Herb Stratum: (Plot Size: 1m2 ) | %Cover | Dominant Species | Indicator Status |
|---------------------------------|--------|------------------|------------------|
| 1 <i>Picea glauca</i>           | 60     |                  | FACU             |
| 2                               |        |                  |                  |
| 3                               |        |                  |                  |
| 4                               |        |                  |                  |
| 5                               |        |                  |                  |
|                                 | 60     |                  |                  |

**Hydrophytic Vegetation Indicators:**

- Rapid Test for Hydrolic Vegetation
- Dominance Test is >50%
- Prevalence Index is ≤3.0 <sup>1</sup>
- Morphological Adaptations<sup>1</sup> (explain)
- Problematic Hydrophytic Vegetation<sup>1</sup>(explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Comments

**Hydrophytic Vegetation Present?** Yes  No

|                                                                                                                                                 |                                                                     |       |                          |                                   |                             |                  |                                                                     |         |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|-------|--------------------------|-----------------------------------|-----------------------------|------------------|---------------------------------------------------------------------|---------|--|
| <b>Hydrology</b>                                                                                                                                |                                                                     |       |                          |                                   |                             |                  |                                                                     |         |  |
| <b>Primary Hydrological Indicators:</b> (minimum of one is required; check all that apply)                                                      |                                                                     |       |                          |                                   |                             |                  |                                                                     |         |  |
| <input type="checkbox"/> Surface Water (A1)                                                                                                     | <input type="checkbox"/> Water Stained Leaves (B9)                  |       |                          |                                   |                             |                  |                                                                     |         |  |
| <input type="checkbox"/> High Water Table (A2)                                                                                                  | <input type="checkbox"/> Aquatic Fauna (B13)                        |       |                          |                                   |                             |                  |                                                                     |         |  |
| <input type="checkbox"/> Saturation (A3)                                                                                                        | <input type="checkbox"/> Marl Deposits (B15)                        |       |                          |                                   |                             |                  |                                                                     |         |  |
| <input type="checkbox"/> Watermarks                                                                                                             | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                 |       |                          |                                   |                             |                  |                                                                     |         |  |
| <input type="checkbox"/> Sediment Deposits (B2)                                                                                                 | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) |       |                          |                                   |                             |                  |                                                                     |         |  |
| <input type="checkbox"/> Drift Deposits (B3)                                                                                                    | <input type="checkbox"/> Presence of Reduced Iron (C4)              |       |                          |                                   |                             |                  |                                                                     |         |  |
| <input type="checkbox"/> Algal Mat of Crust (B4)                                                                                                | <input type="checkbox"/> Recent Iron reduction in tilled Soils (C6) |       |                          |                                   |                             |                  |                                                                     |         |  |
| <input type="checkbox"/> Iron Deposits (B5)                                                                                                     | <input type="checkbox"/> Thin Muck Surface (C7)                     |       |                          |                                   |                             |                  |                                                                     |         |  |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)                                                                              | <input type="checkbox"/> Other (Explain in Remarks)                 |       |                          |                                   |                             |                  |                                                                     |         |  |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)                                                                                |                                                                     |       |                          |                                   |                             |                  |                                                                     |         |  |
| <b>Secondary Indicators:</b> (minimum of two required)                                                                                          |                                                                     |       |                          |                                   |                             |                  |                                                                     |         |  |
| <input type="checkbox"/> Surface Soil Cracks (B6)                                                                                               | <input type="checkbox"/> Stunted or Stressed Plants (D1)            |       |                          |                                   |                             |                  |                                                                     |         |  |
| <input type="checkbox"/> Drainage Patterns (B10)                                                                                                | <input type="checkbox"/> Geomorphic Position (D2)                   |       |                          |                                   |                             |                  |                                                                     |         |  |
| <input type="checkbox"/> Moss Trim Lines (B16)                                                                                                  | <input type="checkbox"/> Shallow Aquitard (D3)                      |       |                          |                                   |                             |                  |                                                                     |         |  |
| <input type="checkbox"/> Dry-Season Water Table (C2)                                                                                            | <input type="checkbox"/> Microtopographic Relief (D4)               |       |                          |                                   |                             |                  |                                                                     |         |  |
| <input type="checkbox"/> Crayfish Burrows (C8)                                                                                                  | <input type="checkbox"/> FAC-Neutral Test (D5)                      |       |                          |                                   |                             |                  |                                                                     |         |  |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)                                                                              |                                                                     |       |                          |                                   |                             |                  |                                                                     |         |  |
| Field Observations:                                                                                                                             |                                                                     |       |                          |                                   |                             |                  |                                                                     |         |  |
| Surface Water Present?                                                                                                                          | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Depth | <input type="checkbox"/> | <b>Wetland Hydrology Present?</b> |                             |                  | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |         |  |
| Water Table Present?                                                                                                                            | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Depth | <input type="checkbox"/> |                                   |                             |                  |                                                                     |         |  |
| Saturation Present?                                                                                                                             | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Depth | <input type="checkbox"/> |                                   |                             |                  |                                                                     |         |  |
| Comments:                                                                                                                                       |                                                                     |       |                          |                                   |                             |                  |                                                                     |         |  |
| <b>Soil Profile</b>                                                                                                                             |                                                                     |       |                          |                                   |                             |                  |                                                                     |         |  |
| <b>Profile Description:</b> (Describe to the depth needed to document the indicator or confirm the absence of indicators)                       |                                                                     |       |                          |                                   |                             |                  |                                                                     |         |  |
| Depth(cm)                                                                                                                                       | Matrix                                                              |       | Redox Features           |                                   |                             |                  | Texture                                                             | Remarks |  |
|                                                                                                                                                 | Color(moist)                                                        | %     | Color(moist)             | %                                 | Type <sup>1</sup>           | Loc <sup>2</sup> |                                                                     |         |  |
|                                                                                                                                                 | 5YR 4/4                                                             |       |                          |                                   |                             |                  |                                                                     |         |  |
| <sup>1</sup> Type:C=Concentration,D=Depletion,RM=Reduced Matrix,CS=Covered or Coated Sand Grains. <sup>2</sup> Location:PL=Pore Lining,M=Matrix |                                                                     |       |                          |                                   |                             |                  |                                                                     |         |  |
| <b>Hydric Soil Indicators:</b>                                                                                                                  |                                                                     |       |                          |                                   |                             |                  |                                                                     |         |  |
| <input type="checkbox"/> Histosol (A1)                                                                                                          | <input type="checkbox"/> Sandy Redox (S5)                           |       |                          |                                   |                             |                  |                                                                     |         |  |
| <input type="checkbox"/> Histic Epipedon (A2)                                                                                                   | <input type="checkbox"/> Stripped Matrix (S6)                       |       |                          |                                   |                             |                  |                                                                     |         |  |
| <input type="checkbox"/> Black Histic (A3)                                                                                                      | <input type="checkbox"/> Dark Surfaces (S7)                         |       |                          |                                   |                             |                  |                                                                     |         |  |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                                                                                                  | <input type="checkbox"/> Polyvalue Below Surface (S8)               |       |                          |                                   |                             |                  |                                                                     |         |  |
| <input type="checkbox"/> Stratified Layers (A5)                                                                                                 | <input type="checkbox"/> Thin Dark Surface (S9)                     |       |                          |                                   |                             |                  |                                                                     |         |  |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)                                                                                      | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                   |       |                          |                                   |                             |                  |                                                                     |         |  |
| <input type="checkbox"/> Thick Dark Surface (A12)                                                                                               | <input type="checkbox"/> Depleted Matrix (F3)                       |       |                          |                                   |                             |                  |                                                                     |         |  |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                                                                                               | <input type="checkbox"/> Redox Dark Surface (F6)                    |       |                          |                                   |                             |                  |                                                                     |         |  |
| <input type="checkbox"/> 5cm Mucky Peat or Peat (S3)                                                                                            | <input type="checkbox"/> Depleted Dark Surface (F7)                 |       |                          |                                   |                             |                  |                                                                     |         |  |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                                                                                               | <input type="checkbox"/> Redox Depressions (F8)                     |       |                          |                                   |                             |                  |                                                                     |         |  |
| Restrictive Layer Type (if observed)                                                                                                            | Depth:                                                              |       |                          |                                   | <b>Hydric Soil Present?</b> |                  | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |         |  |
| Comments:                                                                                                                                       |                                                                     |       |                          |                                   |                             |                  |                                                                     |         |  |
| No depletion                                                                                                                                    |                                                                     |       |                          |                                   |                             |                  |                                                                     |         |  |





