



November 22, 2023

Via email: [rthulin@arcadiaproperties.net](mailto:rthulin@arcadiaproperties.net)

Arcadia Development Corporation  
Richard Thulin, President  
3332 Bingen Road,  
Bethlehem, PA 18015

Re: Notice of Draft Individual NPDES Permit – Intent to Issue  
Notice of Technical Deficiencies  
Proposed Industrial Development  
NPDES Permit Application No. PAD480196  
Hanover Township, Northampton County

Dear Applicant:

The Department of Environmental Protection (DEP) has prepared the enclosed **draft** Individual NPDES Permit for Discharges of Stormwater Associated with Construction Activities (“Draft Individual NPDES Permit”) for your review and comment.

Also enclosed is a copy of a public notice that, in accordance with DEP regulations at 25 Pa. Code § 92a.82(b), you are required to post near the entrance to your premises and, if the facility or discharge location is remote from these premises, at the entrance to the facility (project site) or at the discharge location. These postings shall remain for 30 days.

DEP will publish notice of the draft permit in the *Pennsylvania Bulletin* in the near future. You may provide written comments on the draft permit up to 30 days following publication of this notice. Following the 30-day public comment period (which may be extended by 15 days at DEP’s discretion), DEP will consider any comments received and make a decision on whether to issue a final permit.

**Please be advised that your application contains technical deficiencies that must be corrected prior to DEP taking final action on your application.** 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 in the review and processing of this permit application.

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#### Technical Deficiencies

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1. ***§102.4(b)(5)(i) The existing topographic features of the project site and the immediate surrounding area.***

- a. Please correct the 4 spelling errors for the permit record on Module 1, Box 1 of E&S Plan Information Section. The section should also contain additional existing topographic descriptions per the instructions.
2. ***§102.4(b)(5)(ii) The types, depth, slope, locations and limitations of the soils.***
    - a. The soil types and subsequent information provided in the narrative (page 23) are not complete and consistent with the soils section provided in Module 1. Please review soil sections and discussions for consistency.
  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. Provide a legible Limit of Disturbance line for the earth disturbance proposed on Route 512, north of Gateway Dr.
  4. ***§102.4(b)(5)(vi) A narrative description of the location and type of perimeter and on site BMPs used before, during, and after the earth disturbance activities.***
    - a. Sections vi through x of the narrative report appear to be repeated. Please review for consistency and update as necessary.
  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. Step 9 of the construction sequence infers there is FS-8B and FS-8C. The BMPs could not be located in plan view and are not on Standard Worksheet #1.
    - b. In order to avoid confusion, please revise Step 12 to indicate “prior to starting rough grading”.
  6. ***§102.4(b)(5)(viii) Supporting calculations and measurements.***
    - a. Per the submitted material a surface water is not present on site. Please revise Worksheet 12. The basin does not apparently discharge to a surface waters (as defined in Chapter 102)
    - b. The District acknowledges the email correspondence with DEP (Mathew Miller) regarding jurisdiction of watercourse through the site. Please provide a drawing or describe extent of all areas determined to be non-Chapter 105 jurisdictional.
    - c. Baffle calculations are provided in the narrative but not proposed in plan or detail view. Please clarify.
    - d. EW100 is proposed to be a box culvert. Per Figures 9.4 etc. the nomographs are not to be used for box culverts.
    - e. Please clarify whether temporary EW100 and permanent EW100 are to be the box culvert noted on outlet protection calculations/details.
    - f. It appears a new discharge point is proposed at EW100 at existing basin. Please discuss the DP and provide appropriate documentation on various applications/spreadsheets.

