



March 24, 2020

Christopher Smith, P.E.  
Chief, Construction Permits Section  
Waterways and Wetlands  
PADEP Southeast Region  
2 East Main Street  
Norristown, PA 19401

RE: Technical Deficiency Letter  
Erosion and Sediment Control General Permit (ESCGP)  
Permit Application No. ESG 01 00 19 001  
JMT Job No. 18-00672-001

Dear Mr. Smith:

Johnson, Mirmiran & Thompson (JMT) is pleased to submit the Comment Resolution Summary letter in response to the Technical Deficiency Letter – Erosion and Sediment Control General Permit (ESCGP) for Adelphia Gateway Project – Phase 1, dated February 25, 2020. Please note, due to the COVID-19 pandemic and the statewide restrictions on non-life sustaining businesses this submission is being issued electronically. Based on our coordination, each county conservation district and the DEP Regional office will receive electronic copies of the specific plan sheets and sections of the reports based on the comment response for the respective districts. Once the restrictions are lifted and normal business operations are resumed, JMT will issue the hard copies and CD-ROMs required as part of this submission to all the appropriate offices.

The resubmission includes the following revised documents:

- Notice of Intent for ESCGP-3 (2 copies, 1 copy with highlighted revisions)
- Adelphia Gateway Project, Erosion and Sediment Control Plan and Post Construction Stormwater Management Plan (2 copies, 1 copy with highlighted revisions)
- Erosion and Sediment Control Report (2 copies, 1 copy with highlighted revisions)
- Post Construction Stormwater Report (2 copies, 1 copy with highlighted revisions)
- CD of all Submission Documents (2 copies)

The following are our responses to comments:

**Technical Deficiencies from BCCD:**

1. **BCCD Comment (2/25/20):** Please include the placement of timber mats and protective fencing around wetland areas on the construction sequence and drawing plans. BCCD recommends all areas where the limit of disturbance line sits next to wetlands have protective fencing installed. [Section 102.11(a)(1)]

**JMT Response (3/24/20):** *The construction sequence on ES-5 was updated to include the placement of timber mats and protective fence (refer to Note 4). Protective fencing was added at all areas in which the limit of disturbance sits next to the wetlands and can be shown on the E&S Plans.*

2. **BCCD Comment (2/25/20):** Please include only Antidegradation Best Available Combination of Technologies (ABACT) E&S BMPs to prevent additional sedimentation impairment to siltation impaired waters. [Section 102.11(a)(1)]

**JMT Response (3/24/20):** *ABACT E&S BMPs used as follows: rock construction entrance with wash rack, compost filter sock, erosion and control matting was added within 50 ft of the wetlands, a note was added to the construction sequence to immediately stabilize disturbed areas upon completion or temporary cessation of earth disturbance activity.*

**Technical Deficiencies from CCCD:**

1. **CCCD Comment (2/25/20):** Please utilize a minimum of 24" Filter Sock adjacent to streams and wetlands. [Section 102.4(C)]

**JMT Response (3/24/20):** *Filter sock revised to 24" adjacent to streams and wetlands. This is applicable to Schuylkill River Blowdown, Paoli Pike Blowdown, Chester Creek Blowdown.*

2. **CCCD Comment (2/25/20):** Please provide a blow up of the stream/ wetland crossing to the Schuylkill River Blowdown on the plan mapping and illustrate the proposed E&S controls for bypassing the stream flow both on the regular mapping and within the blow-up insert. [Section 102.11(a)(1)]

**JMT Response (3/24/20):** *There are 2 crossings along the Schuylkill River Blowdown, this is along the easement of the gas line. As requested, blow-up inserts for each crossing have been added to sheet ES-19. The temporary crossing details and notes are provided through details on ES-9.*

3. **CCCD Comment (2/25/20):** There are long runs of mat access roads that cross what appear to be steeper slopes. The LOD is shown as the width of the mats indicating that the mats and disturbance will be limited to that width. The designers should evaluate whether the contractor will be able to traverse the mats if they are placed at existing grades or if grading or other methods will be needed to place the mats to allow for construction equipment and material deliveries. [Section 102.11(a)(1)]

**JMT Response (3/24/20):** *JMT has reviewed the intended travel path with HGA, mechanical designers, for constructability. The review focused on confirming the width and maximum slopes that the purposed construction equipment could traverse. HGA concurred that the pathways width and grades are appropriate, they also indicated that it would be beneficial to include turnaround locations along the French Creek Blowdown access path. The design plans reflect these revisions, see Sheet ES-16 and ES-17.*

