



September 17, 2025

VHB Ref: 73562.00

Douglas McLean, Director of Planning
Town of Coventry
dmclean@coventryri.gov

Re: Conceptual Stormwater Summary for "Coventry Centre"

Dear Doug:

At your request, VHB, Inc. is pleased to submit the following summary of the conceptual stormwater background for the proposed Coventry Centre project at 666 Arnold Road and 2271 New London Turnpike encompassing a total of 17 acres of land in Coventry, RI.

As you are aware, this project recently received Master Plan Approval from the Coventry Planning Board. Per the Town's Master Plan checklist requirements, VHB's submitted a plan set as part of the Master Plan application which incorporated a conceptual layout of drainage infrastructure including provisions for collecting and discharging stormwater and location of stormwater drainage facilities as shown on the proposed conditions utility plan. Requiring a conceptual stormwater layout is typical when completing the Master Plan effort in many cities and towns in Rhode Island. At this stage, the conceptual plan typically contemplates potential stormwater improvements based on the layout of the development, site topography, and anticipated positioning of other site infrastructure for the project. Once a Master Plan approval is received along with any other necessary Zoning approval(s) at the town level, the design team will then proceed with detailed engineering of site, utility and stormwater infrastructure to support the next stage of permits for project. These permits typically include local planning board Preliminary Plan approval, other municipal utility permits and state permits required for the development. It is at this phase when in-situ soil test pits and comprehensive stormwater calculations are prepared by the engineers in support of the site-specific stormwater management plan.

According to the Town of Coventry Preliminary Plan checklist (the next phase of this project), a "Proposed drainage plan, a drainage maintenance plan and 2 copies of a drainage report/calculations for development and downstream prepared by a Registered Profession Engineer to be reviewed, approved and stamped by the Town Engineer" are required. We note that the Preliminary Plan stage process with the Planning Board also includes a public hearing where abutting property owners and citizens can ask questions and provide input on the design plans and materials that are filed with the planning department by the Applicant.

Although the applicant has not yet commenced the design phase and/or pursuit of preliminary plan approval mentioned above, VHB has been authorized by the applicant to perform an initial level of due diligence with respect to stormwater topics and permitting that will lay the groundwork for future design work. Below is a summary of the associated findings:

1. On-Site Soil Characteristics:

- Based on the Natural Resource Conservation Service (NRCS) soils maps, the subject properties primarily contain Hinckley and Merrimac soils which carry a hydrologic soil group classification



of type A, defined as having high infiltration rates and consisting of deep, well to excessively drained sands and gravels.

- The ability for this site to facilitate recharge of stormwater is expected to be very favorable based on the above soil classification.

2. Environmental Resources:

- As demonstrated during the Master Plan stage, jurisdictional water resource area(s) and/or associated buffers are not present within the limits of the subject properties.
- Through a study of the Rhode Island Department of Environmental Management (RIDEM) Environmental Resource Map online tool, VHB has identified a nearby Tributary to the Tiogue Lake and the Tiogue Lake itself which are both located north of the project site beyond adjacent intervening properties. The closest point of the tributary is approximately 720 feet from the nearest property line and the closest point of Tiogue Lake is approximately 0.25 miles from the property limits.
- Based on site topography obtained through survey of the subject parcels and RIDEM watershed mapping, approximately 40% (+/- 6.9 acres) of the land area within the subject properties drain to New London Turnpike and subsequently to the South Branch Pawtuxet River. The remaining 60% (+/- 10.1 acres) of the area defined above drains to a tributary to Tiogue Lake or to the lake itself.
- Per RIDEM, the tributary to Tiogue Lake to the north of the project site is identified as waterbody ID RI0006014R-05 and is impaired carrying a Total Maximum Daily Load (TMDL)¹ for the bacteria enterococcus.
- Tiogue Lake itself, waterbody ID RI0006014L-02, is impaired due to "Non-native aquatic plants" and "Non-native fish/shellfish/zooplankton" but does not carry a TMDL because these impairments are not pollutants.
- The South Branch Pawtuxet River, RI0006014R-04B, is impaired carrying a TMDL for lead.

3. Regulatory Compliance:

- On the state level, through RIDEM, the Applicant will be required to submit for and obtain approval of the following:
 1. RI Pollutant Discharge Elimination System (RIPDES) construction general permit
 2. Water Quality Certification
 3. Underground Injection Control (UIC) permit
- During the future technical design phase of the project, VHB is required to demonstrate that the stormwater management plan as designed will meet or exceed the requirements of the RIDEM Stormwater Management, Design, and Installation Rules as well as any applicable Town of Coventry standards governing the same.
- At this time, specific standards as outlined in the applicable rules must be met in order for the project to receive the requisite state approvals outlined above.

¹A TMDL is a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources. TMDLs are based on the relationship between pollution sources in the watershed and instream water quality conditions. Waterbodies in our state require a TMDL when waters do not meet water quality standards with existing required technology-based pollution controls alone. Waterbodies that do not meet water quality standards are placed on Rhode Island's list of impaired waterbodies.



- The above-mentioned design standards include:
 1. Low Impact Development
 2. Recharge
 3. Water Quality
 4. Channel Protection
 5. Flood/peak flow control
 6. Redevelopment
 7. Pollution Protection
 8. Land Uses with Higher Potential Pollutant Loading
 9. Illicit Discharge
 10. Soil Erosion and Sediment Control Plan
 11. Operation and Maintenance
- In addition to typical requirements within the above standards, the stormwater management plan and design calculations shall consider the TMDL designation and impairments of the downstream/off-site water bodies. In doing so, the following additional components of the design will also be reviewed in detail by state and local officials:
 1. Specialized selection of approved best management practices (stormwater facilities) for enterococcus and lead treatment.
 2. A pollutant analysis for specified impairments may be required by the reviewing authority to be included as part of the stormwater calculations.

This summary was prepared to clarify the stormwater management topics related to this project as well as review the associated design and permitting process. VHB is eager to start the design process once the pending local approvals are granted and looks forward to further collaboration with the town during the next phase of the project.

Should you have any questions or require further information, please do not hesitate to contact me at 401.457.7829 or via email at jrosen@vhb.com.

Sincerely,

VHB

A handwritten signature in black ink, appearing to be "JR" with a large, stylized loop and a horizontal line extending to the right.

Josh Rosen, PE
Senior Project Manager