pennsylvania
DEPARTMENT OF ENVIRONMENTAL
PROTECTION

July 29, 2016

Ms. Roberta Zwier
Transcontinental Gas Pipe Line Company, LLC
2800 Post Oak Blvd., Level 6
Houston, Texas 77056

Re: Technical Deficiency Letter – Erosion and Sediment Control General Permit (ESCGP)
Atlantic Sunrise Project
CPL North, CPL South and Associated Facilities
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

Dear Ms. Zwier:

The Department of Environmental Protection (DEP) and the following County Conservation Districts (CCDs), Columbia, Lancaster, Lebanon, Luzerne, Northumberland, Schuylkill, Susquehanna & Wyoming, have reviewed the above referenced NOI and have identified the following technical deficiencies. The Pennsylvania Erosion and Sediment Pollution Control Program Manual (E&S Manual) and the Pennsylvania Stormwater Best Management Practices Manual (PCSM Manual) include information that will aid you in responding to some of the deficiencies listed below. The deficiencies are based on applicable laws and regulations, and the guidance sets forth the DEP's established means of satisfying the applicable regulatory and statutory requirements.

The technical deficiencies have been assembled from the County Conservation Districts and DEP staff. General technical deficiencies are identified that appear to be a reoccurring technical deficiency throughout the plan narratives and drawings. Specific examples of the general deficiencies are provided for reference; however, all of the specific instances may not have been identified. Transcontinental Gas Pipe Line Company, LLC and their consultant team should review the entire project submittal to ensure any and all specific technical deficiencies and general technical deficiencies are addressed from a comprehensive/entire permit application standpoint.

Notice of Intent (NOI) for Coverage under the Erosion and Sediment Control General Permit (ESCGP-2)

1. Section C.17 is answered as 'N/A'. Why is this Section not applicable, as it appears that redoximorphic features were identified for the majority of the Test Pits at the River Road Regulator Station? Make all revisions necessary. 25 Pa. Code § 102.6(a)(1)

2. In Section D.1, identify A (the E&S Plan was designed per the recommendations or the E&S Manual) or B (the E&S Plan was designed to alternative BMPs and design standards). Select the correct sub-section. § 102.6(a)(1)

3. In Section F.1, identify A (the PCSM Plan is consistent with a DEP approved Act 167 Plan) or B (the PCSM Plan meets the standard design criteria in 25 Pa. Code §§ 102.8(g)(2) & 102.8(g)(3)). Select the correct sub-section or identify which discharges are designed to which standard. § 102.6(a)(1)

4. Section F.6 references the E&S Plan and Section 2 (which is refers to the E&S Plans). This is not appropriate, as Section F.6 is for the thermal impact analysis for the PCSM Plans. The E&S Plan shall be separate from the PCSM Plan (and vice versa). Make all revisions necessary. §§ 102.4(b)(5)(xiv), 102.6(a)(1) & 102.8(d)

5. Provide a separate Section G for each point of discharge requiring an antidegradation analysis. § 102.6(a)(1)

6. Identify the activities beyond the CPL North and South (e.g. regulator stations, temporary access roads, permanent access roads, etc.) in Section 1.2.8. § 102.6(a)(1)

7. Ensure that Sections 1.2.9 & 1.2.10 are properly filled out based upon the type of plan that is required. For example, Section 1.2.10 is identified as the supplement to Section E (related to Site Restoration Plans). However, Section 1.2.10 has information and sites that are subject to a Post Construction Stormwater Management Plan (which would be Section F). The temporary access roads and the CPL North & South lines would be subject to a Site Restoration Plan, while the permanent access roads, stations, etc. would be subject to a Post Construction Stormwater Management Plan. Make all revisions necessary. § 102.6(a)(1)

Erosion and Sediment Control Plans

General E&S Technical Deficiencies related to all documents

1. The Erosion and Sediment Control Plans identify a "LOD" and a "LOD 5' Buffer". If the 5-

ft. buffer is intended to be disturbed, then identify it as such. All E&S BMPs are required to be inside the limit of earth disturbance. If the Disturbed Acreage Fee increases due to the inclusion of the 5-ft. buffer being disturbed, then the proper Fee will be required to be paid. Make all revisions necessary throughout all documents within the application. § 102.4(b)(5)(iii), 102.4(b)(5)(ix) & 102.6(b)(1)

2. The Trench Plug Installation detail provided in the Best Management Practices and Quantities Plan Sets is not the most current version of the detail from the E&S Manual. Provide a detail that is in conformance with the current set of standard details from the E&S Manual or provide the required information related to the alternative BMP and design standard. §§ 102.4(b)(5)(vi), 102.4(b)(5)(ix), 102.11(a)(1) & 102.11(b)

3. The E&S Plan Narratives identify that the E&S Plans and E&S BMPs are designed in accordance with the recommendations of the E&S Manual. However, there are numerous instances where the E&S Plans and E&S BMPs are not in accordance with the E&S Manual. If the E&S Plans and/or E&S BMPs' design are not within the recommendations of the E&S Manual, then revise the narrative and provide the appropriate information related to the alternative BMP and design standards. §§ 102.4(b)(5)(vi), 102.4(b)(5)(viii), 102.11(a)(1) & 102.11(b)

4. The provided riparian buffer/riparian forest buffer waiver information appears to be for the project as a whole, and is too vague for the specific riparian buffer/riparian forest buffer waiver being requested for each specific location. Provide the required information for the specific locations of where the riparian buffer/riparian forest buffer waiver is being requested. The additional information should include, but not necessarily be limited to, stream impairments/TMDLs (the UNT to Trout Run has a TMDL for the overall watershed), length of time required for the disturbance, plans clearly identifying the areas for waivers, description of why the alignment is required to change, description of why additional workspace is required at the particular location. § 102.14(d)(2)

5. The antidegradation analyses are not adequate, as they are too vague and do not contain sufficient information. Make the antidegradation analysis specific to the site for which the E&S Plan covers (i.e. each discharge along the pipeline, each temporary access road, each permanent access road, etc.). The analyses should evaluate and include nondischarge alternatives in the E&S Plans. If nondischarge alternatives do not exist for the project, then make the demonstration and include in the E&S Plans the antidegradation best available combination of technologies (ABACT) BMPs. Make all revisions necessary. § 102.4(b)(6)

6. The following technical deficiencies are related to the restoration activities during the earth disturbance activities (as part of the E&S Plans) and post construction (as part of the Site Restoration Plans):

a. A Site Restoration Plan narrative shall be provided for the mainline pipeline construction. This narrative can be part of the E&S Plan narrative for the mainlines, and it is required to be in conformance with 25 Pa. Code § 102.8(n). §§ 102.8(b), 102.8(c), 102.8(e), 102.8(f), 102.8(h), 102.8(i), 102.8(l) & 102.8(m)

b. Provide more identification in the narratives and on the plan drawings related to topsoil segregation. §§ 102.4(b)(5)(iii), 102.4(b)(5)(vi), 102.4(b)(5)(ix), 102.8(f)(3), 102.8(f)(6) & 102.8(f)(9)

c. Provide more identification in the narratives and on the plan drawings related to loosening of compacted soils prior to topsoil placement and stabilization (at the temporary access roads, topsoil stockpiles, access routes along the mainline, etc.). §§ 102.4(b)(5)(iii), 102.4(b)(5)(vi), 102.4(b)(5)(ix), 102.8(f)(3), 102.8(f)(6) & 102.8(f)(9)

d. Provide a discussion of measures that will be taken to avoid and minimize compaction to the maximum extent practicable and where compaction occurs, what measures will be taken to ensure adequate infiltration and successful vegetation of the right of way. §§ 102.4(b)(4), 102.8(b) & 102.22. The Department recommends you evaluate Section 6.7 (Restoration BMPs) of the PCSM Manual. Ensure notes are included on the drawings and in the documents that will be provided to the construction contractors.

e. Describe how your planning and design requirements satisfy 25 Pa. Code §§ 102.4(b)(4) & 102.8(b) and are minimizing the extent and duration of the construction and the minimizing any increase in stormwater runoff. Identify how these measures are satisfied when the ROW is in close proximity or is crossings surface waters or wetlands.

f. Provide an antidegradation analysis addressing the requirements of 25 Pa. Code § 102.8(h) for the portions of the project that drain to HQ or EV surface waters. Ensure that areas where there may be concentrated stormwater runoff that there are adequate BMPs to control the volume, rate and water quality from the site. § 102.8(f)(6)