**Hydrology**

**Primary Hydrological Indicators:** (minimum of one is required; check all that apply)

|                                                                    |                                                                     |
|--------------------------------------------------------------------|---------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Surface Water (A1)             | <input type="checkbox"/> Water Stained Leaves (B9)                  |
| <input checked="" type="checkbox"/> High Water Table (A2)          | <input type="checkbox"/> Aquatic Fauna (B13)                        |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Marl Deposits (B15)                        |
| <input type="checkbox"/> Watermarks                                | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                 |
| <input type="checkbox"/> Sediment Deposits (B2)                    | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3)                       | <input type="checkbox"/> Presence of Reduced Iron (C4)              |
| <input type="checkbox"/> Algal Mat of Crust (B4)                   | <input type="checkbox"/> Recent Iron reduction in tilled Soils (C6) |
| <input type="checkbox"/> Iron Deposits (B5)                        | <input type="checkbox"/> Thin Muck Surface (C7)                     |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks)                 |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)   |                                                                     |

**Secondary Indicators:** (minimum of two required)

|                                                                    |                                                          |
|--------------------------------------------------------------------|----------------------------------------------------------|
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Stunted or Stressed Plants (D1) |
| <input type="checkbox"/> Drainage Patterns (B10)                   | <input type="checkbox"/> Geomorphic Position (D2)        |
| <input type="checkbox"/> Moss Trim Lines (B16)                     | <input type="checkbox"/> Shallow Aquitard (D3)           |
| <input type="checkbox"/> Dry-Season Water Table (C2)               | <input type="checkbox"/> Microtopographic Relief (D4)    |
| <input type="checkbox"/> Crayfish Burrows (C8)                     | <input type="checkbox"/> FAC-Neutral Test (D5)           |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |                                                          |

**Field Observations:**

|                        |                                         |                             |       |          |                                                                                                       |
|------------------------|-----------------------------------------|-----------------------------|-------|----------|-------------------------------------------------------------------------------------------------------|
| Surface Water Present? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Depth | <u>5</u> |                                                                                                       |
| Water Table Present?   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Depth | <u>0</u> | <b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Saturation Present?    | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Depth | <u>0</u> |                                                                                                       |

Comments:

**Soil Profile**

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators)

| Depth(cm) | Matrix       |   | Redox Features |   |                   |                  | Texture | Remarks |
|-----------|--------------|---|----------------|---|-------------------|------------------|---------|---------|
|           | Color(moist) | % | Color(moist)   | % | Type <sup>1</sup> | Loc <sup>2</sup> |         |         |
|           |              |   | Histosol       |   |                   |                  |         |         |

<sup>1</sup>Type:C=Concentration,D=Depletion,RM=Reduced Matrix,CS=Covered or Coated Sand Grains.<sup>2</sup>Location:PL=Pore Lining,M=Matrix

**Hydric Soil Indicators:**

|                                                            |                                                       |
|------------------------------------------------------------|-------------------------------------------------------|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)             |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)         |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Dark Surfaces (S7)           |
| <input checked="" type="checkbox"/> Hydrogen Sulfide (A4)  | <input type="checkbox"/> Polyvalue Below Surface (S8) |
| <input type="checkbox"/> Stratified Layers (A5)            | <input type="checkbox"/> Thin Dark Surface (S9)       |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Loamy Gleyed Matrix (F2)     |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Depleted Matrix (F3)         |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Redox Dark Surface (F6)      |
| <input type="checkbox"/> 5cm Mucky Peat or Peat (S3)       | <input type="checkbox"/> Depleted Dark Surface (F7)   |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          | <input type="checkbox"/> Redox Depressions (F8)       |

Restrictive Layer Type (if observed) \_\_\_\_\_ Depth: \_\_\_\_\_ **Hydric Soil Present?** Yes  No

Comments:

|                                                                                                                                                            |                                                       |                      |                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|----------------------|---------------------------------------------------------------------|
| Project Site: Point Black                                                                                                                                  | Date: July, 2011                                      | Sample Point: WL2DP5 | Job #:                                                              |
| Client/owner:                                                                                                                                              | Field Investigator(s): Theo Popma, Candice, Carrie B. |                      |                                                                     |
| County: Guysborough                                                                                                                                        | Coordinates:                                          |                      |                                                                     |
| PID 35092063                                                                                                                                               | Do normal environmental conditions exist on-site?     |                      | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| If no, explain:                                                                                                                                            |                                                       |                      |                                                                     |
| <b>Atypical Situation?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Explain:                                                    |                                                       |                      |                                                                     |
| Is this a potential <b>Problem Area?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Explain: Transitional habitat behind headland |                                                       |                      |                                                                     |

**Wetland Determination**  
(Check One Only For Each Criteria)

|                                              |     |                                     |    |                          |
|----------------------------------------------|-----|-------------------------------------|----|--------------------------|
| Dominant Hydrophytic Vegetation (50/20 rule) | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/> |
| Wetland Hydrology                            | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/> |
| Hydric Soils                                 | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/> |

