



PITT-03-22-026

March 17, 2022

Mr. Christopher Smith
Pennsylvania Department of Environmental Protection
Southeast Regional Office
2 East Main Street
Norristown, PA 19401-4915

**Re: Sunoco Pipeline LP – Pennsylvania Pipeline Project (Mariner East II)
Chapter 102 Permit No. ESG0100015001
Response to Technical Deficiency Letter No. 2
Marsh Creek Sediment Remediation
Upper Uwchlan Township, Chester County**

Dear Mr. Smith:

On behalf of Sunoco Pipeline LP (SPLP), Tetra Tech, Inc. provides the following responses to the Pennsylvania Department of Environmental Protection (DEP) and the Chester County Conservation District (District) Technical Deficiency Letter No. 2 dated March 2, 2022, regarding the above-referenced Chapter 102 ESCGP-3 Permit Application. For ease of your review, the Department's comment is set forth verbatim below, followed by a narrative response with supporting attachments.

Comments and Responses to February 25, 2022 and March 2, 2022 Technical Deficiency Letters Number 1 and Number 2, respectively.

Technical Deficiencies Comments from The District:

1. **Comment:** Please provide/label the Limit of Disturbance. [102.11(a)(1)]

***Response:** The Limit of Disturbance has been provided and labeled in E&S and SR Plans. For clarification, the limit of disturbance that is associated with the major modification has been labeled "Major Modification Limit of Disturbance/Project Site". Please refer to sheets ES-01, ES-02, ES-03, SR-01, and SR-02. (See pages 136, 137, 138, 140, and 141 of the PDF)*

Response from the District (March 2, 2022): There are no further comments at this time.

2. **Comment:** Please provide additional E&S controls between CFS-15 and CFS-16 in the event the travel lane suffers from earth disturbance. [102.11(a)(1)]

***Response:** Additional wattles are proposed along the travel lane between CFS-15 and CFS-16. Please refer to sheets ES-03, SR-02, and D-04. (See Pages 138, 141, and 145 of the PDF)*

Response from the District (March 2, 2022): There are no further comments at this time.

3. **Comment:** Please provide E&S controls for the access drive below CFS-20. [102.11(a)(1)]

***Response:** Additional wattles and compost filter sock are proposed along the travel lane below CFS-20. Please refer to sheets ES-03, SR-02, D-03, and D-04. (See Pages 138, 141, 144, and 145 of the PDF)*

Response from the District (March 2, 2022): There are no further comments at this time.

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4. **Comment:** Please fill in the gaps between CFS-11 and 12 and CFS-9 and 10; please check rest of plans for similar and address. [102.11(a)(1)]

Response: Proposed compost filter sock have been extended and realigned to eliminate gaps between CFS-11 and 12 and CFS-9 and 10. Please refer to sheets ES-02 and SR-01. (See Pages 137 and 140 of the PDF)

Response from the District (March 2, 2022): There are no further comments at this time.

5. **Comment:** Please provide a description of the level of earth disturbance for the staging area and access lanes down to the lake, i.e., limit of mat placement, description if topsoil is to be removed, accessing only on existing ground, etc. [102.11(a)(1)]

Response: The earth disturbance associated with the staging area and access lanes down to the lake does not propose the removal of topsoil and will consist of driving on grade. The purpose of the travel lane to the lake is to facilitate the initial installation and subsequent removal of the erosion and sedimentation controls, dredge lines and pumps, and to provide intermittent maintenance access to them. Labels associated with these areas have been revised to include a "Drive on Grade" annotation. Please refer to sheets ES-02 and ES-03. (See Pages 137 and 138 of the PDF)

Response from the District (March 2, 2022): There are no further comments at this time.

6. **Comment:** The E&S plans should be revised to address all Pennsylvania Natural Diversity Inventory (PNDI) Clearance/Condition related activities outlined in the agency letters. [102.11(a)(1)]

Response: The E&S plan notes have been revised to include the special conditions presented within a Northern Red-bellied Turtle Conservation Plan that was approved by the PAFBC on February 16, 2022. In addition, the E&S Plan drawing has been revised to add the following features as identified within the submitted Conservation Plan; "Habitat Protection Buffer – No Sediment Removal", "Turbidity Curtain Ramps", "Basking Structure Installation", "Herpetologist Oversight Required", and "Wildlife Exclusion Fence". (See Pages 142 and 151 of the PDF)

Response from the District (March 2, 2022): There are no further comments at this time.

7. **Comment:** There are at least two cross culverts under Lakeview Drive that will discharge stormwater into the work area; please evaluate the flows from these pipes and provide bypass systems if needed so as not to washout or overwhelm the site area or its E&S Controls. [102.11(a)(1)]

Response: The flow from the two cross culverts under Lakeview Drive has been evaluated and associated calculations have been provided within Appendix D of the E&S Plan. A temporary bypass system is proposed consisting of two compost diversion socks, a 15" culvert under the proposed temporary access road, and a rock apron. Please refer to sheet ES-02. (See Page 137 of the PDF)

Response from the District (March 2, 2022): There are no further comments at this time.

8. **Comment:** Please illustrate the systems to dewater the earthen berm that is surrounding the SMA Area such as anticipated pump and hose layout along with the proposed outlet/discharge location from the Water Treatment System and Polymer Makedown Unit Operation Areas. [102.11(a)(2)]

Response: A dewatering sump(s) will be installed in the southwest corner of the SMA to collect filtrate from the geotextile tubes. A sump detail callout and detail has been added to the drawings. Filtrate is proposed to be drawn from the sump area using 2 towable 4-inch Dri Prime diesel

pumps. The pumps will be located outside of the SMA in secondary containment and positioned as needed to fit the layout of the Site. Filtrate line discharge will run from the sump and pumps to the water treatment system (WTS) area as shown on the drawing, where it will be treated to meet discharge standards in accordance with the Temporary Discharge Permit and then discharged to the reservoir through the filtrate discharge location (Detail 1 on sheet D-03). The dredge slurry line will come from the hydraulic dredge vessel and be located on the pipe travel lane shown on the drawings and continue to the geotextile tubes within the SMA. The clean water intake line will take in clean water from the reservoir and be used to make-down the polymer (blended with polymer) prior to injecting into the dredge slurry line. The polymer is used to facilitate flocculation and coagulations within the sediment dewatering process. The pipelines are shown and labeled on sheet ES-01; additional callouts have been added to sheet ES-02 and sheet ES-03. (See Pages 136, 137, 138, and 144 of the PDF)

Response from the District (March 2, 2022): There are no further comments at this time.

