

January 19, 2023

Via Email: lpektor@ashleydevelopment.com

River Pointe Logistics Center, LLC
c/o Louis Pektor III
559 Main Street, Suite 300
Bethlehem, PA 18018

Re: Technical Deficiency Letter
River Pointe Logistics Center
NPDES Permit Application No. PAD480178
CTY.#: 31-22-1-63
Upper Mt. Bethel Township, Northampton County

Dear Mr. Pektor:

The Department of Environmental Protection (DEP) and Northampton County Conservation District (District) have reviewed the above referenced 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.

The technical deficiencies void the permit decision guarantee and any agreements that have been made regarding the timeline for the permit application review. DEP will continue to follow the permit review process procedures in the review and processing of this permit application.

Technical Deficiencies

1. ***§102.4(b)(5)(i) The existing topographic features of the project site and the immediate surrounding area.***
 - a. For clarity consider overlaying map sheet page reference/ match lines on the overall stage plan drawings, i.e., ES-4, ES-10, ES-19, ES-27.
 - b. Existing closed contours should be labeled or provide some other indicator to direction of slope, e.g., hatching to the downslope side, etc.; please revise.
 - c. Indicate the USGS quadrangle name(s) for the referenced Key Map.
2. ***§102.4(b)(5)(ii) The types, depth, slope, locations and limitations of the soils.***
 - a. Soil Identity labels could not be located on E&S Plan drawings; please revise.

3. ***§102.4(b)(5)(iii) The characteristics of the earth disturbance activity, including the past, present, and proposed land uses and the proposed alteration to the project site.***
 - a. Please label all proposed BMPs as stated on page 398 of the E&SPC Manual, i.e., all proposed outfalls, etc.
 - b. Please clarify Basin 3C-2 as Detention and/or Sediment, as sheet ES-10 references Sediment, but ES-14 references Detention.
 - c. It appears the proposed pipe connecting Inlet #08-110 to Sediment Basin 8/9 goes outside the proposed NPDES Permit limit and the proposed LOD; please revise as needed.
 - d. It appears proposed grading on left side of sheet ES-20 is not detailed on any other Stage 1.3 sheet; please revise as needed.
 - e. It appears Rock Filters RF 308 and RF 362 may be located outside NPDES Permit limit and/or LOD; please revise as needed.
4. ***§102.4(b)(5)(iv) The volume and rate of runoff from the project site and its upstream watershed area.***
 - a. Maximum during construction drainage area for Sediment Basin 3C-2 does not appear to be included with drainage area maps; clarify/ revise as needed.
5. ***§102.4(b)(5)(vii) A sequence of BMP installation and removal in relation to the scheduling of earth disturbance activities, prior to, during, and after earth disturbance activities that ensure the proper functioning of all BMPs.***
 - a. Sequence steps that reference activities regulated by Chapter 105 should be identified in the sequence, i.e., Stage 1.1 Step 16, Stage 1.2 Steps 16, 26, 31, 40, etc.; please revise.
 - b. Please address the following comments related to Stage 1.1:
 - i. Note 2 references BCCD; please revise to NCCD where applicable.
 - ii. Step 4 references installation of CFS which was already addressed in Step 1; please revise as needed for clarity.
 - iii. Please clarify location of topsoil stockpile referenced in Step 9.
 - iv. Steps 9-11 indicate clearing, grubbing, and installation of Substation; please clarify limits applicable to this phase, as sheet ES-29 indicates a larger electric substation area than shown on ES-6.
 - v. Step 14 indicates installation of inlet protection which does not appear on applicable sheets ES-8 and ES-9, and is referenced in Table on ES-39 as being installed in Step 1.2; please revise as needed.
 - vi. Step 19 references baffles which are not located on sheet ES-9; please revise and/or add note to install per detail on ES-33.
 - vii. Step 24 references Sewer Pump Station and Well, which could not be located on sheets ES-8 or ES-9; please revise as needed.
 - c. Please address the following comments related to Stage 1.2:
 - i. Step 2 should provide clarity to ensure previously installed CFS is maintained, and new CFS is installed per Stage 1.2 plans; please revise.
 - ii. Please clarify proposed activity expected in Step 8.
 - iii. Step 9 references RCE #20 which could not be located; please revise.

