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March 7, 2022

Kevin S. White | P.E.
Environmental Group Manager
PADEP Regional Permit Coordination Office
Rachel Carson State Office Building
400 Market Street
Harrisburg, PA 17101

**RE: REGIONAL ENERGY ACCESS EXPANSION PROJECT
TECHNICAL DEFICIENCY RESPONSE SUBMITTAL
WATER OBSTRUCTION & ENCROACHMENT PERMIT APPLICATION**

**BUCK TOWNSHIP, BEAR CREEK TOWNSHIP, PLAINS TOWNSHIP, JENKINS TOWNSHIP,
KINGSTON TOWNSHIP, DALLAS BOROUGH, WYOMING BOROUGH, WEST WYOMING
BOROUGH & LAFLIN BOROUGH, LUZERNE COUNTY;
PADEP APPLICATION NO. E4083221-006; APS ID NO. 1036224; AUTH ID NO. 1349631**

**ROSS TOWNSHIP, CHESTNUTHILL TOWNSHIP & TUNKHANNOCK TOWNSHIP, MONROE
COUNTY;
DEP APPLICATION NO. E4583221-002; APS ID NO. 1036240; AUTH ID NO. 1349660**

Dear Mr. White;

On April 8, 2021, Transcontinental Gas Pipe Line Company, LLC (Transco), a subsidiary of The Williams Companies, Inc., submitted a Chapter 105 Water Obstruction and Encroachment Application to the Pennsylvania Department of Environmental Protection (PADEP) for the proposed Regional Energy Access Expansion Project (Project). The PADEP issued technical deficiencies on January 7, 2022. The response package herein responds to PADEP's technical deficiencies. PADEP's comments are provided below with Transco responses.

Minor design changes, modifications, and updates have been incorporated since the original April 2021 submission. This includes addressing Chapter 102 and 105 technical deficiencies, design modifications requested by the Federal Energy Regulatory Commission and other alterations that occurred.

All Counties

1. **In a letter dated January 5, 2021, the Pennsylvania Historical and Museum Commission (PHMC) requested additional information. Please provide final reports and clearances and update the application accordingly. [25 Pa. Code §§ 105.21(a)(I) and 105.14(b)(5)]**

All current reports and correspondence with the PHMC are included within Requirement D of each application. Coordination with the PHMC relating to studies for workspace adjustments on the Regional Energy Lateral is still ongoing. Final reports and clearances and an update to the application will be provided to PADEP when they become available.

2. **Please have the applicant sign all final Pennsylvania Natural Diversity Inventory (PNDI) receipts. [25 Pa. Code §§ 105.2J(a)(I) and 105.24(a)]**

The final PNDI Receipt signed by the applicant has been included within Requirement G of the permit application.

3. **Please provide final clearances from the U.S. Fish and Wildlife Service regarding the Perin Mitigation Site. [25 Pa. Code §§ 105.2I(a)(I) and 105.24(a)]**

Clearances from the U.S. Fish and Wildlife Service regarding the Perin Mitigation Site can be found within the mitigation plan in Module S4 of both the Luzerne and Monroe County Permit Applications.

4. **On the Chapter 105 Impact Drawings, please indicate the stream crossing and wetland crossing methods for construction. [25 Pa. Code §§ 105.13(e) and 105.2I(a)(I)]**

The Chapter 105 impact drawings have been updated to reflect the stream and wetland crossing methods for construction.

5. **Please indicate within the application why wetlands are designated as Exceptional Value (EV) per PA Code §105.17. [25 Pa. Code §§ 105.2I(a)(I) and 105.17]**

The wetland delineation report narrative has been updated to reflect the methodology utilized to make Exceptional Value wetland determinations.

6. **Please update any table in the Environmental Assessment (EA) which may relate to changes to the Aquatic Resource Impact Table (ARIT). [25 Pa. Code §105.2I(a)(I)]**

Tables in the environmental assessment relating to changes to the Aquatic Resource Impact Table (ARIT) have been updated to be consistent with ARIT.

7. **The EA Module S2.C, indicates concurrent review for the PNDI coordination. Please provide final reports and final clearances from applicable agencies and revise the application accordingly. [25 Pa. Code §§ 105.2I(a)(I) and 105.24(a)]**

Requirement G of the application has been updated to include the current response letters and reports submitted to the agencies since permit submission and clearance letters from the DCNR and PFBC. PGC and USFWS consultation is ongoing.

8. **Within the EA Module S2.D.2(i- v), provide the HGM classification to greater detail, as listed in the PA_HGM_Key_1.0, referenced within the instruction of the EA (3150-PMBWEW0017).[25 Pa. Code§ 105.15(a)(l)]**

The HGM classification information has been updated in EA Module S2 in order to provide greater detail as listed in the PA_HGM_Key_1.0.

