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| Permit #:         |  |
| Date Received:    |  |

## INTERIM WATER QUALITY ANALYSIS MODULE

**NOTE: SECTIONS A & B OF THIS MODULE NEED TO BE COMPLETED FOR ALL APPLICATIONS. SECTION C IS ONLY REQUIRED FOR PROJECTS LOCATED IN SPECIAL PROTECTION WATERS (HIGH QUALITY AND EXCEPTIONAL VALUE; EXCEPTIONAL VALUE WETLANDS).**

*PLEASE READ THE INSTRUCTIONS PROVIDED BEFORE COMPLETING THIS FORM.*

### SECTION A. SITE ANALYSIS

ALL PARTS OF THIS SITE ANALYSIS MUST BE COMPLETED AND ENCLOSED WITH ALL APPLICATIONS.

Please check the following list and include the information requested. Place a check mark in the column provided for all items completed and/or provided. Attach additional pages if needed. Failure to provide all of the requested information will delay the processing of the application and may result in the application being RETURNED or placed ON HOLD with NO ACTION, or being considered withdrawn and the application file closed.

| ✓CHECKLIST FOR WATER QUALITY ANALYSIS MODULE |  |                             | Applicant<br>Check <input type="checkbox"/><br>If Included | Official<br>Use Only     |
|--|--|-----------------------------|--|--------------------------|
| <b>1.</b>                                    | <b>Background Site Factors (Applies to any part or portion of the site)</b>  |                             |  |                          |
|  | a. Site located in Act 167 Stormwater Management Watershed: <input type="checkbox"/> Yes <input type="checkbox"/> No If yes ID:  |                             | <input type="checkbox"/>                                   | <input type="checkbox"/> |
|  | b. Site located in an urbanized MS4 area: <input type="checkbox"/> Yes <input type="checkbox"/> No If yes ID:  |                             | <input type="checkbox"/>                                   | <input type="checkbox"/> |
|  | c. Special Protection Waters (Designated or existing use): <input type="checkbox"/> Yes <input type="checkbox"/> No<br>Specify the most protective use(s): <input type="checkbox"/> EV or <input type="checkbox"/> HQ waters or <input type="checkbox"/> EV wetlands; <input type="checkbox"/> CWF, <input type="checkbox"/> WWF,<br><input type="checkbox"/> other: |                             | <input type="checkbox"/>                                   | <input type="checkbox"/> |
|  | d. Is the site, or portion of the site located in source water protection, water supply, or other critical use area: <input type="checkbox"/> Yes <input type="checkbox"/> No If yes ID:   |                             | <input type="checkbox"/>                                   | <input type="checkbox"/> |
|  | e. Describe other hydrologic or other unique natural features:   |                             | <input type="checkbox"/>                                   | <input type="checkbox"/> |
| <b>2.</b>                                    | <b>Site Factors Inventory</b>  |                             |  |                          |
|  | Provide summary of site factors and identify location(s) on accompanying maps, drawings, and/or narrative. Location: Drawings (D), Narrative (N)   |                             | <input type="checkbox"/>                                   | <input type="checkbox"/> |
|  | <b>a. Describe site</b>  |                             |  |                          |
|  | Site Restrictions:   | Location: _____ Page: _____ | <input type="checkbox"/>                                   | <input type="checkbox"/> |
|  | Natural/existing stormwater opportunities:   | Location: _____ Page: _____ | <input type="checkbox"/>                                   | <input type="checkbox"/> |
|  | Special site border conditions and adjacent uses:  | Location: _____ Page: _____ | <input type="checkbox"/>                                   | <input type="checkbox"/> |
|  | Existing developed watershed boundaries and drainage on the site:  | Location: _____ Page: _____ | <input type="checkbox"/>                                   | <input type="checkbox"/> |