4. **CCCD Comment (2/25/20):** The site restoration plans should address de-compaction of the work area especially in areas of the mat placement. [Section 102.11(a)(2)]

**JMT Response (3/24/20):** *A note to decompact subgrade of disturbed areas to a depth of 12 inches was included in the construction sequence for all main line valve sites on ES-4 and ES-5. In addition, additional language was added to the Site Restoration Schedule found on ES-6.*

**Technical Deficiencies from DCCD:**

*All comments from DCCD refer to regulatory citation of Chapter 102.11(a)(1)*

**Marcus Hook Compressor Station:**

1. **DCCD Comment (2/25/20):** L.O.D. expanded to impact two existing drainage swales and storm sewer outfalls. No erosion control provided, no swale designs and calculations for reinstallation and stabilization.

**JMT Response (3/24/20):** *The limit of disturbance (LOD) and construction activities were re-evaluated and earth disturbance will not take place within the two existing swales and storm sewer outfalls. The LOD was revised to exclude this area.*

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2. **DCCD Comment (2/25/20):** An 18" F.S. placed across one stormwater outfall, and also to a disturbed area which is unacceptable for erosion and sediment control. Swales and disturbed area along New Castle County, DE, border no sediment control provided.

**JMT Response (3/24/20):** *The limit of disturbance (LOD) and construction activities were re-evaluated, and earth disturbance will not take place within the two existing swales and storm sewer outfalls. The 18" filter sock was revised to protect the perimeter of the LOD.*

3. **DCCD Comment (2/25/20):** Sequence of Construction Item 5 - install the MRC during final stages of site construction, but the only step before this item is the installation of compost filter sock.

**JMT Response (3/24/20):** *The construction sequence was revised to include further details on the construction detailing, see ES-4.*

4. **DCCD Comment (2/25/20):** No erosion and sediment control provided for the construction of the MRC to prevent disturbed areas from draining to the facility or to temporary protect the outlet structure top of grate until facility is stabilized. This is an upslope diversion, so why two different linings?

**JMT Response (3/24/20):** *The erosion and sediment control plans have been revised to include a compost filter sock sediment trap at the southern end of the site prior to construction of the MRC basin. In addition, perimeter measures have been included to limit sediment laden runoff from reaching surface waters. Please note that erosion and sediment control blanketing is proposed for the basin embankments, the basin also has a vegetated hatch to represent the final condition, there is only one lining proposed.*

5. **DCCD Comment (2/25/20):** The plan does not label this endwall at the MRC, and it could not be determined whether or not a design detail and calculations have been prepared for the rock rip apron illustrated.

**JMT Response (3/24/20):** *The endwall at this location is identified as M-1, calculations have been prepared for the rock apron (M-1) and can found in the PCSM report Appendix D.2 and E&S Report, Appendix C. Revisions were made to the design plans and calculations to ensure that rock apron M-1 is consistently labeled throughout.*

#### **Transco Meter Station:**

1. **DCCD Comment (2/25/20):** Compost Filter Sock No. 4 is not placed on the contour.

**JMT Response (3/24/20):** *Compost filter sock segments was revised to run parallel to the contours.*

2. **DCCD Comment (2/25/20):** Rock lined Channel No. 2 and riprap apron from storm-tank infiltration system does not discharge to a surface water. Please provide a discharge analysis that meets the standard Item 15 on page 161 and Items 1—3 of page 439 of the E&SPC Manual.

**JMT Response (3/24/20):** *The PCSM and E&S Narratives were updated to include an off-site discharge analysis for the existing swales at Marcus Hook and Transco, see PCSM Appendix D.3.*

3. **DCCD Comment (2/25/20):** ES-9 list CH-2 design detail as temporary, then temporary lining of SC150, and then permanent lining as R-3. Also, the table points to detail and stating temporary geotextile lining — it should read just geotextile lining. Finally, it has a column T (FT) 0.25. If it is a representative of t or rock lining placement thickness, it should be 9 inches. It would also be preferred if the table would also list location. Freeboard must be a minimum of 0.5 feet calculations state 0.25 feet.