- iv. Step 17 references connecting storm pipe from endwall 137 to Basin 3C-1, which does not appear on sheet ES-14; please clarify/ revise as needed. Note, headwall/endwall references #137 and #140, but not #141 and #86; please revise as well.
 - v. Step 18 reference to Marshfield Drive could not be located on E&S sheets associated with Stage 1.2; please revise.
 - vi. Step 19 appears to duplicate the activity proposed in Step 17.
 - vii. Step 22 references baffles which are not located on sheet ES-14; please revise and/or add note to install per detail on ES-34.
 - viii. Step 23 references Manhole 23 which could not be located; please revise.
 - ix. Step 28 references baffles which are not located on sheet ES-13; please revise and/or add note to install per detail on ES-34.
 - x. Step 43 references STA 44+50, which could not be located on E&S sheets; please revise as needed for clarity.
 - xi. Step 44 references Temporary Sediment Basin and Diversion Socks; please clarify.
 - xii. Step 50 references Proposed Swales 1D and 1E which do not show any proposed grades on ES-18, the label for 1E is off-map, and the areas are potentially downslope of CFS-250D through 250H, and erosion control matting is not provided; revise as needed.
 - xiii. Step 53 references turbidity barrier which is not located on sheet ES-18; please revise and/or add note to install per detail on ES-34.
 - xiv. Step 54 references Proposed Swale 1B which does not show any proposed grades, or proposed erosion control matting, on ES-18; please revise as needed and clarify hydraulic connection to Swale 1C.
 - xv. ES-10 does not reference construction of Basin 3C-2; please revise. Note, if a Detention Basin is proposed, it is a clean-water feature, and all water accumulated in it must pass through appropriate E&S BMP first.
- d. Please address the following comments related to Stages 1.3 & 1.4:
- i. Please add new notes at the beginning of each lot sequence for the contractor to contact NCCD for on-site pre-construction meeting prior to mobilization to any of the individual lot sequences.
 - ii. Specify removal of RCE when applicable.
 - iii. Lot 2 Step 8 references turbidity barrier which is not located on sheet ES-23; please revise and/or add note to install per detail on ES-36.
 - iv. Lot 2 Step 11 references turbidity barrier which is not located on sheet ES-23; please revise and/or add note to install per detail on ES-36.
 - v. Lot 2 (Stage 1.4) Step 6 references Swale C to be removed which appears incorrect; please address removal of Swale B.
 - vi. Lot 2 (Stage 1.4) Step 9 references Subsurface Detention Basin 2B which could not be located on plan ES-24; please revise.
 - vii. Lot 2 (Stage 1.4) Step 15 references Subsurface Detention Basin 2A which could not be located on plan ES-24; please revise.
 - viii. Please clarify reference to BMP Trap removal in Lot 2 (Stage 1.4) Step 24.
 - ix. Lot 6 Step 5 references installation of Rock Filters; please clarify as it appears RF 361 and RF 362 are to be installed.

- x. Lot 6 Step 6 references erosion control matting for Swale 3B but does not appear to have been shown on sheet ES-25 and ES-26; please revise.
- xi. Lot 6 Steps 10 & 11 should reference Sediment Basin #6; please revise.
- xii. Lot 6 Step 11 references baffles which could not be located on ES-25; please revise and/or add note to install per detail on ES-34.
- xiii. Lot 6 (Stage 1.4) Steps 12 & 13 reference Subsurface Detention Basin which should include site-specific designation, and should be labeled on sheet ES-26; please revise.
- xiv. Lot 8 Steps 4, 5, and 6 reference striping topsoil for entire area of this stage and installing Sediment Basin 8/9, which should be broken down into additional steps to ensure disturbed areas drain towards basin. At these steps approximately half of the site is not draining to the basin; consider installation of collector channel or other contouring to direct runoff from work areas to Sediment Basin.
- xv. Lot 8 Step 4 references topsoil stockpile within the area of disturbance for this lot; please provide specific stockpile location.
- xvi. Lot 8 Step 7 references turbidity barrier which is not located on sheet ES-20; please revise and/or add note to install per detail on ES-35.
- xvii. Lot 8 Step 8 appears to have been completed in Step 3; please clarify/ revise as needed.
- xviii. Lot 8 Step 11 appears to be incomplete; please revise.
- xix. Lot 8 Step 18 references installation of skimmer which is not located on sheet ES-20; please revise and/or add note to install per detail on ES-35.
- e. Please address the following comments related to Stage 1.5:
 - i. Lot 3C Steps 7 & 8 reference basin 3C-2 which was already installed in Stage 1.2; remove or rephrase for clarity.

