NHDES Waste Management
Division
29 Hazen Drive; PO Box 95
Concord, NH 03302-0095

Focused Site Investigation Report

Kingston Fire Department
148 Main Street
Kingston, NH 03848

NHDES Site #: *199103103*
Project Type: HAZWASTE
Project Number: 37502

Sanborn, Head & Associates, Inc.

Digitally signed by Sanborn, Head & Associates, Inc.
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Prepared For:
Town of Kingston, NH
163 Main Street, PO Box 716
Kingston, NH 03848-0716
Phone Number (603) 642-3342
RP Contact Name: Mr. Chris Bashaw, Acting BOS Chairman

Prepared By:
Sanborn, Head & Associates, Inc.
6 Bedford Farms Road, Suite 201
Bedford, New Hampshire 03110
Phone Number: (603) 415-6225
Contact Name: Anne B. Sheehan, P.G.
Contact Email: asheehan@sanbornhead.com

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Focused Site Investigation Report

KINGSTON FIRE DEPARTMENT
Kingston, New Hampshire

Prepared for Town of Kingston
File No. 4701.01
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1.0 INTRODUCTION

This report has been prepared on behalf of the Town of Kingston in response to a June 28, 2022, request from the New Hampshire Department of Environmental Services (NHDES) to submit a Focused Site Investigation (FSI) report in accordance with section Env-Or 606.03 of the New Hampshire regulatory code. Due to sampling delays, extended turnaround times for laboratory results, and late sampling permission from a handful of property owners, the schedule for this deliverable was extended per agreement with NHDES to May 15, 2023.[1]

1.1 Objectives

NHDES requested that the FSI Report include, at a minimum, the following information:

- A summary of the results of sampling performed to date, including data from monitoring wells, soil borings, and water supply wells;
- A summary of which supply wells are overburden or bedrock, and an interpreted delineation of the impacts in both overburden and bedrock;
- Identification of which Site monitoring wells were decommissioned during the construction of the new fire department, with recommendations for replacements as warranted to monitor groundwater quality at the Site;
- An updated conceptual site model that considers data from all investigations completed to date, supported by figures illustrating groundwater flow directions and distribution of contaminants;
- A proposed permanent solution for potable water for impacted properties;
- A proposed Groundwater Management Zone (GMZ) and proposed schedule for monitoring changes in groundwater quality; and
- Recommendations for further investigation and/or remedial action, if appropriate.

Section 1 of this report provides a background for the Site and a summary of investigations completed to date. Section 2 details the nature and extent of contamination and provides a conceptual site model. Section 3 provides information on permanent solution options to provide potable water to impacted properties where water supply wells contain per- and polyfluoroalkyl substances (PFAS) at concentrations exceeding New Hampshire Ambient Groundwater Quality Standards (AGQS). Section 4 proposes an interim groundwater monitoring plan, and Section 5 provides conclusions and recommendations. The GMZ is briefly discussed in Section 4; however, one is not being proposed at this time, due to uncertainties regarding additional sources of PFAS in the area.

1.2 Summary of PFAS Ambient Groundwater Quality Standards

This section provides a brief summary of the New Hampshire AGQS in regard to PFAS. On May 19, 2016, NHDES adopted the United States Environmental Protection Agencies (US EPA) health advisory for perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) as an AGQS at 70 nanograms per liter (ng/L), individually (PFOA or PFOS) or combined (PFOA + PFOS). On

[1] NHDES approved a deadline extension in a March 13, 2023 email.

September 30, 2019, NHDES established AGQS, which were also adopted as drinking water Maximum Contaminant Levels (MCLs) for four PFAS:

- PFOA – 12 ng/L,
- perfluorononanoic acid (PFNA) – 11 ng/L,
- perfluorohexanesulfonic acid (PFHxS) – 18 ng/L, and
- PFOS – 15 ng/L.

These AGQS/MCL values were stayed by the courts, such that between December 31, 2019, and July 23, 2020, the AGQS/MCL values returned temporarily to 70 ng/L for PFOS, PFOA, and the sum of PFOS plus PFOA. Since July 23, 2020, AGQS and MCL values have been set at the lower values provided above for PFOA, PFNA, PFHxS, and PFOS.

1.3 Background

In 2016, when drought conditions in southern New Hampshire caused some residential wells to go dry, the Town of Kingston Fire Station well served as a supplemental source of drinking water for local residents. NHDES initially sampled the Fire Station well in September 2016 in response to increasing awareness and concern regarding PFAS. The concentration of total PFAS detected in the initial sample was 1,416 ng/L, representing the sum of results of the 24 PFAS compounds for which analysis was conducted. The concentration of PFOA detected in this sample was 140 ng/L, above the AGQS of 70 ng/L in effect at the time. In October and November 2016, NHDES collected another sample from the Fire Station well, as well as 15 additional wells in the area, with similar results for the Fire Station well (1,459 ng/L total PFAS, 140 ng/L PFOA). Of the 15 other wells, three contained concentrations of PFOS/PFOA/PFOS+PFOA above the AGQS of 70 ng/L in effect at the time.

1.3.1 Site Investigation Report, 2017-2018

A Site Investigation Report[2] (SIR) was completed by Stantec Consulting Services, Inc. on behalf of the Town of Kingston for the property located at 148 Main Street, Kingston, NH (the Kingston Fire Station). The SIR was conducted in response to a letter dated January 25, 2017, from the New Hampshire Department of Environmental Services (NHDES) following detections of PFAS in groundwater samples collected from the Fire Station well (September 2016) and subsequent groundwater samples collected from 15 additional wells in the nearby area (October and November 2016), and the presumption by NHDES that the Fire Station property was the likely source of the PFAS impacts.

The former Kingston Fire Station (as shown on Figure 1) was located on a 0.6-acre parcel in a residential area of Kingston (identified in the Town of Kingston tax assessment records as Lot 13, Tax Map U-11). To the east of the former Fire Station is an open, grassy area in the center of the Town referred to as the Kingston Plains. The site and surrounding area are relatively flat, and there are several ponds nearby: Greenwood Pond (1,000 feet northwest of the Site), Great Pond (2,000 feet southwest of the Site), and Powwow Pond (1.3 miles southeast of the Site). The former Fire Station was built in stages in 1948 and 1968. A site features plan of the former

[2] Stantec Consulting Services, Inc., *Site Investigation Report, Kingston Fire Department, 148 Main Street, Kingston, New Hampshire 03848*, June 1, 2018.

Fire Station is provided as Figure 2. In 2022, the original Fire Station was demolished and replaced with a new Fire Station.

The objectives of the SIR were to:

- Assess the nature, extent and magnitude of the contamination related to an apparent release of PFAS at the Site;
- Obtain information on the geology and hydrogeology of the Site; and
- Identify potential threats to public health and the environment in accordance with the New Hampshire Code of Administrative Rules, Part Env-Or 606.01.

