



Transcontinental Gas Pipe Line Company, LLC

Response to Technical Deficiency Letter dated July 11, 2017  
Erosion and Sediment Control General Permit (ESCGP-2)

Pennsylvania Department of Environmental Protection

Atlantic Sunrise Project

August 2017

**DEP File No. ESG03000150001**

Cleveland, Franklin, Greenwood, Hemlock, Jackson, Montour, Mount Pleasant,  
Orange, Rapho & Sugarloaf Townships, Columbia County  
Conestoga, Drumore, East Donegal, Eden, Manor, Martic, Pequa, Rapho & West  
Hempfield Townships and Mount Joy Borough, Lancaster County  
Cold Springs, East Hanover, North Annville, North Lebanon, South Annville,  
South Londonderry, Swatara & Union Townships, Lebanon County  
Dallas, Fairmont, Harveys Lake, Jenkins, Lake, Lehman & Ross Townships,  
Luzerne County  
Coal, East Cameron & Rapho Townships, Northumberland County  
Eldred, Frailey, Hegins, Pine Grove, Porter & Tremont Townships, Schuylkill  
County  
Lenox Township, Susquehanna County  
Clinton, Eaton, Falls, Monroe, Nicholson, Northmoreland & Overfield  
Townships, Wyoming County



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## GENERAL

- 1) A review of the resubmission's Summary of PHMC Coordination revealed a recent request from the Pennsylvania Historical and Museum Commission (PHMC) dated April 21, 2017 which further evaluates the remaining portions of the Phase I survey. Provide the subsequent PHMC coordination evaluations and associated clearance documentation. Review all technical drawings, narratives, support documents, and calculations to assure that identified resources, temporary impacts, and permanent impacts are consistently identified and reported. 25 Pa. Code § 102.6(a)(2).

### ***RESPONSE:***

*The above-ground resources referenced above (BHP Key #862287, #862260, #862288 and the Like Cemetery) were included in the Addendum 6 architectural history report submittal (April 21, 2017), and are covered in the response letter, dated May 3, 2017, which is included within revised Section 1.4.1 of the Erosion and Sediment Control General Permit Notice of Intent application. In addition, the county-specific Cultural Resource Correspondence Summaries within Sections 1.4.2 through 1.4.9 of the NOI are revised to include the status of the PHMC coordination as completed for the Project.*



## COLUMBIA COUNTY

### **Soil Erosion and Sediment Control Plan / Site Restoration Plan Drawings — Proposed 42” Central Penn South**

- 1) Comment #8 on TD#2: Contractor Staging Area CSA-CO-4-003: a) The plans call for a Rock Construction Entrance (RCE) with a wash rack. More information is needed as to the treatment of the water from the wash rack. The RCE Rock Construction (RCW) detail requires the discharge to be directed to a sediment basin or trap but none is shown on the plans. Please revise the plans accordingly. 25 Pa. Code § 102.4 (B)(5)(ix).

**The silt sock associated with the RCE wash rack is proposed to be located in the drainage ditch for the road associated with this location. The RCE and silt sock should be located in a manner that the wash water will be treated before the discharge enters the road ditch.**

#### ***RESPONSE:***

***The “Soil Erosion and Sediment Control Plan for Contractor Staging Area CSA-CO-04-003” have been revised to relocate the proposed wash rack and associated compost filter sock such that the rack discharges to the sock uphill of the roadside drainage ditch. See Drawing Number CSA-CS-CSA-CO-4-003/004, Sheet 1 of 2 for additional information. Additionally, a culvert to convey flows within the roadside ditch has been added to the plans. The revised sequence of construction, including the culvert has been added to Appendix E.3 of the “Erosion and Sediment Control Plan Narrative for Columbia County, Central Penn Line South.”***



## LANCASTER COUNTY

- 1) DEP cross-check review of the provided cultural resources evaluations with the documented subsequent PHMC coordination found one identified potential archeologic site and four above-ground historic sites possibly needing cultural resource evaluation clearance. Referenced in the PHMC March 22, 2017 correspondence, review staff understood Archeologic Site ID 36LA1535 could be under PHMC review. Review of Attachment D-1 (Table D-4) identified above-ground sites BHP Key #862287, BHP Key #862260, No BHP Key- Like Cemetery, and BHP Key #862288 which suggested PHMC coordination was pending, whereas no PHMC documentation relative to these four above-ground sites was found. If PHMC correspondence for the archeological and four above-ground sites was provided to DEP in your May 5, 2017 submission or as follow-up addendum, please provide DEP with direction as to how to locate this necessary PHMC documentation. If these cultural resources are under PHCM review, please acknowledge that this agency review is ongoing and provide DEP with copies of the PHMC final clearance letters. 25 Pa. Code § 102.6(a)(2).