**Wetland Type:**

**Rational for Determination:**

**Wetland Determination**

YES  NO

| Vegetation                              |                              |    | Dominant Species | Indicator Status | Dominance Test Worksheet:                                                                                                                                                                                                               |
|-----------------------------------------|------------------------------|----|------------------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <u>Tree Stratum: (Plot size: 9m2 )</u>  |                              |    | %Cover           |                  |                                                                                                                                                                                                                                         |
| 1                                       | <i>Maianthemum trifolium</i> | 25 |                  | FACW             | <b># of Dominant Species that are OBL,FACW,FAC:</b> <input type="text"/><br><b>Total # of Dominant Species across all strata:</b> <input type="text"/><br><b>% of Dominant Species that are OBL,FACW,FAC:</b> <input type="text"/> #### |
| 2                                       | <i>Aralia nudicaulis</i>     | 10 |                  | FACU             |                                                                                                                                                                                                                                         |
| 3                                       | <i>Carex trisperma</i>       | 5  |                  | OBL              |                                                                                                                                                                                                                                         |
| 4                                       |                              |    |                  |                  |                                                                                                                                                                                                                                         |
| 5                                       |                              |    |                  |                  |                                                                                                                                                                                                                                         |
| 6                                       |                              |    |                  |                  |                                                                                                                                                                                                                                         |
|                                         |                              | 40 | = Total Cover    |                  |                                                                                                                                                                                                                                         |
| <u>Shrub Stratum: (Plot size: 5m2 )</u> |                              |    |                  |                  | <b>Prevalence Index Worksheet:</b>                                                                                                                                                                                                      |
| 1                                       | <i>Ilex verticillata</i>     | 15 |                  | FACW+            | <b>Total %Cover of:</b> <input type="text"/> <b>Multiply by:</b>                                                                                                                                                                        |
| 3                                       |                              |    |                  |                  | OBL Species x 1 = 0                                                                                                                                                                                                                     |
| 4                                       |                              |    |                  |                  | FACW Species x 2 = 0                                                                                                                                                                                                                    |
| 5                                       |                              |    |                  |                  | FAC Species x 3 = 0                                                                                                                                                                                                                     |
|                                         |                              | 15 | = Total Cover    |                  | FACU Species x 4 = 0                                                                                                                                                                                                                    |
|                                         |                              |    |                  |                  | ULP Species <input type="text"/> x 5 = 0                                                                                                                                                                                                |
|                                         |                              |    |                  |                  | Column Totals: 0 0                                                                                                                                                                                                                      |
|                                         |                              |    |                  |                  | <b>Prevalence Index = B/A =</b> <input type="text"/> ##                                                                                                                                                                                 |
| <u>Herb Stratum: (Plot Size: 1m2 )</u>  |                              |    |                  |                  | <b>Hydrophytic Vegetation Indicators:</b>                                                                                                                                                                                               |
| 1                                       | <i>Larix laricina</i>        | 30 |                  | FACW             | <input type="checkbox"/> Rapid Test for Hydrolic Vegetation                                                                                                                                                                             |
| 2                                       | <i>Picea rubens</i>          | 5  |                  | FACU             | <input type="checkbox"/> Dominance Test is >50%                                                                                                                                                                                         |
| 4                                       |                              |    |                  |                  | <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup>                                                                                                                                                                          |
| 5                                       |                              |    |                  |                  | <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (explain)                                                                                                                                                               |
|                                         |                              | 35 | = Total Cover    |                  | <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (explain)                                                                                                                                                      |
| Comments                                |                              |    |                  |                  | <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic                                                                                                                           |
| Sphagnum - 80%                          |                              |    |                  |                  | <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>                                                                                                                              |

**Hydrology**

**Primary Hydrological Indicators:** (minimum of one is required; check all that apply)

|                                                                    |                                                                     |
|--------------------------------------------------------------------|---------------------------------------------------------------------|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Water Stained Leaves (B9)                  |
| <input checked="" type="checkbox"/> High Water Table (A2)          | <input type="checkbox"/> Aquatic Fauna (B13)                        |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Marl Deposits (B15)                        |
| <input type="checkbox"/> Watermarks                                | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                 |
| <input type="checkbox"/> Sediment Deposits (B2)                    | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3)                       | <input type="checkbox"/> Presence of Reduced Iron (C4)              |
| <input type="checkbox"/> Algal Mat of Crust (B4)                   | <input type="checkbox"/> Recent Iron reduction in tilled Soils (C6) |
| <input type="checkbox"/> Iron Deposits (B5)                        | <input type="checkbox"/> Thin Muck Surface (C7)                     |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks)                 |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)   |                                                                     |

**Secondary Indicators:** (minimum of two required)

|                                                                    |                                                          |
|--------------------------------------------------------------------|----------------------------------------------------------|
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Stunted or Stressed Plants (D1) |
| <input type="checkbox"/> Drainage Patterns (B10)                   | <input type="checkbox"/> Geomorphic Position (D2)        |
| <input type="checkbox"/> Moss Trim Lines (B16)                     | <input type="checkbox"/> Shallow Aquitard (D3)           |
| <input type="checkbox"/> Dry-Season Water Table (C2)               | <input type="checkbox"/> Microtopographic Relief (D4)    |
| <input type="checkbox"/> Crayfish Burrows (C8)                     | <input type="checkbox"/> FAC-Neutral Test (D5)           |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |                                                          |

Field Observations:

|                        |     |                                     |                                     |       |    |                                   |                                            |
|------------------------|-----|-------------------------------------|-------------------------------------|-------|----|-----------------------------------|--------------------------------------------|
| Surface Water Present? | Yes | No                                  | <input checked="" type="checkbox"/> | Depth |    |                                   |                                            |
| Water Table Present?   | Yes | <input checked="" type="checkbox"/> | No                                  | Depth | 10 | <b>Wetland Hydrology Present?</b> | Yes <input checked="" type="checkbox"/> No |
| Saturation Present?    | Yes | <input checked="" type="checkbox"/> | No                                  | Depth | 0  |                                   |                                            |

Comments:

**Soil Profile**

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators)

| Depth(cm) | Matrix       |   | Redox Features |   |                   |                  | Texture | Remarks |
|-----------|--------------|---|----------------|---|-------------------|------------------|---------|---------|
|           | Color(moist) | % | Color(moist)   | % | Type <sup>1</sup> | Loc <sup>2</sup> |         |         |
|           |              |   | Organic        |   |                   |                  |         |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

|                                                            |                                                       |
|------------------------------------------------------------|-------------------------------------------------------|
| <input checked="" type="checkbox"/> Histosol (A1)          | <input type="checkbox"/> Sandy Redox (S5)             |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)         |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Dark Surfaces (S7)           |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Polyvalue Below Surface (S8) |
| <input type="checkbox"/> Stratified Layers (A5)            | <input type="checkbox"/> Thin Dark Surface (S9)       |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Loamy Gleyed Matrix (F2)     |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Depleted Matrix (F3)         |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Redox Dark Surface (F6)      |
| <input type="checkbox"/> 5cm Mucky Peat or Peat (S3)       | <input type="checkbox"/> Depleted Dark Surface (F7)   |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          | <input type="checkbox"/> Redox Depressions (F8)       |

Restrictive Layer Type (if observed) \_\_\_\_\_ Depth: \_\_\_\_\_ **Hydric Soil Present?** Yes  No