9. **Rapid assessment condition indexes were not provided for streams labeled as "ephemeral." Please note, the instructions of the EA (3150-PM-BWEW001 7) requests such information on "all aquatic resources present that may be affected by the project." Please provide material and adjust application as necessary. [25 Pa. Code§ 105.21(a)(l)]**

The rapid assessment condition indexes have been included for ephemeral stream channels included within Module S2 of both joint permit applications.

10. **Within the EA Module S3H, please provide a detailed cumulative impact analysis specific to the wetlands within the application. Please expand discussion on the nature of impacts from other projects and further discuss why those impacts are not anticipated to produce a major impairment of the wetland resources. [25 Pa. Code §§ 105.21(a)(l) and 105.14(b)(l 4)]**

EA Module 3H has been updated to include a more detailed impact analysis specific to the wetlands within the application. Included in that analysis is a discussion on the nature of impacts from other projects and why those impacts are not anticipated to produce a major impairment of the wetland resources.

11. **Within Appendix S3-1, please do not use OTHER subfacility. These impacts can be placed with Wetland Temporary Impact (TMPWI), Floodway Temporary Impact (TFIM), or Stream Temporary Impact (TSIM), which may be used for impacts to temporary workspaces. Impacts from equipment mats do not need to be recorded within the subfacilities. [25 Pa. Code § 105. 21 (a) (1)]**

The OTHER subfacility has been removed from Appendix S3-1. The impacts were revised based on suggested subfacility types.

12. **Within EA Module S4, Table B-1 appears to only lists noxious weeds, not all invasive species. Please review the application to ensure the terms noxious weeds and invasive species are not used interchangeably and consider adding all invasive species present on the pipeline to Table B-1. [25 Pa. Code§ 105.21(a)(l)]**

The Invasive Species Management Plan, included in Appendix S4-4 of Module 4, has been updated to define invasive plant species as those specifically defined and regulated as noxious under federal or state law. The list does not include the plants identified by the PADCNR, as all of those species are not subject to state regulation. In addition, Appendix S4-4 has been updated to define only Project components within Pennsylvania.

13. **EA Module S4.D states, "Post-Construction Wetland and Watercourse Monitoring shall occur annually for a period of 5 years following construction." Please verify monitoring will occur in the spring and fall the first three years at both on- and off-site mitigation areas, to reflect the Department's guidance for Wetlands Replacement/Monitoring, Department document 363-0300-001. Please correct throughout application and adjust language in the Invasive Species Management Plan. [25 Pa. Code§ 105.21 (a)(l)]**

Onsite Post-Construction Wetland and Watercourse Monitoring and Invasive Species Management will occur in the spring and fall the first three years at both on- and off-site mitigation areas for 5 years post construction, as requested by PADEP. Off-site Post-Construction Wetland monitoring will occur for 7 years, as requested by the USACOE.

14. Provide details pertaining to adaptive management plan in the Onsite Wetland and Riparian Reforestation plan. [25 Pa. Code §§ 105.13(e) and 105.21(a) (l)]

Additional details regarding adaptive management have been added to the Onsite Wetland and Riparian Reforestation plan.

15. Within the Wetland and Riparian Reforestation Plan, streams labeled as "ephemeral" do not have Riparian Buffer Plantings. Please consider replanting riparian buffers in all special protection (High quality (HQ) or EV) streams, regardless of size. [25 Pa. Code §§ 105.13(e) and 105.16(d)]

The Wetland and Riparian Reforestation Plan has been updated to include planting of all forested ephemeral channel riparian buffers, in both special protection and non-special protection watersheds.

16. The Performance Standard in Appendix S4 - 2 Onsite Wetland and Riparian Reforestation Plan within EA Module S4 does not address performance standards noted in other areas of the application. In addition to planted woody vegetation survivability, please including the following parameters or similar: "the entire revegetated areas will have at least 85% cover of hydrophytic species (FAC, FACW, and/or OBL), invasive species or noxious weed percent aerial cover, if present, does not exceed the abundance of invasive species in the adjacent areas that were not disturbed by construction, and the site maintained hydrology for both wetland and water resources". In addition, include language stating that Transco will evaluate whether the activities authorized by this permit caused any loss of hydrology and will submit an evaluation to the Department for review. [25 Pa. Code §§ J05.18a(b)(2), 105.20a(a), and 105.21(a)(l)]

The performance standards have been updated throughout the application, as requested.