**RESPONSE:**

*The above-ground resources referenced above (BHP Key #862287, #862260, #862288 and the Like Cemetery) were included in the Addendum 6 architectural history report submittal (April 21, 2017), and are covered in the response letter, dated May 3, 2017, which is included within the revised Attachment D-2 – PHMC Coordination.*

*Regarding site 36LA1535 and the March 22, 2017 PHMC response letter indicates, Transco conducted Phase II testing of the portion of site 36LA1565 located within the Project LOD (Locus 1565). The above-referenced letter confirms that no further testing is necessary within the limits of the Project for this resource; therefore, no further consultation is required with the PHMC for this location/resource.*



## LUZERNE COUNTY

### **Soil Erosion and Sediment Control Plan / Site Restoration Plan Drawings — Proposed 30” Central Penn North**

- 1) Comment #11 on TD#1 and Comment #6 on TD#2: The plan drawings (not just the Erosion and Sediment (E&S) narrative) should include a complete schedule of installation and removal of erosion control Best Management Practices (BMPs) as they relate to the various phases of earthmoving activities. 25 Pa. Code § 102.11(a)(1).

**Construction sequence not provided on the pipeline E&S plans (Proposed 30” Central Penn North). Please revise the E&S Plans accordingly.**

#### ***RESPONSE:***

*The construction sequence, which includes a complete schedule of installation and removal of erosion control Best Management Practices (BMPs) can be found in the following locations. During the review meeting held on July 17, 2017, PADEP confirmed that these are the appropriate locations for the construction sequences.*

- *Best Management Practices and Quantities Plan Set, General Notes Sheet 2 of 3, under the headings “Pipeline BMP Installation Sequence”, “Pipeline Work Sequence in Wetlands”, and “Pipeline Work Sequence at Stream Crossings”. The “Access Road BMP Installation Sequence” on Sheet 2 of 3 requires the Contractor to refer to specific access road construction sequence notes included in the Access Road E&S Plan Sets under separate cover.*
- *“Section 1.7 BMP Installation Sequence Narrative” of the Erosion and Sediment Control Plan Narrative.*

*It shall be noted that Temporary and Permanent Facilities have their own construction sequences. Also, the construction sequence has been updated to provide further detail regarding the installation and removal of erosion control Best Management Practices as they relate to the various phases of earthmoving activities. Additionally, note #26 of the construction sequence of the Best Management Practices and Quantities Plan Set has been revised in coordination with PADEP in regards to soil decompaction.*

- 2) Comment #11 on TD#2: Erosion control blanket locations associated with the pipeline have not been identified/labeled on the plan drawing. Please revise the plans accordingly. 25 Pa. Code § 102.11(a)(1).

**Blanket labeling on Average Percent (%) Slope Band is illegible and not shown on all disturbed areas within 50 feet (50’) of a surface water (100 feet (100’) for High Quality (HQ) or Exceptional Value (EV) waters), Page 273 of the E&S Manual). Please review the E&S Plans accordingly.**



**RESPONSE:**

*During the review meeting held on July 17, 2017, PADEP confirmed that the existing labeling on the Average Percent Slope Band is legible and adequate. Notes and details identifying that erosion control blanket shall be provided on all disturbed areas within 50 feet (50') of a surface water or 100 feet (100') for High Quality(HQ) or Exceptional Value (EV) waters can be found in the following locations.*

- *General Note #9 on each E&S Plan Sheet.*
- *Construction Sequence #32 under the heading “Pipeline BMP Installation Sequence” of the Best Management Practices and Quantities Plan Set, General Notes Sheet 2 of 3.*
- *Construction Sequence #32 in Section 1.7 “BMP Installation Sequence Narrative” of the Erosion and Sediment Control Plan Narrative.*
- *Detail WCC.1 (Wetland Installation Procedure) and Detail WCC.3 (Inundated Wetland Procedure) on Sheet 11 of the Best Management Practices Standard Construction Details of the Best Management Practices and Quantities Plan Set. Please refer to added notes #15 and #14 respectively.*

- 3) A check of silt sock slope lengths in areas where the pipeline has been realigned could not be conducted due to insufficient existing contour elevation labeling. Please revise the E&S Plans accordingly. 25 Pa. Code § 102.11(a)(1).

