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September 9, 2022

Project Number: 3746-5

Staci Spertzel Black, Erosion & Sedimentation Technician
Huntingdon County Conservation District
10605 Raystown Road - Suite A
Huntingdon, PA 16652

RE: RUTTER'S HUNTINGDON STORE #93 – GENERAL NPDES RESUBMISSION
SMITHFIELD TOWNSHIP, HUNTINGDON COUNTY, PA

Dear Ms. Spertzel Black:

On behalf of Rutter's, we hereby submit revised documents relating to the above referenced project. In regard to the Technical Deficiency Letter dated August 10, 2022 we offer the following responses:

E&S Plan

1. Confirm that the PNDI covers the offsite improvement area as well. It is difficult to verify if the buffer area of the search receipt encompasses the water and sewer line. Rerun the PNDI, if needed, to ensure all areas of earth disturbance are included. [25 Pa. Code §102.6(a)(2)]

RESPONSE - The PNDI has been rerun to included the area for off-site utility extension and documentation has been included with the resubmitted documents.

2. The E&S Plan Developer signature listed on Page 7 of the E&S Module 1 should match with the listed E&S Plan Developer information. [25 Pa. Code §102.6(a)(1)]

RESPONSE - The plan signatures have been reconciled as requested.

3. Step 4 of the BMP Sequence of Installation & Removal on Plan Sheet ESP4 refers to the Bedford County Conservation District. Revise as appropriate. [25 Pa. Code §102.4 (b)(5)(vii)]

RESPONSE - The note on ES4 has been revised as requested.

4. Stage 1 of the Construction Sequence on Plan Sheet ESP4 refers to pipe installation and construction of fill slopes prior to installation of the Rock Construction Entrance (RCE). Clarify how the fill will be placed without accessing the site, how the site will be accessed to install the perimeter E&S BMPs, and what E&S BMPs will be in place in the downslope area of the fill for the entrance. [25 Pa. Code §102.4 (b)(5)(vii)]

RESPONSE - The construction sequence on Sheet ES4 has been revised to clarify the installation of BMPs as requested.

5. The Concrete Washout BMP shown on the plan drawings is located less than 50 feet from stormwater

inlets. Identify a suitable location for the Concrete Washout on the plan drawings not located within 50 feet of storm drains, open ditches, or surface waters. [25 Pa. Code §102.4 (b)(5)(ix)]

RESPONSE - The concrete washout has been relocated on Sheet ES1 to meet the offset distance requirement.

6. A minimum 8-foot setback distance from the toe of slope to the Compost Filter Sock (CFS) perimeter control should be provided; refer to the Frequently Asked Questions (FAQ) - Erosion and Sediment Control document, FAQ #29, available from the DEP's E&S Resources webpage. Perimeter control setbacks should allow for adequate ponding area during construction and access for routine maintenance. [25 Pa. Code §102.4 (b)(5)(ix)]

RESPONSE - The grading has been revised to provide an 8-foot setback distance and the CFS has been adjusted accordingly.

7. Revise the plan drawings to show the Compost Filter Sock (CFS) with the required upturned ends (45-degree angle) in the appropriate locations. The upturned ends should minimally extend 8-feet upslope and to the contour elevation which meets the thickness of the CFS (i.e., 32 inches above contour for 32-inch CFS). [25 Pa. Code §102.4 (b)(5)(ix)]

RESPONSE - The CFS has been revised to show upturned ends as required.

8. As shown, several Compost Filter Sock (CFS) overlap with proposed earth moving activities. Revise the plan drawings to provide sufficient space for equipment to operate between the CFS and all areas of proposed earth moving or otherwise indicate how the E&S BMP placement will be staged during the placement of fill. [25 Pa. Code §102.4 (b)(5)(ix)]

RESPONSE - The CFS locations have been revised along with the grading plan.

9. Provide a perimeter control below the topsoil stockpile area shown on the plan drawings. [25 Pa. Code §102.4 (b)(5)(ix)]

RESPONSE - Compost Filter Sock has been added to the perimeter of the Temporary Topsoil Stockpile as requested.

10. The anticipated velocity (V) shown on Standard E&S Worksheet 20 exceeds the maximum permissible velocity (V_{max}) for R-3 riprap size shown in Table 6.6 of the E&S Manual. For discharge velocities exceeding Maximum Allowable for Riprap, increase the stone size and/or provide a velocity reduction device. Be sure to use peak discharge rate for sizing riprap on Figure 9.3 rather than design rate. [25 Pa. Code §102.4 (b)(5)(viii)]

RESPONSE - Worksheet 20 has been revised to show R-4 rock to meet the velocity requirement.