9. **Comment:** Please illustrate the proposed/anticipated geo tube layout within the SMA area. [102.11(a)(1)]

***Response:** The geotextile tube layout has been added to sheets ES-01 and ES-02. The bottom row consists of six (6), 60' circumference by 200' long geotextile tubes, stacked by a top row of five (5), 60' circumference by 185' long geotextile tubes. The top row will not be rolled out or added until the tubes beneath are considered filled by AECOM. The tubes will be aligned longways in a NW-SE facing direction. (See Pages 136 and 137 of the PDF)*

Response from the District (March 2, 2022): There are no further comments at this time.

10. **Comment:** Please provide construction details for the proposed geo tube system. [102.11(a)(1)]

***Response:** The plan drawings have been updated to include the dewatering sumps, geotextile tube layout, and clarify the pipe/hose systems associated with dredge slurry line, filtrate discharge, and clean water intake. Other small plumbing features to be installed will include elbows in the dredge slurry pipe, post polymer injection, to facilitate mixing (i.e. mixing manifold), elbows to align the pipeline in the position needed, sample ports to check the sediment slurry pre- and post-polymer injection, a header pipe assembly (6-heads) to separate the dredge slurry line into (6) separate lines to lead and feed into the geotextile tubes, pinch or gate valves in the header pipe assembly to isolate pumping to certain tubes, and miscellaneous small plumbing associated with the makedown unit and WTS. All pumps, polymer totes in-use, sand and bag filter vessels (i.e. WTS), and the makedown unit will be within secondary containment. The upland plumbing will be installed by AECOM or AECOM subcontracted personnel, field fit and adjusted as needed, and pressure and water tested for leaks prior to pumping of sediment slurry. The final install will be inspected by AECOM prior to full operation and production. (See Pages 137, 144, and 145 of the PDF)*

Response from the District (March 2, 2022): There are no further comments at this time.

11. **Comment:** The Sequence of Construction should be updated to address the Critical Stage Inspections for when the site's engineer is required to oversee and verify Site Restoration. [102.11(a)(1) and (2)]

***Response:** The Sequence of Construction has been updated to include reference to the Critical Stage Inspections for when the site's engineer is required to oversee and verify Site Restoration. Please refer to sheet D-01. (See Page 142 of the PDF)*

Response from the District (March 2, 2022): There are no further comments at this time.

- 12. Comment:** Please include Pre Construction Meeting requirements in the beginning of the Sequence of Construction and ensure it is updated to invite the District, the PA DEP, DCNR, Upper Uwchlan Township, the permittee, the site's contractor, the site's Environmental Inspector, and any other needed personnel. [102.11(a)(1)]

Response: The Sequence of Construction has been updated to include the Pre Construction Meeting requirements including to invite the District, the PA DEP, DCNR, Upper Uwchlan Township, the permittee, the site's contractor, the site's Environmental Inspector, and any other necessary personnel. Please refer to Sheet D-01. (See Page 142 of the PDF)

Response from the District (March 2, 2022): There are no further comments at this time.

- 13. Comment:** The Sequence of Construction should be updated to cross reference the documents that authorize the permittee to conduct activities regulated pursuant to 25 Pa. Code Chapter 105, specifically the implementation of the turbidity barriers. [102.11(a)(1)]

Response: The Sequence of Construction has been updated to cross reference the documents that authorize the permittee to conducted activities regulated pursuant to 25 Pa. Code Chapter 105. The Sequence of Construction also refers to US Army Corps of Engineers Nationwide Permit 16 (CENAP-OPR-2014-00306-46) approved January 11, 2022. Please refer to sheet D-01. (See Page 142 of the PDF)

Response from the District (March 2, 2022): There are no further comments at this time.

- 14. Comment:** The second to last step of the Sequence of Construction should be a final Critical Stage Inspection by the site's engineer, to verify that all E&S Controls are removed, and Site Restoration has been established; please revise. [102.11(a)(1) and (2)]

Response: The second to last step of the Sequence of Construction has been updated to be a final Critical Stage Inspection by the site's engineer to verify that all E&S Controls are removed and Site Restoration has been established. Please refer to sheet D-01. (See Page 142 of the PDF)

Response from the District (March 2, 2022): There are no further comments at this time.

- 15. Comment:** The last step of the Sequence of Construction should be to submit a Notice of Termination (in coordination with the overall ESCGP Permit). [102.11(a)(1)]

Response: The last step of the Sequence of Construction has been updated to be to submit a Notice of Termination in coordination with the overall ESCGP Permit. Please refer to sheet D-01. (See Page 142 of the PDF)

Response from the District (March 2, 2022): There are no further comments at this time.

Technical Deficiencies Comments from DEP:

- 1. Comment:** Please justify the use of the riparian buffer exception and waiver as indicated in the application. Since an exception is checked, please explain how the existing riparian buffer will be undisturbed to the extent practicable as requested in the application. For the exception, the "other" box is marked. Please indicate which exception is being referred to as "other." Since a waiver is checked, please explain how existing riparian buffers will be undisturbed to the extent practicable as requested in the application. [ESCGP-3 application, 102.14]

Response: The response to NOI Section G.3 was changed to "No". An exception under 102.14(d)(1) does not apply to this project. SPLP is requesting a riparian buffer waiver under Chapter 102.14(d)(2)(iv). Earth disturbance within 150' of the lake will be minor in nature with limited impacts

to herbaceous vegetation and not require the removal of any shrubs/trees. Turbidity anchors, compost filter sock, and intake/discharge pipes will be laid by hand within 150' of the lake. Topsoil, seed, cover crop, and mulch will be placed over any exposed soil. (See Pages 20, 69, and 151 of the PDF)

Response from DEP (March 2, 2022): There are no further comments at this time.

