



RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
STORMWATER ENGINEERING REVIEW
REQUEST FOR ADDITIONAL INFORMATION

Date: 2/3/2026

Reviewer: Christopher Dill, P.E.

Application Number: IA-0000006666

FWW#: 25-0133

RIPDES#: RIR102804

UIC#: Permit # generated upon project approval

Applicant Name: Quonset Development Corporation – c/o Steven J. King

Project Name: 135 All American Way

Plans and Analysis Reviewed: Plans and Reports received by DEM on: 12/11/2025

Engineering Review conducted with Checklist rev. date: **2/20/2014**.

Interim Review Findings:

- 1) **Drainage Issues** – See review comments
- 2) **Floodplain Issues-** N/A

Interim Technical Justification: If the site plans for the proposed development include a BMP that does not fully comply with all the applicable design requirements of the RIDEM Stormwater Management Design and Installation Rules (250-RICR-150-10-8), then please note below:

- 1) N/A

Review Comments:

- 1) Please coordinate with the RIDEM Municipal and Industrial RIPDES program to determine the site's Standard Industrial Classification (SIC) and take appropriate action to obtain a No Exposure Certification Exclusion or other required clearance regarding the pollutant concerns associated with the proposed biosolids operation.
- 2) The site of proposed work discharges to Sandhill Brook, which has a TMDL for fecal coliform. Furthermore, the submitted application is proposing to increase impervious cover without fully infiltrating the water quality storm. Therefore, please either provide a pollutant loading analysis indicating that there will be no increase in the site's bacterial loading compared to pre-development conditions or provide 1:1 compensation for areas of new impervious not infiltrated (please note that the EPA performance curve pollutant removal values can be utilized if more than the first inch of runoff is infiltrated).
- 3) Please provide a more detailed explanation as to why proposed sand filter 3 needs to be lined (converting this to an infiltration BMP would greatly help with reducing total runoff volumes draining to Black Swamp). It would appear based on DTH 24-10 and the proposed BMP topography that providing 3' of vertical separation to the SHWT may be feasible. If possible, please provide any historic test-hole data for the design of the original BMP or provide additional test-holes within proximity to the sand filter.

- 4) The submitted design still proposes notable increases in peak flow rates and total runoff volume draining off site to an already flood prone area (approximately 29.5 cfs and 1 ac-ft increases; 98% and 26% more than existing conditions). Additionally, the responses provided claim that infiltration was provided to the maximum extent practicable for the site. However, there are still several opportunities for additional infiltration that were not utilized in the revised design. Please revise the design to further reduce increases in peak flow rates and total runoff volume to the maximum extent practicable. Please note that the following components of the design present opportunities to either provide additional infiltration or decrease the peak flow rates and total runoff volumes output from HydroCAD:
- a. The overflow weirs for sediment forebay 1 and sand filters 1 and 2 could all be raised by up to 0.5' to provide additional storage and infiltration while still providing 1' of freeboard between their peak storage elevations and their embankment crests.
 - b. DMH-20 could be raised by up to 0.25' to allow for additional infiltration prior to bypass.
 - c. The footprints of any/all BMP's could be expanded, as the site contains sufficient space for this.
 - d. The soils below proposed underground infiltration system A could be amended to achieve a higher design infiltration rate (i.e., 8.27 in/hr Rawl's rate for sand). Additionally, the underground infiltration systems could be redesigned to utilize products like StormTank or StormTrap instead of the proposed chambers, as they provide more void space and require less stone fill (please note that additional impervious areas would need to be routed to the underground infiltration systems for this to have any impact).
 - e. Trench 117A on the Southern side of the proposed Quonset hut could be modeled as an infiltrating pond node in HydroCAD.
 - f. The HydroCAD modeling could be revised to take credit for the entire storage volume within sediment forebays 1 and 2.
- 5) The proposed configuration of pond complex #3 is not feasible, as it proposes to allow runoff from the forebay to enter the side of the sand filter through the gabion weir. Please revise the design so that flows from the forebay enter the top of the sand layer, not the side, to allow for the runoff to pass through the entire filter layer. Please also ensure that the revised forebay can still fully de-water (unless the design is revised to omit the impermeable liner).
- 6) Sand filters 1 and 2 both provide less than 4 feet of vertical separation to the seasonal high groundwater table. Please provide a mounding analysis for these BMP's and if it is determined that a groundwater mound will form in either basin, then please revise the HydroCAD modeling to omit any infiltration credit beyond that which takes place before the formation of a groundwater mound.
- 7) The submitted HydroCAD modeling of sand filter #1 utilizes an infiltration rate of 2.41 in/hr. However, Test Hole 3-1 indicates the presence of sandy loam soils (Rawl's rate of 1.02 in/hr) to a depth of 72" below existing grade. Please either revise the modeling to utilize 1.02 in/hr for sand filter 1 or revise the site plans to

provide a note requiring that all soil within sand filter 1's footprint down to the water table gets suitably amended to meet the criteria for loamy sand.

- 8) Please provide a note on the site plans requiring that the soil beneath underground infiltration system B must be verified (or suitably amended) to consist of a texture consistent with loamy sand or sand (i.e., a Rawl's rate of at least 2.41 in/hr).
- 9) Please revise the design of sediment forebay #2 so that DMH-20 is not located directly adjacent to the swale's outlet (i.e., the manhole's rim and the swale's outlet invert are both proposed at el. 58.0'). This configuration may cause premature bypasses if the area between the swale and DMH-20 gets overgrown or blocked up. Alternatively, please either raise DMH-20's rim invert elevation by 0.25' or revise the grading of the swale so that its outlet invert is at a lower elevation.
- 10) Please provide a detail of proposed trench 117A. Please be sure to call for the trench to be filled with washed crushed stone (the section of 10" HDPE pipe within the trench should also be labeled as perforated to facilitate conveyance).
- 11) Please revise the SESC site plan to provide an additional temporary sediment trap for the East and Southeast portions of the site (approximately 2 acres of disturbed area that drains to a common area and does not appear to get conveyed to a temporary sediment trap). Alternatively, please provide a temporary conveyance swale to route construction runoff from this area to the sediment trap proposed to overlap sediment forebay 1's footprint (please ensure that all areas of disturbance exceeding one acre that shares a common drainage location are routed to a temporary sediment trap).
- 12) Please revise the site plans to show the 56.5' elevation contour for sand filter 2.
- 13) Please revise the site plans to call for impermeable cores within the proposed basin's embankments.
- 14) Please revise the submitted O&M Plan to provide inspection and maintenance requirements for the proposed underground infiltration systems.
- 15) Please revise the site plans to provide additional inspection ports for proposed underground infiltration systems A and C.
- 16) Please clarify what the cover type is proposed for the "non-permeable storage area" on the site plans.
- 17) Please consider the implications of routing a stormwater conveyance pipe underneath the proposed weigh station's footprint.