11. Verify the accuracy of the length and subsequent width calculations for each riprap apron using the appropriate peak discharge rates. As shown, the lengths of Riprap Aprons No. 1 & 2 do not meet the minimum requirements on Figure 9.3 for a 15-inch pipe diameter. [25 Pa. Code §102.4 (b)(5)(viii)]

RESPONSE - Aprons 1 & 2 have been revised to meet the minimum design criteria as requested.

12. The pipe slopes (ft/ft) shown on Worksheet 20, Riprap Apron Outlet Protection are reversed from the pipe slopes shown on the PCSM4 Pipe Profiles (Pipes 1 & 19). Revise as appropriate. [25 Pa. Code §102.4 (b)(5)(viii)]

RESPONSE - The pipe slopes on PCSM4 have been reconciled with Worksheet 20.

13. Pipe Numbers 1 & 19 appear to be reversed on the specifications table included with the Riprap Apron Construction Detail on Plan Sheet ES3. Revise as appropriate. [25 Pa. Code §102.4 (b)(5)(viii)]

RESPONSE - Pipes 1 & 19 have been reconciled on Sheet ES3.

14. The Unnamed Tributary to the Juniata River is part of the Chesapeake Bay watershed. Therefore, to meet the conditions of the General NPDES Permit, E&S BMPs are to be ABACT. Revise the details to show and specify ABACT E&S BMPs. [25 Pa. Code §102.4(b)(6)]

RESPONSE - The details on Sheet ES3 have been noted as ABACT accordingly.

15. Sheet ES4, Stage 4, 'PCSM BMP Construction' of the Construction Sequence is listed out of order in relation to Stage 2, 'Site Earthwork'. Stage 4 stage also includes erroneous references (e.g., rain gardens, vegetated swales, soil planting medium) not specific to the proposed plans. Revise the construction sequence to be project and site specific and include the PCSM BMP construction in the appropriate sequence. [25 Pa. Code §102.8(f)(7)]

RESPONSE - The construction sequence on Sheet ES4 has been revised as requested.

PCSM Module 2

16. Item 6 indicates the potential for pyritic shale to be uncovered in the area of the fuel storage tanks. Include the excavation in this area as a critical stage in which the design professional or their designee will be onsite to observe and provide direction should pyritic shale be uncovered. [25 Pa. Code §102.8(k)]

RESPONSE - A note indicating the excavation area for the fuel tanks as a critical stage and will require oversight by a design professional has been added to Sheet PCSM3.

17. Provide a Module 2 that is signed by the design professional. [25 Pa. Code §102.6(a)(1)]

RESPONSE - Module 2 has been executed as requested.

18. The PCSM BMP IDs listed on pages 1, 6, & 7 of Module 2 do not match with the appropriate Discharge Points as shown on the PCSM plan drawings. Revise as needed for consistency. [25 Pa. Code §102.6(a)(1)]

RESPONSE - The BMP IDs have been reconciled as requested.

PCSM Report

19. The Volume Calculations in the PCSM Report for POI 2 show an existing impervious area. Twenty (20) percent of the existing impervious shall be considered meadow in good condition. Revise the demonstration to clearly show this has been provided within the PCSM volume management calculations. [25 Pa. Code §102.8(f)(8) and §102.8(g)(2)(ii)]

RESPONSE - The volume calculation have been revised accordingly to show 20% of the existing impervious area as meadow in good condition.

20. Provide conveyance calculations to verify that the pipe sizes and inlets were designed appropriately for the 10-year through 100-year flows to each stormwater facility to provide the designed rate control. [25 Pa. Code §102.8(f)(8) and §102.8(f)(9)]

RESPONSE - Pipe conveyance calculations have been completed and are included in the revised PCSM design report.

21. The provided information on the PCSM Volume Management Worksheet indicates that the 'actual infiltration period' for BMP 3 Infiltration Bed would exceed 72 hours. If the BMP is not dewatered in the recommended 72 hours, clarify how the BMP will manage the stormwater from potential storm event. [25 Pa. Code §102.8(g)(2)]

RESPONSE - BMP 3 has been revised to a ponding depth of 8 in. to allow for the 72 hr. dewatering time. The PCSM design report and Sheet PSCM3 have been revised accordingly.

22. Include the storage volume for BMP 6 Infiltration Bed on the PCSM Volume Management Worksheet or otherwise provide clarification as to why the storage volume is not shown. [25 Pa. Code §102.8(f)(8)]

RESPONSE - The primary function of BMP 6 is to provide rate control. The outlet pipe for the BMP is at the same elevation as the bottom of the structure so pond depth is limited. The volume requirement is satisfied without considering additional volume from BMP 6, so as a conservative approach a value of 0 was entered into the calculations.