2. **Comment:** Please amend the E&S and Site Restoration Plan Drawings to include the riparian buffer boundary lines for Zones 1 and 2 following the criteria at 102.14. [102.14]

Response: The E&S Plan Drawing and Site Restoration Plan Drawings have been updated to include the riparian buffer boundary for Zone 1 present within the major modification limit of disturbance/project site. Following the criteria at 102.14, there are no Zone 2 riparian buffers present within the major modification limit of disturbance/project site. Please refer to sheets ES-03 and SR-02. (See Pages 138 and 141 of the PDF)

Response from DEP (March 2, 2022): The Zone 2 riparian buffer boundary line is not shown on the plan drawings. Please amend the plan drawings to reflect the Zone 2 riparian buffer boundary line. Please include dimensions to the Zone 1 and Zone 2 riparian buffer boundary lines. Further, a riparian forest buffer is labeled on the plan drawings and identified in the legend. Will this riparian forest buffer be protected, converted, or established? It seems that the applicant is requesting a waiver for riparian buffer requirements. It is uncertain the intention of this riparian forest buffer label on the plan drawings and in the legend.

Response: The Zone 1 and Zone 2 riparian buffer boundary lines have been added to the E&S and SR Plan sheets. Additionally, the dimensions for Zone 1 (50 feet) and Zone 2 (100 feet) are provided and labeled on the E&S and SR Plan sheets. The riparian forest buffer label has been removed from the plan sheets for clarity. All areas within Zone 1 and Zone 2 are proposed to be protected, will only have minimal earth disturbance and to be restored to pre-construction conditions. (See Page 146 of the PDF)

3. **Comment:** Please add the project site boundary to the E&S and Site Restoration plan drawings. Please follow the definition of "project site" at 102.1. [102.1. 102.14]

Response: The project site boundary and the limit of disturbance for the major modification are the same area for this project. For clarification, the limit of disturbance that is associated with the major modification has been labeled "Major Modification Limit of Disturbance/Project Site". Please refer to sheets ES-01, ES-02, ES-03, SR-01, and SR-02. (See Pages 136, 137, 138, 140, and 141 of the PDF)

Response from DEP (March 2, 2022): There are no further comments at this time.

4. **Comment:** It is uncertain how each of the disturbed areas will be restored. The Act 167 Stormwater Consistency Verification Report indicates the disturbed areas will be restored to a meadow in good condition or better or the equivalent of the pre-existing condition. Is the intent of the Site Restoration Plan to restore the disturbed areas to a meadow in good condition or better, or the equivalent of the pre-existing condition? Or is the preparer of the application stating that the pre-existing condition is equivalent to a meadow in good condition? Please clarify this and revise the application package accordingly. [102.8(n)]

Response: The project area will be restored to pre-existing conditions which consists of agricultural and meadow conditions. The Act 167 verification report has been revised to clarify. (See Page 53 of the PDF)

Response from DEP (March 2, 2022): It is still unclear what will be performed to restore the site after construction. The response references “pre-existing,” and the Act 167 verification report references “pre-construction” and “pre-existing.” Scarifying is not referenced in the Act 167 verification report. All references to site restoration in the application package should be consistent.

Response: The Act 167 varication report was revised to match the Site Restoration Report to be consistent and avoid that confusion. (See Page 51 of the PDF)

5. **Comment:** There are several different references to the site restoration specifications/descriptions throughout the application package. We have listed the different references below for your team’s information. Please make these site restoration specifications/descriptions consistent with each other in all locations throughout the application package. [102.8(n)]
- a. Following completion of activities, the area will be returned to the general grade present prior to project in order to maintain preconstruction elevations and drainage patterns. Disturbed area will be returned to preconstruction conditions.
 - b. Project is of a temporary nature where the site will be fully restored to its preexisting conditions during the ESCGP permit term.
 - c. Restore Site to Meadow in Good Condition or Better, or Existing Conditions.
 - d. Following completion of the project, all portions of the major amendment, including associated workspaces and the temporary access road shall be returned to the general grade present prior to project in order to maintain preconstruction drainage patterns. After completion of major construction work, topsoil that was stockpiled during construction will be replaced. Grounds disturbed by any of the operations necessary to complete the work for this project are to be permanently seeded, or if specified, sodded, unless occupied by structures or paved. Disturbed areas, which are at final grade, shall be seeded and mulched as soon as practical. The permanent seed mixture will restore disturbed areas to a meadow in good condition or better or the equivalent of the pre-existing condition. As a result of restoring workspaces and the temporary access road to a meadow condition or the pre-existing condition in accordance with 25 Pa Code § 102.8(n), there will be no increase in stormwater runoff rates or volume attributed to those areas, and a quantitative stormwater analysis is not required for the project.
 - e. SCARIFY 3 TO 5 INCHES MINIMUM AND 6 TO 12 INCHES ON COMPACTED SOILS. PLACE TOPSOIL TO EXISTING GRADE ELEVATIONS. PLACE SEED AND MULCH IN ACCORDANCE WITH THE NOTES AND PERMANENT VEGETATION TABLE (AGRICULTURAL AREAS) ON THE SHEET D-01.
 - f. MAINTAIN EXISTING MOWED GRASSY WALKWAY. REMOVE AND GRADE RUTS BACK TO EXISTING GRADE AND CONDITIONS. PLACE TOPSOIL, SEED, COVER CROP, AND MULCH OVER EXPOSED SOILS AND IN ACCORDANCE WITH THE NOTES AND PERMANENT VEGETATION TABLE (NONAGRICULTURAL AREAS) ON THE SHEET D-01.