Results of the SIR are summarized below.

- According to Chief Seaman, the Fire Department historically used Class B fire-fighting foams, commonly referred to as aqueous film forming-foams (AFFF). The foams were stored in 5-gallon containers, and equipment was likely cleaned at the Fire Station following fire training exercises. Chief Seaman indicated that it was Ansul AFFF Class B foam. The Department formerly used the AFFF during fire training exercises conducted in the rear paved parking area, which had been unpaved at one time. This was reportedly discontinued in 1989 when a new truck containing a Class B foam tank was acquired and fire training moved to Brentwood. However, refilling of the truck tank with Class B foam did occur at the station until approximately 2009, when a new truck with a Class A foam tank was acquired. Remaining buckets of Class B foam were stored at the station until late 2015/early 2016 when they were disposed of at Pease Fire and Emergency Services.

- The former Fire Station used a total of five floor drains. Four drains were located in vehicle bays reportedly used to drain wash water from the fire trucks and precipitation drippage from the vehicles. One drain was located in the furnace room and reportedly used to drain water that dripped from the fire hoses drying in the tower overhead. The ultimate discharge location of the five floor drains was determined to be an on-site dry well located off the western exterior wall of the original Fire Station building. Washing machine discharges were routed to an on-site septic system.

- Historical information indicates that prior to the 1980s during summer fairs, the Town used the portion of the Kingston Plains directly across Main Street from the former Fire Station to build large bonfires composed of railroad ties and topped by a vehicle. After burning the bonfire, the fire department would apply firefighting foam to extinguish the fire and/or conduct a foam demonstration for the fair attendees.

- A former 1,000-gallon #2 fuel oil underground storage tank (UST) was removed in approximately 2005 from the north-central exterior wall of the former Fire Station. An earlier 1,000-gallon # 2 fuel oil UST was removed in approximately 1990. A former 10,000-gallon gasoline UST and dispenser was removed in 1989 from the west-central exterior wall of the former Fire Station. An on-site septic system was located in the northeast corner of the property. The dug well that supplies water to the Fire Station is located off the southeast corner of the former Fire Station. A propane UST was located south of the former

Fire Station and a 500-gallon propane above ground storage tank (AST) was located south of the former Fire Station.

- Six soil borings (B-1 to B-6) /monitoring wells (MW-1 to MW-6) were installed as part of the Site Investigation. The locations of the borings/monitoring wells are shown on Figure 2. A total of fifteen soil samples were collected from the six borings and analyzed for PFAS. Two of the soil samples were analyzed for volatile organic compounds (VOCs) and polyaromatic hydrocarbons (PAHs). Groundwater samples were collected from the six monitoring wells and analyzed for PFAS. Two of the groundwater samples were analyzed for VOCs and PAHs. Tables 1 and 2 summarize the soil and monitoring well groundwater analytical results.
- As shown in Table 1, PFAS were detected in two soil samples collected as part of the Site Investigation.
  - Boring B-1: 1.1 nanograms per gram (ng/g) PFOA; 1.7 ng/g PFNA.
  - Boring B-3: 11 ng/g N-ethyl perfluorooctane sulfonamidoethanol (N-EFTOSE); 5.1 ng/g 6:2 fluorotelomer sulfonic acid (6:2 FTS).
- As shown in Table 2, various PFAS were detected in all six monitoring wells installed as part of the Site Investigation (applicable AQGS at the time was 70 ng/L for PFOS, PFOA, and the sum of PFOS plus PFOA).
  - Concentrations of PFOS/PFOA/PFOS+PFOA exceeding the AGQS were detected at MW-2, MW-3, and MW-6.
  - The highest concentration of PFOS/PFOA/PFOS+PFOA was detected at MW-6.
  - The highest total PFAS concentration was detected at MW-3, which is located near the former dry well.
- No VOCs or PAHs were detected in the groundwater samples.
- A sediment sample was collected from the dry well and analyzed for VOCs, PAHs, metals, and PFAS. As shown in Table 1, two metals, arsenic and lead, exceeded applicable Soil Remediation Standards (SRS). Arsenic was detected at 13.4 mg/kg (above the SRS of 11 mg/kg), and lead was detected at 709 mg/kg (above the SRS of 400 mg/kg). Various PFAS compounds were detected in the dry well sediment, with PFOS having the highest concentration at 46 ng/g.
- As summarized in Table 3, various PFAS were detected in all water supply wells sampled as part of the SIR. The SIR compared the results to the AGQS of 70 ng/L, which was the value at the time the report was prepared.
  - The concentration of PFOS/PFOA/PFOS+PFOA exceeded the AGQS at 9 Rockrimmon Road and 148 Main Street (the Fire Station).
  - Water supply wells with detections of PFAS at concentrations less than half the AGQS are generally located west and south of the Fire Station. The presence of PFAS at these locations is consistent with the general westerly direction of groundwater flow and the influence of shallow-well pumping on groundwater flow.
  - Concentrations of PFAS exceeding half the AGQS were detected at locations east (upgradient) and north (sidegradient) of the Fire Station. The presence of PFAS at these locations is not consistent with the general westerly direction of groundwater flow and suggests an alternative source area upgradient of the Fire Station.

- The receptor review indicated that properties within the area shown to be impacted by PFAS are mostly residential, with some commercial and municipal uses (e.g., Town Hall). Thus, risk due to PFAS exposure should be considered for local residents and those regularly using the commercial and municipal buildings since this population generally obtains its potable water from private water supply wells (many of which are shallow dug wells or well points due to the highly transmissive nature of the shallow sandy aquifer in the area).
- Summary of potential contaminant sources:
  - Soil and groundwater samples collected near the former fuel oil and gasoline UST locations (B-2 and B-3) did not detect any evidence of release from these tanks.
  - Laboratory analysis of Site soils from the former fire training area of the Site (western parking lot) do not suggest that they are acting as an on-going PFAS contaminant source to groundwater.
  - SRS exceedances for arsenic and lead from the sediment sample collected from the dry well suggest that the dry well could act as a contaminant source to groundwater.
  - The former Fire Station washing machines that reportedly discharged to the Site septic system, near MW-2, could have caused PFAS impacts to groundwater.
  - Further investigation of the Kingston Plains area was recommended due to the reported use of firefighting foam during summer festivals.

1.3.2 Private Well Sampling, 2019

Between January and December 2019, Stantec collected groundwater samples from on-site monitoring wells, the on-site water supply well, and off-site water supply wells and irrigation wells. The groundwater samples were analyzed for 23 PFAS, and Stantec provided results of the sampling events to NHDES in letters dated October 17, 2019, October 18, 2019, November 4, 2019, and April 21, 2022.