|  |                 |             |                          | Applicant<br>Check <input type="checkbox"/><br>If Included | Official<br>Use Only |
|--|-----------------|-------------|--------------------------|--|----------------------|
| <b>b. Describe the existing developed features on the site, if any</b>   |                 |             |                          |  |                      |
| Existing structures and/or improvements:   | Location: _____ | Page: _____ | <input type="checkbox"/> | <input type="checkbox"/>                                   |                      |
| Existing improvements, structures to be preserved:   | Location: _____ | Page: _____ | <input type="checkbox"/> | <input type="checkbox"/>                                   |                      |
| Existing cover:  | Location: _____ | Page: _____ | <input type="checkbox"/> | <input type="checkbox"/>                                   |                      |
| Past and present uses:   | Location: _____ | Page: _____ | <input type="checkbox"/> | <input type="checkbox"/>                                   |                      |
| Existing impervious areas:   | Location: _____ | Page: _____ | <input type="checkbox"/> | <input type="checkbox"/>                                   |                      |
| Existing pervious maintained areas:  | Location: _____ | Page: _____ | <input type="checkbox"/> | <input type="checkbox"/>                                   |                      |
| Existing public sewer and water:   | Location: _____ | Page: _____ | <input type="checkbox"/> | <input type="checkbox"/>                                   |                      |
| Existing storm drainage systems at/adjacent to site:   | Location _____  | Page _____  | <input type="checkbox"/> | <input type="checkbox"/>                                   |                      |
| Existing wastewater, water systems onsite:   | Location _____  | Page _____  | <input type="checkbox"/> | <input type="checkbox"/>                                   |                      |
| <b>c. Describe important natural features existing on site:</b>  |                 |             |                          |  |                      |
| Existing hydrology (i.e. drainage swales, intermittent, perennial) <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes ID: | Location _____  | Page _____  | <input type="checkbox"/> | <input type="checkbox"/>                                   |                      |
| Existing topography, contours, natural flow paths:   | Location _____  | Page _____  | <input type="checkbox"/> | <input type="checkbox"/>                                   |                      |
| Soil series found on site and their Hydrologic Soil Group ratings:   | Location _____  | Page _____  | <input type="checkbox"/> | <input type="checkbox"/>                                   |                      |

|   |                |            |                          | Applicant<br>Check <input type="checkbox"/><br>If Included | Official<br>Use Only |
|---|----------------|------------|--------------------------|--|----------------------|
| <b>c. Describe important natural features existing on site (continued):</b>   |                |            |                          |  |                      |
| Density and quality of vegetation (i.e. trees, scrub, shrub, pasture):  | Location _____ | Page _____ | <input type="checkbox"/> | <input type="checkbox"/>                                   |                      |
| Special value areas <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes ID:   | Location _____ | Page _____ | <input type="checkbox"/> | <input type="checkbox"/>                                   |                      |
| Wetlands, hydric soils <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes ID:  | Location _____ | Page _____ | <input type="checkbox"/> | <input type="checkbox"/>                                   |                      |
| Floodplains/alluvial soils <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes ID:  | Location _____ | Page _____ | <input type="checkbox"/> | <input type="checkbox"/>                                   |                      |
| Width and description of riparian buffers <input type="checkbox"/> Yes <input type="checkbox"/> No  | Location _____ | Page _____ | <input type="checkbox"/> | <input type="checkbox"/>                                   |                      |
| Naturally vegetated swales/drainageways <input type="checkbox"/> Yes <input type="checkbox"/> No  | Location _____ | Page _____ | <input type="checkbox"/> | <input type="checkbox"/>                                   |                      |
| Sensitive species and/or critical habitat (i.e. T & E, rare, wild trout) <input type="checkbox"/> Yes <input type="checkbox"/> No If yes ID:          | Location _____ | Page _____ | <input type="checkbox"/> | <input type="checkbox"/>                                   |                      |
| Slopes >10% <input type="checkbox"/> Yes <input type="checkbox"/> No If yes ID:   | Location _____ | Page _____ | <input type="checkbox"/> | <input type="checkbox"/>                                   |                      |
| Special geologic conditions/formations (i.e. karst, landslide-prone, mined areas) <input type="checkbox"/> Yes <input type="checkbox"/> No If yes ID: | Location _____ | Page _____ | <input type="checkbox"/> | <input type="checkbox"/>                                   |                      |
| Shallow bedrock (less than 2ft) <input type="checkbox"/> Yes <input type="checkbox"/> No If yes Specify:  | Location _____ | Page _____ | <input type="checkbox"/> | <input type="checkbox"/>                                   |                      |
| High water table (less than 2ft) <input type="checkbox"/> Yes <input type="checkbox"/> No If yes Specify:   | Location _____ | Page _____ | <input type="checkbox"/> | <input type="checkbox"/>                                   |                      |
| Existing natural watershed boundaries and drainage on the site:   | Location _____ | Page _____ | <input type="checkbox"/> | <input type="checkbox"/>                                   |                      |