Response: Upon completion of the dredging operations, the project site will be restored to pre-construction conditions. The site restoration plan sheets show three (3) different restoration areas:

- *Agricultural Restoration of Major Disturbance Area – Areas which have been topsoiled and graded (i.e. temporary access road, sediment management area) will be restored by scarifying 6 to 12 inches, placing topsoil to pre-construction grade elevations, seeding, and mulching. These areas have a pre-construction cover of cultivated agricultural areas and will be seeded utilizing the agricultural areas seed mix provided on sheet D-01. (See Page 142 of the PDF)*
- *Agricultural Restoration of Minor Disturbance Area – Areas that were accessed by driving on grade and were not topsoiled and graded (i.e. laydown area, travel lanes) will have areas of exposed soil restored by scarifying 3 to 5 inches, placing topsoil to pre-construction grade elevations, seeding, and mulching. These areas have a pre-construction cover of cultivated agricultural areas and will be seeded utilizing the agricultural areas seed mix provided on sheet D-01. (See Page 142 of the PDF)*
- *Non-Agricultural Restoration Area – Areas of exposed soil within the existing travel lane with a pre-construction cover of meadow will be restored by scarifying 3 to 5 inches, placing topsoil to pre-construction grade elevations, seeding, and mulching. This area will be seeded utilizing the non-agricultural areas seed mix provided on sheet D-01. (See Page 142 of the PDF)*

Response from DEP (March 2, 2022): *It is still unclear what will be performed to restore the site after construction. All references to site restoration in the application package should be consistent. In addition, it is uncertain why the contractor would scarify to a depth of 12” (for the 6-12” reference) or 5” (for the 3-5” reference)? It seems the contractor has the option to only do the minimum (6” or 3” respectively). If a performance specification was added to the plan drawings, the performance specification could be followed by the contractor for the decision for the depth of scarification. A bulk density test could be considered for pre-construction and post-construction condition to compare and scarify accordingly. This performance specification could be verified by the licensed professional during the critical stage and certified in the Notice of Termination. Further, the PCSM for this application is site restoration. In previous applications for this project, the applicant followed BMP 6.7.3 in the PA Stormwater BMP Manual for site restoration. Bulk density testing is part of BMP 6.7.3.*

Response: *The site restoration for the proposed project consists of restoring the project site to pre-construction conditions. This restoration is proposed to be consistent with BMP No. 6.7.3 in the PA Stormwater BMP Manual. Notes have been added to Site Restoration Plan drawings SR-01 and SR-02 to state that “Measures shall be taken to ensure that proper soil de-compaction occurs for the project site. Measures shall be implemented in accordance with the guidance on soil restoration in the PA Stormwater BMP Manual (BMP 6.7.3, Chapter 6, Page 221).” (See Pages 148 and 149 of the PDF)*

6. **Comment:** It is understood that the applicant chose to continue through the application process as a concurrent review as described in the PNDI Policy. Upon receipt, please provide a copy of the clearance letters from each of the PNDI agencies for the above-referenced ESCGP-3 permit application. If your team receives recommendations from any of the PNDI agencies in the form of conservation measures, avoidance measures, etc., please provide a copy of the recommendation(s) and please provide a demonstration for how your team will be addressing the recommendations with any cross references to the plan drawings. [PNDI Policy]

Response: *The Project’s PNDI (Project Search ID: PNDI-741959) dated September 3, 2021 indicated potential impact for the USFWS and PAFBC. “No Known Impact” were the results for the PA Game Commission and PA Department of Conservation and Natural Resources. The PNDI is receipt is included on page 198 of the PDF.*

The USFWS PNDI Response was “MORE INFORMATION REQUIRED, See Agency Response”. The additional information was provided to the USFWS on September 16, 2021 which included the results of September 10, 2021 Phase I bog turtle assessment. The USFWS concluded that no adverse effects to the bog turtle are likely to occur within a November 16, 2021 correspondence. That correspondence is provided on page 174 of the PDF.

*The PAFBC PNDI Response was “FURTHER REVIEW IS REQUIRED, See Agency Response”. The PAFBC subsequently identified the northern red-bellied cooter (*Pseudemys rubriventris* or red-bellied cooter) as a species of concern within its September 21, 2021 Site Impact Review (SIR) correspondence. The SIR correspondence also requested a habitat assessment be performed so that impacts of the project could be further evaluated on the red-bellied cooter. As a result, a Biological Assessment to determine the potential for adverse impacts to this species was prepared. The Biological Assessment submitted on November 22, 2021 provided the PAFBC with additional evaluations, including a habitat assessment and population census, along with proposed conservation measures that would avoid and minimize impacts to the red-bellied cooter.*

In a December 23, 2021 letter correspondence, the PAFBC responded to the submission of the Biological Assessment confirming the opinion that the project area includes overwintering habitat for the red-bellied cooter and issued recommendations regarding avoidance and conservation measures. The December 23 correspondence also indicated that the PNDI clearance for the project would be considered “pending”, and that review and approval of a site-specific Clearance Survey and Conservation Plan would be needed to resolve the PNDI.

In response to the PAFBC December 23 correspondence, SPLP has prepared a Northern Red-bellied Cooter Conservation Plan (that also includes clearance survey methods) that describe the measures to be taken to avoid and minimize potential impacts to red-bellied cooters and their habitat. A Conservation Plan was submitted to the PAFBC for review and approval on February 10, 2022. SPLP received a letter of concurrence from PAFBC on February 16, 2022 for the submitted Conservation plan. This correspondence can be found on page 170 of the PDF.

Response from DEP (March 2, 2022): There are no further comments at this time.

- 7. Comment:** Please add the name(s) of the receiving surface water(s) and its classification under Chapter 93 to the E&S and Site Restoration plan drawings. Please include the status of -impaired and any other impairments to the receiving surface water(s). [Notice of Intent (NOI) Checklist]

Response: The project drains to UNT to Marsh Creek, Title 25, Chapter 93 designation of High Quality – Trout Stocking (HQ-TSF) and Migratory Fishes (MF). The name of the receiving surface water and its classification under Chapter 93 has been added to the cover sheet of the E&S Plan drawings and Site Restoration Plan drawings. Please refer to sheet T-01. (See Page 135 of the PDF)

Response from DEP (March 2, 2022): Please add the text “The receiving surface water(s) of the project site” to the Chapter 93 classification on the plan drawings. Also, please add the status of siltation-impaired and any other impairment to the receiving surface water to the plan drawings. In addition, please clarify on the plan drawings the receiving surface water with respect to the UNT to Marsh Creek and the wetland identified on the plan drawing with the ephemeral drainage swale.