**RESPONSE:**

*Additional contour elevation labels have been added to the E&S Plans for Luzerne County.*

**Erosion and Sediment Control and Layout Plans Drawings — Access Roads**

- 4) The E&S plan identifies existing cover for access road off SR 309, connecting to new access road LU-020.3, as gravel. A recent site visit shows that the majority of the road is soil. Please adjust location of proposed rock construction entrance to account for actual cover conditions. Rock Construction Entrance. 25 Pa. Code § 102.11(a)(1).

**RESPONSE:**

*The design for AR-LU-020.3 has been revised to extend the proposed Typical Section E and associated compost filter sock to the existing structure over the waterway near Route 309. Additionally, timber matting was added to the design over the existing structure to distribute construction loads evenly. The revised design is shown on 24-1601-70-28-A/1683\_3-AR-LU-020.3 Sheets 1 through 3 of 3 in the “Erosion & Sediment Control and Layout Plans for Access Roads” for Luzerne County.*



**Soil Erosion and Sediment Control Plan Drawings — North Diamond Regulator Station**

- 5) Proposed outfall from rain garden, channel 1 and culvert 1 should extend to an adequate surface water body or storm sewer. Please revise the E&S Plans accordingly. 25 Pa. Code § 102.11(a)(1).

***RESPONSE:***

*The proposed outfall from the raingarden (Culvert 1) is designed to discharge through a rip rap apron energy dissipater outside of the existing floodway, then flow within an existing concentrated flow path along the existing farm lane. Similarly, Channel 1 (Vegetated Swale 1) is designed to discharge through a rip rap apron energy dissipater outside of the existing floodway, then flow within an existing concentrated flow path along the existing farm lane. The energy dissipaters have been designed per the “PADEP Erosion and Sediment Pollution Control Program Manual” and are expected to reduce runoff velocities to levels below those which would cause accelerated erosion. Please refer to Plan Sheet 5 of 13 of the “Soil Erosion and Sediment Control and Layout Plan” set for mapping of the improvements. Calculations demonstrating the stability of the vegetative cover within the concentrated flow paths have been added to Appendix A.1 of the “Erosion and Sediment Control Plans Narrative for the North Diamond Regulator Station” and to Appendices A.2 and A.3 of the “Post Construction Stormwater Management Plans Narrative for the North Diamond Regulator Station”.*

*Please note that the concentrated flow paths from the rain garden outfall and Channel 1 discharge point are within property controlled by Transco and it is understood that no further authorizations are required. The previously submitted stormwater analyses provided in the “Post Construction Stormwater Management / Site Restoration Plans Narrative” demonstrate that the receiving waters are adequate to convey the design discharges.*

*Additionally, in response to comments made in the Chapter 105 technical deficiency letters for the project, an additional “105 Coordination Note” regarding potential fill in floodways was added to Sheet 7 of 13 of the “Soil Erosion and Sediment Control and Layout Plan” set. Please note that no fill in floodways is currently proposed as part of the proposed design for the North Diamond facility.*





## SCHUYLKILL COUNTY

### Erosion and Sediment Control Plan and Post Construction Stormwater Management/Site Restoration Plan Narrative — Temporary and Permanent Access Roads

- 1) Comment #1 on TD#1 and Comment #2 on TD#2: Provide calculations for the proposed earthen level spreaders to demonstrate that the structure will reduce the discharge velocity in the receiving flow path to a non-erosive level. You may use the guidance in Item 15 on Page 16I and Appendix G of E&S Manual. 25 Pa. Code § 102.11(a)(1).