|   |                |            |                          | Applicant<br>Check <input checked="" type="checkbox"/><br>If Included | Official<br>Use Only |
|---|----------------|------------|--------------------------|---|----------------------|
| <b>3. Site Factors Analysis.</b><br>From the Background and Site Factors Inventory above  |                |            |                          |   |                      |
| a. <b>Characterize site limitations</b><br><br>Special and sensitive natural features on or near project site or other site constraints to be avoided. <input type="checkbox"/> Yes <input type="checkbox"/> No<br>If Yes ID:<br><br>Features that may result in direct surface to groundwater discharge (i.e. sinkholes; solution channels; mine voids, boreholes; wells). <input type="checkbox"/> Yes <input type="checkbox"/> No If yes ID: | Location _____ | Page _____ | <input type="checkbox"/> | <input type="checkbox"/>  |                      |
|   | Location _____ | Page _____ | <input type="checkbox"/> | <input type="checkbox"/>  |                      |
| b. <b>Characterize areas of opportunities within the site:</b><br><br>Types/location of well-draining soils. <input type="checkbox"/> Yes <input type="checkbox"/> No<br>If Yes Specify:<br><br>Extent and quality of existing vegetation.<br><br>Define the potential development area.<br><br>Identify Stormwater Management opportunities of natural features.   | Location _____ | Page _____ | <input type="checkbox"/> | <input type="checkbox"/>  |                      |
|   | Location _____ | Page _____ | <input type="checkbox"/> | <input type="checkbox"/>  |                      |
|   | Location _____ | Page _____ | <input type="checkbox"/> | <input type="checkbox"/>  |                      |
|   | Location _____ | Page _____ | <input type="checkbox"/> | <input type="checkbox"/>  |                      |
| <b>SECTION B. THERMAL IMPACT ANALYSIS</b>   |                |            |                          |   |                      |
| <b>THIS THERMAL IMPACT ANALYSIS MUST BE COMPLETED AND ENCLOSED WITH AN APPLICATION FOR AN INDIVIDUAL NPDES PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES OR GENERAL PERMIT NOI SUBMISSION.</b>   |                |            |                          |   |                      |
| The applicant must evaluate and avoid, minimize or mitigate thermal impacts associated with the project.<br>Will there be any thermal impacts from the proposed activity? <input type="checkbox"/> Yes <input type="checkbox"/> No If No, Explain:  |                |            |                          |   |                      |
| If thermal impacts cannot be avoided, describe BMPs that will mitigate such impacts in a manner that will protect and maintain water quality in receiving surface waters in accordance with 25 Pa. Code Chapter 93.   |                |            |                          |   |                      |

**SECTION C. ANTIDegradation ANALYSIS**

**ALL PARTS OF THIS ANTIDegradation ANALYSIS MUST BE COMPLETED AND ENCLOSED WITH AN APPLICATION FOR AN INDIVIDUAL NPDES PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES IN SPECIAL PROTECTION WATERS.**

**PART 1 NON-DISCHARGE ALTERNATIVES EVALUATION FOR SPECIAL PROTECTION WATERSHEDS**

**Please check the following list and include the information requested. Attach additional pages if needed. Failure to provide all of the requested analysis will delay the processing of the application and may result in the application being RETURNED or placed ON HOLD with NO ACTION, or being considered withdrawn and the application file closed.**

| E & S Plan   | Official Use Only                      | PCSM Plan  | Official Use Only                      |
|--|--|--|--|
| <p>Applicant must consider any and all non-discharge alternatives, for the entire project area, that will achieve a <b>no net increase</b> in accelerated erosion and sedimentation during the earth disturbance activity, and which are environmentally sound such as:</p> <p><b>Non-discharge BMPs</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Alternative Siting <ul style="list-style-type: none"> <li><input type="checkbox"/> Alternative location</li> <li><input type="checkbox"/> Alternative configuration</li> <li><input type="checkbox"/> Alternative location of discharge</li> </ul> </li> <li><input type="checkbox"/> Limited Disturbed Area</li> <li><input type="checkbox"/> Limiting Extent &amp; Duration of Disturbance (Phasing, Sequencing)</li> <li><input type="checkbox"/> Vegetated Riparian Buffers (100 ft min)</li> <li><input type="checkbox"/> Other _____</li> </ul> | <p>E = encl<br/>C=compl<br/>or N/A</p> | <p>Applicant must consider any and all non-discharge alternatives, for the entire project area, that will achieve a <b>no net increase</b> in pre-development to post development volume, rate, and concentration of pollutants in water quality, and which are environmentally sound such as:</p> <p><b>Non-discharge BMPs</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Alternative Siting <ul style="list-style-type: none"> <li><input type="checkbox"/> Alternative location</li> <li><input type="checkbox"/> Alternative configuration</li> <li><input type="checkbox"/> Alternative location of discharge</li> </ul> </li> <li><input type="checkbox"/> Low Impact Development (LID / BSD)</li> <li><input type="checkbox"/> Vegetated Riparian Buffers (100 ft min)</li> <li><input type="checkbox"/> Infiltration</li> <li><input type="checkbox"/> Water Reuse</li> <li><input type="checkbox"/> Other _____</li> </ul> | <p>E = encl<br/>C=compl<br/>or N/A</p> |
| <p>Describe the environmentally sound non-discharge Best Management Practices (BMPs) to be used prior to, during and after earth disturbance that have been incorporated into your Erosion and Sediment Control Plan based on your site analysis. <b><i>Narrative Description of non-discharge BMPs utilized including operation and maintenance plans:</i></b></p>  |  | <p>Describe the environmentally sound non-discharge BMPs to be used after construction that has been incorporated into your Post Construction Stormwater Management Plan based on your site analysis. <b><i>Narrative Description of non-discharge BMPs utilized including operation and maintenance plans:</i></b></p>  |  |