Comments:

|                           |                                                                                                                       |                      |        |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------|----------------------|--------|
| Project Site: Point Black | Date: July, 2011                                                                                                      | Sample Point: WL2DP6 | Job #: |
| Client/owner:             | Field Investigator(s): Theo Popma, Candice, Carrie B.                                                                 |                      |        |
| County: Guysborough       | Coordinates: 645424 5024265                                                                                           |                      |        |
| PID 35092063              | Do normal environmental conditions exist on-site? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |                      |        |

If no, explain:

**Atypical Situation?** Yes  No  Explain:   
**Is this a potential Problem Area?** Yes  No  Explain: Exposure and erosion of headland affecting drainage behind estuary

**Wetland Determination**  
 (Check One Only For Each Criteria)

|                                              |     |                                     |    |                          |
|----------------------------------------------|-----|-------------------------------------|----|--------------------------|
| Dominant Hydrophytic Vegetation (50/20 rule) | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/> |
| Wetland Hydrology                            | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/> |
| Hydric Soils                                 | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/> |

|                                         |                             |
|-----------------------------------------|-----------------------------|
| <b>Wetland Determination</b>            |                             |
| <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO |

**Wetland Type:**  
**Rational for Determination:**

| Vegetation                       |        |  | Dominant Species | Indicator Status | Dominance Test Worksheet:                                                                                     |              |
|----------------------------------|--------|--|------------------|------------------|---------------------------------------------------------------------------------------------------------------|--------------|
| Tree Stratum: (Plot size: 9m2 )  | %Cover |  |                  |                  | # of Dominant Species that are OBL,FACW,FAC:                                                                  |              |
| 1 <i>Cornus canadensis</i>       | 20     |  | x                | FAC-             | 3                                                                                                             |              |
| 2 <i>Rubus pubescens</i>         | 30     |  | x                | FACW             |                                                                                                               |              |
| 3                                |        |  |                  |                  |                                                                                                               |              |
| 4                                |        |  |                  |                  | Total # of Dominant Species across all strata:                                                                | 5            |
| 5                                |        |  |                  |                  | % of Dominant Species that are OBL,FACW,FAC:                                                                  | 60           |
| 6                                |        |  |                  |                  |                                                                                                               |              |
|                                  | 50     |  | = Total Cover    |                  |                                                                                                               |              |
| Shrub Stratum: (Plot size: 5m2 ) |        |  |                  |                  | Prevalence Index Worksheet:                                                                                   |              |
| 1 <i>Picea glauca</i>            | 20     |  | x                | FACU             | Total %Cover of:                                                                                              | Multiply by: |
| 2 <i>Betula papyrifera</i>       | 5      |  | x                | FACU             | OBL Species                                                                                                   | x 1 = 0      |
| 3 <i>Abies balsamea</i>          | 20     |  | x                | FAC              | FACW Species                                                                                                  | x 2 = 0      |
| 4                                |        |  |                  |                  | FAC Species                                                                                                   | x 3 = 0      |
| 5                                |        |  |                  |                  | FACU Species                                                                                                  | x 4 = 0      |
|                                  | 45     |  | = Total Cover    |                  | ULP Species                                                                                                   | x 5 = 0      |
|                                  |        |  |                  |                  | Column Totals:                                                                                                | 0            |
| Herb Stratum: (Plot Size: 1m2 )  |        |  |                  |                  | <b>Prevalence Index = B/A = ##</b>                                                                            |              |
| 1                                |        |  |                  |                  | <b>Hydrophytic Vegetation Indicators:</b>                                                                     |              |
| 2                                |        |  |                  |                  | x Rapid Test for Hydrolic Vegetation                                                                          |              |
| 3                                |        |  |                  |                  | x Dominance Test is >50%                                                                                      |              |
| 4                                |        |  |                  |                  | Prevalence Index is ≤3.0 <sup>1</sup>                                                                         |              |
| 5                                |        |  |                  |                  | Morphological Adaptations <sup>1</sup> (explain)                                                              |              |
|                                  | 0      |  | = Total Cover    |                  | Problematic Hydrophytic Vegetation <sup>1</sup> (explain)                                                     |              |
| Comments                         |        |  |                  |                  | <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic |              |
| Abundant Sphagnum, deadwood      |        |  |                  |                  | <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>    |              |