1.3.3 Fire Station Dry Well and Construction

Philip Coombs, the director of the Kingston Department of Public Works, reported that the dry well (shown on Figure 2) was removed and replaced with a holding tank which was installed in the same location as the former dry well. Based on a review of records available on OneStop, a registration for a new holding tank was issued October 15, 2019, and a letter from NHDES indicated that the new holding tank should be installed by December 15, 2019. We were unable to locate any additional information regarding the removal of the dry well.

In 2022, the former Fire Station was demolished and replaced with the current Fire Station (located to the west of the former Fire Station). The new Fire Station opened in June 2022, and the former Fire Station was demolished in August 2022. As part of the demolition, the monitoring wells installed as part of the 2018 SIR were pulled from the ground. Figure 3 shows the locations of both Fire Stations.

1.3.4 Private Well Sampling, December 2022 to February 2023

Between December 2022 and February 2023, PFAS samples were collected from 43 private wells. Of the 43 wells sampled, the maximum concentration of at least one PFAS compound (PFOA, PFNA, PFHxS, and PFOS) exceeded the current AGQS at 16 locations (applicable AGQS of

12 ng/L, 11 ng/L, 18 ng/L, 15 ng/L for PFOA, PFNA, PFHxS, and PFOS, respectively). Concentrations exceeded AGQS for the first time in the samples from two locations (4 Bartlett Street and 156 Main Street).

Table 3 provides a summary of PFAS groundwater analytical results from all private well and irrigation well samples collected at the Site. Figure 4 shows the location of the Fire Station property and the surrounding properties. The properties where wells were sampled between December 2022 and February 2023 are indicated by a colored square symbol, and the color of the square is based on the concentration detected between December 2022 and February 2023. Locations not sampled between December 2022 and February 2023 but where older sample results exist are indicated by a colored circle, and the color of the circle is based on the maximum historical concentration for samples collected between September 2016 and December 2019. The colors of the squares and circles are based on the concentrations of the four regulated PFAS compounds as follows:

- Green –PFOA, PFNA, PFHxS, and PFOS were not detected;
- Blue –At least one of the four regulated PFAS compounds (PFOA, PFNA, PFHxS, and PFOS) was detected, and the concentration(s) are less than one-half the AGQS;
- Purple - At least one of the four regulated PFAS compounds (PFOA, PFNA, PFHxS, and PFOS) was detected at a concentration between one-half the AGQS and the AGQS, and the concentration of all four are less than the AGQS; and
- Red – The detected concentration of at least one PFAS compound (PFOA, PFNA, PFHxS, and PFOS) exceeds the AGQS.

In addition, Figure 4 includes an indication of locations for which sampling during 2022 was planned but did not occur. For this scenario, identification of the location includes an orange halo around the colored circle (if previously sampled) or an orange highlighted lot number (if not previously sampled).

1.3.5 Potable Water Provided by the Town of Kingston

As a result of previous AGQS PFAS exceedances, the Town of Kingston is supplying bottled water to 20 properties and maintaining Point of Entry Treatment (POET) systems at six properties (listed in Table 4). Advanced Radon Mitigation (ARM) maintains the POET systems on behalf of the Town. Each system consists of two carbon canisters and a flow meter. Generally, system maintenance is as follows:

- In January ARM collects samples for PFAS analysis from before the treatment system, between the two carbon canisters (mid), and after the second carbon canister (post), then the carbon is replaced in the lead tank and the lead/lag tanks are switched.
- In July, ARM checks the systems and performs any required maintenance.

Due to detections of PFAS in the January 2023 sample collected between the two carbon tanks (mid sample) from three POET systems (148 Main Street, 161 Main Street, and 9 Rockrimmon Road), ARM replaced the carbon in the second tank of those systems in March 2023. Table 5

summarizes the analytical results from the POET systems. As shown in Table 5, the systems remove PFAS to concentrations below AGQS. Properties where a POET system is being maintained by the Town of Kingston are outlined on Figure 4 with an aqua line, and properties where bottled water is being provided by the Town as an interim measure are outlined with a solid blue line.

2.0 NATURE AND EXTENT OF CONTAMINATION

This section summarizes the nature and extent of contamination at the Site, including Site hydrogeology, soil quality, sediment quality, groundwater quality, and a conceptual model for the Site.

2.1 Site Hydrogeology

Based on the shallow monitoring wells completed at the Site, the uppermost soils consist of fine- to medium-grained sand containing varying amounts of coarse-grained sand silt and gravel extending to depths of 18 feet (depth of monitoring wells). Based on information obtained from private well completions in the area, the depth to bedrock in the area ranges from about 50 to 130 feet. The hydraulic conductivity, based on rising head permeability tests, ranges between 46.7 and 155.9 feet/day, with an average of 93 feet/day.[3] Depths to groundwater range between 7.5 and 11.6 feet, as summarized in Table 6. Based on historic data from the former on-Site monitoring wells, groundwater flow is to the west, as shown on Figure 5, with a very flat gradient of approximately 0.002 feet/foot.[4] As shown on Figure 1, surface water flow appears to be from Greenwood Pond, at an elevation of 124 feet, to the south toward Great Pond, at an elevation of 119 feet, then to the southeast toward Powwow Pond, at an elevation of 116 feet. The ponds are tied to groundwater levels in the overburden aquifer.

Public water is not available in the area, so homes and businesses are supplied by overburden or bedrock wells. Overburden wells reportedly range in depth from 12 to 51 feet, and bedrock wells range in depth from 85 to 805 feet. Of the wells sampled in the area, 48 are completed in the overburden, 18 are completed in bedrock, and 26 have unknown completion. Information on wells was obtained from NHDES OneStop, property owners and field observation.

2.2 Soil Quality

A total of sixteen soil samples were collected from the six on-Site borings and analyzed for PFAS. In addition, two of the soil samples were analyzed for VOCs and PAHs. As summarized in Table 1, PFAS were detected in two soil samples collected as part of the Site Investigation:

- Boring B-1
  - 1.1 nanograms per gram (ng/g) PFOA; and
  - 1.7 ng/g perfluorononanoic acid (PFNA).
- Boring B-3
  - 11 ng/g N-ethyl perfluorooctane sulfonamidoethanol (N-EFTOSE); and
  - 5.1 ng/g 6:2 fluorotelomer sulfonic acid (6:2 FTS).

[3] Stantec Consulting Services, Inc., *Site Investigation Report, Kingston Fire Department, 148 Main Street, Kingston, New Hampshire 03848*, June 1, 2018.
[4] Ibid.

There currently are no soil standards for PFAS. No VOCs or PAHs were detected in the soil samples.