**The response letter states an Adequacy of Discharge analysis was provided for access road AR-SC-068; however, the analysis could not be located. Please identify where the Department can find the discharge analysis. It appears the sock diversions and aprons were removed on the proposed temporary access road through a strip mine area in Porter/Frailey Townships. Please clarify why this plan modification occurred.**

***RESPONSE:***

*The previous Response to Comments letter incorrectly referenced AR-SC-068 in the list of roads that included an "Adequacy of Off-Site Discharge" analysis. The "Adequacy of Off-Site Discharge" analysis for AR-SC-068 is not necessary because the filter sock diversion was replaced with 32" compost filter sock based on review of project-specific aerial contours instead of the PASDA contours used for the initial design. E&S Worksheet #1 in Appendix P.3 of the road-specific narrative for AR-SC-068 has been updated to show 32" compost filter sock between Stations 64+30 and 70+25.*

### Erosion and Sediment Control and Layout Plans Drawings — Access Roads

- 2) Comment #3 on TD#1 and Comment #12 on TD#2: Timber mats are shown at low points in access roads to convey/maintain drainage of clean upslope water on a road with construction traffic. Please specify what BMPs will be used to clean upslope water or provide an alternate means of conveyance of clean water through a construction area. 25 Pa. Code § 102.11(a)(1).

**"Rock Matting" has been proposed in these areas, rather than the Timber Mats. Please provide details.**

**A Rock Matting detail has been added to the beginning of the Schuylkill County Access Road plan set and is shown on the site plans. On Drawing Sheet 3 of 4 for Access Road SC- 067.1, a perimeter sediment control BMP, e.g. compost filter sock, should be shown downslope of the proposed Rock Matting.**

***RESPONSE:***

*A rock filter has been added downhill of the rock matting on drawing 24-1600-70-28-A/LL113\_9-AR-SC-067.1 Sheet 3 of 4. A rock filter was added to the design rather than compost filter sock due to the runoff flowing through the rock matting being concentrated flow.*



**Erosion and Sediment Control Plan Narrative — Proposed Central Penn South**

- 3) Appendix B (Channel Design): Standard Worksheet #11 and the corresponding drainage areas for swale diversion ID numbers 64.03 through 67.02 have not been provided with this revision. Please provide appropriate design specifications for the identified swales. 25 Pa. Code § 102.11(a)(1).

***RESPONSE:***

***Standard Worksheet #11 and the corresponding Drainage Area Map for Diversion Swales 64.03 through 67.02 are now provided for your review. Please refer to Appendix B in the Schuylkill County Erosion and Sediment Control Plan Narrative.***



## PROPOSED E&S BMPs

- 1) Please provide calculations for the level spreader system and specifically address concerns that it will effectively handle all flows for the duration of its use. These calculations should include, but need not be limited to, the following:
  - a) Please provide calculations that show the proposed slope pipes will have enough capacity to convey the flow of the contributing drainage area. Should there be any ponding at the inlet of the slope pipe, please provide calculations showing that the headwall will be adequate and overtopping of the headwall will not occur. 25 Pa. Code §102.11(a)(1)
  - b) Calculations showing the available head at the end of the level spreader pipe after accounting for all head losses in both the supply pipe and the level spreader pipe. 25 Pa. Code §102.11(a)(1).
  - c) Please provide calculations per the E&S BMP manual on the sizing of the level spreader in order to diffuse flow rates based on the type of down slope vegetation/ground cover after the level spreader. 25 Pa. Code §102.11(a)(1).
  - d) Should the calculations show that the proposed level spreader system will not adequately convey the stormwater to minimize accelerated erosion, please redesign accordingly. 25 Pa. Code §102.11(a)(1)

### **RESPONSE:**

- a) *Capacity calculations for the proposed 12” and 18” slope pipes are provided in Appendix C – Temporary Slope Pipe Design Calculations, of the Erosion and Sedimentation Control Plan Narrative. The maximum headwater proposed for each slope pipe (or series of slope pipes) is 24”. Sand bags will be placed around the discharge of the diversion swales to the slope pipes such that overtopping will not occur. During the review meeting held on July 26, 2017, PADEP confirmed that this approach was acceptable.*
- b) *Calculations showing the available head at the end of the level spreader pipe after accounting for all head losses in both the supply pipe and level spreader are provided in the Temporary Perforated Pipe Level Spreader Calculations Table in the Quantity, Crossing and Acidic Soils Tables section of the Pennsylvania Best Management Practices and Quantities Plan Set. During the review meeting held on July 26, 2017, PADEP confirmed that this approach was acceptable.*
- c) *Calculations for the sizing of the level spreader in order to diffuse flow rates (i.e. velocity) based on the type of down slope vegetation / ground cover after the level spreader are provided in the Temporary Perforated Pipe Level Spreader Calculations Table in the Quantity, Crossing and Acidic Soils Tables section of the Pennsylvania Best Management Practices and Quantities Plan Set. During the review meeting held on July 26, 2017, PADEP confirmed that this approach was acceptable.*
- d) *The calculations for the sizing of the level spreader in order to diffuse flow rates (i.e. velocity) provided in the Temporary Perforated Pipe Level Spreader Calculations Table in the Quantity, Crossing and Acidic Soils Tables section of the Pennsylvania Best Management Practices and Quantities Plan Set support the design approach that the proposed level spreader systems will adequately*



