State of New Jersey
DELAWARE AND RARITAN CANAL COMMISSION
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STOCKTON, N.J. 08559-0539
www.nj.gov/dep/drcc

STAFF REPORT

DRCC #: 25-4310E
DATE: June 11, 2026
PROJECT NAME: The Watershed Institute -- Green Infrastructure Demonstration Project
Latest Submission Received: June 2, 2026

Applicant:
Jim Waltman, Executive Director
The Watershed Institute
31 Titus Mill Road
Hopewell Township, NJ 08534
jwaltman@thewatershed.org

Engineer:
Brian Friedlich, P.E.
One Water Consulting, LLC
Princeton, NJ 08540
bfriedlich@onewaternj.com

Project Location:

Road	Municipality	County	Block(s)	Lot(s)
31 Titus Mill Road	Hopewell Township	Mercer	37	26, 42

Jurisdictional Determination:

Zone B	Major	Nongovernmental

Subject to Review for:

Drainage	Visual	Traffic	Stream Corridors
X			

Documents Received: Site plans (12 sheets) dated December 17, 2025; Stormwater Management Report dated December 17, 2025; prepared by One Water Consulting, LLC.

THIS STAFF REPORT IS ISSUED AS A GUIDE TO APPLICANTS IN COMPLYING WITH DRCC REGULATIONS. IT IS NOT AN APPROVAL. NO CONSTRUCTION SHALL BEGIN UNTIL A CERTIFICATE OF APPROVAL HAS BEEN ISSUED.

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The application is complete and shall be presented to the Commission for their action with a staff recommendation of approval at the June 17, 2026 meeting based upon the following analysis:

Existing Conditions: The project site consists of two lots totaling 95.6 acres located in the Township of Hopewell, Mercer County, approximately 5.7 miles northwest of the Delaware and Raritan Canal and within Commission Review Zone B. The project site is bounded by residential developments and the Princeton West Innovation Campus (former Bristol Myers Squibb) development to the south, lands in agricultural use to the east, areas of woods to the north, and a mixture of woods and farmland to the west.

In the existing condition, the site is developed and is part of the campus of The Watershed Institute, a non-profit organization focused on protecting clean water and the environment through conservation, advocacy, science, and education. The project site contains several buildings, including the main Watershed Center nature center building and the former Drake Farmstead, which consists of a barn, a former farmhouse now used for offices, along with parking areas and septic system.

The Commission has reviewed several project applications at the site, including a significant expansion of the nature center in 2012, a modification to that project in 2013, as well as the construction of trails and elevated boardwalks (See DRCC #12-4310, DRCC #13-4310A, DRCC #14-4310C, and DRCC #17-4310D, respectively).

Proposed Project: The applicant proposes to reconstruct the existing parking lot, construct new walkways, and incorporate stormwater BMP measures which would serve as a demonstration for visitors to the institute. There are two points-of-analysis (POAs), one located at Exit Road and the other at the Entrance Road into the campus. The POAs in the post-development condition are the same as those in the existing condition.

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Based upon the submitted application, the project proposes additional impervious surface coverage of approximately 0.1 acre. The project would also result in a total area of disturbance of approximately 2.3 acres.

Stream Corridor: As noted above, the project site is located 5.7 miles northwest of the Delaware and Raritan Canal and within the Millstone Watershed Management Area. There are unnamed tributaries to Stony Brook, which flows beneath the canal, are located within the project site. The watercourses do not have a FEMA-mapped 100-year floodplain or a NJDEP State delineation. However, the aforementioned watercourses have contributory drainage areas that are less than 50 acres pursuant to U.S. Geological Survey mapping. Therefore, the watercourses do not have associated Commission-regulated stream corridors, and the project is not subject to stream corridor impact review pursuant to N.J.A.C. 7:45-9.1(a).

Stormwater Runoff Quantity: The proposed improvements will result in an increase in the amount of onsite impervious surface coverage, and an associated increase in stormwater runoff. To mitigate for the increase in runoff generated from the proposed project, stormwater management best management practice (BMP) measures, including porous pavement systems, are proposed.

At the Exit Road POA, the applicant proposes to demonstrate that through hydrologic and hydraulic analyses that for stormwater leaving the site, post-construction runoff hydrographs for the 2-, 10- and 100-year storm events do not exceed, at any point in time, the pre-construction runoff hydrographs for the same storm events. At the Entrance Road POA, the applicant proposes to demonstrate that the increase in runoff generated from the proposed development will meet the requirement that the post-construction peak runoff rates for the 2-, 10- and 100-year storm events will be no greater than 50 percent (%), 75% and 80%, respectively, of the pre-construction peak runoff rates.

The submitted calculations utilized the Natural Resource Conservation Service (NRCS) Technical Release No. 55 (TR-55) hydrologic methodology, SCS unit hydrograph, NRCS Region C rainfall distribution, and separated analyses for impervious and pervious areas. The project site is not located within the NJ Coastal Plain. The current precipitation rainfall of 3.30 inches for the 2-year, 4.97 inches for the 10-year and 8.17 inches for the 100-year were modeled. Exfiltration was not modeled in the routings for quantity control.