17. The Appendix S4-2 Onsite Wetland and Riparian Reforestation Plan, EA Module S4.D, and Appendix S4 - 1 Transco Project-Specific Wetland and Waterbody Construction and Mitigation Procedures do not always align in their specific parameters regarding post construction procedures, requirements, and performance standards. Please review and make sure the application is consistent. [25 Pa. Code § 105.21 (a)(l)]

The Transco Project-Specific Wetland and Waterbody Construction and Mitigation Procedures (Appendix S4-1) has been updated to align the specific parameters regarding post construction procedures, requirements, and performance standards with the Onsite Wetland and Riparian Reforestation Plan and the EA Module S4.D and Appendix S4-2. The application has been updated to be consistent with PADEP regulations and comments provided in this technical deficiency.

18. Within Appendix S4 - 1, the Transco Project-Specific Wetland and Regional Energy Access Expansion Waterbody Construction and Mitigation Procedures Section 7 states, "Where a dry-ditch crossing not required". Note that all open cut crossings need to be in the dry. Please review the standard FERC language and confirm all sections are consistent within the application. [25 Pa. Code § 105.21(a)(l)]

The Transco Project-Specific Wetland and Waterbody Construction and Mitigation Procedures has been updated to remove this text.

- 19. The ARIT and the Impact Drawings have impacts to resources that are 0.0000; however, there are impacts to the resource. Please include an impact which should be no less than 0.0001. Please revise accordingly. [25 Pa. Code§ 105.21 (a)(l)]**

The ARIT and Impact Drawings have been updated to address this comment.

- 20. In the ARIT, please place stream length X width values consistently within the Watercourse Impact column, so that the entire length of stream impacts can be correctly calculated. [25 Pa. Code§ J05.2J(a)(J)]**

The ARIT has been updated for consistent width placement.

- 21. In the ARIT there are many lines for each recourse. It is difficult to associate the lines to the appropriate map polygon to evaluate the total impacts for any given resource. Consider combining lines on the ARIT. Generally, for each unique resource location there should be one line for temporary impacts, one line for permanent impacts, and a line for equipment crossing impacts. Floodway and streams impacts may be listed on the same line. If a resource has the same name in two unique locations (i.e. a meandering wetland) please provide additional identification on the map and ARIT (e.g. W1-T1-i). [25 Pa. Code§ 105.21(a)(l)]**

The ARIT has been updated as requested.

- 22. Please provide the stream bank stabilization method on the E&S Plans. The stream bank stabilization method should be included for each stream that will be crossed by the pipeline and/or access roadway. Please revise accordingly. [25 Pa. Code§ 105.13(g)]**

A callout for the type of streambank stabilization (VCR-1/VCR-2) has been included on the plan drawings.

- 23. It is expected that some stream crossings will require blasting of bedrock. Please add this to the construction sequence. [25 Pa. Code§§ 105.21(a)(l) and 105.13(g)]**

The "Pipeline Work Sequence at Stream Crossings" has been updated on the E&S plans to incorporate Blasting as part of the sequence.

- 24. Within the Bridge Equipment Crossing (BEC) detail, consider additional language stating the siderails will be wrapped in geotextile to deter sediment from entering the stream. [25 Pa. Code§§ 105.2J(a)(l) and 105.JJ(g)]**

The BEC detail has been updated, as requested.

- 25. When possible, the Department does not recommend stockpiling soils within wetlands. Evaluate the ability to stockpile soils outside wetland boundaries throughout the Project. When necessary, geotextile and matting should be placed between the stockpile soil and existing ground. Please add a note to the wetland crossing and restoration details and discuss within the Alternative Analysis minimization section. [25 Pa. Code §§ 105.21(a)(l), 105.13 (e)(l)(viii), and 105.17]**

The Wetland Crossing Configuration Details have been updated as requested. Discussion is now included in the Alternatives Analysis Minimization Section.

- 26. Please discuss the ability to use naturally decomposing fiber matting in lieu of bio-or photodegradable plastic mesh erosion control blankets near wetlands and watercourses. [25 Pa. Code §§ 105.16(d) and 105.13(g)]**

The Erosion Control Blanket Detail has been updated within the "Williams Supplemental Notes Section" (Note 3) to include the use of "natural biodegradable materials" that does not contain plastic or synthetic materials within wetland and stream buffers which require matting within 50' or 100' of the disturbed resource crossing.

- 27. In Tables 11. 3 and 11. 4 on E&S Plans Notes Sheets, several mixtures contain crown vetch and tall fescues. The Department does not recommend these species. Please consider removing these upland seed mix options. [25 Pa. Code §§ 105.13(e) and 105.21(a)(I)]**

Crown vetch and tall fescues have been removed from the E&S plans, with the exception of the PCSM plans where PADEP infiltration berm detail specifically identifies a mix with tall fescue. Two additional seed mixes have been added to the plans to provide additional mix options.