2.3 Sediment Quality

A sediment sample was collected from the dry well of the former Fire Station and analyzed for VOCs, PAHS, metals, and PFAS. The sample was collected 0.5 feet below the top of sediment or 5 feet below the top of the dry well. As shown in Table 1, concentrations of two metals, arsenic and lead, exceeded SRS. Arsenic was detected at 13.4 mg/kg, above the SRS of 11 mg/kg; lead was detected at 709 mg/kg, above the SRS of 400 mg/kg. In addition, various PFAS compounds were detected in the dry well sediment, with PFOS having the highest concentration at 46 ng/g. The detection of various PFAS in the sediment from the dry well, as compared to mostly non-detect PFAS concentrations in the soil samples collected at rest of the Fire Station property, support the Site history of the dry well as a potential conduit for PFAS releases. Various VOCs and PAHs were detected, and all results were below the respective SRS.

2.4 Groundwater quality

The following sections summarize the groundwater quality at the Site, including PFAS concentrations, the nature and extent of groundwater contamination, and PFAS concentration trends.

2.4.1 Groundwater Analytical Results

Between December 2017 and September 2019, five rounds of groundwater sampling were conducted at the six monitoring wells (MW-1 through MW-6) installed as part of the Site Investigation. The results are summarized in Table 2. Various PFAS were detected in all six monitoring wells.

- Concentrations of PFOA exceeding the AGQS of 12 ng/L were detected at all six monitoring wells with a maximum concentration of 400 ng/L in MW-6 in January 2019.
- Concentrations of PFNA exceeding the AGQS of 11 ng/L were detected in five of the six monitoring wells with a maximum concentration of 110 ng/L in MW-6 in January 2019.
- Concentrations of PFOS exceeding the AQGS of 15 ng/L were detected in three of the monitoring wells with a maximum concentration of 24.2 ng/L in MW-6 in September 2019.
- PFHxS did not exceed the AGQS of 18 ng/L in any of the six monitoring wells.

Generally, higher concentrations of PFAS were detected at MW-3 and MW-6 compared to the other four monitoring locations. As shown on Figure 5, MW-3 is located near the former dry well, and MW-6 is west and downgradient of MW-3.

Between September 2016 and February 2023, groundwater sampling for PFAS was conducted at 92 private wells surrounding the Site, as summarized in Table 3 and illustrated in Figure 4. Between one and 14 samples[5] have been collected from each location with 271 samples

[5] "Samples" here refers to untreated groundwater; it does not include post treatment samples collected from the POET systems.

collected in total from these wells. Samples were collected prior to any treatment systems that are currently in use. The water piping was purged by running a faucet or spigot for a minimum of ten minutes. Most samples were analyzed for a list of 23 PFAS compounds with at least one of the four regulated PFAS (PFOA, PFNA, PFHxS, or PFOS) detected in the most recent sample from 63 locations. The summary below focuses on the four currently regulated PFAS and the current AGQS values:

- PFOA is the most frequently detected PFAS. Concentrations of PFOA ranged from non-detect to 338 ng/L, with the maximum concentration of PFOA detected at 148 Main Street in January 2021. PFOA was detected above the AGQS of 12 ng/L at 15 of the 43 locations sampled between December 2022 and February 2023.
- PFOS is the next most frequently detected PFAS. Concentrations of PFOS ranged from non-detect to 464 ng/L, with the maximum concentration of PFOS detected at 161 Main Street in January 2022. PFOS was detected above the AGQS of 15 ng/L at two of the 43 locations sampled between December 2022 and February 2023.
- Concentrations of PFNA ranged from non-detect to 130 ng/L, with the maximum concentration of PFNA detected at 148 Main Street in December 2017. PFNA was detected above the AGQS of 11 ng/L at two of the 43 locations sampled between December 2022 and February 2023.
- Concentrations of PFHxS ranged from non-detect to 41.6 ng/L, with the maximum concentration of PFHxS detected at 161 Main Street in September 2019. PFHxS was not detected above the AGQS of 18 ng/L at any of the 43 locations sampled between December 2022 and February 2023.

2.4.2 Nature and Extent of Groundwater Contamination

As discussed in Section 1.3.4, Figure 4 shows the distribution of PFAS detected in groundwater near the Fire Station. The figure shows that wells with concentrations exceeding AGQS values (represented by red squares and circles) are located mainly west of the Fire Station along Rockrimmon Road. A few wells with concentrations exceeding AGQS values are located roughly along Main Street from parcel U10-11 to the north to parcel U9-9 to the south. One well is located on Clark Road just north of Great Pond. With the exception of the area south of parcel U9-9,[6] Figure 4 shows that the extent of private wells with water quality exceeding AGQS is well defined by sample results from nearby wells with concentrations less than AGQS (represented by green, blue, and magenta squares and circles).

Figures 6 through 9 show the most recent concentration of PFOA, PFOS, PFNA, and PFHxS, respectively, for each location. The shape of the symbol indicates where the well is completed, with overburden wells as circles, bedrock wells as squares, and unknown completion types as diamonds. Black- and green-colored symbols indicate the most recent concentration is less than or equal to the AGQS, while blue- and magenta-colored symbols indicate the most recent concentration is greater than the AGQS.

[6] The owners of parcels U9-40 and U9-41 are being contacted to determine if wells are present; if present, arrangements will be made to sample them.

As shown in Figure 6, PFOA concentrations exceeding the AGQS of 12 ng/L are found in one well located at the north end of the Kingston Plains, all wells located on the Fire Station property, and at several wells located west of the Fire Station along Rockrimmon Road. PFOA exceeding the AGQS is detected in both overburden and bedrock wells. PFOA concentrations are highest in the wells located on the Fire Station property and generally decrease to the west along Rockrimmon Road and to the southwest toward Great Pond. We note two exceptions to this pattern: the well on parcel U10-40 located northeast of the Fire Station along Main Street, and the well on parcel U11-70 located just north of Great Pond. Concentrations of PFOA in both of these wells (89.7 ng/L and 26.7 ng/L, respectively) are greater than concentrations in surrounding wells. These results suggest there may be an additional source(s) of PFAS.

As shown in Figure 7, wells with PFOS concentrations exceeding the AGQS of 15 ng/L are located in three overburden wells formerly located on the Fire Station property. A maximum concentration of 24.2 ng/L was detected among these three wells. Concentrations of PFOS also exceed the AGQS in two wells located north of the Fire Station, on parcel U10-11 (24.2 ng/L) and on parcel U10-40 (341 ng/L). Similar to what was observed with PFOA, concentrations of PFOS in the above-mentioned wells located to the north are greater than concentrations in surrounding wells; moreover, concentrations of PFOS in the wells located to the north are greater than or equal to those detected on the Fire Station property, again suggesting an additional PFAS source(s).