***convey the stormwater to minimize accelerated erosion. During the review meeting held on July 26, 2017, PADEP confirmed that this approach was acceptable.***

- 2) The table entitled Temporary Perforated Pipe Level Spreader Calculations on Sheet 3 of 6 in the Quantity, Crossing and Acidic Soils tables in the Best Management Practices and Quantities Plan set should have an additional column listing the total length of the level spreader to avoid confusion in cases where multiple pipes will be required. Please revise the E&S Plans accordingly. 25 Pa. Code § 102.4(b)(5)(ix).

***RESPONSE:***

***The Temporary Perforated Pipe Level Spreader Calculations in the Quantity, Crossing, and Acidic Soil Tables of the Best Management Practices and Quantities Plan Set have been updated to include an additional column listing the total length of the level spreader for clarification.***

- 3) The following comments relate to particular proposed level spreaders:
- a) Level spreader for crossing 93.01 proposes a 100-foot level spreader as designed. Show how this will be installed within the Limit of Disturbance (LOD) while keeping the pipe level. Since the discharge appears to empty into a defined channel, consideration should be given to proposing the installation of an energy dissipating BMP prior to discharging directly into the drainageway. 25 Pa. Code §102.4(b)(5)(ix).
  - b) Level spreaders/supply pipes at 117.01 and 117.02 should be better shown on the drawings. It is not clear how they will be installed. 25 Pa. Code § 102.4(b)(5)(ix).
  - c) Level spreader at 119.01 appears to discharge into an established drainageway. Consideration should be given to installing an energy dissipating BMP prior to discharging directly into the drainageway. 25 Pa. Code §102.11(a)(1).
  - d) Should the calculations show that the proposed level spreader system will not adequately convey the stormwater to minimize accelerated erosion, please redesign accordingly. 25 Pa. Code §102.11(a)(1).

***RESPONSE:***

- a) ***The end treatment for Temporary Diversion Channel 93.01 is now an outlet basin at the discharge of the slope pipe crossing. The design of the outlet basin and PADEP Standard Construction Detail 8-6 have been added to The Temporary Perforated Pipe Level Spreader Calculations in the Quantity, Crossing, and Acidic Soil Tables of the Best Management Practices and Quantities Plan Set. During the review meeting held on July 26, 2017, PADEP confirmed that this approach was acceptable.***
- b) ***Riprap aprons are now proposed as the end treatment for the discharge of Temporary Diversion Channels 117.01 and 117.02 to the roadside drainage ditches. The design of the riprap apron, including PADEP Standard Worksheet #20, can be found on the Temporary Diversion Summary in Appendix C of the Erosion and Sedimentation Control Plan Narrative. During the review meeting held on July 17, 2017, PADEP confirmed that this approach was acceptable.***



- c) *The end treatment for Temporary Diversion Channel 119.01 is now an outlet basin at the discharge of the slope pipe crossing. The design of the outlet basin and PADEP Standard Construction Detail 8-6 have been added to The Temporary Perforated Pipe Level Spreader Calculations in the Quantity, Crossing, and Acidic Soil Tables of the Best Management Practices and Quantities Plan Set. During the review meeting held on July 26, 2017, PADEP confirmed that this approach was acceptable.*
- d) *The calculations for the sizing of the level spreader in order to diffuse flow rates (i.e. velocity) provided in the Temporary Perforated Pipe Level Spreader Calculations Table in the Quantity, Crossing and Acidic Soils Tables section of the Pennsylvania Best Management Practices and Quantities Plan Set support the design approach that the proposed level spreader systems will adequately convey the stormwater to minimize accelerated erosion. During the review meeting held on July 26, 2017, PADEP confirmed that this approach was acceptable.*
- 4) Please provide additional dimensions with respect to multiple slope pipes, in excess of two, and level spreader connections. 25 Pa. Code § 102.4 (b)(5)(ix).

