



**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGES OF STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITIES
ANTIDEGRADATION ANALYSIS MODULE 3**

Applicant: Orchard BJK Company, LLC.

Project Site Name: Pocono Mountians Corporate Center
North Warehouse

Surface Water Name: Duckpuddle Run

Surface Water Use: HQ-CWF, MF

ANTIDEGRADATION – EROSION AND SEDIMENT CONTROL (E&S) PLAN

A **Non-Discharge Alternative will be utilized** for the project that will either individually or collectively eliminate the net change in stormwater volume, rate, and quality for storm events up to and including the 2-year/24-hour storm during earth disturbance activities.

Identify the E&S BMP(s) that will be utilized to achieve the non-discharge alternative:

- | | |
|--|--|
| <input type="checkbox"/> Alternative Siting: Location | <input type="checkbox"/> Limiting Extent & Duration of Disturbance |
| <input type="checkbox"/> Alternative Siting: Configuration | <input type="checkbox"/> Riparian Buffer (150 ft min.) |
| <input type="checkbox"/> Alternative Siting: Location of Discharge | <input type="checkbox"/> Riparian Forest Buffer (150 ft min.) |
| <input type="checkbox"/> Other: _____ | <input type="checkbox"/> Limited Disturbed Area |

Explain how the E&S BMP(s) will individually or collectively eliminate the net change in stormwater volume, rate, and quality for storm events up to and including the 2-year/24-hour storm during earth disturbance activities.

Proposed BMPs shall limit the amount of clearing and disturbance to only that which is necessary to construct improvements. A vegetated buffer shall be maintained between disturbed area and the wetlands to Duckpuddle Run to allow for filtration and absorption of runoff prior to discharge from the site.

If a **Non-Discharge Alternative will not be utilized**, explain the rationale for non-selection, including why none of the alternatives are considered environmentally sound and cost-effective.

See the attached narrative.

Antidegradation Best Combination of Technologies (ABACT) BMP(s) will be utilized for the project that will either individually or collectively manage the net change in stormwater volume, rate, and quality for storm events up to and including the 2-year/24-hour storm during earth disturbance activities.

Identify the ABACT E&S BMP(s) that will be utilized:

- | | |
|--|--|
| <input type="checkbox"/> Rock Construction Entrance with Wash Rack | <input type="checkbox"/> Rock Construction Entrance with Street Sweeping |
| <input type="checkbox"/> Wheel Wash | <input type="checkbox"/> Pumped Water Filter Bag with Compost Sock Ring |
| <input type="checkbox"/> Pumped Water Filter Bag with Sump Pit | <input checked="" type="checkbox"/> Compost Filter Sock |
| <input type="checkbox"/> Compost Filter Berm (HQ Only) | <input type="checkbox"/> Weighted Sediment Filter Tube (HQ Only) |
| <input type="checkbox"/> Silt Fence with Vegetative Filter Strip | <input type="checkbox"/> Super Silt Fence with Vegetative Filter Strip |
| <input type="checkbox"/> Wood Chip Filter Berm (HQ Only) | <input type="checkbox"/> Vegetative Filter Strip (HQ Only) |
| <input type="checkbox"/> Sediment Basin with Perforated Riser (HQ Only) | <input type="checkbox"/> Sediment Basin with Skimmer |
| <input type="checkbox"/> Stone Inlet Protection with Compost Layer (HQ Only) | <input type="checkbox"/> Compost Filter Sock Sediment Trap |
| <input type="checkbox"/> Embankment Sediment Trap with Compost Layer (HQ Only) | <input type="checkbox"/> Embankment Sediment Trap with Compost Sock |
| <input type="checkbox"/> Sediment Trap with Perforated Riser (HQ Only) | <input type="checkbox"/> Sediment Trap with Skimmer |
| <input type="checkbox"/> Erosion Control Blankets within 50 ft of Surface Waters | <input checked="" type="checkbox"/> Immediate Stabilization |
| <input type="checkbox"/> Flocculant with PAMs | <input checked="" type="checkbox"/> Vegetative Conveyance |

Riparian Buffer (< 150 ft)

Riparian Forest Buffer (< 150 ft)

Approved Alternative: RCE with 100' length

Explain how the E&S BMP(s) will individually or collectively manage the net change in stormwater volume, rate, and quality for storm events up to and including the 2-year/24-hour storm during the earth disturbance activities.

ANTIDEGRADATION – POST-CONSTRUCTION STORMWATER MANAGEMENT (PCSM) PLAN

A **Non-Discharge Alternative will be utilized** for the project that either individually or collectively eliminate the net change in stormwater volume, rate, and quality for storm events up to and including the 2-year/24-hour storm after earth disturbance activities.

Identify the PCSM BMPs that will be used to achieve the non-discharge alternative:

Alternative Siting: Location

Low Impact Development

Alternative Siting: Configuration

Riparian Buffer (150-ft. min.)

Alternative Siting: Location of Discharge

Riparian Forest Buffer (150-ft. min.)

Infiltration

Water Reuse

Other: _____

Explain how the PCSM BMP(s) will individually or collectively eliminate the net change in stormwater volume, rate, and quality for storm events up to and including the 2-year/24-hour storm after earth disturbance activities.