As shown in Figure 8, concentrations of PFNA exceeding the AGQS of 11 ng/L are found in one well located at the north end of the Kingston Plains, several wells on the Fire Station property, and one well west of the Fire Station on Rockrimmon Road. Of these wells, a maximum concentration of 121 ng/L was detected at one of the wells on the Fire Station property. The concentration of PFNA in one well located north of the Fire Station on parcel U10-40 (17.1 ng/L) also exceeds the AGQS.

As shown in Figure 9, PFHxS does not exceed the AGQS of 18 ng/L in any of the sampled wells. The highest concentrations of PFHxS are found in wells on the Fire Station property (maximum concentration of 16.4 ng/L) and in the well on parcel U10-40 (13.5 ng/L).

Figure 10 shows the sum of the concentrations of the ten most frequently detected PFAS compounds as well as the relative composition of the ten most frequently detected PFAS compounds in the most recent sample[7] from each location. Figures 11, 12, and 13 show the same information as Figure 10 but for wells completed in the overburden, bedrock, and unknown construction, respectively. As shown on Figure 10, PFAS concentrations are highest in wells on the Fire Station property, with a maximum total PFAS concentration of 2,922.2 ng/L. As with PFOA, PFAS concentrations generally decrease to the west along Rockrimmon Road and to the southwest along Colcord Road. Further southwest near Toppan and Thayer Roads, there is a group of wells with low PFAS concentrations (less than 20 ng/L), and just north of Great Pond are a few wells with higher PFAS concentrations (41.95 ng/L and 99.24 ng/L). Northeast of the

[7] For three properties (U11-13, U10-2 and U10-1), the last sampling round that included 6:2 FTS was used rather than the most recent sampling round.

Fire Station along Main Street, a PFAS concentration of 555.32 ng/L was detected in the well at parcel U10-40.

The PFAS composition of the Fire Station property wells have generally similar relative amounts of PFOA, PFHpA, PFPeA, PFHxA, and PFBA. In addition, PFBS was found in similar relative amounts at MW-1, MW-2, MW-3, and MW-6, and 6:2 FTS was found in similar relative amounts at MW-2, MW-3, and MW-6, and the U11-13 drinking water supply well. The PFAS composition of samples from locations to the west of the Fire Station and to the southwest along Colcord Road generally resemble that of Fire Station property locations. However, PFAS composition is less similar to the Fire Station property in locations just north of Great Pond, as well as north of the Fire Station and along the eastern side of Main Street. Just north of Great Pond, there appears to be a greater percentage of PFOA than PFPeA, which is a potential breakdown product of 6:2 FTS.[8] To the north, the well at parcel U10-40 has a very high percentage of PFOS, with lesser amounts of PFOA and very little of the other PFAS compounds. Wells to the northwest and south of parcel U10-40 generally have a higher percentage of PFOA than PFPeA, which differs from the wells on the Fire Station property.

2.4.3 PFAS Concentration Trends

A statistical evaluation of analyte concentration trends in groundwater was performed utilizing the Mann-Kendall Trend Test (the Trend Test). The Trend Test provides a quantitative evaluation of data from groundwater sampling and is applied to determine if there is a statistically significant trend in the concentration of a given analyte. Trends were evaluated at locations that have been sampled during at least four calendar years. The trend test was done using the sum of the four regulated PFAS (PFOA+PFOS+PFHxS+PFNA) and was conducted according to the following procedure:

- The GSI Mann-Kendall Toolkit[9] was used to process the data;
- The annual maximum concentration detected in samples collected between September 2016 and February 2023 at a given location was used for the analysis;
- A minimum of four sampling events during different calendar years for a given well location was required to calculate a trend;
- A concentration of one-half of the reporting limit was applied for non-detect results;
- Trend classifications were assigned according to the following descriptions:
    - **No Trend** indicates that either
        - the confidence factor of an increasing trend is less than 90 percent or
        - the confidence factor of a decreasing trend is less than 90 percent and the concentrations are variable (coefficient of variation is greater than or equal to 1);
    - Stable indicates that the confidence factor of a decreasing trend is less than 90 percent and the concentrations are relatively constant (coefficient of variation is less than 1);

[8] Méndez *et al.* (2022), Aerobic biotransformation of 6:2 fluorotelomer sulfonate by Dietzia aurantiaca J3 under sulfur-limiting conditions. *Science of The Total Environment* **829(10)** 154587.
[9] GSI Environmental, GSI Mann-Kendall Toolkit, Version 1, November 2012.

- Probably Increasing or Probably Decreasing indicates that the confidence factor of an increasing or decreasing trend is greater than 90 and less than 95 percent;
- Increasing or Decreasing indicates that the confidence factor of an increasing or decreasing trend is greater than 95 percent.

The Trend Test results are summarized in Table 7. The Trend Test data sheets which detail the trend tests are included in Appendix A. As shown in Table 7, the trend test was done on seven locations, as those wells have PFAS results from at least four calendar years. A decreasing concentration trend was indicated at one location, a probably decreasing trend was indicated at one location, a stable trend was indicated at five locations, and no trend was indicated at two locations. None of the locations have increasing concentration trends.

2.5 Site Conceptual Model

Potential historical sources of PFAS contamination to groundwater from the Fire Station include the former dry well, the former septic area that received discharge from the Fire Station washing machines, the former fire training area, and the Kingston Plains area where firefighting foam was used during summer festivals. These locations are depicted on Figure 2. As discussed in Section 2.2, very little PFAS was detected in soil samples collected at the former Fire Station, suggesting that soil remaining at the Fire Station is not a significant ongoing PFAS contaminant source to groundwater. Soil samples have not been collected from the Kingston Plains area.

As discussed in Section 2.3, elevated concentrations of arsenic and lead were detected in sediment from the dry well location. PFAS was also detected in the dry well sediment. The dry well was removed during the installation of the holding tank that replaced the dry well in late 2019, so that sediment is no longer present on Site. The absence of arsenic and lead in groundwater samples collected from the six monitoring wells (MW-1 through MW-6) installed on the Fire Station property (as summarized in Table 2) indicates that the dry well was not a source of arsenic and lead contamination to groundwater, though it was likely a historical source of PFAS contamination to groundwater.

Results of groundwater sampling in the area surrounding the Fire Station (discussed in Section 2.4.2) indicate the presence of PFAS in both overburden and possibly bedrock groundwater. Concentrations of PFOA exceed the AGQS in groundwater at the greatest number of locations, followed in frequency by concentrations of PFOS. PFAS concentrations and composition indicate that contaminated groundwater from the Fire Station property has migrated to the west along Rockrimmon Road and to the southwest along Colcord Road. The data also suggest the possibility of two additional sources, one just north of Great Pond and one near parcel U10-40 located north of the Fire Station on the east side of Main Street. There are no obvious sources in these other areas, although septic systems may be a potential contributing source. PFAS concentrations are generally stable to decreasing. As shown on Figures 4, 6, 7, 8, and 9, the extent of PFAS exceeding AGQS in both overburden and bedrock groundwater is well defined in all but one small area. Property owners at parcels U9-40 and U9-41 (located south of parcel U9-9 where concentrations of PFAS exceed AGQS) are being contacted to determine if wells are present. If wells are found to be present on these parcels, permission to sample will be requested. Figure 4 illustrates the locations of these parcels.