- g. In order to evaluate construction runoff impacts to existing stormwater basin at outfall of proposed EW100 and effectiveness of Step 16, please provide a pre-construction drainage area map for the existing basin.
  - h. Please clarify whether the rip rap apron data on the detail sheet is for the temporary EW100 or the permanent EW100 or both.
  - i. Provide all calculations and details associated with proposed Channel A.
  - j. RF-1 is proposed at terminus of Channel A. The dimension for total depth (D) provided in the design and details is not consistent with the dimension for Channel A on the Detail sheet. Please revise.
  - k. Outlet barrels for permanent basins should be set in a concrete cradle, as shown in Standard Construction Detail #7. Provide detail and sequencing for the installation of cradle.
- 7. §102.4(b)(5)(ix) Plan drawings.**
- a. All rip rap apron outlet protection should be shown in plan view as installed on level grade. Revise temporary and permanent rip rap apron plan view designs accordingly.
  - b. Provide in the legend the abbreviation SDS (located at top of bypass) and its definition.
  - c. Label the retaining wall referenced on Step 10 and provide spot elevations.
  - d. There appears to be unlabeled CFS on Sheet 4 of 9 west of Specially Minerals property. Please identify and design accordingly.
  - e. The emergency spillway should be clearly labelled in plan view.
  - f. The cleanout stake should be placed near the center of the sediment basin. Additionally, per the E&SPC Manual, provide a detail for the cleanout stake.
  - g. It appears additional BMPs are required for the earth disturbance occurring to install EW100 and associated storm sewer into the existing basin.
  - h. Show all PCSM BMPs on all E&S drawings.
  - i. FS-8A is not located downslope of all earth disturbance and grading proposed upslope. The BMP should be relocated.
  - j. The construction detail and associated notes for Temporary cofferdam and pump bypass should be made more legible on Sheet 8 of 9.
  - k. The District requests that Sequence Step 12 be prominently placed in plan view on Sheets 3, 4, and 5 of 9.
  - l. The sequence note in plan view located beneath the Inlet 106 label should be completed.
  - m. Additional BMPs (e.g. barrier control) appear to be needed to protect the existing basin during construction of permanent EW100 and associated storm sewer down the slope.
  - n. Label the Holiday Inn parking lot expansion proposed in Offsite Improvements Construction Sequence.
  - o. FS-8B and FS-8C could not be located in plan view in vicinity of Gateway Drive per the sequence.
- 8. §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)

***9. §102.8(f)(8) Supporting calculations.***

- a. All existing impervious in existing conditions was classified as a D-soil type which is then also utilized when calculating the 20% of existing impervious should be considered meadow as D-soil. Please clarify if this entire area of existing impervious should be all D soils or if some of the existing impervious should be classified as meadow, soil group-B.
- b. The proposed emergency spillway was not modeled into the weir structure input for the proposed detention basin in the rate analysis hydraflow pond input. Please revise.
- c. It appears that the basin was designed to have a bottom elevation of 319.5-feet, but the hydraflow pond data section is only calculating the storage volume of the basin from 223.5-feet to 332-feet. Please address.
- d. The outflow pipe from the detention basin shown on the outlet structure detail shows a 30" diameter pipe at 324.63-feet. This does not match the culvert inputted into the hydraflow culvert structure. In the rate analysis within hydraflow, this outlet pipe is at an elevation of 326-feet, 1% slope, and is 800-feet long. Please ensure that the plans or calculations are revised for consistency.
- e. Please provide vegetated swale sizing worksheets/calculations within the PCSM narrative.
- f. Please fill out the rates and volume pages of Module 2 corresponding to the PCSM spreadsheets and rate analysis.
- g. There are two total POIs listed on the offsite discharge analysis map. Each of the POIs should be analyzed separately as a part of the offsite discharge analysis. Additionally, due to the overall distance between these POIs and the different stormwater conveyance systems that these discharges convey through before reaching the watercourse, it is recommended that separate PCSM spreadsheets should be analyzed for volume, rate and water quality.
- h. Please provide an analysis for the existing swale and also the proposed bypass pipe that convey flow to the existing 48" pipe that transfers water offsite to compare the capacity of the conveyances.

***10. §102.8(f)(9) Plan drawings.***

- a. All of the PCSM plans were not signed and sealed by a professional engineer. Please revise.
- b. Please provide an outlet structure detail for the proposed detention basin that also shows dimensions for the top of the structure.
- c. Provide a maintenance access road with a maximum slope of 15% and minimum width of 9 feet which allows full access to all outlet(s) and embankment areas.

- d. Please address the vegetative cover and land cover areas for all spray irrigation areas.
- e. Please clearly label and show the emergency spillway for the proposed detention basin A.
- f. There is a line of boulders on the PCSM plans that are within the spray irrigation areas 3, 4 and 5. Are these to be relocated in proposed conditions? The spray areas have approximately a 30-foot wide distance between the proposed impervious and the boulder locations while this does not match the existing parking lot area separation distance from the boulders (roughly 5-feet). If the proposed parking area is being reduced, which is increasing this distance, these areas beneath the impervious should not be receiving spray credit based on infiltration rates.

