



The State of New Hampshire
DEPARTMENT OF ENVIRONMENTAL SERVICES



Robert R. Scott, Commissioner

EMAIL ONLY

January 27, 2022

Michael Tully, Town Administrator
Town of North Hampton
233 Atlantic Avenue
North Hampton, NH 03862

Subject: North Hampton – 227/227A Atlantic Avenue Area, Atlantic Avenue
DES Site #201904026, Project #39130

PFAS Supplemental Site Investigation Report, prepared by StoneHill Environmental,
dated December 20, 2021

Dear Michael Tully:

The New Hampshire Department of Environmental Services (NHDES) has reviewed the Supplemental Site Investigation (SSI) Report submitted by StoneHill Environmental (StoneHill) for the North Hampton Municipal Complex associated with the above-referenced site. Previous sampling (2017 and 2018) had identified per- and polyfluoroalkyl substances (PFAS) in a water supply well located at 227A Atlantic Avenue (Lot 7/149), and in groundwater monitoring wells and surface water samples. These samples were collected during routine Permit-related groundwater monitoring at the Lamprey Bros Bulk Storage facility (DES Site #199503033, Project #11353) and as part of the larger 227/227A Atlantic Avenue Area investigation completed in 2020 under a Pre-CERCLA Screening program by Sanborn, Head & Associates, Inc. (Sanborn Head) on behalf of the United States Environmental Protection Agency (USEPA) and NHDES. Sanborn Head's investigation work identified the North Hampton Fire Department (FD) as a potential source of the PFAS contamination in the area. In response, NHDES required the Town to conduct SSI activities to further evaluate possible sources and groundwater quality at the municipal complex in a letter dated October 8, 2020.

Based on NHDES' review, we understand the following:

- StoneHill concluded that the presence of PFAS in site groundwater is primarily attributable to the past handling of aqueous film forming foam (AFFF) by the North Hampton FD. The SSI Report acknowledges that while an on-site source area has not been identified, PFAS contamination likely originated from historic releases to the Fire Station floor drain system that discharges to a wetland area located south of Atlantic Avenue via a stormwater system equipped with an oil/water separator.
- StoneHill identified historic releases of AFFF to the ground surface and surface water runoff from cleaning fire-fighting equipment impacted by AFFF as additional potential sources of PFAS at the FD. NHDES notes that wet pavement from apparent fire hose washing/draining, visible on the aerial photographs in SSI Figures 2, 3, and 4, suggests surface water flow is easterly towards lots 7/148 and 7/150 on the ground north of the FD.

The following provides a summary of NHDES' understanding of the known impacts to media at the site and NHDES' requirements for additional investigation activities.

Groundwater

PFAS were detected in all on-site groundwater monitoring wells sampled during the SSI.

Perfluorooctanoic acid (PFOA), perfluorohexane sulfonic acid (PFHxS), and perfluorooctane sulfonic acid (PFOS) were detected at concentrations exceeding their applicable New Hampshire Ambient Groundwater Quality Standards (AGQS) at monitoring wells MW-3R and MW-4R (PFOA), MW-2, MW-3R, and MW-4R (PFHxS), and MW-2, MW-2R, MW-3R, MW-4R, and MW-6 (PFOS).

Several sulfonamides and fluorotelomer sulfonic acids associated with AFFF were detected in site monitoring wells, including 6:2 fluorotelomer sulfonate (6:2 FTS) and 8:2 fluorotelomer sulfonate (8:2 FTS) in MW-2 and MW-3R, N-ethylperfluorooctanesulfonamidoacetic acid (EtFOSAA) in MW-3R, and 6:2 FTS in MW-4R. Monitoring wells MW-2 and MW-4R are located in the paved parking lot directly south of the FD building, in the vicinity of catch basins that discharge to wetlands located south of Atlantic Avenue.

NHDES concurs with the recommendations presented in the SSI to collect additional groundwater samples for PFAS analysis at the municipal complex in 2022. NHDES also requests PFAS sampling and water level measurements be collected at monitoring wells MW-3, MW-8, and MW-10 (located on the Lamprey Bros Bulk Storage facility at 227 Atlantic Avenue) assuming access is granted. NHDES will look to StoneHill to make recommendations if additional groundwater monitoring points may be required in the future to adequately define a preliminary Groundwater Management Zone (GMZ) for the site. NHDES anticipates that once the extent of PFAS contamination in groundwater data is defined, a Groundwater Management Permit (GMP) will be submitted to NHDES.

Water Supply Wells

PFOA, PFHxS, and PFOS were detected at concentrations exceeding AGQS in the sample collected from the bedrock water supply well at 227A Atlantic Avenue (Lot 7/149). PFAS detected during the SSI were consistent with previous samples collected from this water supply well in 2018. 6:2 FTS was also detected in the groundwater sample collected from 227A Atlantic Avenue water supply well during the SSI. Based on groundwater level measurements recorded during the 2020 SI and recent SSI, groundwater flows northeast from the FD property toward 227 and 227A Atlantic Avenue and the adjacent wetlands.

Based on the information provided to NHDES, including groundwater flow directions and the PFAS analytical results, it appears the FD is the source of PFAS in the water supply well at 227A Atlantic Avenue. NHDES requires the Town to offer temporary alternative water such as bottled water, and plan to provide a permanent alternative for a potable source of water to this property (i.e., extension of public water or point-of-entry treatment).

A sample was also collected during the SSI from a water supply well identified on Lot 7/77, and PFAS were not detected at concentrations exceeding laboratory detection limits. Due to the proximity of Lot 7/77 to surface water sample SW-3 where elevated PFAS were detected, NHDES requests that a

confirmatory water sample be collected for PFAS analysis from Lot 7/77. Depending on the results of the confirmatory sampling, monitoring of Lot 7/77 may be included in the GMP.

Surface Water

PFAS were detected in surface water samples SW-1 and SW-2, collected from the wetlands northeast of the municipal complex, and SW-3, collected from the wetlands south of Atlantic Avenue in an area that likely receives stormwater drainage from the site. Results at SW-1 were consistent with sample results collected at the same location during the SI. 6:2 FTS and 8:2 FTS were also detected in surface water sample SW-3.

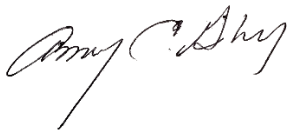
NHDES concurs with StoneHill's recommendation to conduct additional surface water sampling downstream of sample SW-3 and to locate the exact location of the stormwater culvert discharge point for future sampling.

NHDES notes that future correspondence and reporting for the PFAS investigation at this site will be tracked under **NHDES Site ID #201103018, North Hampton Fire Department, Project #40394**, which is associated specifically with the FD. The NHDES Site ID #201904026, Atlantic Avenue Area, Project #39130, associated with the pre-CERCLA screening project will be closed.

Please provide NHDES with a schedule of investigation and sampling activities as outlined in the SSI and included in this letter for 2022.

Should you have any questions, please do not hesitate to contact me directly at NHDES' Waste Management Division.

Sincerely,



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cc: Timothy Stone, P.G., StoneHill Environmental
North Hampton Health Officer
Amy Doherty, P.G., State Sites Supervisor, NHDES HWRB