Public health is protected by the Town providing clean drinking water and ongoing private well sampling. All properties where PFAS concentrations exceed AGQS are being provided clean water, either through POET systems (six properties) or bottled water (20 properties). Ongoing PFAS sampling, proposed in Section 4, will monitor PFAS concentrations in the most vulnerable private wells.

3.0 PERMANANT SOLUTION

Sanborn Head has collected information regarding three options for a permanent solution, including the installation and maintenance of POET systems, extension of a water line, and the development of a new water supply. The preliminary cost estimates for the water line extension and developing a new water supply are highly uncertain and would require site-specific refinements to derive robust values. These cost estimates are included to provide an order of magnitude comparison of the various solutions. A discussion of each option is provided below.

3.1 Installation of Residential POET Systems

Currently, POET systems are being maintained by the town at six residences, and 20 residences are receiving bottled water due to a detection of at least one regulated PFAS (PFOS, PFOA, PFHxS, PFNA) at a concentration greater than the AGQS. Costs were evaluated for two scenarios. The first scenario is for installing and maintaining POET systems at the houses where groundwater concentrations exceed the current AGQS values for any of the four regulated PFAS compounds. The second scenario is for installing and maintaining POET systems at the houses where groundwater concentrations exceed the US EPA proposed Maximum Contaminant Levels (MCLs) for PFOS and PFOA of 4 ng/L for each compound. The second scenario was included to provide an estimate of what future costs could be if the AGQS values are lowered at some point in the future. Costs were estimated based on communication with the current POET system provider for the Town of Kingston and assume a standard residential system with an initial site evaluation.[10] Additional pre-treatment equipment (e.g., a water softener) is assumed unnecessary. An allowance for an increased-capacity system is assumed for approximately ten percent of residences.[11] Annual operating and maintenance costs cover two site visits per year, one comprehensive PFAS sampling event, one lead/lag carbon exchange, and pre-treatment system maintenance; it is assumed that each POET system will operate for twenty years. Estimated costs are provided in Exhibit 1 and do not account for cost increases due to inflation. In addition, if concentrations of PFAS in untreated water drop below the AGQS for a period of time (to be agreed upon with the NHDES) POET system maintenance can be halted (subject to potential confirmatory sampling), which will lower estimated costs. This remedial option can be implemented immediately.

[10] A standard system consists of a cartridge filter, two 2-cubic-foot (cf) granular activated carbon contactors in a lead/lag configuration, and a totalizing water meter.

[11] An increased-capacity system uses two 3-cf granular activated carbon contactors.

Exhibit 1 Point of Entry Treatment System Costs

	Install Where PFAS Concentration Exceeds AGQS	Install Where PFAS Concentration Exceeds 4 ng/L for PFOA or PFOS*
Number of Residences		
Number of residences at which at least one of the four regulated PFAS compounds has been detected at a concentration greater than the AGQS	26	
Number of homes currently on bottled water	*20*	
Number of homes with Point of Entry Treatment (POET) systems	*6*	
Number of residences where PFOA or PFOS concentrations in the most recent sample were detected at a concentration greater than 4 ng/L but less than AGQS	22	
Number of residences where PFOA or PFOS concentrations in the most recent sample were detected at a concentration less than or equal to 4 ng/L	11	
Number of residences for POET installation	**20**	**42**
Number of residences for POET operation and maintenance (O&M)	**26**	**48**
Installation Cost		
Average cost of standard residential PFAS POET system including initial site evaluation	$ 4,300	$ 4,300
Number of houses requiring increased-capacity system (assume 10% of total estimated houses)	3	5
Additional cost for increased-capacity system	$ 800	$ 800
Total Installation Cost	**$ 88,400**	**$ 184,600**
Operating & Maintenance (O&M)		
Annual Cost	$ 2,730	$ 2,730
Total Annual O&M (first year)	**$ 70,980**	**$ 131,040**
Total Annual O&M (years 2 to 20)	**$ 1,348,620**	**$ 2,489,760**
Cost Summary		
Total Cost for Year 1 (Installation and O&M)	**$ 159,380**	**$ 315,640**
Total Cost for Installation and O&M over 20 years	**$ 1,508,000**	**$ 2,805,400**

* Included as a contingency in case the AGQS values are decreased in the future. Based on proposed United States Environmental Protection Agency proposed maximum contaminant levels of 4 ng/L for PFOA or PFOS.

3.2 Water Line Extension

The potential cost associated with extending a water distribution line from an existing line of a neighboring community was evaluated. The NHDES provided estimated costs for line extension and the development of a residential connection. The two communities with a public water supply in closest proximity to Kingston are Plaistow and Exeter, and town/city water main maps were used to estimate distances from the endpoints of the existing lines closest to Kingston. It is not known if either of these towns are able to provide water to Kingston. In addition, this evaluation does not account for:

- The ease or difficulty of construction that may be associated with the terrain;
- Infrastructure that may be needed such as pumping stations or water storage tanks
- Operation and maintenance of the system; or
- The cost of the water being supplied.

Exhibit 2 provides rough estimated costs associated with a water line extension.[12] These costs assume only residences where groundwater exceeds current AGQS values are connected to the water line and that property owners pay for the supplied water. This permanent solution would take a minimum of three to five years to implement.

Exhibit 2 Water Line Extension Costs

	Line from Plaistow	Line from Exeter
Cost per residence for development of connection	$ 4,000	$ 4,000
Cost per mile for line extension	$ 1,500,000	$ 1,500,000
Distance to line	6	4.5
Number of homes currently on bottled water	20	20
Number of homes with POETs	6	6
Number of residence connections	26	26
Total cost associated with line extension	**$ 9,104,000**	**$ 6,854,000**

3.3 Development of New Water Supply

Due to PFAS contamination, the Town of Stratham has recently undertaken an alternatives analysis investigation to assess options for a long-term approach to managing the supply of public water. As part of this investigation, the Town of Stratham received a cost estimate for the development of a public water system supplied by a new groundwater well, and the Town of Stratham agreed to share the information. Although this estimate is specific to the Town of Stratham, it provides a rough estimate for the scale of cost that the Town of Kingston may incur should it pursue this option. Exhibit 3 provides the estimated costs for the development of a new public water system as provided to the Town of Stratham.