**PART 2 ANTIDegradation BEST AVAILABLE COMBINATION OF TECHNOLOGIES (ABACT)**

If the net change in stormwater discharge from or after construction is not fully managed by non-discharge BMPs, the applicant must utilize ABACT BMPs to manage the difference. The Applicant must specify whether the discharge will occur during construction, post-construction or both, and identify the technologies that will be used to ensure that the discharge will be a non-degrading discharge. ABACT BMPs include but are not limited to:

| E & S Plan   | Official Use Only             | PCSM Plan  | Official Use Only             |
|--|-------------------------------|--|-------------------------------|
| <input type="checkbox"/> <b>Treatment BMPs:</b><br><input type="checkbox"/> Sediment basin with skimmer<br><input type="checkbox"/> Sediment basin ratio of 4:1 or greater (flow length to basin width)<br><input type="checkbox"/> Sediment basin with 4-7 day detention<br><input type="checkbox"/> Flocculants<br><input type="checkbox"/> <b>Land disposal:</b><br><input type="checkbox"/> Vegetated filters<br><input type="checkbox"/> Vegetated Riparian buffers <100ft.<br><input type="checkbox"/> Immediate stabilization<br><input type="checkbox"/> <b>Pollution prevention:</b><br><input type="checkbox"/> PPC Plans<br><input type="checkbox"/> Street sweeping<br><input type="checkbox"/> Channels, collectors and diversions lined with permanent vegetation, rock, geotextile or other non-erosive materials<br><input type="checkbox"/> <b>Stormwater reuse technologies:</b><br><input type="checkbox"/> Sediment basin water for dust control<br><input type="checkbox"/> Sediment basin water for irrigation | E = encl<br>C=compl<br>or N/A | <input type="checkbox"/> <b>Treatment BMPs:</b><br><input type="checkbox"/> Infiltration Practices<br><input type="checkbox"/> Wet ponds<br><input type="checkbox"/> Created wetland treatment systems<br><input type="checkbox"/> Vegetated swales<br><input type="checkbox"/> Manufactured devices<br><input type="checkbox"/> Bio-retention/infiltration<br><input type="checkbox"/> Green Roofs<br><input type="checkbox"/> <b>Land disposal:</b><br><input type="checkbox"/> Vegetated filters<br><input type="checkbox"/> Vegetated Riparian Buffers <100ft.<br><input type="checkbox"/> Disconnection of roof drainage<br><input type="checkbox"/> Bio-retention/bio-infiltration<br><input type="checkbox"/> <b>Pollution prevention:</b><br><input type="checkbox"/> Street sweeping<br><input type="checkbox"/> Nutrient, pesticide, herbicide or other chemical application plan alternatives<br><input type="checkbox"/> PPC Plans<br><input type="checkbox"/> Non-structural Practices<br><input type="checkbox"/> Land Preservation<br><input type="checkbox"/> Restoration BMPs<br><input type="checkbox"/> <b>Stormwater reuse technologies:</b><br><input type="checkbox"/> Cisterns<br><input type="checkbox"/> Rain barrels<br><input type="checkbox"/> Dry hydrant with underground storage<br><input type="checkbox"/> Spray Irrigation | E = encl<br>C=compl<br>or N/A |
| <input type="checkbox"/> <b>Narrative Description of E&amp;S ABACT BMPs:</b>   |                               | <input type="checkbox"/> <b>Narrative Description of PCSM ABACT BMPs:</b>  |                               |
| <p>If there will be a net change in discharge, the applicant must demonstrate that any change in discharge will maintain and protect the existing quality of the receiving surface waters.</p>   |                               | <p>If there will be a net change in rate, volume or quality of discharge, the applicant must demonstrate that any change in discharge will maintain and protect the existing quality of the receiving surface waters.</p>  |                               |

**PART 3 SOCIAL OR ECONOMIC JUSTIFICATION IN HIGH QUALITY WATERS ONLY (SEJ):**

If the applicant cannot demonstrate that the net change in discharge will protect the existing quality of the receiving surface waters, for projects in HQ waters, the applicant may pursue the SEJ process for demonstrating that lowering water quality is necessary to accommodate important economic or social development in the area in which the waters are located, in accordance with Chapter 10 of the Water Quality Antidegradation Implementation Guidance Manual, DEP Document ID No. 391-0300-002.