Columbia County

Erosion and Sediment Control Plan Narrative – Proposed Central Penn North

1. Flume Crossing at 91.1 appears to be in an established drainage swale. Installation of a level spreader at the end of the flume may create more problems than a good energy dissipater shaped to discharge directly back into the swale. It is also questionable if the 27 foot level spreader can be installed at a level grade on the contour within the right of way. § 102.11(a)(1)

2. Clarification is needed related to the time that a particular section of trench will be open. Page 62 of the narrative seems to imply that a 25 -30 mile section of pipeline in Columbia County will be tested at the same time based on the volume of water required. If this is the case, how long will it be before between initial disturbance and final stabilization? § 102.4(b)(5)(vi)

Erosion and Sediment Control Plan Narrative – Proposed Central Penn South

1. The following technical deficiencies are associated with the Contractor Staging Areas CS-CSA-CO-4-002.1/002.2:

   a. Page 1 of the Narrative identifies that the erosion and sediment control (E&S) best management practices (BMPs) are designed in accordance with the E&S Manual. However, there are numerous instances where the design is not within the recommendations of the E&S Manual. If the design is not within the recommendations of the E&S Manual the appropriate information should be provided related to the alternative BMP and design standards. §§ 102.4(b)(5)(vi), 102.4(b)(5)(viii), 102.11(a)(1) & 102.11(b)

   b. The sediment basin does not provide the recommended minimum dewatering zone depth of 3 ft. (Page 159 of the E&S Manual). § 102.4(b)(5)(viii)

   c. Based upon the calculations, the provided dewatering zone storage is 33,138 cf (47,226 cf at elevation 775.0 minus 14,088 cf at elevation 773.0). However, the recommended minimum dewater zone storage is 5,000 cf per acre of contributing drainage area, and the recommended minimum dewatering zone storage is 36,800 cf (7.46 ac. times 5,000 cf/ac.). § 102.4(b)(5)(viii)

   d. The anti-seep collars are recommended to be below the phreatic line, it appears that anti-seep collar will be located above the phreatic line (based upon the spacing to the first collar). § 102.4(b)(5)(viii)

   e. The rule of thumb may not be used to determine the number of holes in the riser of a basin located in a Special Protection watershed (see Page 174 of the E&S Manual). § 102.11(a)(1)

   f. The principle outlet structure discharge capacity appears low. Please recheck the available head and provide revised calculations for the outlet barrel capacity if necessary. Adjust outlet protection accordingly. § 102.4(b)(5)(viii)

g. It appears that E&S BMPs will be required for the site during final stabilization after replacement of the topsoil to address the concentrated flow paths of the original contours. § 102.4(b)(5)(vi)

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

1. For existing access roads, it appears that ideal placement for the rock construction entrance (RCE) is at the intersection of the pipeline disturbed areas and the existing access roads. This would help keep the access roads mud free and reduce maintenance of them especially when the access use is with shared with landowners. For example, access road AR-CO-091 is an 1800 ft. long access road with the RCE shown at the intersection with the public road. This will allow mud to be scattered for 1800 feet from the pipeline work area until it is cleaned from the tires and force other landowners to drive through this. Provide discussion as to why the RCE is proposed at the existing access road and the existing public road. § 102.4(b)(5)(vi)

Soil Erosion and Sediment Control Plan / Site Restoration Plan Drawings – Proposed 30" Central Penn North

1. Show on the drawings the grading required for the HDD of the river and Rte. 80. In addition, the temporary access road will be subject to excessive traffic from these vehicles and should be constructed to withstand the extra traffic. §§ 102.4(b)(5) and 102.11(a)(1)

2. Modify the check dam detail (CDM) to show a 6 inch depression in the top of the rock in the center of the channel compared to the rock at the outside edges of the channel to assure stormwater will not flow around the rock at the edges. See Page 379 in the ESPC Manual. § 102.11(a)(1)

3. Provide the details to indicate the site specific BMPs and permanent streambank stabilization that will be used at each specific stream crossing. § 102.4(b)(5)(vii)

4. Provide a stabilized construction entrance at each place were the pipeline crosses a public road especially the sites that also act as access to contractor staging areas. § 102.11(a)(1)

5. The filter sock diversion detail (FD) drawing references a note #7 that is not included. § 102.4(b)(5)(ix)

6. The filter sock diversion detail (FD) should require proper staking and "keying in" of the upslope edge of the geotextile to prevent water from getting under the fabric. § 102.11(a)(1)

7. More information is needed related to the stability of hydrostatic test dewatering locations. The discharge points are on steep grades and do not appear to be near streams. §§ 102.4(b)(5)(ix) & 102.4(b)(5)(vi)

Best Management Practices and Quantities Plan Set – Proposed 30" Central Penn North

1. The Trench Plug Installation detail is not the most current version of the detail from the E&S Manual. Provide a detail that is in conformance with the current set of standard details from the E&S Manual or provide the required information related to the alternative BMP and design standard. §§ 102.4(b)(5)(vi), 102.4(b)(5)(ix), 102.11(a)(1) & 102.11(b)

Soil Erosion and Sediment Control Plan / Site Restoration Plan Drawings – Proposed 42" Central Penn South

1. Contractor Spread Yard cs-cy/cy –CO-4-10

    a. Sediment Basin

        i. Three foot of dewatering depth has not been provided for basin 1 as per manual item 6 Page 159. § 102.11(a)(1)

        ii. Sediment basin 1 does not appear to provide the required dewatering volume between the clean out elevation and the top of the riser. § 102.11(a)(1)

        iii. Dewatering calculations are required because the discharge holes for the riser are not evenly spaced between the clean out elevation and the top of the riser. § 102.11(a)(1)

        iv. Clarify on the drawing if both principle outlet risers will be perforated and also specify this in the dewatering calculations. § 102.4(b)(5)(ix)

        v. It is recommended that a soils engineer be on site during pond construction due to drainage areas involved and the soils in the area. The Lawrenceville soil in this area has a history of being very silty and susceptible to piping. § 102.11(a)(1)

        vi. Verify a minimum 2:1 flow length from filter sock diversion discharge to the outlets. § 102.11(a)(1)

        vii. The principle outlet structure discharge capacity appears low. Please recheck the available head and provide revised calculations for the outlet barrel capacity if necessary. Adjust outlet protection accordingly. § 102.4(b)(5)(viii)

viii. Notes on figure 9.3 for the pond outlet pipe indicate that the maximum velocity for R-4 riprap has been exceeded. The rock size must be increased or the discharge velocity reduced. § 102.11(a)(1)

ix. The discharges from the pond outlet structures should be conveyed by a lined channel directly to the road culvert. Installing energy dissipaters this close to the road culvert is not practical. § 102.11(a)(1)

b. The calculations for swale A require an 18 feet wide grassed channel for the flow area. The drawings do not provide adequate room for this. An alternative design with a narrow channel should be provided or the edge of the stone gravel area moved to provide adequate room for the channel. § 102.4(b)(5)(ix)

c. Compost filter sock or other BMP is required between socks #4 and #5 to control the runoff from the dike in this area. The BMP should be placed so that it will not impede the discharge from the pipes. § 102.4(b)(5)(ix)

d. This site currently contains several diversion terraces constructed to control erosion when cropped. Identify on the plans the location of these terraces and that these terraces will be replaced when the site is restored. § 102.4(b)(5)(i)

e. The plan should address the disposal of the stone base placed on staging areas and access roads to assure the material ends up on approved sites or recycled. § 102.11(a)(1)

2. Contractor Staging Area CSA—CO-4-001,002: DEP will need to address the adequacy of this plan for thermal protection of the HQ water. The installation of the diversion berm attempts to temporarily collect the first flush only to allow it to mix with the later flows and discharge into the stream even for the two year storm event. The plan also calls for installation of a 250 ft. section of diversion sock to trap the runoff and assumes that the overflow will be constant along the entire length of the sock. Installing sock with a level top elevation for this distance is not realistic. The applicant has not justified why this staging area must be placed as close as 30 feet of an HQ stream and associated wetlands. § 102.11(a)(1)

3. Contractor Staging Area CSA-CO-4-003: The plans for this staging area show a RCE at the south west corner of the staging area implying access from AR-CO-095.4. The plans for the access road state that it will not be used during construction. Please clarify. § 102.11(a)(1)

4. Contractor Staging Area CSA-CO-4-004: Restoration of the site after removal of gravel should address stabilization of drainage swales in the disturbed areas. § 102.4(b)(5)(ix)

Best Management Practices and Quantities Plan Set – Proposed 42" Central Penn South

1. The Trench Plug Installation detail is not the most current version of the detail from the E&S Manual. Provide a detail that is in conformance with the current set of standard details from the E&S Manual or provide the required information related to the alternative BMP and design standard. §§ 102.4(b)(5)(vi), 102.4(b)(5)(ix), 102.11(a)(1) & 102.11(b)

Erosion and Sediment Control and Layout Plans Drawings – Access Roads

1. Temp Access Road 094.1.1

   a. Access road crosses over diversion swales at stations 2+00 and 6+50. The plans should address how this water in diversions will be diverted around the work area. § 102.4(b)(5)(ix)

   b. The rock construction entrance should be located near station 1+00 to make sure the access road remains mud free which will assist in protecting the adjacent stream. § 102.4(b)(5)

   c. Since this road is the access to the HDD site, it may be subject to considerable traffic. Consideration should be given to moving it outside of the floodway to provide a better buffer and allow more room to treat runoff from the road.

