



February 25, 2020

Mr. Mark Valori
Adelphia Gateway, LLC
1415 Wyckoff Road
Wall, NJ 07719

Re: Technical Deficiency Letter
Adelphia Gateway Project - Phase 1
ESCGP-3 Permit Application No. ESG 01 00 19 001
Lower Chichester, Concord, East Goshen, East Whiteland, East Pikeland,
West Rockhill, Thornbury, Perkiomen, Richland, and Skippack Townships
Bucks, Chester, Delaware, and Montgomery Counties

Dear Mr. Valori:

The Department of Environmental Protection (DEP), the Bucks County Conservation District (BCCD), the Chester County Conservation District (CCCD), the Delaware County Conservation District (DCCD), and the Montgomery County Conservation District (MCCD) have reviewed the above-referenced ESCGP-3 permit application and have identified the technical deficiencies listed below. The *Pennsylvania Erosion and Sediment Pollution Control Program Manual* (E&S Manual) and the *Pennsylvania Stormwater Best Management Practices Manual* (BMP Manual) include information that may 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 DEP's established means of satisfying the applicable regulatory and statutory requirements.

Technical Deficiencies

Technical Deficiencies from BCCD

1. 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)]
2. 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)]

Technical Deficiencies from CCCD

1. Please utilize a minimum of 24" Filter Sock adjacent to streams and wetlands. 102.4(C)
2. 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. 102.11(a)(1)
3. 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. 102.11(a)(1)
4. The site restoration plans should address de-compaction of the work area especially in areas of the mat placement. 102.11(a)(2)

Technical Deficiencies from DCCD

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

1. Marcus Hood Compressor Station
 - a. 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.
 - b. 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.
 - c. Sequence of Construction
 1. 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.
 - d. 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?

- e. 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.
2. Transco Meter Station
 - a. Compost Filter Sock No. 4 is not placed on the contour.
 - b. 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.
 - c. 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.
 - d. Detail for rock filter/check dam are all listed as used in Quakertown. Where is the detail for rock filters used at Marcus Hook?
 3. ABACT Controls
 - a. 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.

Technical Deficiencies from MCCD

- A. Existing topographic features of the project site and the immediate surrounding area. [Section 102.4(b)(5)(i)]
 1. 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.

2. 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.
 3. 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.
 4. 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.
- B. Location of all surface waters and their classification under Chapter 93. [Section 102.4(b)(5)(v)]
1. 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.
- C. Sequence of BMP installation and removal. [Section 102.4(b)(5)(vii)]
1. Please verify when the stream crossing gets installed for the Perkiomen Creek blowdown area.
 2. The rock construction entrance should be installed prior to the wood matting installation. Please revise.
- D. Plan Drawings. [Section 102.4(b)(5)(ix)]
1. 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.
 2. Inlets/Inlet Protection
 - a. Please provide the drainage areas to the proposed inlet protection on sheet ES-22.
 3. Silt Fence / Compost Socks
 - a. 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 for 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-arounds."

- b. 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.
 - c. 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.
 - d. Areas of compost sock on sheet ES-21 appeared to be located under the wood matting.
 - e. Multiple sections of compost sock appear to be discharging onto disturbed areas. Please revise.
 - f. Compost sock/Silt fence should not be shown within areas of proposed grading/disturbance.
4. Stabilization / Erosion Control Blanket (ECB) / Turf Reinforcement Matting (TRM)
- a. Was not able to locate temporary stabilization specifications. Please revise.
 - b. 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.

- E. Potential thermal impacts to surface waters. [Section 102.4(b)(5)(xiii)]
1. 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.
- F. Overall Miscellaneous
1. Please note that a resubmission fee is necessary. Please refer to the MCCD E&S Plan Review Application for further information.
 2. 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.

Technical Deficiencies from DEP

1. 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)]
2. Please demonstrate in the applicant's response letter, the PSCM 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)]

3. 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. [BMP Manual Chapter 17]
4. 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]
5. 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]:
 - a. 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.
 - b. 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.
- c. 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.
 - d. 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.
 - e. 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.
6. 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]
 7. 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 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)]

8. 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)]:
 - a. 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.
 - b. 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.
 - c. For the Quakertown Compressor Station site, please provide an explanation for the use of “impervious,” “gravel,” and “brush” cover and the associated CN values listed in the Existing Conditions section.
9. 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]
10. 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(f)]
11. 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]
12. 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]

13. 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)]
14. 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.

You must submit a response fully addressing each of the technical deficiencies set forth above. Please note that this information must be received within 30 calendar days from the date of this letter, on or before March 24, 2020, or DEP may deny the ESCGP-3 permit application.

Please submit one hard copy and one CD-ROM of the revised information to each of the County Conservation Districts (Bucks County Conservation District, 1456 Ferry Road # 704, Doylestown, PA 18901; Chester County Conservation District, 688 Unionville Road # 200, Kennett Square, PA 19348; Delaware County Conservation District, 1521 North Providence Road, Media, PA 19063; Montgomery County Conservation District, 143 Level Road, Collegeville, PA 19426), and one hard copy and one CD-ROM of the revised information to DEP at the address located in the first page footer.

If you believe that any of the stated deficiencies are not significant, instead of submitting a response to that deficiency, you have the option of requesting that DEP make a permit decision based on the information you have already provided regarding the subject matter of that deficiency. If you choose this option with regard to any deficiency, you should explain and justify how your current submission satisfies that deficiency.

If you have questions about your application, please contact me by e-mail at christopsm@pa.gov or by telephone at 484.250.5152 and refer to Application No. ESG 01 00 19 001 to discuss your concerns or to schedule a meeting. You must attempt to schedule any meeting within the 30 calendar days allotted for your reply.

Sincerely,



Christopher Smith, P.E.
Chief, Construction Permits Section
Waterways and Wetlands

cc: Ms. Mathew – Johnson, Mirmiran & Thompson (JMT)
Bucks County Conservation District
Chester County Conservation District
Delaware County Conservation District
Montgomery County Conservation District
Municipal Engineer - Lower Chichester Township
Municipal Engineer - Concord Township
Municipal Engineer - East Goshen Township
Municipal Engineer - East Whiteland Township
Municipal Engineer - East Pikeland Township
Municipal Engineer - West Rockhill Township
Municipal Engineer - Thornbury Township
Municipal Engineer - Perkiomen Township
Municipal Engineer - Richland Township
Municipal Engineer - Skippack Township
Mr. C. Smith, P.E.
Mr. Hohenstein, P.E.
Re 30 (GJS20WAW)56-4