6. ***§102.4(b)(5)(viii) Supporting calculations and measurements.***

- a. Please address the following comments related to Rock Construction Entrances (RCE) and Site Access:
 - i. Temporary Haul/ Access Road is proposed, but no details or specifications could be located; please provide. Note: Access roads should be designed according to Chapter 3 of the E&SPC Manual.
- b. Please address the following comments related to Compost Filter Sock (CFS) and Sediment Barriers:
 - i. CFS or other applicable E&S BMP should be located between earth disturbance and edge of LOD/ NPDES Permit boundary, i.e., south side of Haul Rd across from CFS-120C, perpendicular to CFS-134C, south of CFS-132C, north of CFS-12A, east of Sediment Basin 2A-1, north of River Road entrance, north of CFS-100A (temporary during basin construction), south of CFS-100D, north and east sides of Sediment Basin 8/9, etc.; please revise as needed.
 - ii. The Slope Length Above Barrier used on Standard E&S Worksheet #1 should be maximum during construction or worst-case scenario if upslope grades will be altered after installation. A review of WS#1 indicated some slope lengths may not represent worst-case, i.e., east side of Lot 8, etc. Note,

- when CFS-384 are installed, Lot 8 gets cleared, resulting in approximately 1200 feet upslope, which exceeds all CFS sizes at the existing slope. Also note, CFS do not create a drainage break for calculating slope length – a diversion sock, berm, or channel should be used where applicable.
- c. Please address the following comments related to Standard Worksheet #8, Rock Filters:
- i. Swale 7 exceeds Total Channel Depth, i.e., 1-foot; please revise. Note, Rock Filters are not suitable for channels less than two feet total depth.
 - ii. Rock Filter 361 associated with Swale 2 could not be located on plan drawing ES-17, but RF #360 is identified; please revise as needed.
- d. Please address the following comments related to E&S Worksheet #11 Channel Design Worksheets:
- i. Swale 1C, Calculated Velocity exceeds Allowable Velocity in both lined and vegetated conditions; please revise as needed.
 - ii. Minimum Required Freeboard should be 0.5 feet or $\frac{1}{4}$ Total Channel Depth, i.e., 0.75 for 3-foot channels, 1.0 for 4-foot channels, etc.; please revise and recalculate as needed, i.e., Swales 1C, 2B, 2A, etc.
 - iii. Swale 1E, Bed Slope of 10% or greater must use shear method to determine stability; please revise.
 - iv. Swale 3B, Calculated Velocity exceeds Allowable Velocity in vegetated condition; please revise.
 - v. Swale 4, Calculated Velocity exceeds Allowable Velocity in both lined and vegetated conditions; please revise.
 - vi. Swales that are temporary and that will be removed prior to final grading should use the “T” designation in response to Temporary or Permanent; please revise as needed on applicable worksheets.
 - vii. Swale 7, Flow Depth plus Minimum Required Freeboard exceeds proposed Total Depth in both lined and vegetated conditions; please revise.
 - viii. There appears to be two worksheets for Swale 2A, and no worksheets for Swale 2; please revise.
 - ix. Swale 8, Bed Slope of 10% or greater must use shear method to determine stability; please revise.
 - x. Swale 9, Bed Slope of 10% or greater must use shear method to determine stability; please revise.
 - xi. Swale 9, Minimum Required Freeboard cannot be N/A; please revise.
- e. Please address the following comments related to Sediment Basins and Traps:
- i. The Required Surface Area at Elevation 3 (SA_{min}) appears incorrect on Worksheets entitled Sediment Basin Dimensions and Elevations.
 - ii. The particle size used in the calculation for Required Surface Area (SA_{min}) does not appear consistent with predicted soils. The soil types are not listed on the 50/60 scale drawing sheets or enlargement sheets so a complete technical review could not be completed. The soil types should consider all of the soil textures in the drainage area at the predicted depths of cut.
 - iii. A spot check revealed that the emergency spillway protective lining types specified on the worksheets are not consistent with lining types specified on