2. Temp Access Road 094.1

   a. Show how the level spreader below timber crossing can be constructed on the contour within the LOD. In addition, the flow concentrates immediately below the crossing making the level spreader's value questionable. § 102.4(b)(5)(ix)

   b. Consideration should be given to discharging the upslope filter sock diversions at the timber crossing directly onto the timber mats rather than rock outlets. § 102.4(b)(5)(ix)

   c. The channel slope does not reflect the slope near the outlet. Recheck the channel calculations using the slope near the outlet. § 102.4(b)(5)(ix)

3. Temp Access Road 095

   a. Consideration should be given to discharging the upslope filter sock diversions at the timber crossing directly onto the timber mats rather than rock outlets. § 102.4(b)(5)(ix)

b. A four foot cut is proposed near stat 10+00. Where will this material be stockpiled in the LOD? § 102.4(b)(5)(ix)

4. Perm. Access Road 095.4

a. The plans for this access road state that it will not be used during construction but the plans for the staging area CS-CSA-CO-4-003 shows it being used during construction. Please clarify and provide adequate stabilization if it is used during construction. § 102.4(b)(5)(vi)

b. What permanent changes and site improvements will be required for the rectifier and cathodic equipment workspace that this access is to serve after construction? § 102.4(b)(5)(iii)

Soil Erosion and Sediment Control Plan Drawings – Compressor Station 610

1. More information is needed on the timing and construction details for the main line installation across the end of the area compared to the grading for the compressor station. What BMPs will be used for the pipeline installation? The main line drawings refer to the compressor station for BMPs in the area. § 102.4(b)(5)(vi)

2. Additional controls are needed to treat the runoff from the eastern side of the access road before it is discharged in culvert 4. § 102.4(b)(5)(vi)

3. Temporary filter sock diversion #3 appears to concentrate flow and discharge it upslope of the neighbor's house and driveway. What impact will this additional flow have? § 102.4(b)(5)(viii)

4. Construction Sequence

a. Item #3 – Identify the areas to be protected under this item. Make sure to include infiltration areas and minimum compaction areas. § 102.4(b)(5)(vii)

b. Item 10 – Don't install FSD #1 and FSD#2 until the basin is completed to minimize the clean water diverted to the work area. § 102.4(b)(5)(vii)

c. Item 10 – Provide a stable discharge area for the basin outlet until Swale 1 is installed and stabilized. § 102.4(b)(5)(vii)

5. Channels and culverts

   a. Swale #3 appears to have slopes near the outlet greater than assumed in the calculations. Channel bed slopes may not be averaged (see Item 3 on Page 129 of the E&S Manual). Verify capacity and stability on the maximum slope. § 102.4(b)(5)(viii)

   b. Please verify the slope of culvert #5. The calculations for the pipe and outlet protection do not appear to agree with the drawings. § 102.4(b)(5)(viii)

   c. Provide calculations for the pipe discharge velocity at the head of ditch 6B. § 102.4(b)(5)(viii)

   d. Culvert 5 outlets at elevation 963 but the end of the energy dissipater is shown at elevation 960. The energy dissipater should be installed with near zero grade between the pipe invert and the terminal end. Please correct and show how the grades will be blended. § 102.4(b)(5)(viii)

   e. Provide calculations showing that the concentrated discharges from the culverts feeding onto the infiltration berm areas in the post construction condition will not erode the newly placed soil amendments in the infiltration area. § 102.4(b)(5)(viii)

6. Sediment Basin

   a. Provide calculations showing the 4:1 flow length has been met for the inflow from culvert #2. § 102.4(b)(5)(viii)

   b. Sheet 10 shows the temporary riser extension to have a lower elevation than the permanent riser. Please explain. § 102.4(b)(5)(viii)

7. Compost Filter Sock

   a. Filter sock barriers must be designed for the worst case conditions. Show how socks #3 and #4 will be adequate during the initial earthmoving to install the basin. § 102.4(b)(5)(viii)

8. Infiltration Berm

   a. The plans imply that the infiltration berm upslope of infiltration basin #1 will discharge by overtopping the 490 foot long berm at a uniform depth of less than one inch. How is

it possible to construct and maintain such tolerances permanently on the newly constructed berm? § 102.4(b)(5)(viii)

b. If the infiltration berm is constructed as designed, it should be protected with a TRM lining at a minimum. § 102.4(b)(5)(vi)

c. Clarify the top of the settling volume (WSE) for the basin. Several different elevations are shown in various locations of the drawings and calculations. § 102.4(b)(5)(viii)

d. More details are needed for the conversion of the sediment basin into the stormwater basin. How will the permanent riser holes from the skimmer outlet be sealed? Where will the materials removed from the basin and the infiltration areas be placed? § 102.4(b)(5)(viii)

Soil Erosion and Sediment Control Plan Drawings – West Diamond Regulator Station

1. Construction Sequence

   a. The entire temporary access road should be installed and stabilized before any disturbance occurs on the remainder of the site. § 102.4(b)(4)(i)

2. More details are needed on the conversion of the sediment trap to the stormwater basin.

   a. All earthmoving associated with it should be done before the conversion of the trap riser. § 102.4(b)(5)(vii)

   b. Where will the material from the excavation of the additional area be placed and what BMPs will be used? § 102.4(b)(5)(vi)

   c. It is recommended that consideration be given to utilizing the permanent riser with a restriction over the 4 inch orifice for the sediment basin rather that requiring the complete replacement of the riser during conversion of the trap to the stormwater basin. See standard construction detail #8-8 in the E&S manual. § 102.11(a)(1)

Lancaster County

Erosion and Sediment Control Plan Narrative – Proposed Central Penn South

1. Section 1.15 should be written specifically for the 42" CPL South portion of the project in Lancaster County. Make all revisions necessary. If a riparian buffer or riparian forest buffer waiver is required for any associated facilities that are covered under a separate E&S and/or

PCSM Plan, then include the information required for those facilities should be included in their separate Plans. § 102.14(d)(2)

2. Revise the first paragraph on Page 40 to properly identify the requirements for riparian buffers and riparian forest buffers. A riparian buffer is required when the project site is located in an exceptional value or high quality watershed attaining its designated use (per 25 Pa. Code § 102.14(a)(1)). A riparian forest buffer is required when the project site is located in an Exceptional Value or High Quality watershed where there are waters failing to attain one or more designated uses (per 25 Pa. Code § 102.14(a)(2)).

3. Identify why the request for waivers included an evaluation of Class A Wild Trout Streams and Wild Trout Streams. § 102.14(d)(2)

4. The provided riparian buffer/riparian forest buffer waiver information appears to be for the project as a whole, and is too vague for the specific riparian buffer/riparian forest buffer waiver being requested. Provide the required information for the specific locations of where the riparian buffer/riparian forest buffer waiver is being requested. The additional information should include, but not necessarily be limited to, stream impairments/TMDLs (the UNT to Trout Run has a TMDL for the overall watershed), length of time required for the disturbance, plans clearly identifying the areas for waivers, why the alignment is required to change, why additional workspace is required at the particular location. § 102.14(d)(2)

5. Provide more information related to Table 1.15-2. An example is what the temporary versus permanent impacts are. § 102.14(d)(2)

6. Drawing No. 24-1600-70-28-A/LL113_9 Sheet 4 of 34 identifies a Waterbody WB-T24-001 at approx. 57+00. Provide more information related to this waterbody; identify if this feature is a surface water, pond, stormwater management feature, etc. If it is a pond, then riparian buffer/riparian forest buffer will apply, and a waiver will need to be requested. Make all revisions necessary to correct this deficiency throughout the application documents. §§ 102.4(b)(5)(v), 102.8(f)(5) & 102.14(d)(2)