Response: The text “The receiving surface water(s) of the project site” has been added to the Chapter 93 classification on the plan cover sheet. Also, the status of all impairments to the receiving surface water has been provided on the plan cover sheet. As described in the Environmental Overview Memorandum provided in Appendix B of the E&S Plan, the ephemeral drainage swale confluences with a small perennial stream (UNT to Marsh Creek). The location

of this confluence can be seen on sheet ES-01. Please refer to sheets T-01 and ES-01. (See Page 143 and 144 of the PDF)

- 8. Comment:** Please add the following notes to the E&S and Site Restoration plan drawings:
- The design, installation, operation, and maintenance of the turbidity curtains, the dredge area, the water treatment system's clean water intake, the dredge slurry pipeline, the filtrate discharge, and the temporary culvert crossing over the roadside ditch were not reviewed as part of the Application for the ESCGP-3 Major Amendment, and are not covered under this Permit Amendment.
 - The design, installation, operation, and maintenance of the sump pumps, the discharge lines to the water treatment system, the impermeable liner, the geo-composite liner, and the geotextile tubes as part of the Sediment Management Area (SMA) were not reviewed as part of the Application for the ESCGP-3 Major Amendment, and are not covered under this Permit Amendment.
 - Any changes to the Chapter 102 BMPs or any additional Chapter 102 BMPs that are determined to be needed before, during, or after construction will require a permit amendment following the guidelines described in the PADEP Chapter 102 Permit Amendment Frequently Asked Questions (FAQ) document.

Response: The three notes have been added to the General Notes listed on the cover sheet of the E&S Plan drawings and the SR Plan drawings. Please refer to sheet T-01. (See Page 135 of the PDF)

Response from DEP (March 2, 2022): Please amend the note in part a. to include the following: basking structure install, turbidity curtain one-way ramps for turtle species, and habitat protection buffer. Please amend the note in part b. to include the following: clean water intake pipe, filtrate discharge pipe, dredge slurry pipe, polymer makedown unit operation, water treatment system, and dewatering sump. These items were added to the plan drawings in the recent submission by the applicant. There are no further comments for part c. above.

Response: General Note 2 on sheet T-01 has been revised to include the basking structure, turbidity curtain one-way ramps for turtle species, and habitat protection buffer. General Note 3 on sheet T-01 has been revised to include the clean water intake pipe, the filtrate discharge pipe, the dredge slurry pipe, the polymer makedown unit operation, the water treatment system, and the dewatering sump. Please refer to sheet T-01. (See Page 143 of the PDF)

- 9. Comment:** Please include the volume and rate of runoff from the project site and its upstream watershed area in the application narrative following the NOI checklist. [NOI Checklist]

Response: Two existing culverts under Lakeview Road are located upslope of the proposed project site. Stormwater runoff from these two culverts has been evaluated and a temporary bypass system is proposed consisting of two compost diversion socks, a 15" culvert under the proposed temporary access road, and a rock apron. The temporary bypass system has been designed to convey the 5-year/1-hour storm event as described in the Pennsylvania Department of Environmental Protection Erosion and Sediment Pollution Control Manual. The anticipated peak flow to the proposed temporary culvert during the 5-year/1-hour storm event is approximately 5.47 cfs. Runoff from the project site drains southwest towards an Unnamed Tributary to Marsh Creek. Upon completion of the dredging

operations, the project site will be restored to pre-construction conditions. No change in land cover or increases in impervious surfaces are proposed as part of this project. As such, no increases to the rate or volume of project site runoff is anticipated. Please refer to Section 6.0 of the E&S Plan Narrative and Section 6.0 of the SR Plan Narrative. (See Page 154 of the PDF)

Response from DEP (March 2, 2022): There are no further comments at this time.

- 10. Comment:** The plan drawings refer to a “rock construction entrance.” The sequence of construction refers to a “stone construction entrance.” Please make the references consistent with each other. [102.11(a)(1)]

Response: The sequence of construction has been updated to refer to a rock construction entrance. Please refer to sheet D-01. (See Page 142 of the PDF)

Response from DEP (March 2, 2022): There are no further comments at this time.

- 11. Comment:** The following comments are regarding the Standard E&S Notes on PDF page 121 of 208 [102.11(a)(1)]:

- a. For note No. 1, why does this note refer to a plan dated February 13, 2017? Please clarify or revise accordingly.
- b. For note No. 2, please include DEP and the District in the invite.
- c. For note No. 12, what is the performance specification for the contractor to determine if the soils are compacted? Please clarify in this note and other scarification references throughout the permit amendment application package.
- d. For note No. 17, please clarify or define “fill outslopes.” Are there any fill outslopes on the plan drawings?
- e. For note No. 23, please clarify this note. Attempts to locate “Standard and specification for substance drain” were unsuccessful.