- the detail sheets. Additionally, the liners are not specified as TRM, as required for basins berms not on existing ground.
- iv. The water surface elevation noted for calculations of Principal Spillway Discharge Capacity on what appears to be modified Standard Worksheet #17 are not consistent with elevations provided elsewhere for Sediment Basin #1 and perhaps others. Review all water surface elevations for riser and barrel flow calculations for consistency.
 - v. The bottom width of the emergency spillway provided in what appears to be Worksheet #17 is not consistent with the emergency spillway width provided in plan view (SCD #7-13) for Sediment Basin #1 and perhaps others. Please review all emergency spillway widths for consistency.
 - vi. The dewatering time for dewatering zone should be provided for sediment basin worksheets (for example Sediment Basin #2, etc.).
 - vii. For Sediment Basin Discharge Capacity worksheet (Sediment Basin #2 and perhaps others) provide the flow analysis into top of riser, as indicated on the worksheet, even though barrel may be lowest Q.
 - viii. A minimum of 24 inches of freeboard is required above the elevation at which the 2 cfs/acre discharge capacity or the routed peak flow from the 25-year, 24-hour storm is provided. Please review all sediment basins for minimum (Sediment Basin #2, etc.). Data for routed 100yr/24hr storm could not be located in E&S plan.
 - ix. Please review the graphic on the worksheet Sediment Basin Dimensions and Elevations. The location of 1-Discharge Pipe Elevation does not appear correctly displayed.
 - x. Provide accurate dewatering time data in the Sediment Basin Requirements Worksheet. It should be consistent with Sediment Basin Dewatering Time Data or skimmer Worksheets.
 - xi. Please re-evaluate the cleanout/sediment storage elevation presented on the Worksheets and drawings. The cleanout should be set at the elevation at 700 cf/acre or 1 ft. minimum (e.g. Trap #1a, etc.)
- f. Please address the following comments related to E&S Worksheet #20 Riprap Apron Outlet Protection:
- i. Please clarify Outlet No. RD STR #16 is the referenced riprap apron on the north side of Sediment Basin 1; label plan as needed.

7. §102.4(b)(5)(ix) Plan drawings.

- a. Plan sheet ES-6 does not appear to be located on the Site Key; please revise.
- b. The proposed grading associated with the electric substation on Sheet ES-6 appears to concentrate stormwater runoff to CFS-190E. If drainage area calculations support this feature being a swale, make appropriate adjustments to proposed E&S BMP, i.e., riprap apron, rock filter, weighted sediment filter tube, etc.
 - i. Similarly, proposed grades south of CFS 244A may concentrate flow towards that BMP; please review/ revise as needed.
- c. Temporary Slope Pipe #120 on ES-9 does not appear to discharge to a sediment basin, trap, or collector channel per SCD #6-5 (ES-40); please clarify discharge location/existing swale, etc., and revise as needed.

- d. Inlet Protection for #177 on sheet ES-12 could not be located; please revise.
 - e. The final proposed limits of the waters and wetlands should be identified on the E&S plan drawings. These limits should be consistent with those presented in the Chapter 105 permit. Please designate areas of the project that are permitted under Chapter 105, i.e., any wetland or stream crossings, etc.
 - f. Sufficient space should be provided for installation of E&S BMPs, e.g., Rock Filter RF-205 conflicts with riprap apron, etc.; please revise as needed.
 - g. The proposed location of concrete washout facilities provided on sheets ES-22, ES-24, etc. appear to be inadequate. Washout facilities should not be placed within 50 feet of storm drains, open ditches or surface waters. Please relocate the facilities accordingly.
 - h. Please address the following comments related to Sediment Basin Enlargement Details:
 - i. Sediment Basins with proposed skimmers, i.e., SB 2, SB 6, SB 8/9, SB 8C, etc. should show a stone landing berm where applicable.
 - ii. SB 6 baffles should tie into upslope contours.
 - iii. The emergency spillways associated with each SB should have a TRM, riprap or other hard armor protection which extends at least 15 feet beyond the toe of the embankment to the receiving waterway, channel or other non-erosive outlet; please revise.
 - i. Riprap aprons should be installed on level grade; please revise where applicable, i.e., outfall 08-C-219, etc.
 - j. The Standard Construction Detail #7-13 does not contain TRM linings, as specified in the detail and page 192 of E&SPC Manual.
 - k. The Riser and barrel types should be provided on the worksheets, as is indicated.
 - l. The Standard Construction Detail #7-13 provided on ES-40 is missing many dimension labels. Please compare the submitted detail with the standard detail in the E&SPC Manual.
8. ***§102.4(b)(5)(x) A maintenance program which provides for the operation and maintenance of BMPs and the inspection of BMPs on a weekly basis and after each stormwater event, including the repair or replacement of the BMPs to ensure effective and efficient operation.***
- a. Maintenance & Inspection Schedule Table on ES-37 should include all E&S MBP, i.e. Alternate Stone and Block Inlet Protection, riprap aprons, etc.; please revise.
9. ***§102.6(a)(1) Submit to the Department or a conservation district a complete application or NOI, an E&S Plan meeting the requirements of § 102.4 (relating to erosion and sediment control requirements), a PCSM Plan meeting the requirements of § 102.8 (relating to PCSM requirements), and other information the Department may require.***
- a. NPDES Application page 3 – Please add the Chapter 105 Joint Permit to the Existing Permits section of the application and provide an update regarding the application status. Please note that while the Chapter 102 permit can be issued and construction may commence without the Chapter 105 permit, the Chapter 102 permit may be issued with special conditions and construction would need to cease prior to conducting any Chapter 105 related activities. It is noted that the plans