**11. §102.8(h)(3), §102.11(a)(2) Detention Basin**

- a. Provide both inner and outer embankment side slopes of 4:1 minimum as per the BMP manual. The detail appears to show 4:1 side slopes, however, it appears that this varies throughout the basin grading on the inner embankments. Please revise.
- b. Provide a basin with bottom that has a maximum 1% slope. The basin cross section is calling for a 2% minimum bottom slope.
- c. The minimum top embankment width of 9 feet is not provided. Please revise.
- d. The basin cross section is calling for a “synthetic liner as the top layer for the proposed basin. The synthetic liner is usually proposed beneath the proposed topsoil. If the synthetic liner is shown as the first layer in the basin, the basin may not be sized correctly with the additional 12” topsoil cover. Please provide a cross section for the basin showing all layers of media, liners, depths, etc.
- e. Please provide the specific seeding specifications to be utilized within the proposed detention basin.

**12. §102.8(h)(3), §102.11(a)(2) Spray irrigation.**

- a. Pop-up emitters are typically used in areas that are frequently mowed. If pop-up emitters are not being utilized or the spray areas will not frequently be mowed, provide the elevation of the spray nozzles. Typically, nozzles are positioned 3 feet to 5 feet above the ground elevation to prevent malfunctions due to vegetative growth.
- b. If elevated spray nozzles whose spray pattern is perpendicular to the receiving soils is used, please provide elevations and notation on the PCSM plan. This is to ensure that the system will be sprayed along the same contour/elevation for even distribution and to prevent channelization of the stormwater.
- c. Not all areas of proposed infiltration (spray irrigation areas) appear to be protected (fenced) during construction. Please describe how the infiltration areas will be protected from compaction during construction. The construction sequence should be more detailed relating to the spray irrigation system.
- d. A review of the PCSM Spreadsheet revealed post-development meadow cover types. Based on the plans provided, it appears that they are provided in spray irrigation areas. As such, the BMP maintenance notes should clarify the seeding

- and mowing specifications for these areas. Please revise as necessary for clarity and consistency. §102.8(f)(10)
- e. Please clarify the winter operation of the runoff capture/reuse system and associated stormwater basin. The spray irrigation plans specify a winter program which does match the PCSM plan drawings. 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)
  - f. As currently depicted, the spray head dispersal areas will overlap. The application rates for those overlapping spray heads should be adjusted so the combined application rates do not exceed 0.5 inches per day, or the application rate based on infiltration credit in those specific spray areas. Please address whether the overlapping of spray areas was considered in the spray rate calculations.
  - g. Please provide notation that the system should be designed to completely drain when it is shut off.
  - h. Please demonstrate that a 90% ground vegetative cover (grasses, meadow, brush, short bushes, etc.) exists down slope of the system for the entire flow path and throughout the entire year.
  - i. Many of the spray areas receiving infiltration credit for the application rate (examples: zone 3, zone 4, zone 5), do not appear to have adequate area for this application. The plans indicate that there is a meadow or grassed area that will not be graded or disturbed on these narrow sections with boulders around 30-feet away. The street view in this location from the existing parking lot does not appear to have existing soils where infiltration credit can be applicable for this entire area. Please address.

**13. §102.8(f)(15) Additional information requested by the Department.**

- a. Please provide a technical deficiency response letter to the district and DEP, with responses to each individual technical deficiency.

**14. 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 December 22, 2023, or DEP may consider the application to be withdrawn.**

**Please submit the revised information to the District and DEP 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>

**Please be advised that if your response does not satisfy the technical deficiencies, in general your application will proceed to an Elevated Review. If you do not believe the technical deficiencies can be fully addressed within the required timeframe, you should consider a voluntary withdrawal.** If a permit application is denied, there is no recovery of fees available; however, if you voluntarily withdraw the NOI or application and then submit a new NOI or application for the same project, previously paid disturbed acreage fees will be reapplied to the new NOI or application.

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 any questions regarding the identified deficiencies or to schedule a meeting, please contact James Lawrence for E&S inquiries by e-mail at [JLawrence@norcopa.gov](mailto:JLawrence@norcopa.gov) or by telephone at 610.829.6283, or Gregg Ciravolo for PCSM inquiries by e-mail at [gciravolo@pa.gov](mailto:gciravolo@pa.gov) or by telephone at 570.826.2518, and refer to Application No. PAD480196. 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 and Wetlands Program

cc: Brent Tucker, The Pidcock Company ([btucker@pidcockcompany.com](mailto:btucker@pidcockcompany.com))  
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Enclosures: Draft Individual NPDES Permit  
Fact Sheet  
Public Notice for Posting at Site