7. As stated in the Restoration Section of the Narrative, permanent waterbars will be maintained except for cultivated areas, wetlands and lawns. Identify the temporary waterbars separately from the permanent waterbars on the plan drawings. §§ 102.4(b)(5)(iii), 102.4(b)(5)(ix), 102.8(f)(3) & 102.8(f)(9)

8. Provide in greater detail when the temporary waterbars can be removed. Clarify if waterbars in the areas of cropland, pasture, and residential land uses will be maintained until temporary/permanent stabilization is achieved. §§ 102.4(b)(5)(iii), 102.4(b)(5)(vii), 102.4(b)(5)(ix), 102.8(f)(3), 102.8(f)(7) & 102.8(f)(9)

9. Clearly identify if tree removal will/will not occur within the entire physical boundary of the limits of disturbance and clearly identify if some trees/vegetation be protected within the pipeline ROW. §§ 102.4(b)(5)(iii), 102.4(b)(5)(vii), 102.4(b)(5)(ix), 102.8(f)(3), 102.8(f)(7) & 102.8(f)(9)

10. How is the plan addressing 25 Pa. Code § 102.4(a)(4)(ii) during site restoration for those areas within the pipeline ROW that will be returned to agricultural plowing and tilling activities. §§ 102.4(a)(4)(ii) & 102.8(n)

11. Upon completion of the project, the stone that was used to temporarily stabilize the contractor staging areas, access roads, etc., will be removed and the site restored to preconstruction conditions. Clearly identify and provide the measures for disposal of the stone following site restoration. §§ 102.4(b)(5)(iii), 102.4(b)(5)(vii), 102.8(f)(3) & 102.8(f)(7)

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

1. Provide a separate PCSM Plan for the permanent access roads from the E&S Plan for the permanent access roads. A combined plan, titled Erosion and Sediment Control /Site Restoration Plan, can be provided for the temporary access roads. §§ 102.4(b)(5)(xiv) & 102.8(d)

2. Are the mainline valve sites included in the E&S Plans for the permanent access roads? If so, that should be clarified and discussed in the narratives. § 102.4(b)(5)(iii)

3. Identify in the narrative whether the receiving surface water is impaired or has a TMDL. For the specific sites (temporary and permanent access roads), ensure that proper and adequate discussion is provided related to the E&S design and the impairment and/or TMDL. § 102.4(b)(5)(v)

4. Identify in the table on Page 5 the receiving surface water, the Designated and Existing Uses and if the receiving surface water is impaired or has a TMDL. The table identifies LA-026.4 as a temporary and then as a permanent access road; clarify why this one location is identified twice. §§ 102.4(b)(5)(iii) & 102.4(b)(5)(v)

5. The information related to vacuum sweeping on Page 14 is not sufficient. Identify when/why the vacuum sweeping will be utilized. The large clumps of dirt that accumulate on the road surface will need to be hand cleared before vacuum sweeping. The maintenance trigger for the dirt roads of 6-in. ruts is too excessive. Revise the maintenance trigger for rolling of dirt roads to a more acceptable level. § 102.4(b)(5)(vi)

6. Page 15 identifies that erosion control blankets will be installed on slopes greater than 3:1. However, the E&S Manual (Page 273) recommends that erosion control blankets be installed on all slopes 3:1 and greater. The identification on Page 15 is not consistent with the identification that the E&S BMPs are designed in accordance with E&S Manual (first sentence of the fifth paragraph on Page 4). Make all revisions necessary. §§ 102.4(b)(5)(vi), 102.11(a)(1) & 102.11(b)

7. The generalized BMP Installation Sequence Narrative in Section 1.7 is not sufficient. Each temporary and permanent access road is different, as a site/location specific construction sequence is required. §§ 102.4(b)(5)(vii) & 102.8(f)(7)

8. Section 1.12 on Page 26 identifies that there may be potential for acid producing rock. Identify if there is or is not the potential for naturally occurring geologic formations or soil conditions that may have the potential to cause pollution during earth disturbance activities and after earth disturbance activities are completed and PCSM BMPs are operational. What investigation has been done to determine if there is potential for acidic runoff from the site (beyond the Soil Survey)? If acid producing rock is present at the site, then provide the BMPs to minimize the potential for pollution. An adequate predevelopment site characterization and assessment of soil and geology shall be performed and supplied. Tailor this discussion for each specific site (temporary and permanent access roads). § 102.4(b)(5)(xii)

   Clarify the statement on Page 27 "...the quantity of acidic soils found along the proposed CPL South route may be sufficiently high such that their potential for pollution should be mitigated." If the quantity is sufficiently, how is that mitigated? What investigation has been performed to determine that the amount potential for pollution is mitigated? § 102.4(b)(5)(xii)

9. Section 1.13 does not include a thermal impact analysis for the earth disturbance activity (for the E&S Plan). Provide this thermal impact analysis. The thermal impact analysis shall be provided for each specific site. § 102.4(b)(5)(xiii)

10. Section 1.15 shall be revised to be specific for any requested riparian buffer/riparian forest buffer waivers associated with the temporary and permanent access roads. There is no regulatory requirement to provide a riparian buffer/riparian forest buffer for perennial or intermittent rivers, streams, or creeks, or lakes, ponds, or reservoirs with a Designated Use other than Exceptional Value and High Quality; therefore, a waiver of buffers for these areas is not required. Revise the narrative accordingly. § 102.14(d)(2)

11. Section 1.16 is not an adequate antidegradation analysis. The antidegradation analysis shall be specific to the site for which the E&S Plan covers (i.e. each temporary and/or permanent

access road). The analysis shall evaluate and include nondischarge alternatives in the E&S Plan. If nondischarge alternatives do not exist for the project, then that demonstration shall be made and the E&S Plan shall include antidegradation best available combination of technologies (ABACT) BMPs. Make all revisions necessary. § 102.4(b)(6)

12. The plan drawings provided in Appendix A and B are not current with the latest set of revised full-size plan drawings (e.g. Appendix A Drawing No. 24-1600-70-28-A/LL113_9 has a latest revision date of 12/02/2015; while the full-size Drawing No. 24-1600-70-28-A/LL113_9 has a latest revision date of 02/04/2016). DEP recommends only providing one copy of the plan drawings per application set (do not provide reduced scale drawings in Appendix A and B), to avoid confusion and potential inconsistencies. § 102.4(b)(5)(ix)

13. The following technical deficiencies are associated with Appendix I:

    a. Provide calculations demonstrating that the proposed lever spreader's discharge will be stable without the need for permanent turf reinforcement matting. § 102.4(b)(5)(viii)

14. The following technical deficiencies are associated with Appendix N:

    a. It appears that the receiving surface water for permanent access road AR-LA-018.3 is an unnamed tributary to West Branch Little Conestoga Creek. It appears that the receiving surface water of the unnamed tributary to West Branch Little Conestoga Creek has a Designated Use of Trout Stocking (TSF). Properly identify the receiving surface water and the Designated and Existing Uses. § 102.4(b)(5)(v)

15. The following technical deficiencies are associated with Appendix O:

    a. The narrative identifies the Watershed as Strickler Run; however, PCSM Standard Worksheet #1 identifies the receiving surface water as an UNT to Strickler Run. Clearly and consistently identify the receiving surface water. § 102.4(b)(5)(v)

    b. The discussion identifies that there are no anticipated impacts or E&S BMPs proposed or anticipated for the area of the portion of the access road that will utilize the existing gravel road (approx. 775 ft.). However, the narrative discussion then identifies that a rock construction entrance and driveway apron will be utilized where the existing gravel drive meets Prospect Road, and the plan drawings identify the limit of disturbance to be approx. 15-ft. beyond the edge of the existing gravel road and there is no discussion about mats being placed over the existing gravel road. Clarify these discrepancies between the narrative and the narrative and plan drawings. §§ 102.4(b)(5)(iii) & 102.4(b)(5)(ix)

c. With the rock construction entrance provided at Prospect Road, there is a high probability that sedimentation will occur on the existing gravel road. Identify how this sedimentation be handled during and after earth disturbance activities. §§ 102.4(b)(5)(iii), 102.4(b)(5)(vi) & 102.4(b)(5)(ix)

d. The following technical deficiencies are associated with Appendix O.4:

   i. The naming convention utilized on E&S Worksheet #11 does not match the naming convention on the plan drawings. Provide a consistent naming convention. §§ 102.4(b)(5)(viii) & 102.4(b)(5)(ix)

   ii. The riprap apron sizing calculations identify the dimensions are based upon equivalent pipe sizes. Provide more discussion related to this, including how the equivalent pipe size was determined for each apron. § 102.4(b)(5)(viii)

   iii. The E&S Manual recommends a nominal placement thickness of 18-in. for R-4 riprap (Page 135); however, the calculations and plan drawings identify an apron thickness of 12-in. Revise the design to be consistent with the recommendations of the E&S Manual or the appropriate information shall be provided related to the alternative BMP and design standards. §§ 102.4(b)(5)(viii), 102.4(b)(5)(ix), 102.11(a)(1) & 102.11(b)

   iv. The gradations provided for R-3 and R-4 riprap in the calculations and plan drawings are not consistent with the gradation on Page 135 of the E&S Manual or with the gradation in Section 850 of PennDOT's Publication 408. If riprap is to be sized per the E&S Manual recommendations, then the proper gradation shall be utilized. §§ 102.4(b)(5)(viii), 102.4(b)(5)(ix), 102.4(c) & 102.11(a)(1)

   v. Include the proposed conditions on the drainage area map. §§ 102.4(b)(5)(viii) & 102.4(b)(5)(ix)