**RESPONSE:**

*The detail, “CWC - Clean Water Crossing (Temp. Multiple Pipe Level Spreader),” which identifies additional dimensions and installation guidelines with respect to multiple slope pipes and their connection to the associated level spreader has been added to the Quantity, Crossing and Acidic Soils Tables section of the Pennsylvania Best Management Practices and Quantities Plan Set.*



## POST CONSTRUCTION STORMWATER MANAGEMENT (PCSM) PLANS

### GENERAL PCSM TECHNICAL DEFICIENCIES RELATED TO ALL DOCUMENTS

- 1) Comment #8 on TD#2: A land preservation agreement, deed restriction or other enforceable instrument that ensures perpetual protection of the proposed BMP to protect sensitive and special value features (25% slopes) has not been provided for the PCSM BMP. Please revise the application accordingly. 25 Pa. Code § 102.8(in).

**Please provide the land preservation agreement, deed restriction or other enforceable instrument with respect to the proposed PCSM BMP utilized for the River Road Regulator Station.**

***RESPONSE:***

***The enforceable Draft Declaration of Covenants for the wooded areas to be protected and function as a PCSM BMP has been provided as a separate attachment in this submission. Upon issuance of the permit, this agreement can be recorded with the Lancaster County Recorder of Deeds Office. Please note that this document is in draft form, as it cannot be finalized, executed, and recorded until the Chapter 102 permit for this facility is issued.***

- 2) Comment #9 on TD#2: Please provide specific coordinates (metes and bounds) that are to be used within the enforceable instrument for the proposed PCSM BMP to protect sensitive and special value features. 25 Pa. Code § 102.8(I)(9).

**Please provide the metes and bounds for the enforceable instrument with respect to the proposed PCSM BMP utilized for the River Road Regulator Station.**

***RESPONSE:***

***The metes and bounds (including line labels and a line segment table) associated with the PCSM BMP proposed to protect sensitive and special value features have been clarified on Sheet 3 of 6 of the "Post Construction Stormwater Management Plans for River Road Regulator Station."***

- 3) Comment #12 on TD#2: Please provide the following notations on the PCSM Plans for the proposed PCSM BMP to protect sensitive and special value features, 25 Pa. Code § 102.8(I)(9).:
  - a) The protected areas shall be clearly delineated in the field prior to any construction activities taking place.
  - b) The protected area should not be disturbed during construction except for temporary impacts for mitigation or restoration efforts.



**Please provide the notations on the Plans with respect to the proposed PCSM BMP utilized for the River Road Regulator Station.**

***RESPONSE:***

***The requested notations have been added to the “Operation and Maintenance Program, Permanent Stormwater Facilities” notes on Sheet 4 of 6 of the “Post Construction Stormwater Management Plans for River Road Regulator Station.”***



## COLUMBIA COUNTY

### **Post Construction Stormwater Management Site Restoration Plans Narrative -Compressor Station 610**

- 1) The plans now call for a level spreader with perforated pipe to discharge the flow onto the identified infiltration areas. 25 Pa. Code § 102.8(1)(8).
  - a) The capacity for this system should be adjusted to allow for partial blockage of the holes by debris entering the system via the supply pipes and also for blockage of the holes by the rock bedding around the pipe.
  - b) The maintenance plan for the site should include methods to check for and clean debris from inside the pipe as needed.