- depict numerous wetland and waters encroachments for utility, road and grading activities as well as stream enclosures throughout the project site.
- b. NPDES Application page 4 – Discharge points are defined as “engineered structures, drainage ways and areas of concentrated flow where runoff leaves a project site, except for areas of shallow concentrated flow that are controlled by perimeter BMPs.” Discharge points may be situated at or near surface waters or at another location, at or prior to the project site boundary. As such, the application materials should be revised to identify the distinct discharge points from the project site (i.e. EW #04C-01, Inlet #509, HW500, HW #08-C-219, MH351, MH302, HW1001, HW200, MH #02B-169, HW #6, Inlet #4, etc.). Please note that the current calculation structure (receiving surface waters) appears sufficient.
 - c. General Information Form (GIF) – Please address the following comments:
 - i. Please revise question 2 on page 3 of 8 as Act 14 Notifications were sent as part of the NPDES Application process.
 - ii. Please revise the responses to Q5.0 & Q5.1 on page 5. Per Q5.2, a Chapter 105 permit is required and the plan drawings appear to depict structure placements in, along, across watercourses.
 - iii. Please note Act 537 approval is required prior to initiation of earth disturbance (Q9.0.1 on page 6).
 - iv. Please provide a copy of the water supplier letter upon receipt (Q16.0.2 on page 7).
 - d. Pennsylvania Natural Diversity Inventory (PNDI) – Two PNDI search receipts were submitted with the application (724934_Final_2 for the main development area & 769233_Final_1 for the wastewater effluent disposal field west of Potomac Street). The following comments should be addressed:
 - i. The PA DCNR Bureau of Forestry response to 724934_Final_2 has recommended Conservation Measures which should be integrated into the site sequence of construction.
 - ii. A clearance letter from PA Fish and Boat Commission (PAFBC) in response to 724934_Final_2 was not found in the submission. Please provide.
 - iii. The US Fish and Wildlife Service (USFWS) response to 724934_Final_2 appears to address the future buildout of the site (including Lot 7 which is not part of this permit application). However, the letter recommends relocating the currently proposed recreational trail outside of the 300’ buffer from Wetland 18 (which is proposed in this phase). Please clarify how the current proposal addresses the USFWS recommendations.
 - iv. PAFBC & USFWS response letters to PNDI 769233_Final_1 were not found in the submission. Please provide.
 - e. Pennsylvania Historical and Museum Commission (PHMC) – Two PHMC letters were provided. Please clarify if the letters are for the same project area or two separate areas (similar to the PNDI submission).
 - f. Offsite Discharge Analysis –The following comments should be addressed:
 - i. The provided offsite discharge analysis does not provide a quantitative discussion of during-construction storm events up to and including the 10-year/24-hour storm. Please revise as necessary.