|                                                                                                                                                       |                                           |                          |                                            |          |                         |                                   |                |                |    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|--------------------------|--------------------------------------------|----------|-------------------------|-----------------------------------|----------------|----------------|----|
| <b>Hydrology</b>                                                                                                                                      |                                           |                          |                                            |          |                         |                                   |                |                |    |
| <b>Primary Hydrological Indicators:</b> (minimum of one is required; check all that apply)                                                            |                                           |                          |                                            |          |                         |                                   |                |                |    |
| <input type="checkbox"/>                                                                                                                              | Surface Water (A1)                        | <input type="checkbox"/> | Water Stained Leaves (B9)                  |          |                         |                                   |                |                |    |
| <input type="checkbox"/>                                                                                                                              | High Water Table (A2)                     | <input type="checkbox"/> | Aquatic Fauna (B13)                        |          |                         |                                   |                |                |    |
| <input type="checkbox"/>                                                                                                                              | Saturation (A3)                           | <input type="checkbox"/> | Marl Deposits (B15)                        |          |                         |                                   |                |                |    |
| <input type="checkbox"/>                                                                                                                              | Watermarks                                | <input type="checkbox"/> | Hydrogen Sulfide Odor (C1)                 |          |                         |                                   |                |                |    |
| <input type="checkbox"/>                                                                                                                              | Sediment Deposits (B2)                    | <input type="checkbox"/> | Oxidized Rhizospheres on Living Roots (C3) |          |                         |                                   |                |                |    |
| <input type="checkbox"/>                                                                                                                              | Drift Deposits (B3)                       | <input type="checkbox"/> | Presence of Reduced Iron (C4)              |          |                         |                                   |                |                |    |
| <input type="checkbox"/>                                                                                                                              | Algal Mat of Crust (B4)                   | <input type="checkbox"/> | Recent Iron reduction in tilled Soils (C6) |          |                         |                                   |                |                |    |
| <input type="checkbox"/>                                                                                                                              | Iron Deposits (B5)                        | <input type="checkbox"/> | Thin Muck Surface (C7)                     |          |                         |                                   |                |                |    |
| <input type="checkbox"/>                                                                                                                              | Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> | Other (Explain in Remarks)                 |          |                         |                                   |                |                |    |
| <input type="checkbox"/>                                                                                                                              | Sparsely Vegetated Concave Surface (B8)   |                          |                                            |          |                         |                                   |                |                |    |
| <b>Secondary Indicators:</b> (minimum of two required)                                                                                                |                                           |                          |                                            |          |                         |                                   |                |                |    |
| <input type="checkbox"/>                                                                                                                              | Surface Soil Cracks (B6)                  | <input type="checkbox"/> | Stunted or Stressed Plants (D1)            |          |                         |                                   |                |                |    |
| <input type="checkbox"/>                                                                                                                              | Drainage Patterns (B10)                   | <input type="checkbox"/> | Geomorphic Position (D2)                   |          |                         |                                   |                |                |    |
| <input type="checkbox"/>                                                                                                                              | Moss Trim Lines (B16)                     | <input type="checkbox"/> | Shallow Aquitard (D3)                      |          |                         |                                   |                |                |    |
| <input type="checkbox"/>                                                                                                                              | Dry-Season Water Table (C2)               | <input type="checkbox"/> | Microtopographic Relief (D4)               |          |                         |                                   |                |                |    |
| <input type="checkbox"/>                                                                                                                              | Crayfish Burrows (C8)                     | <input type="checkbox"/> | FAC-Neutral Test (D5)                      |          |                         |                                   |                |                |    |
| <input type="checkbox"/>                                                                                                                              | Saturation Visible on Aerial Imagery (C9) |                          |                                            |          |                         |                                   |                |                |    |
| <b>Field Observations:</b>                                                                                                                            |                                           |                          |                                            |          |                         |                                   |                |                |    |
| Surface Water Present?                                                                                                                                | Yes                                       | No                       | x                                          | Depth    |                         | <b>Wetland Hydrology Present?</b> |                | Yes            | No |
| Water Table Present?                                                                                                                                  | Yes                                       | x                        | No                                         | Depth    | 20                      |                                   |                | x              |    |
| Saturation Present?                                                                                                                                   | Yes                                       | x                        | No                                         | Depth    | 0                       |                                   |                |                |    |
| Comments:                                                                                                                                             |                                           |                          |                                            |          |                         |                                   |                |                |    |
| <b>Soil Profile</b>                                                                                                                                   |                                           |                          |                                            |          |                         |                                   |                |                |    |
| <b>Profile Description:</b> (Describe to the depth needed to document the indicator or confirm the absence of indicators)                             |                                           |                          |                                            |          |                         |                                   |                |                |    |
| <u>Depth(cm)</u>                                                                                                                                      | <u>Matrix</u>                             |                          | <u>Redox Features</u>                      |          |                         |                                   | <u>Texture</u> | <u>Remarks</u> |    |
|                                                                                                                                                       | <u>Color(moist)</u>                       | <u>%</u>                 | <u>Color(moist)</u>                        | <u>%</u> | <u>Type<sup>1</sup></u> | <u>Loc<sup>2</sup></u>            |                |                |    |
| 0 to 10cm                                                                                                                                             | organic                                   |                          |                                            |          |                         |                                   |                |                |    |
| refusal (gravel)                                                                                                                                      |                                           |                          |                                            |          |                         |                                   |                |                |    |
| <sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix |                                           |                          |                                            |          |                         |                                   |                |                |    |
| <b>Hydric Soil Indicators:</b>                                                                                                                        |                                           |                          |                                            |          |                         |                                   |                |                |    |
| <input checked="" type="checkbox"/>                                                                                                                   | Histosol (A1)                             | <input type="checkbox"/> | Sandy Redox (S5)                           |          |                         |                                   |                |                |    |
| <input type="checkbox"/>                                                                                                                              | Histic Epipedon (A2)                      | <input type="checkbox"/> | Stripped Matrix (S6)                       |          |                         |                                   |                |                |    |
| <input type="checkbox"/>                                                                                                                              | Black Histic (A3)                         | <input type="checkbox"/> | Dark Surfaces (S7)                         |          |                         |                                   |                |                |    |
| <input type="checkbox"/>                                                                                                                              | Hydrogen Sulfide (A4)                     | <input type="checkbox"/> | Polyvalue Below Surface (S8)               |          |                         |                                   |                |                |    |
| <input type="checkbox"/>                                                                                                                              | Stratified Layers (A5)                    | <input type="checkbox"/> | Thin Dark Surface (S9)                     |          |                         |                                   |                |                |    |
| <input type="checkbox"/>                                                                                                                              | Depleted Below Dark Surface (A11)         | <input type="checkbox"/> | Loamy Gleyed Matrix (F2)                   |          |                         |                                   |                |                |    |
| <input type="checkbox"/>                                                                                                                              | Thick Dark Surface (A12)                  | <input type="checkbox"/> | Depleted Matrix (F3)                       |          |                         |                                   |                |                |    |
| <input type="checkbox"/>                                                                                                                              | Sandy Mucky Mineral (S1)                  | <input type="checkbox"/> | Redox Dark Surface (F6)                    |          |                         |                                   |                |                |    |
| <input type="checkbox"/>                                                                                                                              | 5cm Mucky Peat or Peat (S3)               | <input type="checkbox"/> | Depleted Dark Surface (F7)                 |          |                         |                                   |                |                |    |
| <input type="checkbox"/>                                                                                                                              | Sandy Gleyed Matrix (S4)                  | <input type="checkbox"/> | Redox Depressions (F8)                     |          |                         |                                   |                |                |    |
| Restrictive Layer Type (if observed)                                                                                                                  |                                           |                          | Depth:                                     |          |                         | <b>Hydric Soil Present?</b>       |                | Yes            | No |
| Comments:                                                                                                                                             |                                           |                          |                                            |          |                         |                                   |                |                |    |
| Soils are problematic due to historic erosion near coast in estuary behind headland.                                                                  |                                           |                          |                                            |          |                         |                                   |                |                |    |

|                           |                                                       |                      |                                                                     |
|---------------------------|-------------------------------------------------------|----------------------|---------------------------------------------------------------------|
| Project Site: Point Black | Date: July, 2011                                      | Sample Point: WL2DP7 | Job #:                                                              |
| Client/owner:             | Field Investigator(s): Theo Popma, Candice, Carrie B. |                      |                                                                     |
| County: Guysborough       | Coordinates: 645368 5024143                           |                      |                                                                     |
| PID 35092063              | Do normal environmental conditions exist on-site?     |                      | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |

If no, explain:

**Atypical Situation?** Yes  No  Explain:

Is this a potential **Problem Area?** Yes  No  Explain: Erosion and sedimentation behind coastal headlands

**Wetland Determination**

(Check One Only For Each Criteria)

|                                              |     |                                     |    |                                     |
|----------------------------------------------|-----|-------------------------------------|----|-------------------------------------|
| Dominant Hydrophytic Vegetation (50/20 rule) | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/>            |
| Wetland Hydrology                            | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/>            |
| Hydric Soils                                 | Yes | <input type="checkbox"/>            | No | <input checked="" type="checkbox"/> |

|                              |                                        |
|------------------------------|----------------------------------------|
| <b>Wetland Determination</b> |                                        |
| <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO |

