

# GENERAL PERMIT 1



**DRCC #:** 17-5102  
**DATE:** December 6, 2017  
**PROJECT NAME:** D&R Canal Culvert Cleaning  
**Latest Submission Received:** December 4, 2017

**Owner:**  
Brendan Brock  
New Jersey Department of Transportation  
(NJDOT)  
951 Parkway Avenue  
Ewing, NJ 08625

**Contractor:**  
National Water Main Cleaning Company  
1806 Newark Turnpike  
Kearny, NJ 07032

## **Project Location:**

Road	Municipality	County	Block(s)	Lot(s)
U.S. Highway Route 1 (Trenton Freeway) between Southard & Mulberry streets	Trenton City	Mercer	8202	2

## **Jurisdictional Determination:**

Zone A	Minor	Governmental
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**Documents Received:** DRCC application received September 14, 2017; site map and photographs of culvert sites (6 sheets) prepared by Mount Construction Company, Inc.; response to October 17, 2017 DRCC Jurisdictional Determination and attachments (17 pages).

The Delaware and Raritan Canal Commission has reviewed the referenced application for a General Permit authorization pursuant to the requirements of the Regulations for the Review of the Delaware and Raritan Canal State Park at N.J.A.C. 7:45-6.2. The proposed project is authorized by General Permit No.1, which authorizes projects in Zone A that are necessary to carry out the repair, rehabilitation, maintenance or reconstruction of a structure, road, utility line, or stormwater management measure or basin lawfully existing prior to January 1980 or approved under this Chapter by the Commission.

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The project authorized under this general permit shall not be put to any use other than as specified in any approval authorizing its original construction. Projects authorized under the general permit shall not visibly change, expand, widen or deepen the feature, and shall not deviate from any plans of any prior project approvals, except for minor deviations due to changes in materials or construction techniques. Any such deviations must be shown as necessary to fulfill the purpose of the proposed project, and must be consistent with the Master Plan.

**Description of the authorized project:** The project site is a twin-celled conduit through which the Delaware and Raritan Canal flows under U.S. Route 1 in the City of Trenton and is located in Commission Review Zone A. The conduit was constructed in 1950, measures 13 feet in width, 8 feet in height and is approximately 6,000 feet in length. The conduit also serves as a storm drain outlet for U.S. Route 1 and the surrounding area.

The box culverts are part of the D&R Canal water transmission complex, and run parallel to U.S. Route 1 from the area of Southard Street to Mulberry Street. The culverts serve to carry storm water drainage along with the natural waters of the canal system. The applicant proposes to remove sediment from the conduit, which has accumulated since it was last investigated and cleaned in 1980. Accumulated sediment impedes the and reduces the hydraulic carrying capacity of the canal. The proposed project will not create any impervious surface (temporary or otherwise).

The NJDOT contractor would furnish all labor, equipment, and materials to clean twin box culverts located in the City of Trenton. It is estimated that 5,700 cubic yards of sediment is to be removed during the project. The cleaning of the culverts will require a coordinated effort to properly bypass flows and introduce the proper equipment and manpower to each culvert.

The twin box structure will allow for one culvert to absorb the flow of the system while the cleaning is taking place in the other. The flow will be diverted and bypassed into one culvert utilizing the existing sluice gate channels located on the upstream and downstream sides of the culvert. Specially fabricated metal gates to fit the channels will be slid into position to dam the flow of one culvert. All flow from the canal will be diverted into the parallel culvert. Four six-foot diameter diesel powered trash pumps will then be utilized to dewater the culvert being bypassed. This water will be discharged from the pumps into the culvert handling all the flow. Once dewatered, equipment and manpower can make entry into the culvert for the cleaning process. After the cleaning has been completed, the flow will be restored. The process shall then be alternated so the parallel culvert can be cleaned.