**JMT Response (3/24/20):** *The stormwater diversion channel table on ES-9 was revised to note the*

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*geotextile lining and rock linings. Column T was revised to 9 inches and a location column was added to the table. Within the calculations in Appendix D.2, a minimum freeboard of 0.5 ft is noted.*

4. **DCCD Comment (2/25/20):** Detail for rock filter/check dam are all listed as used in Quakertown. Where is the detail for rock filters used at Marcus Hook?

**JMT Response (3/24/20):** *The rock filter/check dam detail on ES-9 was revised to include two rock filters at Marcus Hook.*

**ABACT Controls:**

1. **DCCD Comment (2/25/20):** The two smaller sites, Chester Creek Blow-Down and Mainline Valve 1, are impaired for Siltation. They both use Compost Filter Sock. But they would both be deficient because they do not call for the use of an ABACT for Construction Access.

**JMT Response (3/24/20):** *Rock construction entrances with wash rack are now proposed at Chester Creek Blowdown and Mainline Valve 1 sites. Refer to ES-12 and ES-13.*

**Technical Deficiencies from MCCD:**

**Existing topographic features of the project site and the immediate surrounding area.  
[Section 102.4(b)(5)(i)]**

1. **MCCD Comment (2/25/20):** The 100-year floodway boundary should be shown on the plan drawings. Please note that in the absence of a FEMA delineated floodway, the floodway is assumed to be 50' from the top of each bank. Any disturbance within the floodway would be a water encroachment and would require permitting as it is considered part of the stream. Please verify for the stream crossing area located on sheet ES-21.

**JMT Response (3/24/20):** *The stream crossing was removed from the design plan ES-21 as it is not a verified waterway, but a pipe that drains to the wetlands. No other streams are located within the vicinity of the project sites for East Perkiomen Blowdown, Skippack Pike Valve Tap and Perkiomen Creek Blowdown.*

2. **MCCD Comment (2/25/20):** Please verify the existing contours for the project areas. For example, sheet ES-21 does not appear to be consistent with the current site conditions.

**JMT Response (3/24/20):** *Revised survey is provided for Perkiomen Creek Blowdown, Skippack Pike Valve Tap and East Perkiomen Blowdown sites.*

3. **MCCD Comment (2/25/20):** Sufficient surrounding areas should be shown on the plan map(s) to identify tributary drainage areas and receiving watercourses. Where these features are beyond the coverage of the plan maps, they may be identified on the location map(s) (page 398 of the E&S Manual). [Section 102.11(a)(1)] Please provide for ES-22.

**JMT Response (3/24/20):** *The Location Maps have been revised to identify the tributary drainage area and the receiving watercourses since these features extend beyond the plan viewport.*

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- MCCD Comment (2/25/20):** A location map that conforms to the standards on page 397 of the E&S Manual should be provided. Please verify the location callouts on the location map. The site area appears to be inconsistent with the plan drawing areas.

**JMT Response (3/24/20):** *The location maps have been updated to conform to the standards on page 397 of the E&S Manual. The location map shows major highways and the USGS quadrangle is noted. The site locations have been confirmed and adjusted accordingly.*

#### **Location of all surface waters and their classification under Chapter 93. [Section 102.4(b)(5)(v)]**

- MCCD Comment (2/25/20):** All existing surface waters (streams, wetlands, ponds, etc.) should be shown on the plan map(s) as described in Item 5 of pages 3 and 4 and on page 398 of the E&S Manual. [Section 102.11(a)(1)] Please verify for sheet ES-21.

**JMT Response (3/24/20):** *Based on survey revisions, it was verified that at the stream crossing originally presented on ES-21 is not a stream. A pipe culvert is proposed to convey the drainage from the outlet pipe/riprap apron under the rock construction entrance. Detailing this pipe culvert can be shown on the rock construction entrance detail on ES-8.*

#### **Sequence of BMP installation and removal. [Section 102.4(b)(5)(vii)]**

- MCCD Comment (2/25/20):** Please verify when the stream crossing gets installed for the Perkiomen Creek blowdown area.

**JMT Response (3/24/20):** *A note for the temporary stream crossing has been added to the Construction Sequence for Perkiomen Creek Blowdown on ES-5.*

- MCCD Comment (2/25/20):** The rock construction entrance should be installed prior to the wood matting installation. Please revise.

**JMT Response (3/24/20):** *The construction sequence was revised to note the rock construction entrance was installed prior to the wood matting. This is applicable for Perkiomen Creek Blowdown and Skippack Pike Valve Tap sites.*

#### **Plan Drawings. [Section 102.4(b)(5)(ix)]**

- MCCD Comment (2/25/20):** Please verify if ABACT BMPs are required for this project. On narrative page 17, it mentions the need for ABACT controls, but the plan drawings did not show all ABACT BMPs.