Response:

- a. *The reference to a plan dated February 13, 2017 has been removed. Please refer to sheet D-01. (See Page 142 of the PDF)*
- b. *The Pennsylvania Department of Environmental Protection and the Chester County Conservation District (as well as those noted in Response to District Comment 12 above) have been included in the invitation to a Pre-Construction Meeting under note No.2. Please refer to sheet D-01. (See Page 142 of the PDF)*
- c. *The note referencing compacted soils is a Standard E&S Plan Note according to the PADEP Erosion and Sediment Pollution Control Program Manual (March 2012) Appendix C – Standard E&S Plan Notes. Areas that have potential to be compacted include the temporary access road, rock construction entrance, and the sediment management area. These areas will need to be sufficiently decompact as identified in RTC # 5 above prior to placing topsoil as described in the Standard E&S Plan Note. Please refer to sheet SR-01. (See Page 140 of the PDF)*
- d. *Note 17 is a Standard E&S Plan Note according to the PADEP Erosion and Sediment Pollution Control Program Manual (March 2012) Appendix C – Standard E&S Plan Notes. The project proposes fill slopes associated with the leveling of the SMA area along the northwest portion. Please refer to sheet ES-04 containing cross-sections of the proposed SMA area showing fill slopes. (See Page 139 of the PDF)*

- e. *Note No. 23 has been updated to refer to “Standard and specification for subsurface drain”. Please refer to sheet D-01. (See Page 142 of the PDF)*

Response from DEP (March 2, 2022): *For parts a, b, d and e, there are no further comments at this time. For comment c, as noted above, it is uncertain why the contractor would scarify to a depth of 12” (for the 6-12” reference) or 5” (for the 3-5” reference)? It seems the contractor has the option to only do the minimum (6” or 3” respectively). If a performance specification was added to the plan drawings, the performance specification could be followed by the contractor for the decision for the depth of scarification. A bulk density test could be considered for pre-construction and post-construction condition to compare and scarify accordingly. This performance specification could be verified by the licensed professional during the critical stage and certified in the Notice of Termination. Further, the PCSM for this application is site restoration. In previous applications for this project, the applicant followed BMP 6.7.3 in the PA Stormwater BMP Manual for site restoration. Bulk density testing is part of BMP 6.7.3.*

Response: *Please refer to the response to Comment 5. The site restoration for the proposed project consists of restoring the project site to pre-construction conditions. This restoration is proposed to be consistent with BMP No. 6.7.3 in the PA Stormwater BMP Manual. (See Pages 148 and 149 of the PDF)*

- 12. Comment:** Please amend the plan drawings to include the identification of the existing vegetative cover in the areas of the proposed earth disturbance activities. This should follow TR-55 cover types. In addition, why are some disturbed areas being restored using the “agricultural areas” seed mix and other areas are being restored using the “non-agricultural areas” seed mix. Please provide the justification for the use of these different seed mixes, and please add this justification to the application narrative. [102.8(f)(1), 102.11(a)(2)]

Response: *The plan drawings have been updated to include the identification of the existing cover in the areas of the proposed earth disturbance activities following TR-55 cover types. A vast majority of the project site, with the exception of a portion of the travel lane and area adjacent to the lake has pre-construction cover of cultivated agricultural land. A portion of the travel lane has pre-construction cover consisting of meadow along Lakeview Road. The “agricultural areas” seed mix will be utilized for all areas with existing cover of cultivated agricultural land while the “non-agricultural areas” seed mix will be utilized for the portion of the travel land with pre-construction cover of meadow. The areas adjacent to the lake consist of maintained (i.e. mowed grass path) and will also utilize the non-agricultural area seed mix. The seed mixes selected are required as part of the DCNR Land License Agreement entered into by SPLP which sets forth their terms and conditions of the work to be conducted. This justification has been added to the E&S Narrative and SR Narrative. Please refer to E&S Narrative Section 3.0 and Site Restoration Narrative Section 3.0. (See Pages 70 and 152 of the PDF)*

Response from DEP (March 2, 2022): *There are no further comments at this time.*

- 13. Comment:** The Rock Construction Entrance detail on PDF page 123 of 208 reflects the wash rack as optional. Since the project site is located in a high-quality watershed, the rock construction entrance needs to be upgraded to an Antidegradation Best Available Combination of Technologies (ABACT) rock construction entrance. A rock construction entrance with a wash rack is considered an ABACT BMP. Please revise the detail accordingly. [102.11(a)(1)]

Response: The Rock Construction Entrance (RCE) detail has been revised to reflect an ABACT BMP. An extended RCE (100' in length) is proposed to be utilized in lieu of a standard 50' long RCE with wash rack. Please refer to sheet D-03. (See Page 144 of the PDF)

Response from DEP (March 2, 2022): The Rock Construction Entrance needs to be 150 feet long per the detail in the Approved Alternative BMPs document to be considered an ABACT BMP. Please revise the detail on the plan drawings and the graphic on the plan drawings. Also, 4" of PennDOT 2RC is shown in the detail in the Approved Alternative BMPs document. Please amend the detail on the plan drawings to include the 4" PennDOT 2RC to follow the detail in the Alternative BMPs document. In addition, please revise the multiple references to the "100-foot minimum" Rock Construction Entrance in the application package to "150-foot minimum."

Response: The proposed rock construction entrance has been revised to be a minimum of 150 feet long. The graphic on the plan drawings has been revised to show this length and the rock construction entrance detail has been revised to meet the specifications as provided in the Approved Alternative BMPs document. References in the E&S and SR Plan Narratives have been revised to be "150-foot minimum." Please refer to the E&S and SR Plan Narratives, sheet ES-02, and sheet D-03. (See Page 145 and 152 of the PDF)

- 14. Comment:** The PA Stormwater BMP Manual (BMP 6.7.3) recommends ripping (subsoiling) to a depth of 20 inches (or 8 inches for areas of minor compaction). Please revise the specification for scarification on the plan drawings ("scarify 3 to 5 inches minimum and 6 to 12 inches on compacted soils.") to match or exceed the recommendations in the PA Stormwater BMP Manual, or provide adequate justification for the listed scarification depths on the plan drawings. Also, soil restoration is recommended in the PA Stormwater BMP Manual (BMP 6.7.3) to include soil and compost with 10" of compost/amendment for major compaction and 6" of compost/amendment for minor compaction. Please revise the soil restoration specifications on the plan drawings, or please provide adequate justification for not providing compost or other soil amendment to the topsoil. [102.11(a)(2)]

Response: The proposed project consists of constructing a sediment management area in order to dredge approximately 6 inches of sediment across a portion of the Marsh Creek Lake. Upon completion of the dredging operation, all upland areas will be restored back to approximate existing conditions, grades, and elevations. The Stormwater BMP 6.7.3 is intended to be used as a stormwater BMP with credits associated with decompaction and soil amendment (typically utilized to offset increases in impervious areas). No permanent change in land cover or increases in impervious surfaces are proposed as part of the major modification. As such, no increases to the rate or volume of project site runoff is anticipated and no stormwater BMPs are proposed as part of the major modification. The Standard E&S Plan Note according to the PADEP Erosion and Sediment Pollution Control Program Manual (March 2012) proposes that "Areas which are to be topsoiled shall be scarified to a minimum depth of 3 to 5 inches – 6 to 12 inches on compacted soils – prior to placement of topsoil." Additionally, existing topsoil will be stripped, segregated, stockpiled, and replaced following construction such that it will not be compacted or require additional soil amendment.