23. The infiltration test pits in the Geotechnical Report show that Test Pit 7 ended testing at El. 663.0 with no bedrock refusal. The floor elevation for the infiltration bed near Test Pit 7 is also El. 663.00. The BMP Manual recommends a minimum 2-foot separation from the bedrock, seasonal high-water table, or other limiting zone. Provide additional testing to verify the recommended separation or otherwise clarify how the information provided adequately characterizes the location. [25 Pa. Code §102.8(f)(2) and §102.8(g)(5)]

RESPONSE - The floor elevation of BMP 6 is 666.00 with a testing elevation of 663.00. The floor elevation of BMP 4 is 663.00 with a testing elevation of 659.00. Bedrock was not encountered at either testing depth.

24. PCSM Spreadsheet, DP002, Volume Tab – the total acres shown in the pre-development conditions (4.76 acres) exceeds the total earth disturbance acres shown in the General Tab (4.61 acres). Clarify and revise as appropriate. [25 Pa. Code §102.8(g)(4)]

RESPONSE - The disturbed area calculation on the PCSM Spreadsheet has been reconciled.

PCSM Plan

25. General PCSM planning and design shall be planned and conducted to minimize land clearing and grading on the smallest foot-print possible. Provide documentation supporting the need for the amount of parking and additional impervious access paths. [25 Pa. Code §102.8(b)(6) and §102.8(f)(9)]

RESPONSE - Rutter's provides separate high speed diesel pumps for truckers in addition to regular fueling for passenger vehicles. After the truckers finish fueling, we provide parking to encourage them to come into the store, purchase food, drinks, and snacks, as well as using the restrooms. With this submittal, we are providing a truck movement template generated in Autocad that justifies the need for the paving in the truck area of the site. Additionally, the Raystown Lake Recreation Area is nearby. We anticipate large RVs, passenger vehicles towing boats and camping trailers to frequent this Rutter's location on their way to and from the recreation area. Vehicles of these sizes require more paved area

to safely navigate around and throughout the site. Our grading plan also includes a rather extensive retaining wall to minimize land clearing and earth disturbance.

26. Sheet PCSM3 of the PCSM Plan Sheets under the 'Subsurface Infiltration Bed BMP Schedule' has the 2-yr & 100-yr water surface elevations inconsistent with the post construction stormwater calculations in the PCSM Report. Revise as appropriate. [25 Pa. Code §102.8(f)(8) and §102.8(f)(9)]

RESPONSE - The chart on PCSM3 has been revised to reflect the adjusted water surface elevations as requested.

27. Sheet PCSM3 under the 'Subsurface Infiltration Bed BMP Schedule' and Sheet PCSM 4 under the 'Outlet Structure Schedule' are inconsistent with each schedule when comparing the pipe inverts upstream and downstream. Revise as appropriate. [25 Pa. Code §102.8(f)(8) and §102.8(f)(9)]

RESPONSE - The pipe inverts on the chart on PCSM3 and PCSM4 have been reconciled as requested.

28. Sheet PCSM3 under Construction Notes for Subsurface Infiltration Bed PCSM BMPs, Note 2 indicates to avoid compaction of the basin floor. The Geotechnical report indicates for fill material to be placed 8-inches deep and then compact to 95 percent. The constructed floor elevations for some of the infiltration beds will require fill material. Clarify how compaction will be avoided and the infiltration beds will properly function when the basin bottoms will be on fill. [25 Pa. Code §102.8(f)(7) and §102.8(f)(9)]

RESPONSE - The floor elevations of the BMPs were designed to be cut into or match the existing grades. The majority of the floor area is in a cut condition. The downslope limit of a few of the BMP appear to be in a fill condition not exceeding 1 ft. Only a small percentage of the entire basin floor areas will be in fill. Note 2 of the Construction Sequence on Sheet PCSM 3 indicates that the basin floor shall be scarified to a depth of 18" and avoid compaction. With the limited area in fill, the existing grade would be scarified at least to a 6" depth. Significant impact to the infiltration capacity of the basin floors is not anticipated.

29. Sheet PCSM3 under Maintenance Notes- The permittee or co-permittee shall be responsible for long-term operation and maintenance of PCSM BMPs. Provide a long-term operation and maintenance schedule, which includes inspection of the PCSM BMP(s), repair, replacement, or other routine maintenance of the PCSM BMP to ensure proper function and operation. [25 Pa Code §102.8(f)(9), §102.8(f)(10), and §102.8(m)(1)]

RESPONSE - An Operation and Maintenance Schedule notes have been added to Sheet PCSM2.