#### ***RESPONSE:***

- a) *The proposed level spreader was designed in accordance with the guidelines recommended in Appendix G of the “PADEP Erosion and Sediment Pollution Control Program Manual.” It is understood that the calculations contained within Appendix G and used by Transco are suitable for design use when the level spreader is operated and maintained consistently with the recommendations of Appendix G. The operation and maintenance procedures for the level spreader, included on Sheet 4 of 7 of the “Post Construction Stormwater Management Plans for 610 Compressor Station” and in Section 1.10 of the “Post Construction Stormwater Management / Site Restoration Plans Narrative for 610 Compressor Station,” have been updated to meet the recommendations of Appendix G. Therefore, and as clarified with PADEP on 7/17/17, no additional capacity adjustment calculations are required.*
- b) *Cleanout access portals have been added to the ends of the level spreader pipes to facilitate monitoring and cleaning of debris from inside the pipe. The amended detail can be found on Sheet 6 of 7 of the “Post Construction Stormwater Management Plans for 610 Compressor Station” and on Sheet 11 of 13 of the “Soil Erosion and Sediment Control and Layout Plans for 610 Compressor Station.”*

*In addition to the above technical deficiencies, it was noted that there were minor critical slope calculation adjustments needed for the facility pad ditches. These replacement calculations have also been provided with this submission (PCSM Narrative Appendix A.3, E&S Narrative Appendix A.1). These calculation adjustments did not result in any changes to the proposed channel improvements.*

### **Post Construction Stormwater Management Site Restoration Plans Narrative -West Diamond Regulator Station**

- 2) Comment All on TD#2: More information is needed to show how sediment and floating debris will be prevented from sealing the underground discharge pipe for the basin and/or how it will be cleaned if blocked. 25 Pa. Code § 102.11(a)(2).
  - a) The response from the consultant states that the trash rack will prevent blockage. It does not appear that the trash rack is capable of filtering out debris large enough to block the





discharge holes. Please provide details on how that will be accomplished and verify that any reduction in cross sectional area of the grate required to provide this protection has been accounted for in the routings of the pond.

- b) The maintenance section of the plan still does not address how the discharge holes in the buried level spreader pipe will be checked for blockage or how they will be cleaned if necessary.

**RESPONSE:**

- a) *The basin outfall system design has been modified to include a sumped outlet structure with a debris hood to capture sediment and prevent floatable debris from entering the level spreader pipes. The proposed level spreader was designed in accordance with the guidelines recommended in Appendix G of the "PADEP Erosion and Sediment Pollution Control Program Manual." It is understood that the calculations contained within Appendix G and used by Transco are suitable for design use when the level spreader is operated and maintained consistently with the recommendations of Appendix G. The operation and maintenance procedures for the level spreader, included on Sheet 5 of 8 of the "Post Construction Stormwater Management Plans for West Diamond Regulator Station" and on pages 18-19 of the "Post Construction Stormwater Management / Site Restoration Plans Narrative for West Diamond Regulator Station" have been updated to meet the recommendations of Appendix G. Therefore, and as clarified with PADEP on 7/17/17, no additional capacity adjustment calculations are required.*
- b) *The aforementioned sumped outfall structure with a debris hood has been added to the level spreader design to minimize sedimentation of the level spreader pipes and minimize the chance that debris will enter and clog the level spreader pipes. Cleanout access portals have also been added to the design to facilitate monitoring blockages and cleaning of debris from inside the pipe. The amended details can be found on Sheet 8 of 8 of the "Post Construction Stormwater Management Plans for West Diamond Regulator Station" and on Sheet 9 of 11 of the "Soil Erosion and Sediment Control and Layout Plans for West Diamond Regulator Station."*

*Note that the sequence of construction, found on Sheet 7 of 8 of "Post Construction Stormwater Management Plans for West Diamond Regulator Station," Sheet 9 of 11 of "Soil Erosion and Sediment Control and Layout Plans for West Diamond Regulator Station," page 15 of the "Post Construction Stormwater Management / Site Restoration Plans Narrative for West Diamond Regulator Station," and page 13 of the "Soil Erosion and Sediment Control and Layout Plans Narrative for West Diamond Regulator Station" have been updated to reflect the insert / snout installation (See Step No. 23).*

**Post Construction Stormwater Management Plan Narrative -Access Roads Columbia Township**

Permanent Access Road AR-C0-097 .1. 1 (New Site)



- 3) Worksheet #12 for this Site does not appear to reflect the permanent improvements on the Site. Please address. 25 Pa. Code § 102.8(I)(8).