**Wetland Type:**

**Rational for Determination:**

**Vegetation**

| Tree Stratum: (Plot size: 9m <sup>2</sup> )  | %Cover | Dominant Species     | Indicator Status |
|----------------------------------------------|--------|----------------------|------------------|
| 1 <i>Osmunda cinnamomea</i>                  | 90     | x                    | FACW             |
| 2 <i>Thelypteris noveboracensis</i>          | 5      | x                    | FAC              |
| 3                                            |        |                      |                  |
| 4                                            |        |                      |                  |
| 5                                            |        |                      |                  |
| 6                                            |        |                      |                  |
| 95                                           |        | = <b>Total Cover</b> |                  |
| Shrub Stratum: (Plot size: 5m <sup>2</sup> ) |        |                      |                  |
| 1 <i>Alnus viridis</i>                       | 5      | x                    | FAC              |
| 2 <i>Abies balsamea</i>                      | 5      | x                    | FAC              |
| 3 <i>Picea glauca</i>                        | 5      | x                    | FACU             |
| 4 <i>Picea mariana</i>                       | 5      | x                    | FACW-            |
| 5                                            |        |                      |                  |
| 20                                           |        | = <b>Total Cover</b> |                  |
| Herb Stratum: (Plot Size: 1m <sup>2</sup> )  |        |                      |                  |
| 1 <i>deadwood</i>                            |        |                      |                  |
| 2                                            |        |                      |                  |
| 3                                            |        |                      |                  |
| 4                                            |        |                      |                  |
| 5                                            |        |                      |                  |
| 0                                            |        | = <b>Total Cover</b> |                  |

**Dominance Test Worksheet:**

|                                                |      |
|------------------------------------------------|------|
| # of Dominant Species that are OBL,FACW,FAC:   | 5    |
| Total # of Dominant Species across all strata: | 6    |
| % of Dominant Species that are OBL,FACW,FAC:   | 83.3 |

**Prevalence Index Worksheet:**

| Total %Cover of:                | Multiply by: |           |
|---------------------------------|--------------|-----------|
| OBL Species                     | x 1 =        | 0         |
| FACW Species                    | x 2 =        | 0         |
| FAC Species                     | x 3 =        | 0         |
| FACU Species                    | x 4 =        | 0         |
| ULP Species                     | x 5 =        | 0         |
| Column Totals:                  | 0            | 0         |
| <b>Prevalence Index = B/A =</b> |              | <b>##</b> |

**Hydrophytic Vegetation Indicators:**

- Rapid Test for Hydric Vegetation
- Dominance Test is >50%
- Prevalence Index is ≤3.0<sup>1</sup>
- Morphological Adaptations<sup>1</sup> (explain)
- Problematic Hydrophytic Vegetation<sup>1</sup> (explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Comments

**Hydrophytic Vegetation Present?** Yes  No



**Hydrology**

**Primary Hydrological Indicators:** (minimum of one is required; check all that apply)

|                                                                    |                                                                     |
|--------------------------------------------------------------------|---------------------------------------------------------------------|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Water Stained Leaves (B9)                  |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Aquatic Fauna (B13)                        |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Marl Deposits (B15)                        |
| <input type="checkbox"/> Watermarks                                | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                 |
| <input type="checkbox"/> Sediment Deposits (B2)                    | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3)                       | <input type="checkbox"/> Presence of Reduced Iron (C4)              |
| <input type="checkbox"/> Algal Mat of Crust (B4)                   | <input type="checkbox"/> Recent Iron reduction in tilled Soils (C6) |
| <input type="checkbox"/> Iron Deposits (B5)                        | <input type="checkbox"/> Thin Muck Surface (C7)                     |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks)                 |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)   |                                                                     |

**Secondary Indicators:** (minimum of two required)

|                                                                    |                                                          |
|--------------------------------------------------------------------|----------------------------------------------------------|
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Stunted or Stressed Plants (D1) |
| <input type="checkbox"/> Drainage Patterns (B10)                   | <input type="checkbox"/> Geomorphic Position (D2)        |
| <input type="checkbox"/> Moss Trim Lines (B16)                     | <input type="checkbox"/> Shallow Aquitard (D3)           |
| <input type="checkbox"/> Dry-Season Water Table (C2)               | <input type="checkbox"/> Microtopographic Relief (D4)    |
| <input type="checkbox"/> Crayfish Burrows (C8)                     | <input type="checkbox"/> FAC-Neutral Test (D5)           |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |                                                          |

**Field Observations:**

|                        |     |                                     |                                     |       |    |  |  |
|------------------------|-----|-------------------------------------|-------------------------------------|-------|----|--|--|
| Surface Water Present? | Yes | No                                  | <input checked="" type="checkbox"/> | Depth |    |  |  |
| Water Table Present?   | Yes | <input checked="" type="checkbox"/> | No                                  | Depth | 30 |  |  |
| Saturation Present?    | Yes | <input checked="" type="checkbox"/> | No                                  | Depth | 0  |  |  |

**Wetland Hydrology Present?** Yes  No

Comments:

**Soil Profile**

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators)

| Depth(cm)  | Matrix       |   | Redox Features         |   |                   |                  | Texture | Remarks |
|------------|--------------|---|------------------------|---|-------------------|------------------|---------|---------|
|            | Color(moist) | % | Color(moist)           | % | Type <sup>1</sup> | Loc <sup>2</sup> |         |         |
| 0 to 15cm  | organic      |   |                        |   |                   |                  |         |         |
| 15 to 30cm | mineral      |   | less than 50% depleted |   |                   |                  |         |         |

<sup>1</sup>Type:C=Concentration,D=Depletion,RM=Reduced Matrix,CS=Covered or Coated Sand Grains.<sup>2</sup>Location:PL=Pore Lining,M=Matrix

**Hydric Soil Indicators:**

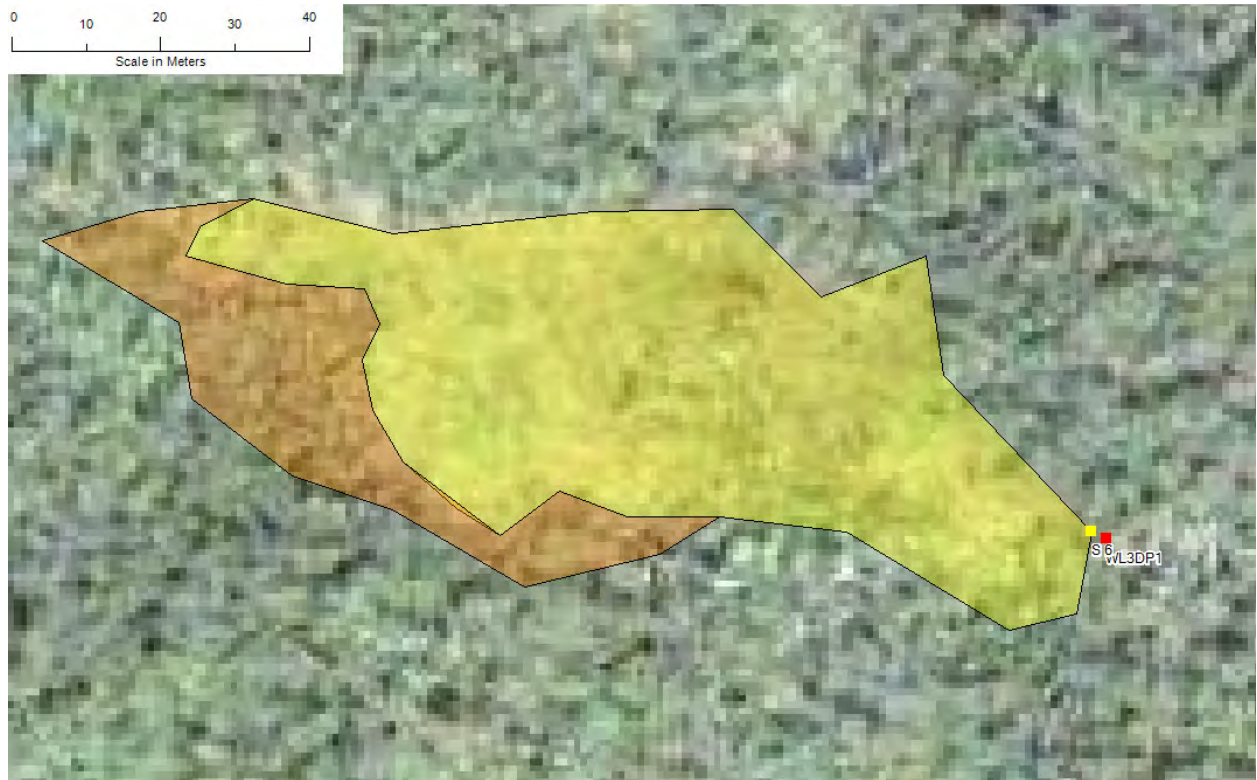
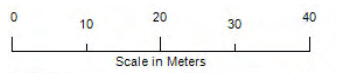
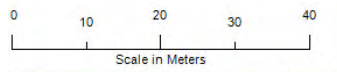
|                                                            |                                                       |
|------------------------------------------------------------|-------------------------------------------------------|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)             |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)         |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Dark Surfaces (S7)           |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Polyvalue Below Surface (S8) |
| <input type="checkbox"/> Stratified Layers (A5)            | <input type="checkbox"/> Thin Dark Surface (S9)       |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Loamy Gleyed Matrix (F2)     |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Depleted Matrix (F3)         |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Redox Dark Surface (F6)      |
| <input type="checkbox"/> 5cm Mucky Peat or Peat (S3)       | <input type="checkbox"/> Depleted Dark Surface (F7)   |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          | <input type="checkbox"/> Redox Depressions (F8)       |