30. Sheet PCSM3, first column on the left, second paragraph under Maintenance Notes refers to Bedford County Conservation District. Revise to indicate Huntingdon. [25 Pa. Code §102.8(f)(9)]

RESPONSE - The note on PSCM3 has been revised as requested.

31. Sheet PCSM4 of the PCSM Plan Sheets for 'Storm Run 8 Profile' shows a 15-inch pipe in the profile for Infiltration Area A. The Pond Report in the Hydraflow Hydrographs show a different outlet pipe size, length, and slope. Clarify and revise as appropriate. [25 Pa. Code §102.8(f)(8) and §102.8(f)(9)]

RESPONSE - The pipe information on Storm Run 8 Profile has been reconciled on Sheet PCSM4 and the PCSM design report.

32. Sheet PCSM4 of the PCSM Plan Sheets for 'Outlet Structure Schedule' for Pipe 4 shows a 15-inch pipe

for BMP Area C. The Pond Report in the Hydraflow Hydrographs show a different outlet pipe size. Clarify and revise as appropriate. [25 Pa. Code §102.8(f)(8) and §102.8(f)(9)]

RESPONSE - The pipe information for Pipe 4 has been reconciled on Sheet PCSM4 and the PCSM design report.

33. Sheet PCSM4 of the PCSM Plan Sheets for 'Storm Run 9 Profile' shows a 15-inch pipe in the profile for Infiltration Area A. The Pond Report in the Hydraflow Hydrographs show a different length, and slope. Clarify and revise as appropriate. [25 Pa. Code §102.8(f)(8) and §102.8(f)(9)]

RESPONSE - The pipe information on Storm Run 9 Profile has been reconciled on Sheet PCSM4 and the PCSM design report.

34. PCSM Plan Sheet shows the plans and details for the underground -Subsurface Infiltration Bed. Each subsurface infiltration bed has an outfall structure with an outlet pipe. The outlet pipes for permanent basins are to be set in a concrete cradle along with anti-seep collars. Revise the plan to include Standard Construction Details 7-6 and 7-17 shown in the E&S Manual or provide the alternative BMP and design standard demonstration. [25 Pa. Code §102.8(f)(6), §102.11(a)(1), and §102.11(a)(2)]

RESPONSE - Standard Construction Details 7-6 and 7-17 have been added to Sheet PCSM3 as requested.

35. Provide inspection ports or inlets, within the infiltration BMPs, at appropriate intervals to allow access for inspection, evaluation, and to perform maintenance. [25 Pa. Code §102.8(f)(10) and §102.11(a)(2)]

RESPONSE - The manifold sections of the Terre Arch system provide man access for inspection and maintenance. The detail is shown on Sheet PCSM3.

36. Several BMPs are in close proximity with differing floor elevations. Clarify how captured stormwater will be prevented from migrating and leaching into a neighboring BMP, potentially overloading the downslope BMP and circumventing the designed management. [25 Pa. Code §102.8(f)(6)]

RESPONSE - The outlet pipes for the infiltration basins are noted to have trench plugs to limit groundwater migration along the pipe trench. The infiltration bed areas are sized to provide adequate volume to capture and convey up to the 100-year design storm event. The volume of runoff to be infiltrated for each BMP is limited to the approximate volume of a 2-year storm event and is a fraction of the volume provided for the 100-year design storm.

37. Sheet PCSM 3 shows that Discharge Point 001 & 002 has a rock apron at each outlet pipe. Provide a construction detail, along with the associated riprap sizing calculations to demonstrate the rock apron is adequate to provide protection of erosive conditions to the surface water. [25 Pa. Code §102.8(f)(6)]

RESPONSE - A construction detail for the Rock Aprons is shown on both PCSM3 and ES3.

38. Provide a detail of the outlet for each subsurface infiltration bed. [25 Pa. Code §102.8(f)(6)]

RESPONSE - A construction detail for the Infiltration Bed Outlet Structures is shown on Sheet PCSM2.