***RESPONSE:***

***Worksheet #12 in Appendix L-4.7 of the road-specific narrative for AR-CO-097.1.1 has been revised to reflect the permanent improvements as requested.***



## WYOMING COUNTY

- 1) The Post Construction Stormwater Management/Site Restoration Plans Narrative for the Compressor Station 605 calculations for the stormwater volume mitigation states that the POI A&B, and POI C requires 25,482 cubic feet and 9,206 of stormwater to be infiltrated respectively. This leaves 3,189 cubic feet for POI A&B and 3,741 cubic feet for POI C of stormwater volume remaining to be infiltrated. It appears that the site can mitigate the remaining stormwater volume and bring the post construction stormwater volume equal to or less than the existing conditions. Please provide calculations for the remaining volume mitigation. 25 Pa. Code § 102.8(I)(8).

**RESPONSE:**

*The PCSM design for the station has been modified to include additional amended soils within watersheds draining to POI A&B and POI C. These additional amended soils will provide the supplemental volume mitigation needed to reduce the 2 year, 24-hour stormwater runoff volumes to the required levels. The amended soils are depicted on Sheets 4 of 11, 5 of 11 and 6 of 11 of the "Post Construction Stormwater Management Plans for 605 Compressor Station." Supporting calculations are provided on the water quality calculations and worksheets located in Appendix A.5 of the "Post Construction Stormwater Management/Site Restoration Plans Narrative for the Compressor Station 605." The description of stormwater management methodology (Section 1.4 of the "Post Construction Stormwater Management/Site Restoration Plans Narrative for the Compressor Station 605" has been revised to reflect the design change. Additionally, Water Quality Worksheets #12 and #13, and supporting information, were removed from the submission, as they are no longer required (due to the proposed volume reductions).*

*The addition of the amended soils to the Site required additional compost filter sock be added to the Erosion and Sediment Control design. Please refer to Sheets 6 of 14, 8 of 14 and 13 of 14 for additional compost filter sock location information. Refer to Appendix A.4 of the "Erosion and Sediment Control Plans Narrative for the Compressor Station 605" for compost filter sock calculations at these locations.*

*In addition to the above technical deficiencies, it was noted that there were minor critical slope calculation adjustments needed for the facility pad ditches and minor revisions to the photograph sheet footers. These replacement calculations (PCSM Narrative Appendix A.3, E&S Narrative Appendix A.1) and photograph sheets (PCSM Appendix A.4, E&S Narrative Appendix A.2) have also been provided with this submission. These calculation adjustments did not result in any changes to the proposed channel improvements.*

- 2) Please provide Worksheets #12 and #13 for the Springville Meter Station. They are missing from the Post Construction Stormwater Management /Site Restoration Plans for the Springville Meter Station. 25 Pa. Code § 102.8(I)(8).

**RESPONSE:**

*The proposed PCSM design for Springville Meter Station includes PCSM BMPs that meet the volume reduction and water quality requirements of the PADEP*



***Water Quality Worksheets #4, #5 and #10. Thus, Water Quality Worksheets #12 and #13 are not required for Submission. Please refer to the previously submitted Appendix A.5 of the “Post Construction Stormwater Management/Site Restoration Plans Narrative for Springville Meter Station” for additional information***

- 3) It appears that the Impact Identification Numbers on the Erosion and Sediment Control Plan/Restoration Plans, W-T81-18001B-1, W-T81-18001A-1 and W-T82-18006C-1 are not consistent with the Chapter 105 Impact Table for Individual Permit Application and Appendices H-1 and H-2. Please revise the Erosion and Sediment Control Plan/Restoration Plan to be consistent with the Chapter 105 Impact Table for Individual Permit Application and Appendices H-1 and H-2. 25 Pa. Code § 102.8(I)(9).

***RESPONSE:***

***The Erosion and Sediment Control Plan/Restoration Plans have been revised to be consistent with the Chapter 105 Impact Table for Individual Permit Application and Appendices H-1 and H-2.***

- 4) Sheet 24-1601-70-28-A/1683.3 of the Erosion and Sediment Control Plan/Site Restoration Plans has two streams with the same Impact Identification Number WW-T19-19002. Please revise the Erosion and Sediment Control Plan/Site Restoration Plans to correctly identify the correct Impact Identification Number for the streams shown on Sheet 24-1601-70-28-A/1683.3. 25 Pa. Code § 102.8(1)(9).

***RESPONSE:***

***Erosion and Sediment Control Plan/Restoration Sheet 13 of 26 in Wyoming County has been updated to remove the additional stream WW-T19-19002 designation with the corrected WW-T95-19002 designation in both the plan view and profile.***