Once a culvert is bypassed, equipment and manpower can be positioned to begin the cleaning. The metal grating above the inlet connection of the culvert shall be temporarily removed. This will create an entry access point. Skidsteer loaders (small, rigid-frame,

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engine-powered machines with lift arms used to attach tools or attachments) will be lowered into the culvert from the equipment staging area. The skidsteers come equipped with front mounted buckets and will be outfitted with diesel scrubbers to purify all exhaust from the diesel-powered engines. The debris deposited in the culvert will be picked up in the bucket and transported to the upstream end of the culvert. The debris will then be deposited in piles near the sluice gate. From here, the debris will be bucketed via an adjacent ground level positioned excavator. The excavator will dump all material into a watertight container. The material will then be hauled offsite and deposited at a licensed disposal facility. The cleaning shall commence at the upstream side of the culvert and advance downstream. Once all cleaning has been completed, the culvert shall be made available for inspection.

The contractor will not conduct any cleaning operation during rain events. Furthermore, no culvert will be left in a state of bypass during heavy wet weather events. This will allow the system to function as normal during wet weather and prevent the possibility of an overflow event. During all cleaning operations, satisfactory precautions shall be taken to protect the culverts from damage that might be inflicted by the improper use of cleaning equipment. The crew will utilize the required safety and personal protective equipment to complete the work in a hazard free manner. This will include the necessary confined space equipment including atmospheric monitoring, tripods, and harnesses. Radios shall be used to coordinate the efforts between the above and below ground personnel. Each crew will be led by an experienced foreman who will be onsite for the duration of the work.

The contractor will not conduct any staging on the Delaware and Raritan Canal State Park path property.

The applicant has indicated that the New Jersey Water Supply Authority (NJWSA) will not be denied access to the screens in front of the conduits.

The applicant estimates that the project will last two to three months, based on the estimated debris in pipes. This estimate assumes the contractor does not encounter an amount of additional debris greater than the estimate.

**Permit Conditions:** The project allowed by this authorization shall comply with the following conditions. Failure to comply with these conditions shall constitute a violation of the "Delaware and Raritan Canal State Park Law of 1974" (N.J.S.A. 13:13A-1 et seq.).

1. This authorization is valid for five years from the date of this letter unless more stringent standards are adopted by rules prior to this date.
2. The project as described shall be constructed and/or executed in conformity with the application.

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3. No change in plans or specifications shall be made except with prior written permission from the Commission.
4. The permittee shall allow the Commission the right to inspect the construction site and shall provide the Commission with written notification seven days prior to the start of the authorized work.
5. A complete, legible copy of this permit shall be kept at the work site and shall be exhibited upon request of any person.
6. The issuance of this permit shall not be deemed to affect in any way other actions by the Commission on any future application.
7. The canal is used as a raw water source for several water companies downstream; as such water quality and flow shall be maintained.
8. If work in the canal is required, NJWSA may require that the work be performed during times of low flow through the canal, usually late fall or winter.
9. During work the contractor shall ensure that no debris, soil, vegetation, etc. from the proposed work falls, drops, is placed or is dumped into the canal.
10. It shall be the contractor's responsibility to remove all debris caused by the work from the canal.
11. The contractor shall not pierce or puncture the clay liner or the bed of the canal.
12. The contractor shall inform the NJWSA of their work schedule.
13. Access to the canal towpath and NJWSA structures shall be maintained for authority personnel.
14. Any damage caused by the contractor or subcontractors shall be repaired to the satisfaction of NJWSA.

**Expiration Date:** December 6, 2022

**Appeal of Decision:** In accordance with N.J.A.C. 7:45- 7.1, any person who is aggrieved by this decision may request a hearing within 30 days of the date of decision.

If you have any questions regarding this authorization, please contact the Commission at (609) 397-2000 and reference the above file number.

Sincerely,



John Hutchison  
Executive Director

c: Michael Sellar, Facility Manager, Delaware & Raritan Canal, NJWSA  
Rob Auermuller, Superintendent, Delaware & Raritan Canal State Park