39. Wetlands are a surface water. The proposed earth disturbance activities redirect the existing surface stormwater sheet flows to discrete point source discharges to the receiving surface water, in addition to redirecting stormwater that would have otherwise percolated into the ground. Provide an analysis

demonstrating that the stormwater rate, volume, and water quality are maintained in a manner that mimics pre-construction hydrology, both surface and subsurface and will maintain the existing use functions and values of the wetlands. The analysis should account for the construction activities (cuts, fills, and compaction) immediately adjacent to the wetlands. The DEP notes that multiple points along the wetland may need analyzed to demonstrate all areas of the wetland will be maintained. [25 Pa Code §102.8(b)(1), §102.8(g)(2)(iv) and §102.8(g)(3)(iii)]

RESPONSE - The landscape position of the wetland system occurs within an area that receives a significant amount of runoff from areas which occur to the west and northwest of the wetland in addition to the runoff received from the project site. Additional hydrology supporting the wetland likely consists of a seasonal high-water table and ponding from localized topography. The overall contribution of runoff from the project site supporting this wetland is believed to be minimal in comparison to the overall catchment area surrounding the wetland. As such, any changes in site conditions are believed to have a minimal impact on the current functions and values provided by the wetland system. In an effort to minimize resultant impacts to the greatest extent practical, stormwater BMPs have been designed to capture surface runoff from the project site and allow infiltration at multiple locations along the edge of the wetland.

40. Provide notes and plan details indicating and showing that any groundwater seep uncovered during the excavation and construction of the development will be directed to the nearest wetland to better ensure hydrology is maintained to the surface water. [25 Pa. Code §102.8(f)(6), §102.8(g)(2), and §102.11(a)(2)]

RESPONSE - Notes and details have been added to PCSM3 to ensure any groundwater seeps encountered during construction will be directed to the nearest wetland in the direction of the natural flow path using underdrain pipe.

Additional Technical Deficiencies

41. Clarify if the entire LOD was evaluated for aquatic resources. The 'Aquatic Resource Identification and Delineation Report', dated August 2021 only appears to evaluate the project site and does not appear to extend offsite in the location(s) of the utility extensions. If not previously evaluated, the utility extension areas should be viewed for potential aquatic resources. [25 Pa. Code §102.4(b)(5)(v) and §102.8(f)(5)]

RESPONSE - The LOD has been revised for the Aquatic Resource Map and it has been resubmitted.

42. Clarify what measures are in place to protect both the PCSM BMPs and the surface waters from a potential spill from the fuel station and vehicles. Given the nature of the project, adequate measures to protect the PCSM BMPs and the surface waters are required. [25 Pa. Code §102.11(a)(4)]

RESPONSE - Rutter's stores have all the spill containment supplies on site that are required by the Pennsylvania Bureau of Labor and Industry. Our staff quickly responds to minor spills. For larger spills, the inlets that receive runoff from the fueling areas have water quality oil separators in them along with sumped bottoms. These capture any spill that makes it to the storm sewer. A contractor is then dispatched to clean up and pump out any fuel that is in the storm sewer system prior to it leaving the site.

Additional Comments

- A. Given the proximity of the final grade vegetated slope to the existing wetland boundary, use of native and/or pollinator species are strongly recommended rather than non-native and potentially

invasive grass species. Please reference the PA DEP Wetland and Floodway Revegetation after Construction for species selection and Best Management Practices. When selecting a seed mix, it is important that the mix be effective for erosion control. However, consideration of a diverse mix of grasses and forbs that can be found regionally and that have wildlife and pollinator value is also important in proximity to wetland areas.

RESPONSE - The notes on Sheet ES4 have been revised to include a native species seed mix for the slope adjacent to the wetlands shown on Sheet ES1.

B. Due to potential roadway flooding hazard concerns associated with Inlet Filter Bags, the E&S Manual does not advise using the filter bags along major paved roadways. Consider the use of Inlet Filter Mats rather than Inlet Filter Bags for protection along U.S. Route 22/William Penn Highway. Inlet Filter Mats can be found on the DEP Approved Alternative E&S and PCSM BMPs, Version 2.2, available from the DEP's E&S Resources webpage.

RESPONSE - The disturbed area for the work within the roadway is limited to the pavement and stone subbase surfaces which would be considered a stabilized surface. The inlet filter bags are provided as a conservative design BMP. Should the filter bags require a remediation effort, Inlet Filter Mats would be the considered design alternative.

This resubmission includes 2 sets of the following:

- Revised PNDI search receipt
- Revised E&S construction plan drawings Sheets ES1, ES2, ES3, and ES4
- Revised E&S Module 1
- Revised PCSM Module 2 with PCSM Spreadsheet prints attached
- Revised PCSM Design Report
- Revised PCSM construction plan drawings Sheets PCSM1, PCSM2, PCSM3, and PCSM4
- Revised Aquatic Resource Identification and Delineation Report
- Truck Turning Templates

Please contact me at bpiper@keller-engineers.com or call 814-606-7420 if you have any questions or would like additional information.

Sincerely,



Ben Piper, PE
Land Development Division

cc: Eric Hershey, PE – Rutter's
file