16. The calculation of slope length for Sock 5 in Appendix P appears to be greater than the 180 foot design length. Verify the sock calculations are accurate. § 102.4(b)(5)(viii)

17. For temporary access road AS-LA-023.1 (Appendix Q), the discussion identifies that there are no anticipated impacts or E&S BMPs proposed or anticipated for this road. However, the narrative discussion then identifies that a rock construction entrance and driveway apron will be utilized where the existing gravel drive meets Meadow Road. Clarify these discrepancies between the narrative and the narrative and plan drawings. The narrative identifies the Watershed as Strickler Run; however, PCSM Standard Worksheet #1 identifies the receiving surface water as an UNT to Strickler Run. Clearly and consistently identify the receiving surface water. §§ 102.4(b)(5)(v) & 102.4(b)(5)(v)

18. For temporary access road AS-LA-023.2 (Appendix R), the narrative identifies the Watershed as Shawnee Run; however, PCSM Standard Worksheet #1 identifies the receiving surface water as an UNT to Shawnee Run. Clearly and consistently identify the receiving surface water. § 102.4(b)(5)(v)

19. The following technical deficiencies are associated with Appendix S:

    a. The narrative identifies the Watershed as Chiques Creek; however, PCSM Standard Worksheet #1 identifies the receiving surface water as a tributary to Chiques Creek. Clearly and consistently identify the receiving surface water. § 102.4(b)(5)(v)

20. The narrative in Appendix T identifies AR-LA-026.4 as a temporary access road. However, the table from Page 5 of the main narrative and the location map in Appendix T identify the access road as permanent. Clarify this discrepancy and make all revisions necessary. § 102.4(b)(5)(iii)

21. The location map in Appendix T identifies AR-LA-027.5, which appears to be an access road (based upon the naming convention). However, there does not appear to be anything proposed for the area identified on the location map. Clarify this discrepancy. § 102.4(b)(5)(iii)

22. For temporary access road AS-LA-027.1 (Appendix U), the narrative identifies the Watershed as Chickies Creek; however, PCSM Standard Worksheet #1 identifies the receiving surface water as an UNT to Chickies Creek. Clearly and consistently identify the receiving surface water. § 102.4(b)(5)(v)

23. For temporary access road AS-LA-028.1 (Appendix V), the narrative identifies the Watershed as Black Run; however, PCSM Standard Worksheet #1 identifies the receiving surface water as Back Run. Based upon the information in the Joint Permit application, the receiving surface water would be an UNT to Back Run. Clearly and consistently identify the receiving surface water. § 102.4(b)(5)(v)

24. The following technical deficiencies are associated with Appendix W:

    a. The narrative identifies the Watershed as Chickies Creek; however, PCSM Standard Worksheet #1 (in Appendix W.7) identifies the receiving surface water as an UNT to Chickies Creek. Clearly and consistently identify the receiving surface water. § 102.4(b)(5)(v)

b. The riprap apron sizing calculations identify the dimensions are based upon minimum sizing criteria from chart. Provide more discussion related to this, including how the equivalent pipe size was determined for each apron. § 102.4(b)(5)(viii)

25. For temporary access road AS-LA-030 (Appendix X), the discussion identifies that there are no anticipated impacts or E&S BMPs proposed or anticipated for this road. However, the narrative discussion then identifies that a rock construction entrance and driveway apron will be utilized where the existing gravel drive meets Harvest Road. Clarify these discrepancies between the narrative and the narrative and plan drawings. The narrative identifies the Watershed as Little Chickens Creek; however, PCSM Standard Worksheet #1 identifies the receiving surface water as Shells Run. Clearly and consistently identify the receiving surface water. § 102.4(b)(5)(v)

26. For temporary access road AS-LE-033.1 (Appendix Y), the discussion identifies that there are no anticipated impacts or E&S BMPs proposed or anticipated for this road. However, the narrative discussion then identifies that a rock construction entrance and driveway apron will be utilized where the existing gravel drive meets Harvest Road. Clarify these discrepancies between the narrative and the narrative and plan drawings. The narrative identifies the Watershed as Little Chickies Creek; however, PCSM Standard Worksheet #1 identifies the receiving surface water as an UNT to Shells Run. Clearly and consistently identify the receiving surface water. § 102.4(b)(5)(v)

Soil Erosion and Sediment Control Plan / Site Restoration Plan Drawings – Proposed 42" Central Penn South

1. The plan drawings indicate an area of disturbance at hydrostatic test water withdrawal areas LA-163 (0.95 acres) and LA-164 (0.52 acres). Clearly identify on the plan drawings these areas of disturbance and provide adequate E&S BMPS. §§ 102.4(b)(5)(vi) & 102.4(b)(5)(ix)

2. Identify the possible hydrostatic test dewatering locations on the plan drawings. If the locations are not known at this time, it is suggested that the site parameters, such as slope, degree of ground cover, proximity to receiving water course for an acceptable discharge location would be provided as part of the E&S Plan. §§ 102.4(b)(5)(vi), 102.4(b)(5)(vii) & 102.4(b)(5)(ix)

3. The construction of the access roads for Section A, C, etc. will generate excess soil which will need to be stockpiled until the end of the project when the access roads are restored. Provide soil stockpile locations on the plan drawings, along with adequate E&S BMPs. §§ 102.4(b)(5)(vi) & 102.4(b)(5)(ix)

4. Clarify whether the temporary access road restoration procedures will include the replacement of trees in areas where tree removal occurred/will occur. §§ 102.4(b)(5)(vi) & 102.4(b)(5)(ix)

5. Provide adequate E&S BMPs the Permanent Access Road AR-LA-020 to protect Waterway WW-T25-2001. Revise the plan drawings accordingly. §§ 102.4(b)(5)(vi) & 102.4(b)(5)(ix)

6. Provide a detailed E&S plan and Site Restoration plan for Contractor Staging Area LA-1-006.3, which is indicated on the Sheet 1 for AR-LA-023.2 on the Access Roads Plan Set. §§ 102.4(b)(5)(vi) & 102.4(b)(5)(ix)

7. Please confirm that the long-term operation and maintenance requirements that pertain to the pipeline ROW also pertain the permanent access roads. § 102.8(m)

8. Provide an alternative detail to the Clean Water Diversion Swale that is contained in the BMP and Quantities Plan Set for use to convey water across the trench when the pipeline trench is open. § 102.4(b)(5)(ix)

9. It appears that wetland W-T10-001 receives runoff from the Project Site; however, this wetland cannot be located on the receiving surface water table in Appendix D of the E&S Plan Narrative. Ensure that all receiving surface waters are properly identified. Wetland W-T10-001 is located in the floodplain of a stream which is tributary to a wild trout stream, resulting in this wetland being an Exceptional Value wetland. Make all revisions necessary throughout all permit application documents. §§ 102.4(b)(5)(v), 102.4(b)(6), 102.8(f)(5), 102.8(h) & 105.17(1)(iii)

10. Sheet 5 of 34 identifies the stream and associated floodway for WW-RS-001. However, the floodway is shown as a closed line. This representation of the floodway is not accurate, as the stream does not start and stop in that location. Properly identify the floodways for all streams. § 102.4(b)(5)(ix)

11. In the Erosion and Sediment Control Narrative it is stated that rock construction entrances will be installed at all locations where the pipeline ROW intersects public roadways. Please provide appropriate notes on the plan drawings to confirm the installation of the rock construction entrance at the intersection of each pipeline ROW and public roadway. § 102.4(b)(5)(ix)