**JMT Response (3/24/20):** *Rock construction entrances with wash rack are now proposed as an ABACT control for construction access.*

#### **Inlets/Inlet Protection**

- MCCD Comment (2/25/20):** Please provide the drainage areas to the proposed inlet protection on sheet ES-22.

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**JMT Response (3/24/20):** *As requested, inlet drainage area plans to the proposed inlet protection is provided in the E&S narrative, Appendix C*

### **Silt Fence / Compost Socks**

1. **MCCD Comment (2/25/20):** The ends of the proposed compost socks should point sufficiently upslope to create adequate pooling of runoff for the settling of sediment and to prevent end-around flows. For example, 18" socks should be pointed upslope at least 18"—24" upslope in elevation difference to ensure that end-around flows are avoided. Per the E&S Manual, pages 61 and 62, "The ends of sediment barriers should be turned upslope at 45 degrees to the main barrier alignment on a distance sufficient to elevate the bottom of the barrier ends to the elevation of the top of the barrier at the lowest point. This is to prevent runoff from flowing around the barrier rather than through it. As with other sediment barriers, filter socks should be placed parallel to contour with both ends of the sock extended upslope at a 45-degree angle to the rest of the sock to prevent end-abounds."

**JMT Response (3/24/20):** *The ends of the proposed compost filter sock have been revised to point sufficiently upstream to allow for settling of sediment and to prevent end-around flows.*

2. **MCCD Comment (2/25/20):** It appears that the maximum slope length has been exceeded for several sections of silt fence. Was not able to verify slope lengths for compost sock located on sheet ES-22 due to insufficient upslope contours. Please revise.

**JMT Response (3/24/20):** *The calculations and sizing of compost filter sock have been revised to ensure that the maximum slope lengths does not exceed the compost filter sock sizing noted. The calculations have been provided in the Erosion and Sediment Control Narrative, Appendix C.*

3. **MCCD Comment (2/25/20):** Silt fence should be shown exactly parallel to existing contours. Maximum deviation from level grade should be 1 percent, and not extend for more than 25 ft.

**JMT Response (3/24/20):** *Compost filter sock is shown parallel to the existing contours to the maximum extent possible given the small limit of disturbance and the requirement to stay within the project easement.*

4. **MCCD Comment (2/25/20):** Areas of compost sock on sheet ES-21 appeared to be located under the wood matting.

**JMT Response (3/24/20):** *The compost filter sock on ES-21 has been adjusted so that it is not located under the timber matting.*

5. **MCCD Comment (2/25/20):** Multiple sections of compost sock appear to be discharging onto disturbed areas. Please revise.

**JMT Response (3/24/20):** *The compost filter sock on ES-21 has been adjusted so that it is not located under the timber matting.*

6. **MCCD Comment (2/25/20):** Compost sock/silt fence should not be shown within areas of proposed grading/disturbance.

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**JMT Response (3/24/20):** *Compost filter sock has been revised to the outer edge of the limit of disturbance boundary, however in some cases, could not be shown fully beyond the limit of disturbance in efforts to stay within the project's easement boundary.*

### **Stabilization / Erosion Control Blanket (ECB) / Turf Reinforcement Matting**

1. **MCCD Comment (2/25/20):** Was not able to locate temporary stabilization specifications. Please revise.

**JMT Response (3/24/20):** *A temporary seeding schedule has been added to ES-6.*

2. **MCCD Comment (2/25/20):** Erosion control blanketing (ECB) should be placed on all disturbance within 50' of streams and wetlands. This, and other stabilization standards are located in pages 260-265 in the E&S Manual. Please show the extent of all ECB on the plan drawings as shading, cross-hatching, or by some other similar manner.

**JMT Response (3/24/20):** *Erosion control blanketing has been added to all disturbed areas within 50' of all streams and wetlands.*

### **Potential thermal impacts to surface waters. [Section 102.4(b)(5)(xiii)]**

1. **MCCD Comment (2/25/20):** How potential thermal impacts upon receiving waters have been avoided and/or minimized by the plan design should be described (page 6 of the E&S Manual). [Section 102.11(a)(1)] Please provide for the E&S stage of construction.