Restrictive Layer Type (if observed) \_\_\_\_\_ Depth: \_\_\_\_\_ **Hydric Soil Present?** Yes  No

Comments:

insufficient depletion

# Wetland 3



Wetland 3 is a fen dominated by typical bog/fen species of wetland plants and surrounded by steep rock outcroppings covered with a thin layer of organic soil. A small stream runs along the side of the wetland at the base of one of these steep banks and some transitional shrub wetland occupies the edge of the clearing.



Open Fen at Wetland 3



Shrub cover and small stream flowing along the edge of wetland 3

|                           |                                                                                                                       |                      |        |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------|----------------------|--------|
| Project Site: Point Black | Date: July, 2011                                                                                                      | Sample Point: WL3DP1 | Job #: |
| Client/owner:             | Field Investigator(s): Theo Popma, Candice                                                                            |                      |        |
| County: Guysborough       | Coordinates: 645147 5024038                                                                                           |                      |        |
| PID 35092063              | Do normal environmental conditions exist on-site? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |                      |        |

If no, explain:

**Atypical Situation?** Yes  No  Explain:

Is this a potential **Problem Area**? Yes  No  Explain:

**Wetland Determination**

(Check One Only For Each Criteria)

|                                              |     |                                     |    |                          |
|----------------------------------------------|-----|-------------------------------------|----|--------------------------|
| Dominant Hydrophytic Vegetation (50/20 rule) | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/> |
| Wetland Hydrology                            | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/> |
| Hydric Soils                                 | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/> |

|                                         |                             |
|-----------------------------------------|-----------------------------|
| <b>Wetland Determination</b>            |                             |
| <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO |

**Wetland Type:**  
**Rational for Determination:**

**Vegetation**

|                                         | Tree Stratum: (Plot size: 9m2 ) | %Cover | Dominant Species | Indicator Status |
|-----------------------------------------|---------------------------------|--------|------------------|------------------|
| 1                                       | <i>Arethusa bulbosa</i>         | 5      | x                | OBL              |
| 2                                       | <i>Rhynchospora alba</i>        | 5      | x                | OBL              |
| 3                                       |                                 |        |                  |                  |
| 4                                       |                                 |        |                  |                  |
| 5                                       |                                 |        |                  |                  |
| 6                                       |                                 |        |                  |                  |
|                                         |                                 | 10     | = Total Cover    |                  |
| <b>Shrub Stratum: (Plot size: 5m2 )</b> |                                 |        |                  |                  |
| 1                                       | <i>Picea mariana</i>            | 20     | x                | FACW-            |
| 2                                       | <i>Larix laricina</i>           | 20     | x                | FACW             |
| 3                                       |                                 |        |                  |                  |
| 4                                       |                                 |        |                  |                  |
| 5                                       |                                 |        |                  |                  |
|                                         |                                 | 40     | = Total Cover    |                  |
| <b>Herb Stratum: (Plot Size: 1m2 )</b>  |                                 |        |                  |                  |
| 1                                       |                                 |        |                  |                  |
| 2                                       |                                 |        |                  |                  |
| 3                                       |                                 |        |                  |                  |
| 4                                       |                                 |        |                  |                  |
| 5                                       |                                 |        |                  |                  |
|                                         |                                 | 0      | = Total Cover    |                  |

**Dominance Test Worksheet:**

# of Dominant Species that are OBL,FACW,FAC: 4

Total # of Dominant Species across all strata: 4

% of Dominant Species that are OBL,FACW,FAC: 100

**Prevalence Index Worksheet:**

|                  |              |
|------------------|--------------|
| Total %Cover of: | Multiply by: |
| OBL Species      | x 1 = 0      |
| FACW Species     | x 2 = 0      |
| FAC Species      | x 3 = 0      |
| FACU Species     | x 4 = 0      |
| ULP Species      | x 5 = 0      |
| Column Totals:   | 0            |

**Prevalence Index = B/A = ##**

**Hydrophytic Vegetation Indicators:**

Rapid Test for Hydric Vegetation

Dominance Test is >50%

Prevalence Index is ≤3.0<sup>1</sup>

Morphological Adaptations<sup>1</sup> (explain)

Problematic Hydrophytic Vegetation<sup>1</sup>(explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Comments

**Hydrophytic Vegetation Present?** Yes  No

**Hydrology**

**Primary Hydrological Indicators:** (minimum of one is required; check all that apply)

|                                                                    |                                                                     |
|--------------------------------------------------------------------|---------------------------------------------------------------------|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Water Stained Leaves (B9)                  |
| <input checked="" type="checkbox"/> High Water Table (A2)          | <input type="checkbox"/> Aquatic Fauna (B13)                        |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Marl Deposits (B15)                        |
| <input type="checkbox"/> Watermarks                                | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                 |
| <input type="checkbox"/> Sediment Deposits (B2)                    | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3)                       | <input type="checkbox"/> Presence of Reduced Iron (C4)              |
| <input type="checkbox"/> Algal Mat of Crust (B4)                   | <input type="checkbox"/> Recent Iron reduction in tilled Soils (C6) |
| <input type="checkbox"/> Iron Deposits (B5)                        | <input type="checkbox"/> Thin Muck Surface (C7)                     |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks)                 |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)   |                                                                     |

