



May 10, 2024

PROLO22002

**Pennsylvania Department of Environmental Protection**

Southcentral Regional Office

Attn: Nathan Phillips

909 Elmerton Avenue

Harrisburg, PA 17110

**RE: Elevated Review Response Technical Deficiencies  
Prologis 7464-7600 Linglestown Road  
NPDES Permit Application No. PAC220379  
West Hanover Township, Dauphin County**

Dear Mr. Phillips,

In response to the Technical Deficiencies letter from Pennsylvania Department of Environmental Protection, dated February 28, 2024, and with reference to the above, we offer the following:

**TECHNICAL DEFICIENCIES, FEBRUARY 28, 2024**

1. Technical Deficiency 7 from the DEP's Technical Deficiencies Letter, dated August 11, 2023, and Technical Deficiency 1 from the DEP's Notification of Elevated Review Letter, dated October 17, 2023 has not been adequately addressed: **Wetlands are a surface water in which a surface water demonstration that rate control, volume management, and water quality compliance is to be provided. In addition, the projects impact on subsurface hydrology are to be analyzed to better ensure the wetlands continue to receive groundwater in a manner that mimics pre-development conditions and will protect the existing and designated use functions and values. The project proposes work upslope and immediately adjacent to the wetlands and several analysis points may be necessary to demonstrate all areas of the wetland are project and maintained. The DEP did not locate an analysis for Wetlands C and D that are down gradient of PCSM BMP 5. As a part of the demonstration, provide the following: [25 Pa. Code §102.8(g)(3), §102.8(g)(2), §102.8(g)(3), and §102.8(g)(6)]**
  - a. **A clear demonstration of the primary source of hydrology to each wetland point of analysis. The groundwater or seasonal high groundwater elevations should be located upslope of the wetlands to better show the moment of the table.**
  - b. **Pre- and Post-construction infiltration volumes for the upslope contributing areas to the point of analysis at the wetland.**
  - c. **A discussion on the project's effect on groundwater movement from the excavation, compaction, and installation of below grade barriers (walls, clay cores, key trenches) as well as the impervious covering that redirects and concentrates surface water that would have otherwise percolated into the permeable areas of the site and become groundwater.**

The following deficiencies are generated from the additional information (received on November 8, 2023):

- i. Analysis points are to be at the upper gradient of the surface water. Revise the drainage boundaries and supporting calculations to reflect the contributing drainage areas at the upper boundary of the wetlands.
- ii. There is disparity in the scale and value between pre- and post-condition wetland drainage areas. Specifically, the drainage area values do not make sense given the provided labels and delineated boundaries as shown

between pages 1105 and 1106 of Appendix J. DEP acknowledges that pipe networks drain to the PCSM BMPs and/or level spreaders but notes that these contributing areas are not included in the post-construction drainage area mapping. Review and revise as appropriate such that the delineated drainage areas in pre- and post-condition are represented correctly in both scale and labelled value, ensuring to update subsequent computations resultant of the change.

- iii. DEP acknowledges that an analysis and discussion was provided regarding the pre- and post-condition volumes. However, this analysis specifically focuses on Wetlands C and D. Provide a detailed analysis/discussion for the other impacted on-site Wetlands A, B, and H. DEP makes note that Wetland A is showing an increase in overall contributing runoff volume while Wetlands B and H are showing decreases in overall contributing runoff volume (Wetland B being substantially so). As such, provide further justification that the decreases in contributing runoff volume for Wetlands B and H will not negatively impact the existing and designated use functions and values of these wetlands given the change in surface/subsurface hydrology.

The following are additional deficiencies generated from the response documents received on December 12, 2023: [25 Pa. Code §102.8(b)(8), §102.8(f)(8), §102.8(f)(6)]

- A. Wetland A – The drainage area to the wetland includes area to the east of the wetland that appears to bypass Wetland A and contributes to Wetland B leading to a reported greater volume reported than the wetland receives. Also, the Wetland A paragraph on Page 22 of the PCSM report indicates an infiltrated volume will be received from BMP 4 and the undetained constructed slope to the west of the wetland; however, this constructed slope terminates in a retaining wall that will divert surface water away from Wetland A in addition to potentially limiting groundwater movement towards Wetland A. A retaining wall detail or other information was not located to determine if the wall allows for groundwater movement from the slope to the wetland. The level spreader (BMP 12) is reported to provide hydrology to the wetland; however, absent additional geological and groundwater information, by topography, the flow from the level spreader will only reach the lower areas of Wetland A. Revise the NOI documents to demonstrate how the hydrology will be maintained to Wetland A in a manner that maintains the existing use, functions and values of Wetland A.