**JMT Response (3/24/20):** *At the main line valve sites, thermal impacts will be minimized by site restoration activities. The disturbed areas will be restored and seeded as soon as practicable and /or directing runoff to vegetated areas to reduce the temperature of runoff prior to discharge into the streams. The site restoration construction sequence and site restoration schedule on ES-6 state how the disturbed areas are to be restored to existing conditions, which in turn, will minimize thermal impacts to surface waters.*

### **Overall Miscellaneous**

1. **MCCD Comment (2/25/20):** Please note that a resubmission fee is necessary. Please refer to the MCCD E&S Plan Review Application for further information.

**JMT Response (3/24/20):** *A resubmission fee of \$227.50 (50% of original submission fee) is included.*

2. **MCCD Comment (2/25/20):** Please take note that MCCD will not accept "piecemeal" plan revisions. All revisions must be submitted as part of a complete application package unless specifically otherwise agreed and allowed by the reviewer. Additionally, "piecemeal" applications could lead to the project being withdrawn if the complete set is not submitted by the due date.

**JMT Response (3/24/20):** *Noted.*

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**Technical Deficiencies from DEP:**

1. **DEP Comment (2/25/20):** For each Managed Release Concept (MRC) Best Management Practices (BMP) proposed for the above-referenced project, the professional engineer should document and demonstrate that the specific MRC BMP design addresses each and all of the 13 MRC design standards listed in the MRC document dated May 15, 2019 (the design standards start on page 4 of the MRC document), in narrative form with cross references to the specific location in the Post Construction Stormwater Management (PCSM) report. We have attached a courtesy template for the applicant's use to address the 13 MRC design standards. For each number or justification used to demonstrate that the design addresses the 13 design standards, the engineer will need to provide a specific page number in their PCSM report that reflects that number or justification. We need this information to verify that the numbers or justification are correct as modeled or calculated. Also, all hydrographs need to include the supporting and input data for hydrology and hydraulics associated with the hydrograph. Please make sure to include or account for any basin bypass areas in the design standards. This documentation/ demonstration should be provided in the respective section or appendix of the PCSM Report for each MRC BMP. [25 Pa. Code § 102.11(b)]

**JMT Response (3/24/20):** *A courtesy template has been submitted to document and demonstrate that the specific MRC BMP design addresses each and all of the 13 MRC design standards listed in the MRC document dated May 15, 2019 (the design standards start on page 4 of the MRC document), in narrative form with cross references to the specific location in the Post Construction Stormwater Management (PCSM) report. This is attached to this letter, and also included in Appendix D.2, Supporting Calculations, for Quakertown and Marcus Hook Compressor Stations.*

2. **DEP Comment (2/25/20):** Please demonstrate in the applicant's response letter, the PCSM Narrative, and the PCSM Plan Drawings how the permittee and/or co-permittee will address all of the components of Title 25 Pa. Code § 102.8(n) for the restoration activities of the proposed earth disturbance activities for the areas to be restored as part of this ESCGP-3 permit application. Please note that the Site Restoration Schedule, that is located in the E&S Plan drawing set (General Notes Sheet 6 of 7), should also be located in the PCSM Plan drawing set since it is a PCSM BMP with Long-Term Operation and Maintenance requirements. (25 Pa. Code § 102.8(n))

**JMT Response (3/24/20):** *To best demonstrate how the applicant is to meet Title 25 Pa. Code § 102.8(n) to describe the project scope. There are 13 sites included with this permit application, 3-meter stations and 10 valve sites. This is comprised of 3 new valve sites and replacement of 7 existing valve sites.*

*The meter stations (Marcus Hook, Transco, and Quakertown) proposes new buildings and paved areas. These sites provide stormwater management practice on each site to manage the increased volume runoff due to the revised land cover. These sites have been designed in accordance with DEP requirements for water quality, volume control, and rate control. The PCSM narrative has the complete analysis, infiltration testing results, and hydrologic modeling data for review. In addition, the PCSM design plans provide design details for the construction of the proposed BMP's on each site. Both the plans and narrative identify the long-term operation and maintenance requirements associated with these facilities. Finally, the applicant is abundantly aware of their long-term responsibilities as the selection of the BMP was discussed in great detail to ensure that the long term commitment was acceptable to the applicant.*

*The valve sites have no change in land cover from existing conditions and the applicant is to restore the disturbed areas to match the existing land cover and drainage patterns. The scope of work for each site is to access the valve site, replace the valve and segments of pipeline, backfill the excavated areas,*



