



January 14, 2021

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 2B, dated December 23, 2020

The resubmission includes the following revised documents:

- Notice of Intent for ESCGP-3 for Adelphia Gateway Project- Tilghman Lateral Phase 2B, signed and notarized, with completed Checklist
- Adelphia Gateway Project, Erosion and Sediment Control Plan and Post Construction Stormwater Management Plan, Tilghman Lateral -Phase 2B, dated 01/14/2021
- Erosion and Sediment Control Report, dated January 2021
- Post Construction Stormwater Report, dated January 2021
- PNDI Receipt and maps dated January 11, 2021.
 - This includes the Tilghman lateral shapefile as provided by NV5
- PHMC Review Form and additional Information dated January 14, 2021
- \$100 Disturbed Acre Fee
 - The disturbed area increased from 24.99 AC to 25.52 AC since the last submission. A check will be sent directly to PADEP office. JMT will notify Chris Smith once it is sent.

The following are our responses to comments:

PADEP Technical Deficiencies:

1. **PADEP Comment (11/20/20):** With this resubmission by Adelphia Gateway, it is understood that Adelphia Gateway is requesting to increase their earth disturbance activities for this phase (Phase 2B) from 1.3 acres as initially submitted for the above referenced application to 24.76 acres. Also, with this resubmission, it is understood that the applicant is changing their Post Construction Stormwater Management (PCSM) design at the PECO meter station from a capture and reuse BMP to an infiltration BMP using dry wells.

JMT Response (12/14/20): Noted. Please note that the LOD has been revised to 24.99 acres to account for additional earth disturbance within LOD Area 4 and 7.

2. **PADEP Comment (11/20/20):** Please confirm and demonstrate that the PNDI receipt/clearances, the Act 14 notifications, and the PHMC coordination includes the increase in the earth disturbance from 1.3 acre to 24.76 acres. If these items do not include the increase in the earth disturbance, please coordinate with each of these entities and provide updated correspondence documentation. [NOI/Application Checklist]

JMT Response (12/14/20): Please note that the additional LOD was included in the PNDI and PHMC documentation previously submitted during administrative review. For the PNDI, see the project boundary plan on page 2-3 of the PNDI receipt. For the PHMC, see the 20080817 Ltr from NV5 to PHMC, Consultation Request Package, 3rd Submittal, Attachment C.

Act 14 notification letters were resubmitted for the increased LOD to City of Chester, Borough of Trainer, Delaware County and Lower Chichester Township. Please find enclosed copies of the letters and receipts.

PADEP Comment (12/23/20): For the PNDI demonstration, for all proposed areas of earth disturbance associated with this application, we will need a copy of the PNDI search receipt(s), a copy of the specific project information (as requested in the PNDI search receipt) sent to each PNDI agency by the applicant, and proof of delivery to each PNDI agency. Please note that in following JMT's response, we reviewed the project boundary plan on page 2-3 of the PNDI receipt. From pages 2 and 3, it is difficult to see if all areas of earth disturbance associated with this application were included in the PNDI search. As part of the PNDI demonstration, please provide the specific information (as requested in the PNDI search receipt) sent to each PNDI agency by the applicant.

For the PHMC demonstration, for all proposed areas of earth disturbance associated with this application, we will need a copy of the PHMC Project Review Form(s) sent to the PHMC by the applicant, a copy of the attachments (map, description/scope of work, site plans/drawings, photographs, etc.) as listed on the PHMC form sent to the PHMC by the applicant, and proof of delivery to PHMC. Please note that in following the response letter dated December 11, 2020, we reviewed Attachment C in the PDF document named "20080817_Ltr_from_NV5_to_PHMC_Consultation Request Package_3rd Submittal.pdf." The mapping in this attachment does not identify all the proposed areas of earth disturbance associated with this application.

JMT Response (01/14/21): Please find enclosed the PNDI receipt dated January 11, 2021 which includes the maps and the project area. In addition, NV5 has provided the shapefiles which were uploaded to the PNDI website along with the PNDI request. It is NV5's understanding that once these are submitted through the PNDI system, the PNDI system automatically forwards the information to all PNDI agencies. The PNDI receipt is proof that the information was submitted to all PNDI agencies for their review; agency responses are included on the receipt.

Please find enclosed the PHMC Review form and associated mapping for the project area dated January 14, 2021, this was submitted via email and provided for your review.