**The drainage areas to Wetlands A & B have been revised. Level Spreader 5 has been extended to upstream of the entirety of the wetland edge potentially impacted by development. The standard retaining wall detail has been added to the PCSM plan set. A 12" perforated underdrain pipe will be installed in the north ravine area that feeds the wetland in existing condition. This 12" perforated pipe will convey infiltrated volumes from BMP 4 through the retaining wall along with other weep holes installed along the length of the retaining wall. A profile of Level spreader 5 was provided in the PCSM plans. For discussion of Wetland hydrologic regime attainment.**

- B. Wetland B – Given the drainage area deficiencies for Wetland A, the demonstration that hydrology will be maintained to Wetland B in a manner that maintains the existing use, functions and value has not been provided. In addition, infiltrated hydrology from BMPs 6 and 7 are shown to be contributing to Wetland B, however, any potential infiltrated volume from the BMPs is down gradient of the wetland and will not contribute to the wetland. Revise the NOI documents to demonstrate how the hydrology will be maintained to Wetland B in a manner that maintains the existing use, functions and values of Wetland B. [25 Pa. Code §102.8(g)(4)]

**BMPs 6 & 7 have been eliminated. Now, Wetland B will receive infiltration from Level Spreader 9 and BMP 4. Infiltration volumes from BMP 4 will flow through Wetland A to Wetland B. Level Spreader 9 will replenish shallow groundwater flows that are contributory from the hill to the western edge of the wetland. Please see PCSM plans and PCSM report for further discussion of Wetland hydrologic regime attainment.**

- C. Wetland C – The wetland was analyzed as a single point; however, the topography is such that a minimum of 3 areas of the wetland should be analyzed separately to better ensure the entire wetland area will be maintained. In addition, the proposed access road with multiple utilities, is immediately adjacent to the wetland and appears to restrict hydrology from the upslope area. Revise the NOI documents to demonstrate how the hydrology will be maintained to Wetland C in a manner that maintains the existing use, functions and values of Wetland C.

**Wetland C has been divided into 4 different edges of analysis. Additional Level spreaders have been added to supply water upstream to the area of the wetland that is impacted by the entrance. Please see PCSM plans and PCSM report for further discussion of Wetland hydrologic regime attainment.**

- D. Wetland H – The wetland was analyzed as a single point; however, the topography is such that a minimum of 2 areas of the wetland should be analyzed. By topography, the majority of the wetland receives hydrology from a narrow area north of the wetland. The analysis provided includes a large undetained area that appears to only contribute to a narrow portion of the wetland along the southern side. In addition, the infiltrated volume from BMP 3, claimed to provide hydrology to the wetland, contributes to the undetained area that bypasses the upper most reaches of the wetland. Revise the NOI documents to demonstrate how the hydrology will be maintained to Wetland H in a manner that maintains the existing use, functions and values of Wetland H.

**The wetland has been divided into 2 different edges of analysis. BMP 3 was moved to better supply infiltration groundwater flows to Wetland H. Level spreader 2 supplies sufficient infiltration volume to the uppermost reach of the wetland. Please see PCSM plans and PCSM report for further discussion of Wetland hydrologic regime attainment.**

If you have any questions or require further information in this regard, please contact me at [TStager@Pennoni.com](mailto:TStager@Pennoni.com) or (717)-620-5925.

The following documents are included as a part of this submission:

1. Two (2) copies of the Module 2 with DEP NPDES WRKST'S 4, 5 & 6 w/ water quality calculations for water quality inlets.
2. Two (2) copies of the Post Construction Stormwater Management Plan
3. Two (2) copies of the Erosion and Sediment Control Plan
4. Two (2) copies of the Post Construction Stormwater Management Report
5. Two (2) copies of the Erosion and Sediment Control Report

Sincerely,  
**PENNONI ASSOCIATES INC.**



Todd N. Stager, PE  
Associate Vice President

cc: Dauphin County Conservation District  
David Koerner, Prologis LP  
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