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*place fencing, regrade the disturbed areas to maintain the existing drainage patterns, and restore the land cover (gravel or vegetation). The land cover on these existing valve sites is gravel with is to be replaced (in kind) and new sites will be restored to vegetated conditions. These sites have no increase in impervious land cover and it is not anticipated to negatively impact the watersheds drainage area. This is further defined on the PCSM and E&S plan notes in the "Site Restoration Schedule", PCSM 3 and E&S 6.*

*The design has given consideration on how to (1) preserve the integrity of stream channels and maintain and protect the physical, biological and chemical qualities of the receiving stream, (2) prevent an increase in the rate of stormwater runoff, (3) minimize any increase in stormwater runoff volume, (4) minimize impervious areas, (5) maximize the protection of existing drainage features and existing vegetation, (6) minimize land clearing and grading (7) minimize soil compaction, and (8) utilize other structural or nonstructural BMPs that prevent or minimize changes in stormwater runoff. The E&S and PCSM narratives and plans provide for ABACT control measures in special watersheds, structural stormwater management facilities on site with increased impervious land cover, maintaining tight workspaces to limit disturbance, and limiting impervious cover where feasible. Additional language has been added to the PCSM Narrative, Section V, to describe how the site restoration activities will satisfy the requirement set forth in Chapter 102.*

3. **DEP Comment (2/25/20):** In Section VI of the PCSM Report, it is mentioned that a Phase 1 Environmental Assessment was performed at the Marcus Hook Compressor Station site and at the Quakertown Compressor Station site. There is no mention of a Phase 1 Environmental Assessment for any other sites in this section of the report. Please amend Section VI of the PCSM Report to include any and all environmental due diligence that was performed for the other sites of proposed earth disturbance activities to be covered under this ESCGP-3 permit.

**JMT Response (3/24/20):** *Phase 1 Environmental Assessments were completed for sites that was acquired, all environmental due diligence for these sites are included in previous submissions. Phase 1 Environmental Assessments were completed only at the Marcus Hook Compressor Station site and at the Quakertown Compressor Station site, only.*

4. **DEP Comment (2/25/20):** Please provide a recommendation from the applicant's environmental consultant that any known remaining contaminated soils (soils exceeding the PADEP's Statewide health standard) found during the applicant's environmental due diligence will be adequately managed with Best Management Practices (BMPs) along with adequate justification for the areas of the proposed earth disturbance activities. The adequate justification should include the regulated substance(s) chemical name, location (vertical and horizontal), and concentration found during the applicant's environmental due diligence, and the mobility and leachability potential of the regulated substances when exposed from earth disturbance activities during rain and other precipitation events. Any and all Best Management Practices (BMPs) that are recommended by the applicant's environmental consultant should be added to the E&S Plan Drawings. [BMP Manual Chapter 17]

**JMT Response (3/24/20):** *Based on Adelpia's due diligence, no known contaminated soils would be crossed by construction of the Project. Should contaminated soils (soils exceeding the PADEP's Statewide health standard) be identified, NV5, LLC (NV5), as Adelpia's environmental consultant, recommends that Adelpia manage the soils in accordance with the Project's Unanticipated Discovery of Contamination, which will be provided to the DEP prior to construction.*