- 28. Discuss how sensitive resources will be protected and/or proper vegetation establishment will be assured before agriculture land is handed over to landowner for use. [25 Pa. Code § 105.21(a)(I)]**

Transco will coordinate with landowners where they have requested to resume agricultural operations on portions of their property that have been restored/stabilized. Prior to resuming agricultural operations, Transco shall either request a field inspection by the conservation district and/or provide sufficient documentation to the conservation district to document the restored conditions along the right-of-way. This process will identify if agricultural landowners may need to incorporate temporary Ag E&S practices in order to remove the project E&S controls to protect sensitive resources.

Luzerne County

- 29. In Requirement G-2, Table 2.2-1 is referenced; however, no table is labeled as such. The same paragraph then references seven species in Table 2.2-2, but only two species are listed. Please revise. [25 Pa. Code § 105.21(a)(I)]**

Requirement G-2 and its tables have been updated to address this comment.

- 30. Per the Pennsylvania Fish and Boat Commission (PFBC), Gardner Creek enters Mill Creek below Mill Creek's wild trout designation and is not a wild trout stream. Additionally EA Module S2 states, "With the exception of the Susquehanna River and Abrahams Creek, all other watersheds are considered wild trout streams" while Module S3 states, "With the exception of Gardner Creek and the Susquehanna River, all of the stream crossings associated with the Project cross wild trout streams." Please revise the application as appropriate including the Watercourse Resource Summary Tables. [25 Pa. Code §§ 105.14(b)(6) and 105.21(a)(J)]**

The application has been updated to reflect the correct Wild Trout status of the stream crossings associated with the Project.

- 31. The Pennsylvania Fish and Boat Commission (PFBC) manages the watersheds of Shades Creek and Mill Creek as Class A wild trout. Please revise application including the**

Watercourse Resource Summary Table, the text of S2.D. 1 (iv- v), and the E&S Plans where seasonal restrictions are indicated. [25 Pa. Code §§ 105.14(b)(6) and 105.21(a)(l)]

The application has been revised to include Mill Creek and Shades Creek as Class A Wild Trout.

- 32. It appears that an impact for Wetland W8-T4 for Access Road AR-LU-043 has not been accounted for in the Impact Drawings. Please review and revise accordingly. [25 Pa. Code § 105.21(a)(l)]**

The application has been updated to include the impact to W8-T4 in the Impact Drawings.

- 33. Please explain the necessity of REL-AR-1. Consider using the existing road at the Compressor Station to avoid wetland impacts. [25 Pa. Code §§ 105.21(a)(l) and §105. 18a(b)(2)]**

Access Road AR-LU-032, associated with the crossing identified in the application as REL-AR-1, is for use by the pipeline contractor, to access the ROW around Compressor Station 515. A separate contractor working at Compressor Station 515 will be reliant upon the existing access road. AR-LU-032 is designed to avoid conflict between contractors with their access and construction activity needs. Additionally, access from the existing compressor station road will likely be impassable for the pipeline contractor at times during construction due to the active construction.

- 34. The Project Description states two hundred and eighty-four wetlands (with multiple Cowardian classifications) were delineated, while Table SI.B.3-1 (within JPA Requirement L-2) indicates that 306 wetlands were delineated. Please revise the application as appropriate. [25 Pa. Code § 105.21(a)(J)]**

The application has been revised to consistently outline the total number of delineated resources.

- 35. Off-right of way wetlands W72-T2 and W73-t2 are not shown on the Impact Map, but these wetlands are shown in other maps provided in the application. Please verify all resources and layers are displayed throughout the project. [25 Pa. Code §§ 105.13(e) and 105.21(a)(l)]**

The application has been reviewed to determine the appropriate layers are displaying. W72-T2 and W73-T2 are now shown on the impact map.

- 36. Requirement L-5 and Requirement L-3 title pages are not correct. Please correct. [25 Pa. Code § 105.21(a)(J)]**

The title pages have been revised.

- 37. In Table S2.D.1-1 Riverine Resource Classification, AR-LU-001 is listed twice. Please verify if this is a duplicate or if a stream is missing. [25 Pa. Code § 105.21 (a)(l)]**

The duplication has been removed.

- 38. Please review Table S2.D.2-1 Wetland Resource Classification. W6-T1 1-REL-14 and W1-T10-REL-46 appear to not be included and W15-T5b appears to be a typo. [25 Pa. Code § 105.21(a)(J)]**

Table S2.D.2-1 has been updated to address this comment.

- 39. Within Appendix D-2 of the Wetland and Watercourse Delineation Report, both Stream S8-T3 and S69-T2 are labeled as SP6 on the Wetland Delineation and Photographic Documentation Map. It appears there are no photographs of S8-T3. Please verify throughout**

the report that all resources are uniquely labeled and that photographs are provided for all resources. [25 Pa. Code§ 105.21 (a)(l)]

The wetland delineation report has been reviewed and updated to include photographs for all resources.