12. The following technical deficiencies are associated with the staging areas:

    a. The location of the stabilized rock construction entrance with wash rack is not illustrated on the drawings for CSA-CS-CSA-LA-1-002 Contractor Staging Area 2, CSA-CS-CSA-

LA-1-003 Contractor Staging Area 3, CSA-CS-CSA-LA-1-006 Contractor Staging Area 6, CSA-CS-CSA-LA-1-007 Contractor Staging Area 7. Clarify if access is being made by way of the pipeline ROW. § 102.4(b)(5)(ix)

b. Provide a topsoil stockpile location on the drawings for CSA-CS-CSA-LA-1-003. Discuss grading and stripping of topsoil in the construction sequence or verify that topsoil will not be removed prior to the placement of stone. §§ 102.4(b)(5)(vi), 102.4(b)(5)(vii) & 102.4(b)(5)(ix)

c. Discuss the timing of removal of the contractor staging areas in relation to the timing of the stabilization of the pipeline right-of-way. § 102.4(b)(5)(vii)

Best Management Practices and Quantities Plan Set – Proposed 42" Central Penn South

1. Clarify the purpose of this plan set. Is this plan set to serve as the E&S BMPs for the proposed 42" Central Penn Line South E&S Plans or to serve as the E&S BMPs for the temporary and permanent access roads? If separate E&S Plans are provided for the 42" CPL South and for the temporary and permanent access roads; then each of those plans shall be full and complete (including all necessary details, notes, maintenance, etc.). § 102.4(b)(5)

2. This set contains multiple options for stream bank stabilization. Identify in Table 3A: Waterbodies Crossed by CPLS Pipeline in Lancaster County, the specific method of stream bank stabilization/restoration to be performed each crossing location. §§ 102.4(b)(5)(iii), 102.4(b)(5)(vi), 102.4(b)(5)(vii), 102.4(b)(5)(ix) & 102.4(b)(5)(xiv)

3. Pumped water filter bags (PWB) are proposed as the principal method of removing sediment from pumped water. The Cofferdam Stream Crossing Detail (Sheet 1 of 13 states that an equivalent dewatering device may be used in lieu of the PWB. Provide additional information related to the approved equal on the plan drawings. The Trench Dewatering Detail (Sheet 9 of 13) indicates that secondary containment must be used when the PWB is positioned within 100 feet of wetland or waterbody; provide more information related to what this secondary containment is. §§ 102.4(b)(5)(vi) &, 102.4(b)(5)(ix)

4. The Trench Plug Installation detail is not the most current version of the detail from the E&S Manual. Provide a detail that is in conformance with the current set of standard details from the E&S Manual or provide the required information related to the alternative BMP and design standard. §§ 102.4(b)(5)(vi), 102.4(b)(5)(ix), 102.11(a)(1) & 102.11(b)

Erosion and Sediment Control and Layout Plans Drawings – Access Roads

1. Provide a separate PCSM Plan for the permanent access roads from the E&S Plan for the permanent access roads. A combined plan, titled Erosion and Sediment Control /Site Restoration Plan, can be provided for the temporary access roads. §§ 102.4(b)(5)(xiv) & 102.8(d)

2. Drawing No. 24-1600-70-28-A/LL113_9 Sheet 2 of 4, identifies an access road named AR-LA-018; however, there is no additional information provided related to this location (it is not identified in the table on Page 5 of the narrative). The plan drawing identifies AR-LA-029.2; however, it appears that this should be labeled "AR-LA-029.3". Clarify these discrepancies and make all revisions necessary. §§ 102.4(b)(5)(iii) & 102.4(b)(5)(ix)

3. The Notes provided on Drawing No. 24-1600-70-28-A/LL113_9-AR-LA-002 Sheet 3 of 3 should be specific for that particular location. Make all revisions necessary to correct this deficiency throughout the application documents. § 102.4(b)(5)(ix)

4. Drawing No. 24-1600-70-28-A/LL113_9-AR-LA-010.2 Sheet 1 of 3 identifies grading required for the centerline of the access road; however, the proposed grading is not shown in the plan view. Show on the plan view for each location the proposed grading for the temporary and permanent access roads. Make all revisions necessary to correct this deficiency throughout the application documents. §§ 102.(b)(5)(iii) & 102.4(b)(5)(ix)

Soil Erosion and Sediment Control Plan Drawings – River Road Regulator Station

1. The following technical deficiencies are associated with Sheet 6 of 9: § 102.4(b)(5)(ix)

   a. The following technical deficiencies are associated with the Level Spreader Detail:

      i. Provide discussion as to why there is no geotextile fabric provided along the bottom and side of the R-3 riprap. § 102.4(c)

      ii. The detail has a dimension identified as 'Extend to Frost Line'. Identify in the detail the required dimension for the site. § 102.4(b)(5)(xiv)

   b. It appears that the pipe's thickness is not accounted for in the sizing of the anti-seep collar. Based upon the design the anti-seep collar should have a 7-in. projection; the anti-seep collar width should be 30 inches (7-in. projection + 2-in. pipe thickness + 12-in. diameter + 2-in. pipe thickness + 7-in. projection). Make all revisions necessary.

2. Provide the calculations for sizing of the anti-seep collar in Appendix A of the narrative. § 102.4(b)(5)(viii)

3. A Temporary Plywood Riser Detail is provided on Sheet 8. However, it is not clear where the temporary plywood riser will be used, as the sediment trap calls for a temporary metal riser as the primary outlet. A temporary plywood riser is not an approved inlet protection alternative. Identify how the temporary plywood riser will be used. The note reference in the detail to refer to Standard Construction Detail #7-10 for more information is not sufficient. Provide all information necessary for the construction/installation and maintenance of the temporary plywood riser. §§ 102.4(b)(5)(vi) & 102.4(b)(5)(ix)

4. Identify the size of the proposed compost filter socks by providing a Sediment Barrier Table on Sheet 4 of the E&S plan drawings. § 102.4(b)(5)(ix).

5. Provide a detail for the proposed gravel pad area. § 102.4(b)(5)(ix)

6. Provide Seed Mixes #3 and #4, which are referenced to be used in the bioretention basin, have not been provided on the E&S or PCSM Plans drawings. §§ 102.4(b)(5)(ix) & 102.8(f)(9)

Lebanon County

Erosion and Sediment Control Plan Narrative – Proposed Central Penn South

1. The Erosion Control Blanket sub-section in Section 1.6 on Page 28 identifies the blankets to be applied on slopes greater than 33%. However, the E&S Manual (Page 273) recommends that erosion control blankets be installed on all slopes 3:1 and greater. The identification on Page 28 is not consistent with the identification that the E&S BMPs are designed in accordance with E&S Manual (first sentence of the third paragraph on Page 1). Make all revisions necessary. §§ 102.4(b)(5)(vi), 102.11(a)(1) & 102.11(b)

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

1. Provide a separate PCSM Plan the permanent access roads from the E&S Plan for the permanent access roads. A combined plan, titled Erosion and Sediment Control /Site Restoration Plan, can be provided for the temporary access roads. §§ 102.4(b)(5)(xiv) & 102.8(d)

2. Are the mainline valve sites included in the E&S and PCSM Plans for the permanent access roads? If so, that should be clarified and discussed in the narratives. § 102.4(b)(5)(iii)

3. Identify in the narrative whether the receiving surface water is impaired or has a TMDL. For the specific sites (temporary and permanent access roads), ensure that proper and adequate discussion is provided related to the E&S design and the impairment and/or TMDL. § 102.4(b)(5)(v)

4. The table on Page 6 should identify the receiving surface water, the Designated and Existing Uses and if the receiving surface water is impaired or has a TMDL. The table identifies LE-057.1 with italicized text; is there any significance to this? The table identifies LE-041 and LE-059; however, these roads are not included in the Appendices or on the plan drawings. Clarify this discrepancy. §§ 102.4(b)(5)(iii) & 102.4(b)(5)(v)

5. Identify what is meant by the terminology "infiltration losses" in the last sentence of the second paragraph of Section 1.3 on Page 10. § 102.4(c)

6. The information related to vacuum sweeping on Page 15 is not sufficient. Identify when/why the vacuum sweeping will be utilized. The large clumps of dirt that accumulate on the road surface should be hand cleared before vacuum sweeping. The maintenance trigger for the dirt roads of 6-in. ruts is too excessive. Revise the maintenance trigger for rolling of dirt roads to a more acceptable level. § 102.4(b)(5)(vi)