The proposed Basins have been designed to store up to the 100-year storm event. A vegetated buffer shall be maintained between disturbed area and the Duckpuddle Run to allow for filtration and absorption of runoff prior to discharge from the site.

If a **Non-Discharge Alternative will not be utilized**, explain the rationale for non-selection, including why none of the alternatives are considered environmentally sound and cost-effective.

See the attached narrative.

Antidegradation Best Combination of Technologies (ABACT) has been selected for the project that will either individually or collectively manage the net change in stormwater volume, rate, and quality for storm events up to and including the 2-year/24-hour storm after earth disturbance activities.

Identify the ABACT PSCM BMPs that will be utilized:

Rain Garden (with Infiltration)

Disconnection of Impervious / Roof Area

Rain Garden (without Infiltration)

Pervious Pavement with Infiltration Bed

Constructed Filter

Infiltration Basin

Vegetated Swale

Infiltration Bed

Vegetated Filter Strip

Infiltration Trench

Constructed Wetland

Soil Amendment

Wet Pond

Dry Well / Seepage Pit

Dry Extended Detention Basin

Infiltration Berm / Retentive Grading

Water Quality Device

Protect Sensitive / Special Value Features

Spray / Drip Irrigation

Street Sweeping

Rain Barrel

Green Roof

- | | |
|---|--|
| <input type="checkbox"/> Dry Extended Detention Basin | <input type="checkbox"/> Infiltration Berm / Retentive Grading |
| <input type="checkbox"/> Water Quality Device | <input checked="" type="checkbox"/> Protect Sensitive / Special Value Features |
| <input type="checkbox"/> Spray / Drip Irrigation | <input type="checkbox"/> Street Sweeping |
| <input type="checkbox"/> Rain Barrel | <input type="checkbox"/> Green Roof |
| <input checked="" type="checkbox"/> Protect / Utilize Natural Flow Pathways (on-site) | |

Approved Alternative: Managed Release Concept Basin

Explain how the PCSM BMP(s) will individually or collectively manage the net change in stormwater volume, rate, and quality for storm events up to and including the 2-year/24-hour storm after earth disturbance activities.

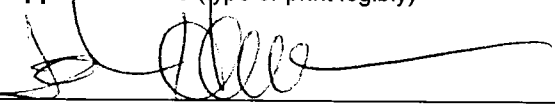
The proposed Basins have been designed to manage the increase in volume for the 2-year storm event.

CERTIFICATION

I certify under penalty of law and subject to the penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities) that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

John Herman

Applicant Name (type or print legibly)



Applicant Signature

President

Official Title

12/10/21

Date Signed

ANTI-DEGREDDATION ANALYSIS NARRATIVE:

Maintaining and protecting existing water quality for HQ waters, EV waters, and EV wetlands and protecting designated and existing uses for all surface waters is critical. The following is a review of the Non-discharge and ABACT BMP's utilized on the site and for those BMP's not used, then the justification of why they have not been utilized.

Erosion and Sediment Control (E&S) Plan

1. *Alternative Siting*

a. *Alternative Location*

The proposed use of the existing tract of land is consistent with the Municipal and County Comprehensive Plans.

b. *Alternative Configuration*

The proposed layout has been configured to maximize the intended functionality of the proposed use, while minimizing the impact on the surroundings.

c. *Alternative Location of Discharge*

The site has been designed to approximately maintain the drainage areas that flow to the individual points of interest.

2. *Limited Extent & Duration of Disturbance*

The disturbance necessary for the construction of the proposed layout has been configured to minimize the impact on the remaining portions of the properties. The Construction Sequence and Stabilization Notes have stated limits to the allowable time that a disturbed area can be left before it needs to be stabilized.

3. *Riparian Buffers (150 ft min.)*

The proposed layout has been configured to not impact the existing Riparian Buffer.

4. *Riparian Forest Buffers (150 ft min.)*

The proposed layout has been configured to not impact the existing Riparian Buffer.

5. *Limited Disturbed Area*

The disturbance necessary for the construction of the proposed layout has been configured to minimize the impact on the remaining portions of the properties.



Post-Construction Stormwater Management (PCSM) Plan

1. *Alternative Siting*

a. *Alternative Location*

The proposed use of the existing tract of land is consistent with the Municipal and County Comprehensive Plans.

b. *Alternative Configuration*

The proposed layout has been configured to maximize the intended functionality of the proposed use, while minimizing the impact on the surroundings.

c. *Alternative Location of Discharge*

Due to the existing topography of the project area, an alternative location for discharge cannot be provided.

2. *Infiltration*

The project has been provided with a Managed Release – Infiltration Basin, a conventional Infiltration Basin, a Rain Garden, and vegetated plantings that collectively will manage the increase in volume from the proposed improvements.

3. *Low Impact Development*

The proposed layout has been configured to maximize the intended functionality of the proposed use, while minimizing the impact on the surroundings, however, due to the area necessary for a Low Impact Development, this Alternative was not feasible.

4. *Riparian Buffers (150 ft min.)*

The proposed layout has been configured to not impact the existing Riparian Buffer.

5. *Riparian Forest Buffers (150 ft min.)*

The proposed layout has been configured to not impact the existing Riparian Buffer.

6. *Water Resuse*

Water reuse has not been considered in the design of the storm water management systems.

