



The State of New Hampshire
Department of Environmental Services



Robert R. Scott, Commissioner

July 23, 2021

Ms. Margaret McCarthy, PE
Weston & Sampson
55 Walkers Brook Drive, Suite 100
Reading, MA 01867
Via email to: McCarthyM@wseinc.com

Subject: **PWS 1951020 – Pease Trade Port
Pease Water Treatment Plant (WTP) / Haven Well**

Dear Ms. McCarthy:

We are in receipt of your request on behalf of the City of Portsmouth (Portsmouth) to reactivate the Haven Well and begin treatment through the Pease WTP.

Source Reactivation Approval

The New Hampshire Department of Environmental Services (NHDES) issues to the Pease Development Authority and Portsmouth approval for the reactivation of the Haven Well (Source ID 1951020-002), a large community production well that serves the Pease Trade Port water system (Pease). This approval is based on a review of materials submitted in July 2021 by Weston & Sampson to meet the requirements of New Hampshire Administrative Rules Env-Dw 302, *Large Production Wells for Community Water Systems*. This well is exempt from the large groundwater withdrawal statute, in accordance with RSA 485-C:22.

The Haven well is an approximately 72-foot deep, 18-inch diameter gravel well located on the Pease Air Force Base. NHDES records indicate the well was in use from 1955 until 2014, when it was determined that the groundwater from the well contained elevated concentrations of per- and poly-fluoroalkyl substances (PFAS). Pease has recently constructed a treatment facility to remove PFAS from the water withdrawn from the Haven well and is ready to reactivate the source in order to connect it to the Pease WTP. The Haven well will provide additional source capacity to the Pease system. The withdrawal testing program performed by Weston & Sampson indicates that the Haven well has maintained its overall capacity/yield compared to a 2002 assessment of the well's yield. NHDES is not establishing a permitted production volume for the Haven well based on the recent test performed by Weston & Sampson. The following are conditions of the reactivation of the Haven Well:

- 1) In accordance with Env-Dw 302.25 and Env-Dw 302.32, Portsmouth must maintain a Wellhead Protection Program (WHPP) for the previously established wellhead protection area (WHPA) for the Smith, Haven and Harrison replacement wells. The WHPP shall occur every three years and include: 1) updating the potential contamination source inventories within the WHPA; 2) completing written notification requirements to the owner of each known and potential contamination source listed in the inventories; and 3) submitting a request to conduct site visits to survey all potential contamination sources (except for pesticide application and agricultural operations) located within the WHPA to ascertain compliance with best management practices (BMPs) for preventing groundwater contamination.

- 2) Withdrawals from the Haven well shall be metered at all times. All meters must be selected, installed, tested, and maintained in accordance with the AWWA M6 manual as referenced in Env-Wq 2101. Portsmouth must read source water meters to adequately report the following volumes to the NHDES' Water Use Registration and Reporting Program in accordance with Env-Wq 2102:
 - a. The 24-hour peak day volume withdrawn from the source during each month and date; and
 - b. The cumulative total volume withdrawn from the source during each month.

Treatment Approval

The request allows the Pease WTP to operate at full capacity with use of all the intended wells, including the Haven, Harrison, and Smith wells. The laboratory results provided as part of the request demonstrates the finished water quality while treating the Haven well is in compliance with current standards, including non-detect levels of PFAS. We therefore approve the Pease WTP to operate with the inclusion of the Haven Well as a source of supply. The operator shall report to DES the results of the WTP full-flow test for confirmation of the WTP capacity. DES shall be provided notice when this test is scheduled.

As a condition of this approval, the remaining items required as part of the design approval shall be provided within three months of going online with the Haven Well. These items include the final record drawings and operation and maintenance (O&M) manual. The O&M manual will include the proper procedure on how to deal with spent resin and GAC medias. DES shall be notified when final copies of these items are provided to the Owner. Draft copies must remain available onsite until final copies are administered.

In addition, the ongoing required sampling at the WTP shall continue in accordance with the approved sampling plan for startup and continuous monitoring, required during the first year of operation, which is separate from the required sampling on the Master Sampling Schedule. The Master Sampling Schedule will be updated to reflect the use of the Haven Well. The water quality at the entry point to the distribution system from the Pease WTP shall meet NH drinking water quality standards as regulated under Chapter Env-Dw 700 of the NH Code of Administrative Rules. Maximum contaminant levels (MCL's) for the four regulated PFAS compounds are identified in Env-Dw 705.06.

Please contact DES at Randal.A.Suozzo@des.nh.gov or (603) 271-1746 for Randal Suozzo on any treatment questions and Andrew.T.Koff@des.nh.gov or (603) 271-8866 for Andrew Koff on any source questions in regards to this letter.

Sincerely,



Randal A. Suozzo, PE
Drinking Water & Groundwater Bureau



Andrew Koff, PG
Drinking Water & Groundwater Bureau

- ec. Paul Brean, Pease Development Authority
Brian Goetz, Al Pratt, Tim Green, City of Portsmouth
Leah Stanton, Kyle Hay, Frank Getchell, Weston and Sampson
Stephen Roy, Brandon Kernan, NHDES