- ii. The driveway from the proposed development to 303 Demi Road does not have an associated stormwater conveyance system. Please clarify how this runoff will be conveyed safely to the receiving surface waters without a negative impact to downstream BMPs.
 - iii. NPDES application page 4 indicates that Discharge Point 4 (DP004) will discharge via an MS4 system. The associated non-surface waters box should be checked.
 - iv. As it relates to the above, the offsite discharge analysis (and associated mapping) should be updated to address DP004. For additional guidance, refer to PADEP “Chapter 102 Off-Site Discharges of Stormwater to Non-Surface Waters” FAQ dated January 2, 2019.
10. ***§102.8(c) Consistency with E&S Plan. The PCSM Plan shall be planned, designed and implemented to be consistent with the E&S Plan under § 102.4(b) (relating to erosion and sediment control requirements).***
- a. The PCSM plan should be planned, designed and implemented to be consistent with the E&S Plan. If any design changes made as a result of the PCSM and E&S deficiencies should impact either plan, please make the necessary revisions and list them clearly in the response letter. §102.8(c)
 - b. The “WWTP Effluent Disposal Field” on the east side of Potomac Street has a secondary PCSM plan drawing label that states “To Remain Until Subsequent Stage”. Please review and clarify. If the area will be part of future development, please provide a single, concise label for clarity.
 - c. The permanent seeding notes should be revised to specify that should there be insufficient topsoil on site, material may need to be imported.
 - d. A “walking trail in a 30’ easement” is proposed throughout the site (ref: plan legend & plan view). The trail is not contained within the NPDES/LOD boundaries, crosses several watercourses & wetlands not labelled as stream crossings, within the 300’ bog turtle buffer of Wetland 18, and a construction detail (along with associated cover type) has not been provided. Please review and clarify/revise the E&S and PCSM plan drawings as necessary.
11. ***§102.8(f)(8) Supporting calculations.***
- a. Given the scale of the current development and the potential need for additional impervious during the tenant fit-out phase, please consider incorporating additional impervious allotment in the post-development condition of this application. This “reserve” allotment could be included as a separate line item in the DEP Spreadsheet and a table could be provided on the PCSM plan drawings to be recorded.
 - b. The project proposes discharges/impacts to existing Exceptional Value (EV) wetlands located throughout the site. As such, please provide a level of demonstration that there will be no degradation or adverse impacts to the EV wetland(s) which includes but is not limited to physical, chemical, thermal, biological, and volumetric impacts. This analysis should include assessing both the surface water and ground water hydrology and impact of the stormwater to the functionality and value of the wetland(s). The pre-construction peak rates for all

storm events and the volume of the 2-year storm event should be replicated. Release conditions of the stormwater to the EV wetland(s) should also be replicated according to pre-construction conditions as not to deprive any of the wetland(s) of runoff (i.e. level spreaders, etc.). The analysis may include but is not limited to calculations, reports, studies, assessments and any other necessary documentation. Areas of concern include, but are not limited to, development of Lot 8 relative to WA-10/WE-25. §102.8(f)(5)

- c. The following comments regarding the DEP Volume Control worksheet should be addressed:
 - i. The volume credit for runoff capture/reuse can be the least of the following: the contributory volume (modified Worksheet 4), the spray irrigation system dispersal capacity (spray irrigation plans) and the basin storage capacity (stage-storage calculations). As such, it appears that BMP 2 is over credited (170,279 c.f. instead of 161,160 c.f.). Please review and revise as necessary. §102.8(g)(2)
 - ii. The Incremental BMP Drainage Area for BMP 14 (11.09 acres) is inconsistent with the supporting calculations (10.10 acres). Please review and clarify/revise.
 - iii. The runoff capture/reuse credit for BMP 14 (21,749 c.f.) is understated when compared to the tributary volume (42,336 c.f.), spray irrigation system capacity (44,471 c.f.) and basin storage capacity (55,638 c.f.). Please review and clarify/revise as necessary. Runoff capture/reuse systems should be designed to operate until the basin is empty.
- d. The total LOD on the NPDES Application (274.5 acres) is inconsistent with the totals identified on the DEP Spreadsheets page 1 for DP003 (19.25 acres) & DP001+DP004 (267.36 acres) as well as the Volume Control Worksheet (247.74 acres). Please review and clarify/revise as necessary.
- e. For clarity in accounting, please revise DP002 Module 2 page 1 to identify the total project site area & LOD so that all discharge points may be summed together and verify the NPDES Application values.
- f. The BMP 1 100-year outflow on Module 2 page 5 is incorrect. Please revise.
- g. The BMP inflow/outflow rates on Module 2 page 5 appear to be switched for BMPs 2 & 3. Please review and revise. §102.8(g)(3)
- h. The BMP inflow/outflow rates on Module 2 page 5 for BMP 8/9 & BMP 12/13 appear incorrect. Please review and revise.

12. §102.8(f)(9) Plan drawings.

- a. The final proposed limits of the waters and wetlands should be identified on the PCSM plan drawings. These limits should be consistent with those presented in the Chapter 105 permit. §102.8(f)(3)
- b. There are a number of locations where proposed features lie outside the current limits of disturbance (LOD) and NPDES boundaries. Please revise the boundaries and/or proposed features as necessary to ensure adequate permit coverage (i.e. storm sewer run from inlet 08-110 to headwall #08-100, outfall #08-C-219, south side grading on Lot 8, swale 2B on Lot 6, sanitary force main extension from 303 Demi Road, etc.).