- 40. Review of aerial imagery and modeled wetland mapping indicates that the area around W15b-T5 and W49-T1 near MP 4.5 may have more wetland acreage than delineated by this Project. Please review the extent of wetlands in this area and provide further documentation of the onsite conditions. [25 Pa. Code §§ 105.13(e)(l)(i)(A) and 105.21(a)(1)]**

A site visit was completed with Nate Frank of the USACOE in August 2020. The boundaries at this location were confirmed and are outlined in the wetland delineation report. Additional data points were collected on February 21, 2022, and those data forms are included within the wetland report.

- 41. On crossing 23, W4-T12 and W84-T2 are identified as "other" wetlands, while potentially hydrologically connected to EV wetland W9-T5. Please review resource designation of W4-T12 and W84-T2 and provide documentation that the wetlands are not hydrologically connected. [25 Pa. Code§ 105.17(i)(ii)]**

W4-T12 and W84-T2 have been updated to an EV wetland status.

- 42. On crossing 5, W38-T3 is identified as an "other" wetland, while potentially hydrologically connected to EV wetland WI 03-T2. Please review resource designation of W5-T1 1 and provide documentation that the wetlands are not hydrologically connected. [25 Pa. Code § 105.17(i)(ii)]**

W38-T3 has been updated to an EV Wetland Status.

- 43. On crossing 86, W5-T11 is identified as an " other" wetland, while surrounded on three sides and potentially hydrologically connected to EV wetland W81-T2. Please review resource designation of W5-T1 1 and provide documentation that the wetlands are not hydrologically connected. [25 Pa. Code§ 105.17(i)(ii)]**

W5-T11 has been updated to an EV wetland status.

- 44. Please provide an Aids to Navigation Plan (ATON) for activities on the Susquehanna River Water Trail as discussed in EA Module S3.B.1.i. [25 Pa. Code§§ 105.14(b)(6) and 105.21(a)(l)]**

An Aid to Navigation Plan was submitted to the PA Fish and Boat Commission and approved on June 16, 2021. The plan and report can be found in Attachment 3 of the application. Coordination with the National Park Service occurred regarding the Water Trail. The correspondence letter is included in Attachment 4 of the application.

- 45. Please list within EA Module S3.B. 1.vi any water supplies or wells which will be monitored during the Direct Pipe Crossing, similar to Table S3.B.6-2. [25 Pa. Code§§ 105.21(a)(l) and 105.302(6)]**

Water supply or well monitoring will not be required for the Direct Pipe Crossing, as outlined in the Direct Pipe Plan located in Module S3.

- 46. The EA Module S3.D.2(i) states, "Two watercourses (S49-T2 and S52-T2) [...] will be conventionally bored," while the subfacility tables within Appendix S3-1 indicates S49- T2, S52a-T12 and S52-T2 will be bored. Please verify. [25 Pa. Code§ 105.21(a)(I)]**

The application has been updated to indicate S52a-T12 will also be bored.

- 47. Please further discuss the necessity to place a bore pit in stream S52a-T12. Discuss why the pipeline cannot be shifted south to avoid the resource, or why the bore cannot be extended. Discuss how the bore pit will be isolated/or protected from the flow of stream S52-T2. [25 Pa. Code§ 105.2J(a)(I)]**

Table 5.1-1 within Requirement S - Alternatives Analysis has been updated to provide further justification for the necessity to place a bore pit in stream S52a-T12. Included is a discussion of why the pipeline cannot be shifted south to avoid the resource, as well as why the bore cannot be extended. Also included is the explanation for how the bore pit will be isolated/or protected from the flow of stream S52-T2.

- 48. If drilling fluid is going to be utilized during the removal/replacement of the 42-inch sacrificial pipe with the 30-inch carrier pipe under the Susquehanna River, measures should be put in place to monitor fluid for the risk of an inadvertent return. Additionally, please provide details in the plans to fill the annular void space remaining as a result of the pipe replacement. [25 Pa. Code§ 105.14(a)]**

Transco has updated Section 1.2 and 1.3 of the Direct Pipe ® Monitoring, Inadvertent Return Response, and Contingency Plan to describe the plans for grouting the annular void space. Section 6.0 of the Plan has been updated to outline the fluid monitoring that will occur during operations.

- 49. The Department recommends geo-technical borings to be installed whenever trenchless technology is utilized to cross a resource (i.e. Trout Brook in Luzerne County). [25 Pa. Code§ 105.14(a)]**

Geotechnical borings were completed at each of the proposed trenchless crossings. Geotechnical boring reports for each resource that will be crossed with trenchless technology is provided in Requirement S - Alternative Analysis.