Response from DEP (March 2, 2022): As noted above, it is uncertain why the contractor would scarify to a depth of 12" (for the 6-12" reference) or 5" (for the 3-5" reference)? It seems the contractor has the option to only do the minimum (6" or 3" respectively). If a performance specification was added to the plan drawings, the performance specification could be followed by the contractor for the decision for the depth of scarification. A bulk density test could be considered for pre-construction and post-construction condition to compare and scarify accordingly. This performance specification could be verified by the licensed professional during the critical stage and certified in the Notice of Termination. Further, the

PCSM for this application is site restoration. In previous applications for this project, the applicant followed BMP 6.7.3 in the PA Stormwater BMP Manual for site restoration. Bulk density testing is part of BMP 6.7.3.

Response: Please refer to the response to Comment 5. The site restoration for the proposed project consists of restoring the project site to pre-construction conditions. This restoration is proposed to be consistent with BMP No. 6.7.3 in the PA Stormwater BMP Manual. (See Pages 148 and 149 of the PDF)

- 15. Comment:** The project description in the application states that 1.37 acres of the Limit of Disturbance will be topsoiled and graded. It also states that the remaining 2.69 acres will not be topsoiled and graded. The Site Restoration plan drawings indicate all 4.06 acres will receive topsoil. Please clarify the project description to match the plan drawings, and please distinguish the 1.37 acres and the 2.69 acres on the E&S and Site Restoration plan drawings as referenced in the project description. [ESCGP-3 application]

Response: The Site Restoration plan drawings have been updated to clearly distinguish between the 1.37 acres that will need to be regraded and topsoiled and the 2.69 acres that will not require topsoiling and grading. The 2.69 acres are proposed to be accessed on grade and are designated for activities and facilities that will not require stripping of topsoil and grading. The Site Restoration plan describes that the 2.69 acres will be restored to pre-construction conditions through removal of any minor rutting (if necessary) and reseeding and mulching areas of exposed soils. The two areas are differentiated through the use of two distinguished hatches and labels. Please refer to sheets SR-01 and SR-02. (See Pages 140 and 141 of the PDF)

Response from DEP (March 2, 2022): Please add the labels of “1.37 acres” and “2.69 acres” to the respective areas, and/or the legend, on the Site Restoration plan drawings to match the project description.

Response: A green hatch and a red hatch has been added to the Site Restoration plan drawings in order to provide clarity between the areas that will not require topsoiling and grading and the areas that will need to be regraded and topsoiled to pre-construction conditions. A Site Restoration Legend has been provided on the Site Restoration plan drawings which includes all site restoration hatches and notes the associated acreages. Please refer to sheets SR-01 and SR-02. (See Pages 148 and 149 of the PDF)

- 16. Comment:** Please provide the characteristics of the project site, including the past, present, and proposed land uses in the application narrative as referenced in the NOI checklist – Item 7.c. [ESCGP-3 application]

Response: Past, present, and proposed land uses were added to the E&S report narrative. (See Pages 8, 151, and 152 of the PDF)

Response from DEP (March 2, 2022): There are no further comments at this time.

- 17. Comment:** On the Site Restoration plan drawings, please provide a long-term operation and maintenance schedule which provides for the inspection of the site restoration BMPs, including the repair, replacement, or other routine maintenance of the site restoration BMPs to ensure proper function and operation as referenced in the NOI checklist – Item 7.j. [ESCGP-3 application]

Response: A long-term operation and maintenance schedule which provides for the inspection of the site restoration BMPs has been provided on the SR Plan drawings. Please refer to sheets SR-01 and SR-02. (See Pages 140 and 141 of the PDF)

Response from DEP (March 2, 2022): There are no further comments at this time.

- 18. Comment:** The Site Restoration Plan Narrative states that “No existing riparian buffers have been identified within the project area.” This doesn’t seem to be accurate. Please revise the narrative accordingly. [102.14]

Response: The E&S Plan Narrative and the Site Restoration Plan Narrative have been updated to include information pertaining to the existing riparian buffers within the major modification limit of disturbance/project site. The existing riparian buffers meet the criteria for Zone 1. The boundary of the riparian buffer has been provided on the E&S Plan Drawing and the Site Restoration Plan Drawings. Proposed impacts to the Zone 1 riparian buffer will be minimal and temporary in nature. Please refer to the E&S Plan Narrative Section 2.4, the Site Restoration Plan Narrative Section 2.4, sheet ES-03, and sheet SR-02. (See Pages 70, 138, 141, and 151 of the PDF)

Response from DEP (March 2, 2022): Please see Response from DEP for comment 2 above and revise the narratives accordingly.

Response: The E&S and SR Plan Narratives have been revised to include information regarding the riparian buffers at the project site. All areas within Zone 1 and Zone 2 are proposed to be protected, will only have minimal earth disturbance and to be restored to pre-construction conditions. Zone 1 and Zone 2 are depicted on both the E&S and SR Plan Drawings. Please refer to sheets ES-03 and SR-02 and Section 2.4 for the E&S and SR Plan Narratives. (See Pages 70, 146, 149, and 185 of the PDF)

- 19. Comment:** In the Site Restoration Plan Narrative, the Antidegradation requirements were not discussed or addressed for the post construction condition of the site. Please amend the narrative accordingly. [ESCGP-3 application]

Response: An Antidegradation Analysis is provided in Section 10 of the Site Restoration Plan Narrative. (See Page 157 and 158 of the PDF)

Response from DEP (March 2, 2022): Please amend the Site Restoration narrative to include and describe the Restoration BMPs, the PPC Plans, and the Street Sweeping as ABACT BMPs as noted in Section I, Part 2 of the ESCGP-3 application. Please note that these BMPs need to be considered for the post construction condition.