- c. As it relates to the comment above, the spray irrigation areas and wastewater effluent disposal areas are currently depicted outside the LOD but within the NPDES permit boundary. As per the pre-application meeting, this was done to protect these areas during earthmoving activities. The following comments should be addressed:
 - i. To ensure that adequate Disturbed Acreage fees have been paid, please provide a fee exhibit plan depicting the LOD plus disturbance calculations associated with these areas. Per previous discussions with the design engineer, these disturbance areas were calculated as a percentage thereof due to the installation methods.
 - ii. The “Irrigation & Disposal Field Disturbance” notes provided on the E&S plan drawings should also be provided on the PCSM plan drawings.
- d. There are a number of proposed features which are inadequately identified on the PCSM plan drawings. The following comments should be addressed:
 - i. Please revise the PCSM plan drawings to provide sufficient detail and specifications for all disturbed areas to be restored (i.e. wastewater effluent disposal areas in DP002, spray irrigation areas, etc.). This includes, but is not limited to, seeding specifications, cover type labels & maintenance, etc.
 - ii. “Basin maintenance access” is provided for all at-grade basins (ref: plan legend & plan view). Please provide a construction detail along with associated cover type (i.e. stabilized gravel?).
 - iii. There are overland utilities extensions (i.e. SR0611 on sheet PC-11, sanitary force main on sheet PC-12 & PC-13, etc.) and the Lot 8 borrow area/grading whose final cover type are not adequately identified.
 - iv. A “proposed electrical substation” is proposed on the southern end of the project. Please revise the PCSM plan drawings and narrative to identify the cover type and/or impervious coverage allotted for this area.
 - v. A wastewater treatment plant is proposed on the southern end of the project. Please revise the PCSM plan drawings and narrative to identify the impervious coverage allotted for this area. Of particular concern are the features marked “future”.
- e. To ensure coordination during construction and Notice of Termination preparation, please provide storm sewer information (i.e. rim elevation, invert elevations, pipe data, etc.) with the application materials (i.e. PCSM plan drawings, current utility plan set, etc.)
- f. Retaining walls appear to be proposed throughout the site (i.e. north side of Lot 2, north side of Lot 6 extended-stay truck parking, elsewhere). Please revise the plan drawings to identify these grading features and provide some basic elevation information (plan labels preferred).
- g. An adequate conveyance should be provided from all outfalls to the intended receiving surface water. The outfall from Basin 4C (Headwall 04C-01), and perhaps others, should be re-evaluated to ensure that that discharges are safely conveyed (i.e. extended storm sewer, conveyance swale, etc.).
- h. Please add basin stage-storage information to the PCSM plan drawings for during-construction coordination and post-construction O&M. §102.8(f)(6)

- i. The following comments regarding the underground detention facilities should be addressed:
 - i. The outlet control structure detail should be revised to include the presumed missing interior orifice plate and the associated labels. Please revise.
 - ii. The underground detention details should be revised to provide sufficient detail for review and construction (i.e. overall system dimensions, system layout, pipe run direction, headers, etc.).
 - j. Please revise the at-grade basin construction details to include (or at least make reference to) the proposed seeding & stabilization specifications.
 - k. The Basin 3C-1 emergency spillway length is inconsistent between the pond reports, construction details and calculations. Please revise.
 - l. The Basin 4C emergency spillway elevation should be revised for consistent between the plan drawings (566.50) and the pond report (567.00).
 - m. Please revise the PCSM plan drawings to identify the plan location of the proposed water quality inlets/inserts. The construction detail summary table on sheet PC-21 is acknowledged.
 - n. In an effort to protect underground stormwater BMPs from sediment loading typically experienced in parking lots areas, please consider providing water quality inserts/inlets in all tributary inlets (i.e. inlets 02B-1, 02B-2, etc.).
 - o. There are at least two spray irrigation areas (2.1 & 2.2) where proposed grading infringes on the infiltration areas. Please revise either the proposed grading or the infiltration design as necessary.
 - p. Please clarify the winter operation of the runoff capture/reuse systems and associated stormwater basins. The spray irrigation plans specify a winter program but the associated details were not found (i.e. irrigation line burial depth below frost line, discharge line detailing, etc.). The impacts of this system operation on the peak rate analysis should be addressed by the PCSM narrative and offsite discharge analysis. §102.8(f)(10)
 - q. The O&M information for the at-grade detention basins and spray irrigation areas should be updated to provide a mowing schedule that support the proposed vegetative cover.
13. ***§102.8(g)(1) Predevelopment site characterization and assessment of soil and geology including appropriate infiltration and geotechnical studies that identify location and depths of test sites and methods used.***
- a. The following comments regarding the Module 2 Infiltration Information section should be addressed:
 - i. Appendix C of the PCSM Manual recommends the geometric mean be utilized to determinate the average infiltration rate following multiple tests. Please revise and clarify/revise as necessary.
 - ii. Appendix C recommends four to six test pits per acre for large infiltration areas. The number of tests currently provided for each spray irrigation area appear inadequate.
 - iii. The data entries for Zones 2.1 & 2.2 appear switched. Please revise.