- 50. All recommendations presented within the Alternative Analysis Appendix S-5: Direct Pipe Design Services Plan should be followed. Primarily, a PE or PG should be given an opportunity to review the tunneling plan prepared by the Direct Pipe (DP) contractor to confirm that the considerations outlined in the report were adequately addressed. The Department recommends that a PE or PG be on-site to document the installation process in real time to increase the potential for a successful installation of the DP. [25 Pa. Code § 105.14(a)]**

Section 2.2 of the Direct Pipe Monitoring, Inadvertent Return Response, and Contingency Plan has been updated to outline the roles and responsibilities of Project team members. Transco will assign a Professional Engineer (PE) or Professional Geologist (PG) to be on site during drilling operations.

- 51. DEP recommends adding the following to the Direct Pipe Monitoring, Inadvertent Return Response, and Contingency Plan. Should an inadvertent return occur in an aquatic resource during drilling operations, a Re-evaluation Report should be submitted to the Department by the PE or PG examining the drilling alignment and ensuring that another inadvertent**

return is unlikely. The Department will need to review this submitted information and approve the restarting of drilling operations. [25 Pa. Code§ 105.14(a)]

Section 8.2 of the Direct Pipe Monitoring, Inadvertent Return Response, and Contingency Plan has been updated to outline the agency notifications, including the submittal of a restart report in the event of an inadvertent return within an aquatic resource.

- 52. EA Module S4.C. Compensatory Mitigation states, "To mitigate for the temporary and permanent functional conversion of PSS and PFO wetlands associated with the Effort Loop, an offsite mitigation area has been designated to offset functional losses by providing a total of 6.91." Please verify this compensation is for the Regional Energy Lateral Route. [25 Pa. Code§ 105.21(a)(I)]**

Module S4 has been updated to indicate the Regional Energy Lateral.

- 53. It appears that W10a-T4 may have the wrong Mitigation Ratio within Appendix D Off Site Compensatory Wetland Mitigation Summary. Please review. [25 Pa. Code § 105.21(a)(I)]**

The mitigation ratio within Appendix D Off Site Compensatory Wetland Mitigation Summary has been updated.

- 54. It appears that there are inconsistencies between the ARIT and the Impact Drawings. Please review the impacts to the following resources for consistency:**

- a. W108-T2, the impact numbers are inconsistent
- b. W31-T3, PFO impact area of 0.0894, 0.0779 and 0.0173, the ARIT has an Impact Type of Permanent and the Impact Drawings Table has Temporary
- c. S4a-T5, impact numbers are inconsistent
- d. S6-T5, impact numbers are inconsistent. [25 Pa. Code§ 105.21(a)(I)]

The impact sizes of these resources have been reviewed on the impact drawings and ARIT. The values have been updated and adjusted accordingly.

- 55. The Impact Drawing table lists impacts to S80-T2, W156-T2 and W159-T2 for REL-AR-5; however, these impacts cannot be located on the Impact Drawings, ARIT, nor the E&S Plans. The ARIT has an impact for REL-AR-5 of W8-T4, which is not accounted for on the Impact Drawings. Please review and revise the Plans, ARIT, or Impact Drawings accordingly for REL-AR-5. [25 Pa. Code§ 105.21(a)(I)].**

The application, including the Plans, ARIT and Impact Drawings were reviewed and updated as necessary to correctly outline the impacts at this crossing location.

- 56. The Impact Drawings and the E&S Plans have a Resource Name of S5-T1 1; however, the Impact Table on the Impact Drawings and the ARIT have the Resource Name as S4-T11. Please review crossings REL-15 and REL-84 and revise accordingly. [25 Pa. Code§ 105.21(a)(I)]**

These crossings were reviewed, and the drawings were revised to address this comment.

- 57. S2-T12 does not list any floodway impacts associated with the pipeline or the pipeline construction. Please include in the floodway impacts for S2-T12 on the Impact Drawing Table and the ARIT. [25 Pa. Code§ 105.21(a)(I)]**

S2-T12 does not list floodway impacts because the floodway is located entirely within a wetland. The impacts are shown under the wetland impact portion.

- 58. S49-T12 appears labeled on the E&S Plans on sheet 60 but not on the Impact Drawings Sheet 77 nor on the ARIT. Verify this resource throughout the application. [25 Pa. Code §§ 105.IJ(g) and 105.21 (a)(I)]**

The impact drawing, sheet 77 and the ARIT have been updated to include S49-T2.

- 59. Please review the ARIT for stream S52-T2-REL-AR-23 and S52-T2-REL-84, as the Water Name is listed as both UNT to Trout Brook and Trout Brook. [25 Pa. Code §§ 105.IJ(g) and 105.2J(a)(I)]**

REL-AR-23 has been updated to indicate Trout Brook (not UNT to Trout Brook).

- 60. Please review the Existing Use Classification for Mill Creek and its tributaries. Update the application accordingly. [25 Pa. Code § 105.2J(a)(I)]**

The application has been revised to update the existing use of Mill Creek and its tributaries to HQ-CWF, MF.