- PADEP Comment (11/20/20):** It is noted in the PCSM report that the stormwater runoff from the PECO meter station site will be in the form of sheet flow. It seems from the proposed features and design at the site that the runoff will be in the form of shallow concentrated or channel flow from the dry well discharge points. Please verify. Also, please identify all properties and property owners that will or may receive off-site stormwater discharges from the project site until discharges reach surface waters. This includes Municipality and PennDOT rights-of-way. Further, please verify that the off-site discharge analysis follows the Chapter 102 Off-site Discharges of Stormwater to Non-Surface Waters FAQ. [102.4; 102.8]

JMT Response (12/14/20): Language within the PCSM Report, Section XV and E&S Report, Section XV, has been revised to note that the stormwater discharge travels via shallow concentrated flow.

Properties and property owners have been identified on the Off-site Analysis Plans, Sheets PCSM-6 to PCSM-8 and SR-39 to SR-41. JMT has further verified that the off-site discharge analysis follows the Chapter 102 Off-site Discharges of Stormwater to Non-Surface Waters FAQ. The plan sheets noted above and the narrative within the PCSM Report highlights all the items requested per the FAQ document.

- PADEP Comment (11/20/20):** Please verify the numbers in DEP Worksheet 12 in the PCSM Report for the proposed conditions at the PECO meter station. It seems that the cover (in acres) does not add up to the Total Site Area (in acres) as listed on the same DEP Worksheet. The same numbers are presented in Section H.f of the ESCGP-3 NOI as well. [102.8]

JMT Response (12/14/20): The site areas shown on DEP Worksheets 12 were expanded to show an additional significant figure. The total site area is 2,345 SF, 0.054 AC.

The areas noted on Section H.f of the ESCGP-3 NOI were revised as followed. The area noted for Site Restoration is 2,038 SF, or 0.047 AC, and corresponds to the gray hatch on the PCSM and E&S/SR plans. Two buildings totaling 260 SF, or 0.006 AC, are treated through two dry wells. Five (5) concrete pads and stairs are not accounted in the treated area for site restoration and the dry wells. This total bypass area is 47 SF, or 0.001 SF. The site area of 0.054 SF is the additional of the three areas listed above in this paragraph.

5. **PADEP Comment (11/20/20):** Please add labels and outlines to the E&S/Site Restoration Plan Drawings to identify the areas of any Chapter 105 application that is currently under review by DEP (or any Chapter 105 authorization that the applicant has already received). [102.5]

JMT Response (12/14/20): All wetlands and waterbodies that are "Chapter 105 Regulated Locations" have been noted on the plans. Additionally, there are four (4) areas noted on the plans that have been permitted under Chapter 105 Permit GP5230220-021.

6. **PADEP Comment (11/20/20):** For clarification with the areas of site restoration, please label the five new concrete pads at the PECO meter station site on the PCSM plan drawings and the E&S/Site Restoration plan drawings. [102.8]

JMT Response (12/14/20): Labels have been added to PCSM-5 and SR-38 for the five new concrete pad areas at the PECO meter station.

PADEP Comment (12/23/20): At the PECO meter station, it seems that the five concrete pads were labeled on sheets SR-38 and PCSM-5. However, there are other proposed features/objects on this plan that are not labeled. It is uncertain if these proposed features/objects are at the surface or below grade. Also, it is uncertain if these proposed features/objects will cause any increase in stormwater runoff. Please amend the plan to address these uncertainties.

JMT Response (01/14/21): Plan sheets SR-38 and PCSM-5 have been updated to add further clarification of the proposed features with the addition of callouts in plan view. Also, please refer to Note 8 on each sheet, which indicates that all proposed buildings and concrete pads are at the surface unless otherwise noted on the plans.

7. **PADEP Comment (11/20/20):** When comparing the surface areas of the proposed buildings and the dry wells at the PECO meter station, it seems that dry well #1 has a greater loading ratio than the maximum recommended loading ratio presented in Appendix C of the PA BMP Manual. If the surface area of the dry well cannot be increased, please justify the larger loading ratio along with a recommendation from the geotechnical engineer and please increase the factor of safety associated with the infiltration rates to a number higher than 2. [PA BMP Manual]

JMT Response (12/14/20): The footprint for dry well #1 was increased to an 8'x5'-2" rectangular precast structure. The footprint is 41.3 SF for a contributing impervious surface of 180 SF, resulting in a loading ratio of 4.4:1. This meets PADEP criteria, which states within Appendix C of the PA BMP Manual, that the maximum impervious loading ratio is 5:1.

PADEP Comment (12/23/20): Since there is only one dry well detail, it seems that both dry wells (dry wells #1 and #2) have been increased to an 8'x5'-2" rectangular precast structure. Please confirm.

JMT Response (01/14/21): Both dry wells are 8'x5'-2" rectangular precast structures. The callouts for the dry wells have been updated to specify the sizing.