7. Page 16 identifies that erosion control blankets will be installed on slopes greater than 3:1. However, the E&S Manual (Page 273) recommends that erosion control blankets be installed on all slopes 3:1 and greater. The identification on Page 16 is not consistent the identification that the E&S BMPs are designed in accordance with E&S Manual (first sentence of the fifth paragraph on Page 4). Make all revisions necessary. §§ 102.4(b)(5)(vi), 102.11(a)(1) & 102.11(b)

8. The generalized BMP Installation Sequence Narrative in Section 1.7 is not sufficient. Each temporary and permanent access road is different, as a site/location specific construction sequence is required. §§ 102.4(b)(5)(vii) & 102.8(f)(7)

9. Section 1.12 on Page 27 identifies that there may be potential for acid producing rock. Identify if there is or is not the potential for naturally occurring geologic formations or soil conditions that may have the potential to cause pollution during earth disturbance activities and after earth disturbance activities are completed and PCSM BMPs are operational. What investigation has been done to determine if there is potential for acidic runoff from the site (beyond the Soil Survey)? If acid producing rock is present at the site, then provide BMPs to

minimize the potential for pollution. Perform and supply an adequate predevelopment site characterization and assessment of soil and geology. Tailor this discussion for each specific site (temporary and permanent access roads). § 102.4(b)(5)(xii)

Clarify the statement on Page 28 "...the quantity of acidic soils found along the proposed CPL South route may be sufficiently high such that their potential for pollution should be mitigated." If the quantity is sufficiently, how is that mitigated? What investigation has been performed to determine that the amount potential for pollution is mitigated? § 102.4(b)(5)(xii)

10. The Erosion Control Blanket sub-section in Section 1.6 on Page 16 identifies the blankets to be applied on slopes greater than 3:1. However, the E&S Manual (Page 273) recommends that erosion control blankets be installed on all slopes 3:1 and greater. The identification on Page 16 is not consistent with the identification that the E&S BMPs are designed in accordance with E&S Manual (first sentence of the fifth paragraph on Page 4). Make all revisions necessary. §§ 102.4(b)(5)(vi), 102.11(a)(1) & 102.11(b)

11. Section 1.13 does not include a thermal impact analysis for the earth disturbance activity (for the E&S Plan). Provide this thermal impact analysis. Provide the thermal impact analysis for each specific site. §§ 102.4(b)(5)(xiii) & 102.8(f)(13)

12. Revise Section 1.15 to be specific for any requested riparian buffer/riparian forest buffer waivers associated with the temporary and permanent access roads. There is no regulatory requirement to provide a riparian buffer/riparian forest buffer for perennial or intermittent rivers, streams, or creeks, or lakes, ponds, or reservoirs with a Designated Use other than Exceptional Value and High Quality; therefore, a waiver of buffers for these areas is not required. Revise the narrative accordingly. § 102.14(d)(2)

13. Section 1.16 is not an adequate antidegradation analysis. Make the antidegradation analysis specific to the site for which the E&S Plan covers (i.e. each temporary and/or permanent access road). The analysis should evaluate and include nondischarge alternatives in the E&S Plan. If nondischarge alternatives do not exist for the project, then make that demonstration and include in the E&S Plan antidegradation best available combination of technologies (ABACT) BMPs. Make all revisions necessary. § 102.4(b)(6)

14. The plan drawings provided in Appendix A and B are not current with the latest set of revised full-size plan drawings (e.g. Appendix A Drawing No. 24-1600-70-28-A/LL113_9 has a latest revision date of 12/02/2015; while the full-size Drawing No. 24-1600-70-28-A/LL113_9 has a latest revision date of 02/04/2016). DEP recommends only providing one copy of the plan drawings per application set (do not provide reduced scale drawings in Appendix A and B), to avoid confusion and potential inconsistencies. § 102.4(b)(5)(ix)

15. For temporary access road AS-LE-033.1 (Appendix E), the narrative identifies the Watershed as Little Chickies Creek; however, PCSM Standard Worksheet #1 identifies the receiving surface water as an UNT to Shells Run. Clearly and consistently identify the receiving surface water. § 102.4(b)(5)(v)

16. The following technical deficiencies are associated with Appendix F:

    a. The narrative identifies the Watershed as Gingrich Run; however, PCSM Standard Worksheet #1 identifies the receiving surface water as an UNT to Gingrich Run. Clearly and consistently identify the receiving surface water. § 102.4(b)(5)(v)

17. The following technical deficiencies are associated with Appendix G:

    a. The riprap apron sizing calculations (in Appendix G.5) identify the dimensions are based upon minimum sizing criteria from chart. Provide more discussion related to this, including how the equivalent pipe size was determined for each apron. § 102.4(b)(5)(viii)

18. For temporary access road AS-LE-038 (Appendix H), the narrative identifies the Watershed as Quittapahilla Creek; however, PCSM Standard Worksheet #1 identifies the receiving surface water as an UNT to Quittapahilla Creek. Clearly and consistently identify the receiving surface water. § 102.4(b)(5)(v)

19. The following technical deficiencies are associated with Appendix L:

    a. The narrative identifies the Watershed as Quittapahilla Creek; however, PCSM Standard Worksheet #1 identifies the receiving surface water as an UNT to Quittapahilla Creek. Clearly and consistently identify the receiving surface water. § 102.4(b)(5)(v)

    b. Completely fill out E&S Worksheet #11. § 102.4(b)(5)(viii)

20. The following technical deficiencies are associated with Appendix L:

    a. The narrative identifies the Watershed as Swatara Creek; however, PCSM Standard Worksheet #1 identifies the receiving surface water as an UNT to Swatara Creek. Clearly and consistently identify the receiving surface water. § 102.4(b)(5)(v)

    b. The discussion identifies that there are no anticipated impacts or E&S BMPs proposed or anticipated for the area of the portion of the access road that will utilize the existing gravel road. However, the narrative discussion then identifies that a rock construction entrance and driveway apron will be utilized where the existing gravel drive meets the public road. Clarify this discrepancy. § 102.4(b)(5)(iii)

21. For temporary access road AS-LE-047 (Appendix N), the narrative identifies the Watershed as Swatara Creek; however, PCSM Standard Worksheet #1 identifies the receiving surface water as an UNT to Swatara Creek. Clearly and consistently identify the receiving surface water. § 102.4(b)(5)(v)

22. For temporary access road AS-LE-049 (Appendix O), the narrative identifies the Watershed as Swatara Creek; however, PCSM Standard Worksheet #1 identifies the receiving surface water as an UNT to Swatara Creek. Clearly and consistently identify the receiving surface water. § 102.4(b)(5)(v)

23. For temporary access road AS-LE-050 (Appendix P), the narrative identifies the Watershed as Swatara Creek; however, PCSM Standard Worksheet #1 identifies the receiving surface water as an UNT to Qureg Run. Clearly and consistently identify the receiving surface water. § 102.4(b)(5)(v)

24. The following technical deficiencies are associated with Appendix Q:

    a. The narrative identifies the Watershed as Forge Creek; however, PCSM Standard Worksheet #1 identifies the receiving surface water as an UNT to Forge Creek. Clearly and consistently identify the receiving surface water. § 102.4(b)(5)(v)

    b. It appears that based upon the grading around the MLV Pad shown on the plan drawings that concentrated flow will result. Provide stability calculations for this area of concentrated flow. Provide calculations which demonstrate that the flow depth does not result in drainage area contributing to the MLV Pad BMP. § 102.4(b)(5)(viii)

25. The following technical deficiencies are associated with Appendix R:

    a. The narrative identifies the Watershed as Forge Creek; however, PCSM Standard Worksheet #1 identifies the receiving surface water as an UNT to Forge Creek. Clearly and consistently identify the receiving surface water. It appears that Forge Creek and an UNT to Forge Creek are the receiving surface waters for this site/location. § 102.4(b)(5)(v)

    b. The discussion identifies that there are no anticipated impacts or E&S BMPs proposed or anticipated for the area of the portion of the access road that will utilize the existing gravel road. However, the narrative discussion then identifies that a rock construction entrance and driveway apron will be utilized where the existing gravel drive meets the public road. Clarify this discrepancy. § 102.4(b)(5)(iii)

c. The Location Map does not properly identify Forge Creek (it is identified as an UNT to Forge Creek). Properly identify the receiving surface waters. § 102.4(b)(5)(v)

26. The following technical deficiencies are associated with Appendix S:

a. The discussion identifies that there are no anticipated impacts or E&S BMPs proposed or anticipated for the area of the portion of the access road that will utilize the existing gravel road. However, the narrative discussion then identifies that a rock construction entrance and driveway apron will be utilized where the existing gravel drive meets the public road. Clarify this discrepancy. § 102.4(b)(5)(iii)