- 61. Sheet 43 of the Impact Drawings and the ARIT have a resource impact for S72-T2; however, this impact is not shown on the Impact Drawings or on the E&S Plans. Please review crossings REL-38 and REL-82 and revise accordingly. [25 Pa. Code § 105.21(a)(I)]**

REL-38 Floodway impact was incorrectly shown in the ARIT and Impact Drawing and both have been revised to show a resource impact for S85-T2 not S72-T2. S72-T2 is located at REL-82 crossing.

- 62. The ARIT appears to be missing a temporary impact to Stream S4a-T5. [25 Pa. Code § 105.21(a)(I)]**

No temporary impact is proposed to S4a-T5 due to the proposed stream stabilization. The drawing summary table previously included showed a temporary impact incorrectly. This table has been updated in the drawing.

- 63. At approximately station 548+50, at Stream 1 S19-T1, a rock construction entrance is proposed to be placed within the streambed. Please either revise the E&S Plans to remove the rock construction entrance from the streambed or provide a temporary pipe crossing of Stream S19-T1. [25 Pa. Code § 105.IJ(g)]**

The E&S Plans have been revised to remove the rock construction entrance at this location.

- 64. The Dry Extended Detention Basin that is proposed to be a PCSM BMP for volume control at the mainline valve site ML V 515RA20 is located within the floodway of a tributary to Mill Creek. Please analyze if that dry extended detention basin can be moved or reconfigured so that the basin will not be within the floodway of the tributary to Mill Creek (S76-T2). [25 Pa. Code § 105.IJ(g)]**

The PCSM BMP at MLV515RA20 is now proposed as an infiltration berm. The infiltration berm has been sited within the assumed 50' floodway, as this area is located downgradient of the proposed valve setting. The BMP is placed here due to the topography considerations while keeping the BMP as close to the valve setting as possible to limit overall Project impact. S76-T2

is an isolated, ephemeral channel, with less than a 100-acre drainage area. The location of the impact within the assumed 50' floodway is beyond the location where S76-T2 goes subsurface and is up-slope, topographically, from S76-T2. Siting of the BMP within this assumed 50' floodway will have no impact on flood flows from this resource. Additionally, the siting of this BMP within the assumed 50' floodway resource, which qualifies for waiver 25 Pa. Code 105.12(2), was presented at a pre-application meeting on January 6, 2021, in which PADEP did not indicate concerns with the siting of the PCSM BMP.

- 65. The calculations provided for the stream re-location of S4a-T5, S4-T5 and S5-T5 and S6-T5, are difficult to differentiate. The calculation call outs (REL_Laflin_LD-DC-001, etc.) do not correspond to the ARIT or the Impact Drawings (S4a-T5, etc.). Please revise accordingly. [25 Pa. Code§ 105.21(a)(J)]**

The calculations included with this section have been updated for consistent naming, to match the ARIT.

- 66. It appears from the proposed Impact Drawings that stream S5-T5 will not rejoin the proposed realigned channel S6-T5. Please revise the Impact Drawings to show that Stream S5-T5 will flow into stream S6-T5 and will not cause any bank erosion to S6-T5. [25 Pa. Code§§ 105.21(a)(l) and 105.JJ(g)]**

The Impact Drawings have been revised to show S5-T5 will flow into S6-T5. Erosion is not anticipated at the confluence of these resources based on the design calculations included and the proposed stabilization method of adding the additional grade control structures.

- 67. The relocated streams (S4a-T5/S4-T5 and S5-T5/S6-T5) are noted to be lined with Rip Rap. Please evaluate the ability to incorporate natural stream design. Please also include the Stabilization Drawing sets within this application. [25 Pa. Code §§ 105.16(d) and 105.21(a)(l)]**

The design has been revised to include rock grade control structures to add stream bed diversity. The drawings are included within Requirement M of the application.

- 68. If there is a potential that riprap bank stabilization may be required, please provide a Riprap Bank Stabilization Detail on the E&S Plans. [25 Pa. Code§ 105.13(g)]**

A rip rap stabilization detail has been added to the Erosion and Sediment Control Plan drawing set.

- 69. On Sheet 70 of 91 of the E&S Plans, Note 5 under Temporary and Permanent Stabilization and the note beneath the ERNMX 178 table do not align in regards to seed pounds per acres and the use of nurse crops. Verify nurse crops specifications within E&S Plans and EA Module S4. Please also verify if the wetland seeds will require a nurse crop. [25 Pa. Code§§ 105.21(a)(J) and 105.13(g)]**

The E&S Plans and EA Module S4 have been updated to address this comment.

- 70. The Susquehanna River crossing (SI-T5-REL-57) is not shown within the Appendix a Public Water Supply Report. Please add. [25 Pa. Code§§ 105.21(a)(J) and 105.302(6)]**

The Susquehanna River Crossing is included in the Appendix a Public Water Supply Report , under the Crossing REL 56-59 crossing review.