Exhibit 3 Cost to Develop a New Water Supply

	Estimate from Town of Stratham
Construction cost	$11.4M
Engineering and contingency	$3.2M
Total cost associated with line extension	**$14.6M**

[12] The Town of Stratham provided a cost estimate it received for a water distribution extension from Exeter to Stratham of $13.0M. This estimate includes construction and engineering/contingency costs (but does not include tie in fees).

We note that the construction cost includes the cost to develop a new groundwater well, the cost to treat the water (details are not provided), a 1-million-gallon storage tank, and the installation of 10,500 linear feet of a 16-inch diameter water main. It does not include operation and maintenance of the system. If the Town of Kingston plans to pursue this option, a cost estimate specific to the Town of Kingston would need to be developed. The process would begin with an evaluation of water quality throughout the Town and possible water supply locations within the Town. This permanent solution would take a minimum of five to ten years to implement.

3.4 Funding Options

Grant and loan funding sources for various types of public water system improvements and development projects are available through NHDES and are summarized in a table included Appendix B. Some of these options are specific to PFAS remediation and treatment projects. Funding from other sources, such as the Drinking Water State Revolving Fund and the NH Drinking Water and Groundwater Trust Fund, can be more broadly applied for improvements to or the design and construction of a public water supply. Once the Town has further refined its approach for a water supply solution, direct communication with NHDES is recommended to better understand what funding may be available for the potential solution(s) the Town is considering.

3.5 Recommended Permanent Solution

The Town of Kingston has preliminarily selected POET systems as the permanent solution. The Town is reaching out to NHDES to determine what funding sources may be available to assist it and will be requesting bids to install systems at the 20 locations currently receiving bottled water. The intention of the Town is to have these systems installed in the next several months.

4.0 GROUNDWATER MANAGEMENT ZONE AND PROPOSED GROUNDWATER MONITORING PLAN

The following sections discuss the Groundwater Management Zone (GMZ) and propose an ongoing groundwater monitoring plan.

4.1 Proposed Groundwater Management Zone

New Hampshire regulation Env-Or 607.01 requires that a responsible party applies for and obtains a groundwater management permit for any site where the discharge of a regulated contaminant has caused and continues to cause the groundwater quality criteria of Env-Or 603.01 to be violated. The groundwater management permit shall:

1) Establish a GMZ;
2) Require implementation of measures to restore groundwater quality within the GMZ to meet groundwater quality criteria;
3) Control the use of groundwater within the GMZ;
4) Require monitoring of the groundwater quality with the GMZ; and
5) Require an evaluation of the effectiveness of the remedial measures.

Given the uncertainty of an additional source to the northeast of the Fire Station and possibly just north of Great Pond, a GMZ is not being proposed at this time. A GMZ will be proposed following completion of the additional investigations recommended in Section 5.2.

4.2 Proposed Groundwater Monitoring Plan

Table 4 provides a list of all the private wells sampled and for each well indicates:

- Whether the well is completed in overburden or bedrock, or its completion interval is not known;
- Whether there is a POET system being maintained by the Town or the Town is supplying bottled water;
- The total number of samples collected;
- The minimum and maximum detected concentrations of PFAS (sum of the four regulated compounds);
- The earliest and most recent sample date;
- The most recent concentration for each of the four regulated PFAS compounds;
- Whether the maximum concentration of the four regulated PFAS compounds exceeds the AGQS (indicated with a 4), is greater than half the AGQS and less than or equal to the AGQS (indicated with a 3), is detected but at concentrations less than or equal to half the AGQS (indicated with a 2), or is not detected (indicated with a 1); and
- The proposed sampling frequency.

The following PFAS sampling schedule is recommended until a groundwater management permit is applied for or until a revised PFAS sampling schedule is proposed:

- The six locations with a POET system maintained by the Town will be sampled annually in January as part of the POET system maintenance. Samples will be collected more frequently, if needed, to ensure concentrations in water supplied to the residents are below AGQS. These wells have been sampled between six and 14 times and (as discussed in Section 2.4.3) do not have increasing concentration trends.
- The 20 locations being provided bottled water by the Town will be sampled annually in October.
    - Three locations (4 Church, 1A/1B Lamprey, 8 Thayer) have each been sampled two times (December 2019 and December 2022). The December 2022 results at all three locations are lower than the December 2019 results. At two locations (1A/1B Lamprey and 8 Thayer), recent concentrations are below AGQS.
    - Two locations (9 Depot and 15 Rockrimmon) have each been sampled three times: sampling was conducted at 9 Depot in January 2019, September 2019, and December 2022; sampling was conducted at 8 Thayer in January, May, and October 2019. PFAS concentrations in the recent sample from 9 Depot were below AGQS. The property owner at 15 Rockrimmon did not respond to our request to sample in 2022.
    - The remaining locations have been sampled between four and six times, and more frequent sampling is not warranted.
- At one location (169 Main), bottled water was offered but not accepted because the people using the building do not drink the water. This location will be sampled annually until two

consecutive samples show concentrations of PFAS at values less than half the AGQS. In the most recent sample, concentrations of PFAS at this location were less than half the AQGS.

- At seven locations (8 Bartlett, 6 and 7 Colcord, 158 and 160 Main, 2 and 5 Ronnie), PFAS concentrations were greater than half the AGQS and less than or equal to the AGQS during the most recent sampling round. These locations do not have POET systems maintained by the Town and are not receiving bottled water. These locations will be sampled semi-annually in January and July until concentrations of PFAS from two consecutive samples are less than or equal to half of the AGQS.
- At four locations, sampling has been conducted one time, and concentrations of PFAS were less than or equal to half the AGQS or not detected. These wells are located on parcels adjacent to parcels with wells with PFAS concentrations exceeding the AGQS. These four locations will be sampled one more time to confirm that PFAS concentrations are less than or equal to half the AGQS.
- Three locations that have not previously been sampled (despite repeated requests) are near parcels with wells having PFAS concentrations exceeding the AGQS. These properties will continue to be contacted for sampling. These properties are identified by to be determined (TBD) in Table 4.
- Two properties (U9-40 and U9-41) are located on the south side of Bartlett Street, across the street from a well (U9-9) having PFAS concentrations exceeding the AGQS. These properties will be contacted to determine if wells are present. If a well is present on either property, permission to sample will be requested.

Figure 14 shows all the locations that have been sampled and the recommended future sampling frequency for these locations. It also shows the locations of properties that will be contacted to determine the presence of a well. If a well is found to be present, an attempt will be made to sample it. Subsequently, if the sample result indicates an AGQS exceedance for the first time, potable water will be provided and the sampling frequency of wells on adjacent properties will be reviewed to determine if the sampling frequency of these wells needs to be adjusted.