27. The following technical deficiencies are associated with Appendices T & U:

a. The narrative identifies the Watershed as Trout Run; however, PCSM Standard Worksheet #1 identifies the receiving surface water as an UNT to Trout Run. Clearly and consistently identify the receiving surface water. § 102.4(b)(5)(v)

b. The discussion identifies that there are no anticipated impacts or E&S BMPs proposed or anticipated for the area of the portion of the access road that will utilize the existing gravel road. However, the narrative discussion then identifies that a rock construction entrance and driveway apron will be utilized where the existing gravel drive meets the public road. Clarify this discrepancy. § 102.4(b)(5)(iii)

28. The following technical deficiencies are associated with Appendix V:

a. The narrative identifies the Watershed as Swatara Creek; however, PCSM Standard Worksheet #1 identifies the receiving surface water as an UNT to Swatara Creek. Clearly and consistently identify the receiving surface water. § 102.4(b)(5)(v)

b. The discussion identifies that there are no anticipated impacts or E&S BMPs proposed or anticipated for the area of the portion of the access road that will utilize the existing gravel road. However, the narrative discussion then identifies that a rock construction entrance and driveway apron will be utilized where the existing gravel drive meets the public road. Clarify this discrepancy. § 102.4(b)(5)(iii)

29. The following technical deficiencies are associated with Appendix W:

a. The narrative identifies the Watershed as Swatara Creek; however, PCSM Standard Worksheet #1 identifies the receiving surface water as an UNT to Swatara Creek. Clearly and consistently identify the receiving surface water. § 102.4(b)(5)(v)

b. The narrative identifies that additional E&S BMPs may not be necessary if the access road is installed and stabilized within a timely manner during dry weather. Identify this in the construction sequence. If the installation and stabilization of this access drive is not written as such in the construction sequence, then additional E&S BMPs will be required. §§ 102.4(b)(5)(iii), 102.4(b)(5)(vi) & 102.4(b)(5)(vii)

c. The riprap apron sizing calculations identify the dimensions are based upon minimum sizing criteria. Provide more discussion related to this, including how the equivalent pipe size was determined for each apron. § 102.4(b)(5)(viii)

d. The E&S Manual recommends a nominal placement thickness of 18-in. for R-4 riprap (Page 135); however, the calculations and plan drawings identify an apron thickness of 12-in. Revise the design to be consistent with the recommendations of the E&S Manual or provide the appropriate information related to the alternative BMP and design standards. §§ 102.4(b)(5)(viii), 102.4(b)(5)(ix), 102.11(a)(1) & 102.11(b)

e. The gradation provided for R-4 riprap in the calculations and plan drawings are not consistent with the gradation on Page 135 of the E&S Manual or with the gradation in Section 850 of PennDOT's Publication 408. If riprap is to be sized per the E&S Manual recommendations, then utilize the proper gradation. §§ 102.4(b)(5)(viii), 102.4(b)(5)(ix), 102.4(c) & 102.11(a)(1)

30. The following technical deficiencies are associated with Appendix X:

a. The narrative identifies the Watershed as Swatara Creek; however, PCSM Standard Worksheet #1 identifies the receiving surface water as an UNT to Swatara Creek. Clearly and consistently identify the receiving surface water. § 102.4(b)(5)(v)

b. The narrative identifies that the area the proposed level spreader is discharging to, has not been field investigated/identified. This is not sufficient. Base the design upon field/actual conditions. §§ 102.4(b)(5)(iii) & 102.4(b)(5)(viii)

31. The following technical deficiencies are associated with Appendix Y:

a. The narrative identifies the Watershed as Swatara Creek; however, PCSM Standard Worksheet #1 identifies the receiving surface water as an UNT to Swatara Creek. Clearly and consistently identify the receiving surface water. § 102.4(b)(5)(v)

b. The narrative identifies that access road as temporary; however, the overall table on Page 6 of the main narrative identifies the access road as permanent. Clarify this discrepancy. § 102.4(b)(5)(iii)

32. For temporary access road AS-LE-059.1 (Appendix Z), the narrative identifies the Watershed as Swatara Creek; however, PCSM Standard Worksheet #1 identifies the receiving surface water as an UNT to Swatara Creek. Clearly and consistently identify the receiving surface water. § 102.4(b)(5)(v)

33. The following technical deficiencies are associated with Appendix AA:

a. The narrative identifies the Watershed as Swatara Creek; however, PCSM Standard Worksheet #1 identifies the receiving surface water as an UNT to Swatara Creek. Clearly and consistently identify the receiving surface water. § 102.4(b)(5)(v)

b. The narrative identifies that the area the proposed level spreader is discharging to, has not been field investigated/identified. This is not sufficient. Base the design upon field/actual conditions. §§ 102.4(b)(5)(iii) & 102.4(b)(5)(viii)

c. The gradation provided for R-3 riprap in the calculations and plan drawings are not consistent with the gradation on Page 135 of the E&S Manual or with the gradation in Section 850 of PennDOT's Publication 408. If riprap is to be sized per the E&S Manual recommendations, then utilize the proper gradation. §§ 102.4(b)(5)(viii), 102.4(b)(5)(ix), 102.4(c) & 102.11(a)(1)

Soil Erosion and Sediment Control Plan / Site Restoration Plan Drawings – Proposed 42" Central Penn South

1. Throughout the submission, the Erosion Control Legend shows a symbol for a Flume Channel Crossing. The corresponding detail, design calculations, or reference to installation/removal in the construction sequence could not be located in the E&S Plan. Provide all required information or clearly indicate where information is located, and describe the flume channel crossing within the construction sequence. §§ 102.4(b)(5)(vi), 102.4(b)(5)(vii), 102.4(b)(5)(viii), 102.4(b)(5)(ix), 102.4(c) & 102.11(b)

2. Staging area: Cleanout Stakes are proposed within several basins and traps. Identify the corresponding cleanout elevations at each proposed cleanout stake location. § 102.4(b)(5)(ix)

Best Management Practices and Quantities Plan Set – Proposed 42" Central Penn South

1. Clarify the purpose of this plan set. Is this plan set to serve as the E&S BMPs for the proposed 42" Central Penn Line South E&S Plans or to serve as the E&S BMPs for the temporary and permanent access roads? If separate E&S Plans are provided for the 42" CPL South and for the temporary and permanent access roads; then make each of those plans full and complete (including all necessary details, notes, maintenance, etc.). § 102.4(b)(5)

2. The Trench Plug Installation detail is not the most current version of the detail from the E&S Manual. Provide a detail that is in conformance with the current set of standard details from the E&S Manual or provide the required information related to the alternative BMP and design standard. §§ 102.4(b)(5)(vi), 102.4(b)(5)(ix), 102.11(a)(1) & 102.11(b)

Erosion and Sediment Control and Layout Plans Drawings – Access Roads

1. Provide a separate PCSM Plan for the permanent access roads from the E&S Plan for the permanent access roads. A combined plan, titled Erosion and Sediment Control /Site Restoration Plan, can be provided for the temporary access roads. §§ 102.4(b)(5)(xiv) & 102.8(d)

2. Make the Notes provided on Drawing No. 24-1600-70-28-A/LL113_9-AR-LE-033.1 Sheet 6 of 7 specific for that particular location. Make all revisions necessary to correct this deficiency throughout the application documents. §§ 102.4(b)(5)(ix) & 102.8(f)(9)

3. Show the proposed grading for the temporary and permanent access roads on the plan view for each location. Make all revisions necessary to correct this deficiency throughout the application documents. §§ 102.(b)(5)(iii), 102.4(b)(5)(ix), 102.8(f)(3) & 102.8(f)(9)

4. Identify and show the test pit locations on all applicable PCSM Plan drawings. Make all revisions necessary to correct this deficiency throughout the application documents. §§ 102.(b)(5)(iii), 102.4(b)(5)(ix), 102.8(f)(3), 102.8(f)(9) & 102.8(g)(1)

5. Identify where the site/location specific notes and details for the PCSM Plan are to be found. Provide the regulatory required information for all PCSM BMPs claimed for the specific site/location. Make all revisions necessary to correct this deficiency throughout the application documents. §§ 102.8(f)(6),102.8(f)(7), 102.8(f)(9) & 102.8(f)(10)

6. Drawing Number 24-1600-70-28-A/LL 113_9 Sheet 3 of 27 shows a leader with a label stating, "Stream WW-T43-4001", pointing to what appears to be a 12" sediment barrier. Make all revisions necessary. §§ 102.4(b)(5)(ix) & 102.8(f)(9)