Response: The Site Restoration narrative has been revised to include and describe the restoration BMPs and PPC Plan as noted in Section I, Part 2 of the ESCGP-3 application. (See Page 192 of the PDF)

NEW COMMENTS BY DEP (March 2, 2022):

- 1. Comment:** Please provide an adequate Off-site Discharge Analysis following the Chapter 102 Off-site Discharges to Non-surface Waters FAQ for each proposed temporary culvert (Culverts A and B). Also, please address all 12 questions and answers in the FAQ for each proposed temporary culvert. Following FAQ #12, it seems a temporary stable flow path (temporary swale with erosion control blanket) may be needed between temporary culverts A and B. And a

temporary level spreader may be needed at the outlet end of temporary culvert (Culvert A). Please note that the FAQ requests the 10-year storm event to be used in the analysis. Also, please amend the E&S plan drawings to reflect the flow path (including the properties and property owners) from the discharge points from each proposed temporary culvert at the project site boundary to the receiving surface water. Please submit photos of the flow path as part of the analyses. [102.4(c)]

Response: Upon further review of the project location and associated topography, it has been determined that Culvert B is no longer necessary as a roadside ditch is not present along Lakeview Road. An Off-Site Discharge Analysis following the Chapter 102 Off-Site Discharges to Non-Surface Waters FAQ has been performed for proposed temporary Culvert A, which is part of a temporary bypass system intended to divert upslope off-site runoff around and through the project area, and is comprised of two (2) 18" diameter compost diversion socks, Culvert A (two 15" diameter HDPE culverts), and a temporary level spreader. The temporary level spreader is designed with reference to the PA Stormwater BMP Manual & the Erosion and Sediment Control Manual (2012) to be made of 12" diameter perforated HDPE pipe in an envelope of AASHTO #57 stone. The perforated HDPE temporary level spreader is proposed to be installed at existing grade along a consistent elevation in order to minimize earth disturbance upslope of the existing wetland/upland mosaic. The temporary level spreader as designed will create a sheet flow condition upslope of the existing emergent wetlands, ensuring surface water hydrology is maintained while decreasing the velocity of the discharge from Culvert A as to not cause erosion to the existing ground below the level spreader. The during construction runoff below the level spreader, through the wetland/upland mosaic, and through the ephemeral drainage swale has been analyzed to ensure that expected stormwater velocities and shear stresses do not exceed the existing allowable velocities and shear stresses of the existing ground cover. The peak rate of stormwater runoff during the 10-year/24-hour storm at the confluence of the ephemeral drainage swale and delineated ephemeral stream has been analyzed to ensure that the peak rate during construction is less than the pre-construction peak rate. Please refer to Appendix F of the E&S Plan. (See Page 155 of the PDF)

2. The following comments reference the temporary access road (TAR) and the rock construction entrance (RCE) [102.4(b)(5)]:
 - a. The TAR detail shows a normal crown (2% cross slope draining in each direction from the centerline of the road); however, the existing contours in some of the areas of the TAR reflect a one-direction cross slope. Following the same detail, 6"-12" depth of PADOT 2A Coarse Aggregate is to be added to the existing grade. Please amend the plan drawing to reflect the proposed temporary contours for the TAR.
 - b. Also, the normal crown of the TAR detail may cause a dam or swale in some areas within the project site. The applicant may want to revise the detail's cross slope to work with the existing grades or add another detail for specific areas of the TAR.
 - c. In addition, the TAR detail should reflect the existing (sub)grade line as a diagonal line. The one side should be the steepest slope in cut and the other side should be the steepest slope in fill.
 - d. Further, the proposed temporary contours of the access roads should also tie into the Sediment Management Area (SMA) and not create a channelized flow path or shallow concentrated flow path along the base of the SMA. If a channelized flow path or shallow concentrated flow path along the base of the SMA, or anywhere along the temporary access road, is created by the proposed temporary contours, a separate off-site discharge analysis may be needed to the receiving surface water.

- e. Please also amend the plan drawings to reflect the proposed temporary contours for the area of the RCE with berm. Please note that the existing contours in the area of the RCE seems to exceed the maximum 10% longitudinal slope as specified in the temporary access road detail.

Response: The TAR detail has been revised to provide a 2-4% cross slope which will drain to the downslope side of the road. The temporary contours for the TAR are provided on the E&S plan drawings and are designed to reduce the potential of a berm or swale along the TAR within the project site. The cross-slope of the TAR coupled with the revised contours will allow upland areas to sheet flow across the TAR. Additionally, the TAR detail has been revised to show the existing grade line as a diagonal line. The TAR contours have been extended along the Sediment Management Area's (SMA) western edge in order to tie in with the SMA's proposed grades, and have been designed as to not create a concentrated flow within this area. Lastly, the RCE proposed contours have been provided to show that the slope of the RCE will not exceed the maximum 10% longitudinal slope as specified in the TAR detail. Please refer to sheets ES-02 and D-04. (See Page 145 and 153 of the PDF)

3. Prior to resubmitting, it is recommended for the applicant's team to schedule a meeting with DEP and the District to discuss how the applicant plans to address the above comments.

Response: A teleconference was held with DEP on March 11, 2022 and these comments and responses were discussed.

This response letter is being provided electronically via email and SPLP appreciates your review and comments and should you have questions regarding this correspondence, please do not hesitate to contact me at 412-921-8163 or via e-mail at Robert.Simcik@tetrattech.com.

Sincerely,



Robert F. Simcik, P.E.
Project Manager
Tetra Tech, Inc.

RFS/alk

Enclosures: Application

cc: File 212IC-BF-00037
Mr. Sofranko – Chester County Conservation District
J. Hohenstein, PADEP SERO
N. Bryan, Energy Transfer
M. Styles, Energy Transfer
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