Permeability tests were conducted showing permeability rates of less than 0.2 inches/hour, which is indicative of Hydrologic Soil Group (HSG) Type “D” soils. However, HSG Type B and Type C type soils were modeled. This is acceptable because the Type “B” and Type “C” soils will have a smaller flow and a lower allowable quantity runoff for quantity compliance. The proposed stormwater BMP measures are underdrained.

The following table taken from the submitted stormwater calculations, summarizes the runoff at each POA:

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Event	Peak Flow (cfs.)		
	Existing	Criteria	Proposed
Entrance Road POA:			
2-Year Current	2.8	1.4	0.6
2-Year Future	3.4	1.7	1.0
10-Year Current	5.0	3.8	1.9
10-Year Future	6.1	4.6	2.5
100-Year Current	10.1	8.1	4.5
100-Year Future	14.7	11.8	6.7
Exit Road POA:			
2-Year Current			
2-Year Future			
10-Year Current			
10-Year Future			
100-Year Current			
100-Year Future			

At the Entrance Road POA, the porous asphalt and pervious paver system would provide attenuation during the 2-, 10- and 100-year storm events. As illustrated in the above referenced table, the rate reductions would be met at this POA. At the Exit Road POA, the submitted plans demonstrate that there is no increase in impervious surface coverage and the land cover will not change. Therefore, it can be determined that for stormwater leaving the site, the post-construction runoff hydrographs for the 2-, 10-, and 100-year storm events do not exceed, at any point in time, the pre-construction runoff hydrographs for the same storm events.

Based upon a review of the submitted stormwater calculations, Commission staff have determined that the project is in compliance with the specific stormwater water quantity requirements at N.J.A.C. 7:45-8.6(a).

Water Quality: The Commission requires that all proposed full-depth pavement, including newly constructed and reconstructed parking and access drives that are being renewed, shall comply with water quality standards at N.J.A.C. 7:45-8.7. This includes reduction of the post-construction load of total suspended solids (TSS) in stormwater runoff generated from the water quality design storm by a rate of 80% of the anticipated load from the developed site, expressed as an annual average.

The project does not propose an increase in motor vehicle trafficked surface. Existing gravel and asphalt motor vehicle surface would be converted to porous asphalt and pervious pavers (noted as the “system” in the applicant’s submission). The thickness of the overall system, plus the storage underneath, totals approximately 1.84 feet. The system would be underdrained. The surface elevation varies from 198 feet 201 feet.

Test pits were conducted within the footprint of the system. The following shows the specific test pits in relation to the seasonal high groundwater table (SHGT). SPP-1, SHGT at 197.5 feet based on mottling. At SPP-2, no SHGT was encountered. SPP-5, the SHGT

at 190.3 feet based on mottling. Therefore, based on the submitted data, Commission staff determined that the system would have sufficient separation from the SHGT to function as designed. Permeability tests are not necessary since the system will be underdrained. Routing calculations were submitted which demonstrate that the system can contain the collected water quality volume for treatment. The system would treat itself, and no additional motor vehicle surface will be conveyed into the system. The system will provide 80% TSS treatment.

Therefore, based upon a review of the submitted stormwater calculations, Commission staff have determined that the project is in compliance with the water quality treatment requirements at N.J.A.C. 7:45-8.7.

Groundwater Recharge: The Commission's regulations require that stormwater management measures maintain 100% of the average annual pre-construction groundwater recharge volume for the site, or that any increase of stormwater runoff volume from pre-construction to post-construction for the 2-year storm is infiltrated. Permeability tests were conducted showing permeability rates of less than 0.2 inches per hour onsite. Pursuant to the DEP New Jersey Groundwater Recharge Spreadsheet (NJGRS), permeability rates less than 0.2 inches per hour may be considered to belong to HSG Type "D" in the NJGRS program. For such areas, the user may use any HSG Type "D" soil in the NJGRS soil series database to define such site areas in the NJGRS Annual Recharge worksheet. Therefore, the recharge deficit volume would be 0.0, and the use of a BMP to meet the recharge requirement would not be necessary.

Commission staff have determined that the groundwater recharge requirements of N.J.A.C. 7:45-8.5 have been addressed.

Non-Structural Methods: N.J.A.C. 7:45-8.4 directs that non-structural stormwater management strategies shall be incorporated into the project site design "to the maximum extent practicable." The Nonstructural Strategies Point System (NSPS) spreadsheet was submitted. The entire project site is located within Planning Area-4, Rural. The required NSPS site points ratio is 99%. Additional site points were modeled; however, Commission staff notes that they are not necessary for the project to obtain compliance. The proposed site points ratio based on the change in land cover is 102%, which is more than the required due to the proposed installation of porous pavement. Therefore, it can be concluded that the proposed non-structural measures are adequate in accordance with N.J.A.C. 7:45-8.4.

Stormwater Management Maintenance Plan: A stormwater management operation and maintenance manual was submitted based on the requirements for the proposed BMPs. Therefore, Commission staff can conclude that the requirements under N.J.A.C. 7:45-8.8 have been addressed.

Staff Recommendation: Staff recommends approval.

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Sincerely,

John Hutchison
Executive Director

c. Mercer County Planning Board
Hopewell Township Planning Board

Please refer to the Commission project number (DRCC #) when making a submission, a resubmission, or transmitting project correspondence or documents.