8. **PADEP Comment (11/20/20):** Please add the infiltration test locations and the soil evaluation (test pit) locations to the PCSM plan drawings and the E&S/Site Restoration plan drawings. [102.8]

JMT Response (12/14/20): Test pit locations, TP-1 and TP-2, have been added to SR-38 and PCSM-5.

9. **PADEP Comment (11/20/20):** For the PECO meter station site, please have your team's geotechnical engineer discuss in the Geotechnical Engineering Report the location (horizontal and vertical) of the soil evaluation (test pits) and infiltration tests with respect to the proposed dry well locations (horizontal and vertical). In the Geotechnical Engineering Report, the geotechnical engineer should state that the soil evaluation (test pits) and infiltration tests can be used or should not be used for the location (horizontal and vertical) of the proposed dry wells. [PA BMP Manual]

JMT Response (12/14/20): The Geotechnical Engineering Report has been updated to discuss the locations of the test pits and infiltration tests relative to the proposed dry wells (both horizontal and vertically). It has also been noted that the test methods used are sufficient for the design of the dry wells.

10. **PADEP Comment (11/20/20):** For the PECO meter station site, please verify the calculation of the proposed building area runoff and the infiltration volume using the infiltration rates with the factor of safety and the 72-hour drawdown time after the design storm. Since it seems that the dry wells are being proposed for volume management and peak rate attenuation, the design storm should include 2-year/24-hour storm event through the 100-year/24-hour storm event. The stormwater model is difficult to see the volume managed or discarded. A separate calculation may be needed to demonstrate the infiltrated runoff volume. [102.8; PA BMP Manual]

JMT Response (12/14/20): The PCSM Report, Section VII, has been updated to clarify the items noted in the comment.

The infiltration testing at TP-1, located near dry well #1, and TP-2, located at dry well #2, resulted in infiltration rates of 1.00 in/hr and 1.25 in/hr, respectively. A factor of safety of 2 was applied to the design calculations and an infiltration rate of 0.5 in/hr and 0.625 in/hr were inputted into HydroCAD for dry well #1 and dry well #2, respectively. Drawdown time worksheet has been added to Appendix D.

The HydroCAD model included the following design storm events: 2-yr/24-hr, 10-yr/24-hr, 25-yr/24-hr and 100-yr/24-hr. Refer to the HydroCAD model within Appendix D.

For clarification purposes, a table has been added to Section 6 of the PCSM Report, Table VII-3, that outlines the volume infiltrated and managed/discharged through the overflow pipe. The values are shown within the HydroCAD Report in Appendix D.2. For each storm event, refer to the "Summary for Pond 1P: Dry Well 1" and "Summary for Pond 2P: Dry Well 2" sheets – Pages 10, 12, 20, 22, 30, 32, 40 and 42.

11. **PADEP Comment (11/20/20):** Please verify the Summary Table in Section H.e of the ESCGP-3 NOI for the PECO meter station, particularly the Impervious areas (in acres) and the Net Change in Volume of stormwater runoff (acre-ft) with planned stormwater BMPs. It seems that there are pre-construction and post-construction impervious areas at the PECO meter station, and it seems that the net change in Volume with planned stormwater BMPs is typically 0.00 or negative (not positive), if not, please provide justification. [NOI/Application]

JMT Response (12/14/20): Pre-construction conditions at the PECO Meter Station are entirely gravel; therefore, the pre-construction impervious area is 0.000 ac. The post-construction impervious area is 306 SF, or 0.007 acres. Section H.e of the ESCGP-3 was updated to reflect these impervious areas. The net change in volume of stormwater runoff with stormwater planned stormwater BMPs has been revised to - 0.002 ac-ft.

12. **PADEP Comment (11/20/20):** For the PECO meter station site, please have your team's geotechnical engineer recommend the use of the soil evaluation and infiltration rates as presented in the Geotechnical Engineering Report for the infiltration BMPs (dry wells) for all storms up to and including the 100-year/24-hour storm event based on the proposed contributory drainage areas and the surface areas of the infiltration BMPs. [102.8; PA BMP Manual]

JMT Response (12/14/20): Language has been added to the Geotechnical Engineering Report in Section 6 to indicate that the use of the soil evaluation and infiltration rates, noted within the Report, are recommended for the infiltration BMPs for all storms up to and including the 100-year/24-hour storm event based on the proposed contributory drainage and the surface area of the infiltration BMPs.

13. **PADEP Comment (11/20/20):** The PCSM plan drawings do not reflect a green roof for either of the proposed buildings at the PECO meter station. The Geotechnical Engineering Report references a green roof for each proposed building. For consistency reasons, please correct either the PCSM Plan drawings or the Geotechnical Engineering Report to specify the proposed type of roof at each proposed building. [102.8]

JMT Response (12/14/20): Figure 1 in Appendix A of the Geotechnical Engineering Report was updated to remove the reference of green roofs since these are no longer proposed.