**Secondary Indicators:** (minimum of two required)

|                                                                    |                                                                  |
|--------------------------------------------------------------------|------------------------------------------------------------------|
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Stunted or Stressed Plants (D1)         |
| <input type="checkbox"/> Drainage Patterns (B10)                   | <input type="checkbox"/> Geomorphic Position (D2)                |
| <input type="checkbox"/> Moss Trim Lines (B16)                     | <input type="checkbox"/> Shallow Aquitard (D3)                   |
| <input type="checkbox"/> Dry-Season Water Table (C2)               | <input checked="" type="checkbox"/> Microtopographic Relief (D4) |
| <input type="checkbox"/> Crayfish Burrows (C8)                     | <input type="checkbox"/> FAC-Neutral Test (D5)                   |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |                                                                  |

Field Observations:

|                        |     |                                     |                                     |       |    |  |  |
|------------------------|-----|-------------------------------------|-------------------------------------|-------|----|--|--|
| Surface Water Present? | Yes | No                                  | <input checked="" type="checkbox"/> | Depth |    |  |  |
| Water Table Present?   | Yes | <input checked="" type="checkbox"/> | No                                  | Depth | 15 |  |  |
| Saturation Present?    | Yes | <input checked="" type="checkbox"/> | No                                  | Depth | 0  |  |  |

**Wetland Hydrology Present?**    Yes        No   

Comments:

**Soil Profile**

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators)

| Depth(cm) | Matrix       |   | Redox Features |   |                   |                  | Texture | Remarks |
|-----------|--------------|---|----------------|---|-------------------|------------------|---------|---------|
|           | Color(moist) | % | Color(moist)   | % | Type <sup>1</sup> | Loc <sup>2</sup> |         |         |
|           |              |   |                |   |                   |                  |         |         |

<sup>1</sup>Type:C=Concentration,D=Depletion,FM=Reduced Matrix,CS=Covered or Coated Sand Grains.<sup>2</sup>Location:PL=Pore Lining,M=Matrix

**Hydric Soil Indicators:**

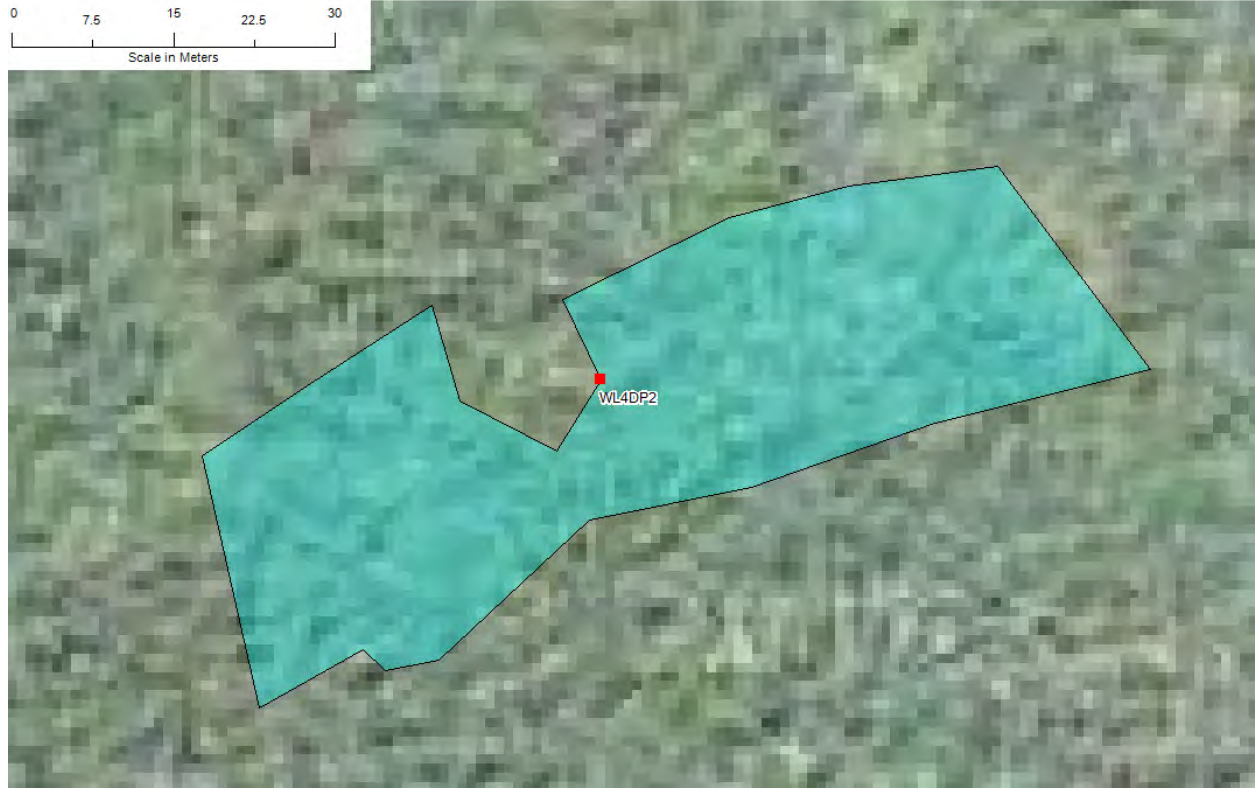
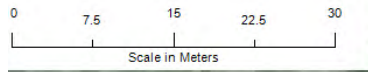
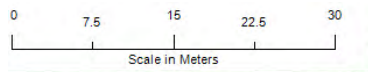
|                                                            |                                                       |
|------------------------------------------------------------|-------------------------------------------------------|
| <input checked="" type="checkbox"/> Histosol (A1)          | <input type="checkbox"/> Sandy Redox (S5)             |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)         |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Dark Surfaces (S7)           |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Polyvalue Below Surface (S8) |
| <input type="checkbox"/> Stratified Layers (A5)            | <input type="checkbox"/> Thin Dark Surface (S9)       |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Loamy Gleyed Matrix (F2)     |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Depleted Matrix (F3)         |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Redox Dark Surface (F6)      |
| <input type="checkbox"/> 5cm Mucky Peat or Peat (S3)       | <input type="checkbox"/> Depleted Dark Surface (F7)   |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          | <input type="checkbox"/> Redox Depressions (F8)       |

Restrictive Layer Type (if observed)    Depth:    **Hydric Soil Present?**    Yes        No   

Comments:



# Wetland 4





Wetland 4 is a Forested Wetland dominated by Red Spruce (*Picea rubens*) and with an open understory dominated mostly by Sphagnum and by only a few species of herbs and shrubs. This is a relatively small wetland which has formed amongst the variable contours of bedrock and can be distinguished by the surrounding forest largely by the presence of Sphagnum and organic soils.



Forested Wetland with open understory dominated by few herbaceous plant species and abundant mosses



Forested Wetland and adjacent upland differ in hydrology, soil profile and bryophyte flora