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5. **DEP Comment (2/25/20):** Please add the following notes to both the E&S Plan Drawing set and the PCSM Plan Drawing set in regards to Clean Fill and Site Contamination [25 Pa. Code § 93, 25 Pa. Code § 250, and 25 Pa. Code § 271]:
- With the exception of sites enrolled in DEP's Land Recycling and Environmental Remediation Standards (Act 2) program, all fill material excavated and used on-site, imported to the site, and exported from the site, must meet the definition of clean fill, as defined as "Uncontaminated, non- water soluble, nondecomposable inert solid materials. The term does not include materials placed in or on waters of the Commonwealth unless otherwise authorized." Regulated fill may only be used on Act 2 sites, in accordance with standards established by that program.
  - The permittee shall conduct environmental due diligence to verify that fill excavated on-site that is used to establish final grade, fill imported to the project site, and fill exported from the project site is considered clean fill, as defined as "Uncontaminated, nonwater soluble, nondecomposable inert solid material. The term does not include materials placed in or on waters of the Commonwealth unless otherwise authorized." If due diligence results in evidence of a release, as defined in DEP's Management of Fill Policy (285- 2182-773), that has affected the fill material, the permittee shall test the material to determine whether the material qualifies as clean fill, and Form FP- 001 (Certification of Clean Fill) must be completed, retained by the permittee or the property owner on-site, and be made available to DEP/CCD upon request.
  - In the event that fill excavated on-site that is used to establish final grade, fill imported to the project site, or fill exported from the project site is found to be regulated fill during the term of permit coverage, where the utilization of the regulated fill will require a permit from DEP's Waste Management program, earth disturbance activities shall cease until such time that the permittee obtains all necessary permits or approvals from DEP.
  - If the permittee becomes aware during earth disturbance activities that soils in the area of earth disturbance contain concentrations of regulated substances exceeding the residential medium-specific concentrations for soil in 25 Pa. Code Chapter 250, the permittee shall notify DEP and cease earth disturbance activities in areas of known soil contamination until authorized to resume by DEP.
  - If the permittee encounters groundwater during excavation that the permittee knows or has reason to believe is contaminated by one or more pollutants at concentrations exceeding water quality criteria contained in 25 Pa. Code Chapter 93, the permittee shall notify DEP. Contaminated groundwater may not be pumped or otherwise diverted to surface waters unless specifically authorized by DEP.

**JMT Response (3/24/20):** *The above notes have been added to the design plans, ES-3 and PCSM-2.*

6. **DEP Comment (2/25/20):** For each and all antidegradation analyses (PCSM and E&S) in the ESCGP-3 application, please provide an explanation of why the nondischarge BMPs were or were not utilized. This request for explanation is a standard note in the application. [ESCGP-3 permit application]

**JMT Response (3/24/20):** *Additional explanations for the non-discharge BMPs utilized under Section I, Part 1 (Page 14) has been added for each watershed.*

7. **DEP Comment (2/25/20):** Please amend the Long-term Operation and Maintenance (O&M) Plan in the PCSM Plan drawing set to include if each BMP is designed to function as an infiltration BMP for volume and water quality management, a Managed Release Concept BMP for volume and water quality management, peak rate management BMP, and/or a water quality management BMP. In addition, the O&M Plan should include a list of potential failures that could happen during operation and how the

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failures should be addressed by the responsible entity with corrective action measures. One of the failures listed should be if the BMP fails to drain in a specified amount of time after a specified rainfall event. One option for corrective action measures should be the replacement of the PCSM BMP in the O&M Plan to ensure proper function and operation to address the PCSM requirements of this ESCGP-3 permit. [25 Pa. Code § 102.8(f)]

**JMT Response (3/24/20):** *The O&M plan has been amended to note the function of each BMP. In addition, a table has been added to include a list of potential failures that could happen during operation and corrective action measures for these failures. Refer to PCSM-4 and PCSM-5.*

8. **DEP Comment (2/25/20):** Regarding the Existing Conditions section of the completed DEP Worksheet 4 for this application, there are comments related to the regulation at Title 25 Pa. Code Chapter 102.8(g)(2)(i) and (ii). Please address the following in the PCSM Report [ESCGP-3 permit application worksheet and 25 Pa. Code § 102.8(g)(2)]:
- For the Transco Meter Station site, please provide an explanation for the use of “woods” and “brush” cover and the associated CN values listed in the Existing Conditions section.
  - For the Marcus Hook Compressor Station site, please provide an explanation for the use of “gravel” and “impervious” cover and the associated CN values listed in the Existing Conditions section.
  - For the Quakertown Compressor Station site, please provide an explanation for the use of “impervious,” “gravel,” and “brush” cover and the associated CA values listed in the Existing Conditions section.

**JMT Response (3/24/20):** *Per Chapter 102.8(g)(2), the Existing Conditions 2-yr, 24-hr runoff volume was revised to ensure runoff calculations within Worksheet 4 are using 20% of impervious and gravel as meadow and all non-forested areas, which includes brush areas, were also considered meadow in existing conditions. This is noted in PCSM Report, Section VII, and calculations are in App D.1. Please note the Existing Conditions and Demolition Plans for the Transco, Marcus Hook and Quakertown sites notes the existing land covers. Furthermore, the drainage area maps detail the land covers as well.*

9. **DEP Comment (2/25/20):** At the Transco Meter Station site, it is recommended to apply an appropriate factor of safety to the field measured infiltration rates to determine a recommended design infiltration rate, following Appendix C of the PA BMP Manual. Please revise the PCSM computations accordingly to include an appropriate factor of safety, or please provide adequate justification. [PA BMP Manual Appendix C]

