



The State of New Hampshire  
**Department of Environmental Services**



**Robert R. Scott, Commissioner**

July 6, 2023

Eric Stevenson  
Brox Industries, Inc.  
1471 Methuen Street  
Dracut, MA 01826

transmitted via email to: [estevenson@broxindustries.com](mailto:estevenson@broxindustries.com)

**Subject: Withdrawal Permitting Requirement  
Brox Industries, Inc.  
Barrington Quarry, NHDES Site# 198604064, WU ID 20203**

Dear Mr. Stevenson:

The purpose of this letter is to follow up on information provided by Brox Industries (Brox) following a site visit conducted on May 1, 2023 by NHDES staff from the Water Use, Registration and Reporting program (WURR), and the Groundwater Discharge Permitting program (GWDP) at the Brox quarry in Barrington. Specifically, the site visit inspected the gravel wash operation that is registered with the WURR and GWDP programs, and viewed/identified other related activities that are in need of registration.

During the visit, NHDES observed the pumping of water from a 'sump hole' cut into the northeast corner of the quarry that has an associated discharge of the pumped water to a wooded area east of the quarry boundary (the 'hoppers' area) where the water appears to infiltrate into shallow sandy soil. Information provided by the facility staff during the visit noted that the sump hole is about 15+/- feet deep, and that pumping volumes from the sump hole routinely exceeds 20,000 gallons per day. Additionally, it was observed that the discharge line from the sump hole pump is equipped with a flow meter, and it was reported the facility has maintained a record of monthly production volumes going back about two years.

Based upon information obtained during the May 1, 2023 site visit, it was identified that existing registrations associated with the quarry need to be revised. The necessary revisions include:

- In accordance with Env-Wq 2102 – *Water Use Registration and Reporting* – any person that withdraws, discharges or transfers an average of 20,000 gallons per day for seven days or 600,000 gallons per month shall record and report its water use on a monthly basis to NHDES. The pumping/discharge of water from the sump hole in the quarry meets the criteria for registration under this program and NHDES issued a revised water use registration to Brox on May 16 that includes this use.
- In accordance with Env-Wq 402 – *Groundwater Discharge Permits and Registrations* – any person that discharges non-domestic wastewater to the ground or ground surface that does not contain

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regulated contaminants shall register the discharge with NHDES' GWDP. Brox submitted a revised groundwater discharge registration form on June 26 for the Barrington quarry that includes the discharge of sump hole water to the ground east of the quarry. The discharge of sump hole water to the hoppers may meet the criteria for discharge registration, however; water quality sampling of the sump hole discharge water is needed to verify that the registration criteria are met. Additional information pertaining to sampling parameter requirements will be issued in a response to Brox's revised discharge registration from the GWDP.

Following revision of the water user registration for the quarry referenced above, Brox provided the water use program with monthly sump hole pumping volumes for April 2021 through March 2023. A plot with the monthly production volume reported by Brox is included as an attachment to this letter.

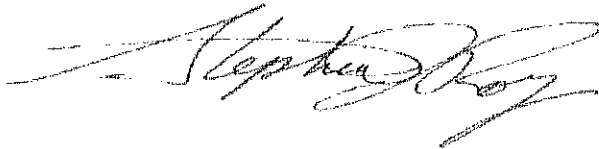
In review of the record of pumping volumes from the sump hole and comparison of those volumes to the withdrawal threshold volume that requires a large groundwater withdrawal permit under the state's Groundwater Protection Act of 57,600 gallons over any 24-hour period (RSA 485-C22), it is apparent that the facility has likely exceeded the threshold for a groundwater withdrawal permit on numerous occasions over the last two years, particularly during the declared drought in 2021-2022, when any pumping associated with discharge of accumulated stormwater would be expected to be minimal. Therefore, by this letter, Brox is directed to limit pumping from the sump hole to no more than 57,600 gallons per day in any 24-hour period until such time that the facility obtains a large groundwater withdrawal permit in accordance with Env-Wq 403 (*Large Groundwater Withdrawals*). The need to obtain a large groundwater withdrawal permit for the site is further emphasized by the fact that, to NHDES' understanding, the planned activity at the quarry is to advance the total depth of the quarry on the order of 100 feet deeper than its current depth. Therefore, any application submitted to NHDES for a large groundwater withdrawal permit should be for a target production rate that's estimated to be the rate necessary for quarry dewatering at the quarry's finished total depth.

In a related matter, the NHDES staff that reviews large groundwater withdrawal applications have reviewed the *Hydrogeologic Study Work Scope* dated May 15, 2023 prepared by Aries Engineering that was submitted to meet conditions in two Alteration of Terrain (AOT) permits issued for the quarry, specifically AOT permit No. 0034 issued in September 2009, and AOT permit No. 2313 issued in March 2023. Although the work scope generally proposes developing a conceptual model of the hydrogeology in the region and discusses monitoring groundwater levels in the quarry vicinity, please be advised that it does not meet the requirements for a preliminary application for a large groundwater withdrawal permit stipulated in Env-Wq 403. Based upon discussions with AoT personnel, further review of the submitted *Hydrogeologic Study Work Scope* has been suspended as securing a large groundwater withdrawal permit would satisfy the requirements of the previously issued AOT permits. For requirements related to the large groundwater withdrawal permitting

process, see <https://www.des.nh.gov/water/groundwater/water-use-and-withdrawal/large-groundwater-withdrawal> .

If you have any questions about this letter or the permitting process, please feel free to contact (603) 271-0660 or [stephen.j.roy@des.nh.gov](mailto:stephen.j.roy@des.nh.gov).

Regards,

A handwritten signature in black ink, appearing to read "Stephen Roy", written in a cursive style.

Stephen Roy, P.G.  
Drinking Water and Groundwater Bureau

Attachment: Sump Hole Production Volume plot – Brox Barrington Quarry

cc: Town of Barrington  
Town of Dover  
Ridgely Mauck, Brandon Kernen, Andrew Koff, Jon Whaland, Christina Rambo; DES (email)

BROX - Barrington Quarry - Sump Pump Monthly Pumping/Discharge Volumes