Monroe County

- 71. Throughout the application the spelling of both Pohopco Creek and Pohopoco Creek are used. Please revise accordingly. [25 Pa. Code§ 105.21(a)(I)]**

The correct spelling is Pohopoco Creek. The application has been updated to address this comment.

- 72. Please review all wetland designations based on surveys completed for Threatened and Endangered species (e.g. W14-T2-EL-11). [25 Pa. Code§§ 105.17(1)(i) and 105.24(a)]**

Wetland designations have been updated to reflect the EV designation based on the Chapter 105.17 guidance, as it relates to EV wetlands and T&E species.

- 73. The Pennsylvania Fish and Boat Commission (PFBC) manages Pohopoco Creek (Poplar Creek through linkage), Sugar Hollow Creek, and UNT to Pohopoco Creek (RM 22.92), and their watersheds as Class A wild trout fishery streams. Please revise application as appropriate including the Watercourse Resource Summary Table, the text of S2.D.1(iv - v), and the E&S Plans where seasonal restrictions are indicated. [25 Pa. Code §§ 105.14(b)(6) and 105.21(a)(J)]**

The application has been updated to reflect the Class A wild trout status of these watersheds.

- 74. The Project Description states there are 9 streams, including 3 floodways only impacts. Table S2.d1-1 shows seven streams. Please review. [25 Pa. Code§ 105.21(a)(I)]**

The Project description and Table S2.D-1 have been revised to reflect the total number of streams.

- 75. The Project Description states thirty-three wetlands (with multiple Cowardian classifications) were delineated, Table S1.B.3-1 indicates that 45 wetlands were delineated, and the Section 3 of Appendix C states 32 wetlands. Please review and revise the application as appropriate. [25 Pa. Code§ J05.2J(a)(J)]**

The application has been revised to reflect the correct number of wetlands.

- 76. Long Pond Reserve is mentioned in EA Module S3.D.2(iv), but not within EA Module S3.B.1(i). Please review if this feature should be added to the Table S3.B.1-1. Please also include discussion of Long Pond Preserve Important Bird Area (IBA) where appropriate. [25 Pa. Code§ 105.2J(a)(I)]**

The Environmental Assessment has been updated to include discussion on the Long Pond Reserve and Long Pond Preserve Important Bird Area.

- 77. The EA Module S3.D.2(i) states, "One wetland resource (W1-T2) will be conventionally bored," while the subfacility tables within Appendix S3-1 indicates W2-T2 will be bored. Please verify and revise the application as appropriate. [25 Pa. Code§ 105.21(a)(I)]**

Only one wetland bore crossing is proposed. The EA Module has been revised to indicate that W2-T2 will be bored.

- 78. There appear to be inconsistencies on the Impact Drawings, ARIT, and E&S Plans. Please review the labeling and impacts to the following resources for consistency:**

- a. W2-T2 and W1-T2
- b. S7-T2 and S2-T1

c. S4-T1 and S5-T1. [25 Pa. Code§ 105.2J(a)(I)]

The Impact Drawings, ARIT, and E&S Plans were reviewed and labeling was corrected for these resources.

79. Please review the Existing Use Classification for Sugar Hollow Creek and Tributary to Pohopoco Creek. [25 Pa. Code§ 105.21(a)(I)]

The existing use classification of these resources has been updated.

80. W8-T1 is listed as EV, while W10-T1 is listed as "other," which is adjacent to the same floodway. Please review. [25 Pa. Code§ 105.17(iii)]

W10-T1 has been revised to EV.

81. It appears that trench plugs are missing at some resources throughout the project (e.g. W 4-T6). Please review all crossings and verify trench plug placement. [25 Pa. Code § 105.21(a)(I)]

Trench plugs have been reviewed and added, as necessary.

82. On Sheet 38 of 53 of the E&S Plans, Note 5 under Temporary and Permanent Stabilization and the note beneath the ERNMX 178 table do not align in regards for seed pounds per acres and the use of nurse crops. Verify nurse crops specifications within E&S Plans and Module S4. Please also verify if the wetland seeds will require a nurse crop. [25 Pa. Code §§ 105.21(a)(I) and 105.13(g)]

The E&S Plans and EA Module S4 have been updated to address this comment.

It is our hope that the information as provided will allow you to complete your review in accordance with your regulations and issue the requested Permit. If you require any additional information that will facilitate your review, please do not hesitate to contact Karen Olson at (713) 215-4232 or at Karen.Olson@williams.com, or Josh Henry at (412) 787-4277 or at Josh.Henry@williams.com.

Sincerely,



Joseph Dean
Manager, Environmental Health and Safety