- iv. The average infiltration rates identified for Zones 6.1 & 6.2 appear switched. As such, it appears that the spray irrigation plans need to be revised to account for the change in design rate.
 - v. The stormwater infiltration test report identified a seasonal high water table for TP49 at 14” below grade. Module 2 should be revised to identify this limiting zone. Appendix C recommends maintaining a 2-foot clearance between the infiltrative surface and the seasonal high water table. This spray irrigation area should be: redesigned to avoid this limiting zone, redesigned as evapotranspiration only (0.5 inches/day) and/or additional field testing should be performed.
 - vi. Four test pits and infiltration tests were completed for Zone 8.1. However, 3 of those tests were not completed since a subsurface utility was encountered. Additional test pits and infiltration tests need to be completed to support infiltration at this location.
14. ***§102.8(k) Licensed professional oversight of critical stages. A licensed professional or a designee shall be present onsite and be responsible during critical stages of implementation of the approved PCSM Plan. The critical stages may include the installation of underground treatment or storage BMPs, structurally engineered BMPs, or other BMPs as deemed appropriate by the Department or the conservation district.***
- a. While no PCSM BMPs are proposed for the Site Restoration within DP002, the critical stages of implementation should specify an inspection after construction is completed. The inspection should include, but is not limited to, ensuring that all disturbed areas have been restored and stabilized to match pre-development conditions. Please revise the E&S & PCSM plan drawings and Module 2 as necessary.
 - b. Due to its use as the primary volume control structural BMP, the critical stages of PCSM BMP implementation should be revised to specify oversight for the spray irrigation system activation.
15. ***§102.5(m)(3)(i)(B) [The Department] will provide an opportunity for interested members of the public, Federal and State Agencies to provide written comments on a proposed general permit.***
- a. Please find attached to this letter, public comments received by the Department for this application. Please provide a written response to the comments in the resubmission.
16. ***Due to the extent of the technical deficiencies listed above (the Chapter 105 impacts in particular), additional unforeseen revisions may be necessary to adequately support the NPDES major permit amendment proposed.***
17. ***Resubmission fee should be submitted to the District with the revised plans and narratives for review (per Section VIII, Northampton County Conservation District Erosion and Sediment Pollution Control Plan Review Fee Schedule.). §102.6(b)(3)***

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 February 20, 2023 or DEP may deny the application or consider it withdrawn.

Please submit the revised information to the District reviewers electronically. When you are ready to submit your documents, please follow the instructions on NCCD's website. Contact the District for any questions regarding resubmittal procedures. It is not necessary to provide hard copies of plan submittals. Please consider using the DEP's e-permitting system on future projects. This is currently optional but is recommended to reduce time spent by the technical review team on administrative tasks. More information about e-permitting can be found at the following link:

<https://www.dep.pa.gov/Business/Water/CleanWater/StormwaterMgmt/Stormwater%20Construction/Pages/Chapter-102-ePermit.aspx>

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 and the District 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 Jonathan Fox by e-mail at jmfox@northamptoncounty.org or by telephone at 610-829-6276, or Daniel Ahn by e-mail at dahn@northamptoncounty.org or by telephone at 610-829-6277, and refer to Application No. PAD480178, 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,

Robert Jevin

Robert J. Jevin III, P.E.
Environmental Group Manager
Waterways & Wetlands Program

Enclosure: Public Comments for review and comment
Transcript of 2/2/2022 Public Hearing for review and comment

cc: Dynamic Engineering Consultants, PC (swalsh@dynamiccec.com)
DEP NERO (majmiller@pa.gov & jdresch@pa.gov)
Upper Mt. Bethel Township (townshipmanager@umbt.org)
Northampton County Conservation District (northamptoncd@northamptoncd.org)
Lehigh Valley Planning Commission, (SRockwell@lvpc.org)