14. **PADEP Comment (11/20/20):** The Geotechnical Engineering Report states, "...the groundwater data was collected in late July during the dry season, and the seasonally high groundwater table may be higher in the springtime. Given water seepage was noted at the bottom of Test Pit TP-1, depending on the seasonally high groundwater table in the Spring, dry wells may not be feasible in this location, or the bottom elevations of the dry wells should be limited to a depth that is 2 feet higher than the seasonally high groundwater table. The seasonally high groundwater table depth in this location should be investigated." For the PECO meter station site, please provide more information about the seasonally high groundwater table depth based on this recommendation in the Geotechnical Engineering Report in regards to the two proposed dry wells. [PA BMP Manual]

JMT Response (12/14/20): Section 6 of the Geotechnical Engineering Report was revised to include additional information for the seasonally high groundwater table. Per the Natural Resources Conservation Service, the depth to the water table in this location between March and April is 152 cm, or 5 ft (see Appendix D). The ground surface elevation of TP-1 is 14 ft; therefore, it is estimated that the seasonally high groundwater table elevation is 9 ft. As a result, it is recommended that the bottom of the dry well is constructed at a minimum bottom elevation of 11 ft, which provides a depth that is 2 feet higher than the seasonally high groundwater table per the guidelines of the Pennsylvania Stormwater Best Management Practices Manual, Appendix C, Protocol 2, Section 1. a.

PADEP Comment (12/23/20): The provided response and the amended geotechnical report does not explain the groundwater that was observed in test pit TP-1 at approximate elevation 7' in late July during the dry season. There is a concern that this groundwater that was observed could re-occur when the Dry Well #1 is supposed to be functioning. This groundwater may reduce the capacity of the drywell. Please amend the dry well design to include countermeasures to minimize the potential adverse impacts of this observed groundwater.

JMT Response (01/14/21): The bottom of the dry well is at elevation 11, the observed groundwater is at elevation 7, and the seasonal high groundwater is at elevation 9 based on the NRCS information. The design provides for the 2' clearance from the seasonal high groundwater limiting zone. As a countermeasure, JMT is proposing to add an underdrain to the bottom of the dry well. This underdrain will connect to the pop-up drainage emitter along with the dry well overflow pipe. In the scenario that the dry well is experiencing inflow from the groundwater and a rain event, the excess runoff will discharge through the pop-up emitter and convey to its discharge point. Plan Sheets PCSM-5 and SR-38 have been revised to reflect this revision.

DCCD Technical Deficiencies:

ABACT Controls (Marcus Hook Creek). Chapter 102.11 (a) (1)

1. **DCCD Comment (11/20/20):** Pump water filter bag needs to be surrounded by compost filter sock to be considered an ABACT.

JMT Response (12/14/20): Pumped water filter bag detail on SR-7 was updated to include Note 8, which indicates that in special protection watersheds, the pumped water filter bag must be surrounded by a compost filter sock or operated in conjunction with a sump pit.

DCCD Comment (12/23/20): The note added by the consultant concerning Surrounding Pump water filter bag with a compost filter sock in Special Protection Watersheds is not sufficient. This ABACT is also required for use when used in areas of Impaired Waters. As is the case when used within the Marcus Hook Watershed.

JMT Response (01/14/21): The note on the Pumped Water Filter Bag on SR-7 has been revised to specify the pumped water filter bag must be surrounded by a compost filter sock or operated in conjunction with a sump pit in special protection and impaired watersheds.

- DCCD Comment (11/20/20):** Inlet protection – unsure the drainage area. So, whether or not the ½ acre drainage area limit of filter bag has been exceeded.
JMT Response (12/14/20): JMT has confirmed that inlet protection and a corresponding drainage area label, is being provided for all inlets that collect drainage from the limit of disturbance. JMT has also ensured that all DAs do not exceed ½ acre per the filter bag inlet protection detail on SR-7.

Legend – Chapter 102.11 (a) (1)

- DCCD Comment (11/20/20):** The symbol used for 12” CFS is the same as 24” CFS.
JMT Response (12/14/20): The symbol used for the 24” CFS was updated in the legend.
- DCCD Comment (11/20/20):** Sheet SR-13 through SR-15 – why is the color blue (symbol) shown for drilling equipment area? When no exit or entry points are proposed?
JMT Response (12/14/20): The workspace on Sheet SR-13 to SR-15 has been revised to color green, pipe stringing and welding area.

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

Very truly yours,

JOHNSON, MIRMIRAN & THOMPSON, INC.



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

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