**JMT Response (3/24/20):** *Using a factor of safety of 2, an infiltration testing rate of 0.13 in/hr was used in the design calculations. HydroCAD computations within Appendix D.2 reflect this revision.*

10. **DEP Comment (2/25/20):** What is the intent and function of the impervious liner proposed for the PCSM BMPs at the Marcus Hook and the Quakertown sites? The intent and function of these impervious liners should be better discussed in Section VI of the PCSM Report. [25 Pa. Code § 102.8(f1)]

**JMT Response (3/24/20):** *On the day of the infiltration testing, seepage was measured at a depth of 50-53 inches. Thus, the groundwater table appears to have been between 4 to 4.5 feet deep at the locations of the three test pits. It should be noted that the tests were conducted in late Summer; and there was no rain on the day of testing. As a result, the design for the MRC Basin at Marcus Hook Compressor station is proposed to include an impervious liner to provide a separation from the groundwater table. This is noted in Section VI of the PCSM Report.*

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11. **DEP Comment (2/25/20):** In Section H of the ESCGP-3 permit application under Water Quality Compliance, please answer all questions based on the applicant's answer to "Does the PCSM/SR plan comply with requirements for volume control?" If a "yes" or "no" answer is not applicable for the subsequent questions, please provide adequate clarification next to the question. [ESCGP-3 permit application Section H]

**JMT Response (3/24/20):** *Section H for each of the 10 main line valve sites were updated to note "yes" for "is at least 90% of the disturbed area controlled by a PCSM BMP?" since 100% disturbed areas will be controlled by Site Restoration activities. Further worksheets #10, #12 and #13 are not applicable for site restoration activities and noted on the plans accordingly. Section H for Transco, Marcus Hook and Quakertown was not revised since DEP confirmed it was presented appropriately for these sites.*

12. **DEP Comment (2/25/20):** Please provide a seal and signature by a Professional Engineer (P.E.) licensed in the state of Pennsylvania on the PCSM Report and the PCSM Plan drawings for the proposed PCSM BMPs. [49 Pa. Code § 37.59]

**JMT Response (3/24/20):** *The submitted plans and reports are signed and sealed.*

13. **DEP Comment (2/25/20):** For the Off-site Discharge Analyses provided for this ESCGP-3 permit application, please follow the Frequently Asked Questions (FAQ) - Chapter 102 Off-Site Discharges of Stormwater to Non-Surface Waters dated January 2, 2019. In the applicant's response, please document the changes that were made to address the items listed in the FAQ document. The FAQ document can be found on DEP's website at:

<https://www.dep.pa.gov/Business/Water/CleanWater/StormwaterMgmt/Stormwater%20Construction/Pages/E-S%20Resources.aspx> [ESCGP-3 permit application and 102.4(c)]

**JMT Response (3/24/20):** *The PCSM and E&S Narratives were updated to include an off-site discharge analysis for the existing swales at Marcus Hook and Transco, see PCSM Appendix D.3. The analysis within the narrative notes the resulting reduction in rate and volume. The following revisions were completed as part of this submission in response to the FAQ guidance:*

- *Per FAQ #3, the appendix includes a separate exhibit detailing the soil types, flow path, and adjacent property owners. The exhibits illustrate that the flow path meet an unnamed tributary of Naaman's Creek (per eMaps).*
- *Per FAQ #5, JMT has provided additional calculations to demonstrate stable flow at the existing swales.*
- *Per FAQ #6, the flow does enter a MS4 sewer system prior to reaching a surface water however there is no increase in rate or volume and does not require consent from the MS4 permittee.*

14. **DEP Comment (2/25/20):** If one of the County Conservation Districts' deficiencies also applies to an earth disturbance activity in another county, the applicant should revise the plans accordingly in each and all counties.

**JMT Response (3/24/20):** *Noted.*

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If you have any questions or need further information, please do not hesitate to contact me at 215-496-4780 or [smathew@jmt.com](mailto:smathew@jmt.com).

Very truly yours,

JOHNSON, MIRMIRAN & THOMPSON, INC.



Shiny M. Mathew, P.E.  
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AH/sm  
Enclosures

Cc: Keith Edmonds, NJR  
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Gretchen Schatschneider, Bucks County Conservation District  
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