The analytical results will be provided to the NHDES within 45 days of each sampling event, and an annual summary report will be provided to NHDES by April 15th each year. The annual summary report will include:

- Summary of the sampling completed during the previous year;
- Updated figure (similar to Figure 4) showing analytical results;
- Updated table of PFAS results;
- Any analytical reports and POET system reports not already submitted to NHDES;
- Mann-Kendall Trend evaluation for any locations sampled in at least four calendar years;
- Review of the sampling program with recommended changes, if any.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The following sections provide conclusions and recommendations for further investigations.

5.1 Conclusions

Based on the available data the following conclusions can be drawn:

- Soil remaining at the Fire Station is not likely a significant ongoing PFAS contaminant source to groundwater. However, soil samples need to be collected and analyzed for PFAS from the Kingston Plains area to evaluate it as a potential source area.
- The dry well was not a significant source of arsenic and lead contamination to groundwater.
- The dry well was likely a source of PFAS to groundwater; however, the dry well has been removed and is not a continuing source.
- PFAS is detected in both overburden and bedrock groundwater (based on private well construction details).
- PFOA exceeds the AGQS in groundwater from the most locations, followed by PFOS and PFNA. PFHxS was not detected above its AGQS in any of the samples collected since December 2022.
- The area in which PFAS exceed the AGQS has been well defined in all but one area (south of parcel U9-9).
- PFAS concentrations and composition indicate that contaminated groundwater from the Fire Station property has migrated to the west along Rockrimmon Road and to the southeast along Colcord Road.
- The data also suggest the possibility of two additional sources, one just north of Great Pond and one near parcel U10-40 located north of the Fire Station on the east side of Main Street.
- PFAS concentrations are generally stable to decreasing.
- All properties where PFAS concentrations exceed AGQS are being provided clean water, either through POET systems (six properties) or bottled water (20 properties). POET systems will be installed at the 20 properties currently receiving bottled water.
- Ongoing PFAS sampling will monitor PFAS concentrations in the most vulnerable private wells.

5.2 Recommendations

Based on the results of the recent groundwater sampling and the information compiled in this FSI Report, Sanborn Head recommends the following:

- Collect eight shallow soil samples for PFAS analysis from the northwestern portion of the Kingston Plains where the town reportedly built large bonfires which were extinguished with firefighting foam. The soil samples will be collected using a hand auger from the upper foot of soil at eight locations from the approximate area shown on Figure 15. The locations will be documented using a handheld global positioning system unit. The analytical results will be used to evaluate whether soil in the area is an ongoing source of PFAS to groundwater and to determine where to install a shallow monitoring well as described in the next bullet. Soil samples are not proposed to be collected from any other locations, as the Fire Station soil was evaluated during the 2018 Site Investigation.

- Install two or three shallow monitoring wells at the locations shown on Figure 15. The wells are expected to be ten to 20 feet deep and will be used to evaluate groundwater quality in the former source area.
  - Two monitoring wells are proposed to be installed on the current Fire Station property. One well (SH-01) will be located near the former dry well and former monitoring well MW-3. (MW-3 historically had the highest PFAS concentrations on the Fire Station property.) A second monitoring well (SH-02) will be located on the western portion of the Fire Station property near the location of the former U11-14 private well.
  - A third well (SH-03) will be installed on the Kingston Plains, east of the former Fire Station, unless it is determined that water levels can be collected from the existing irrigation well at this location. If the irrigation well can be used as a monitoring well, SH-03 will not be installed. If the irrigation well cannot be used as a monitoring well, SH-03 will be installed, and its location will be determined based the soil sample analytical results described above.
- Install five shallow monitoring wells (SH-04 through SH-08) at the locations shown on Figure 16. The wells are expected to be ten to 20 feet deep and will be used, along with SH-01 to SH-03 (or the irrigation well if SH-03 is not installed), to evaluate groundwater flow directions in the overburden groundwater.
- Survey the location and elevation of the newly installed monitoring wells and install surface water gauges in Greenwood Pond, Great Pond, and Powwow Pond, if feasible.
- Collect groundwater samples from proposed monitoring wells SH-01, SH-02 and SH-03 (or the irrigation well if SH-03 is not installed) for analysis of PFAS. Groundwater samples from these locations will be used to evaluate groundwater concentration trends in the potential source areas. Groundwater samples are not proposed to be collected from SH-04 through SH-08, as private well water quality data is available to evaluate groundwater quality in these areas; these wells will be used to collect groundwater elevation data to estimate/infer groundwater flow directions.
- Collect water samples from two properties located just north of Great Pond (U11-69 and U11-70) and analyze them for parameters to assess potential impacts from septic systems.
- After completion of the field investigations, a summary report will be prepared and will include the following information:
  - Summary of additional groundwater and soil quality results;
  - Evaluation of the Kingston Plains as a potential ongoing PFAS source;
  - Summary of the results of any additional private well samples;
  - Proposal of a GMZ; and
  - Any recommendations, whether to the proposed groundwater monitoring plan or whether additional investigations are needed.
- No remedial measures are recommended at this time (beyond securing a permanent solution for providing safe drinking water to affected residences).

It is expected that this additional work will take approximately four months to complete.

Tables

Table 1
Soil and Sediment Analytical Results
Kingston Fire Department
148 Main Street, Kingston, NH

Sample Location	Sample Date	Start Depth (ft)	End Depth (ft)	Metals						VOCs											PAHs															Perfluoroalkyl Carboxylic Acids				Perfluoro-alkyl Sulfonic Acids	Fluorotelomers		Perfluoroalkane Sulfonamides		Perfluoroalkane Sulfonyl Substances	
				mg/kg						ug/kg																											ng/g										
				Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Acetone	Butanone (2-) (MEK)	Butylbenzene (n-)	Ethylbenzene	Isopropyltoluene (4-)	Propylbenzene (n-)	Toluene	Trimethylbenzene (1,2,4-)	Xylene (m,p-)	Xylene (o-)	Xylenes (total)	Total VOCs	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Indeno(1,2,3-cd)pyrene	Methylnaphthalene (2-)	Naphthalene	Phenanthrene	Pyrene	Total PAHs	Perfluorononanoic Acid (PFNA) [8]	Perfluorodecanoic Acid (PFDA) [9]	Perfluoroundecanoic Acid (PFUnA) [10]	Perfluorooctadecanoic Acid (PFODA) [17]	Perfluorodecanesulfonic Acid (PFDS) [10S]	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	Perfluorooctanesulfonamide (PFOSA)	N-ethyl perfluorooctane sulfonamide (EtFOSA)	N-ethyl perfluorooctanesulfonamido ethanol (EtFOSE)	N-methyl perfluorooctanesulfonamido ethanol (MeFOSE)
			S-1 (SRS)	11	1,000	33	1,000 ф	400	7	75,000	51,000	110,000	120,000	NS	85,000	100,000	130,000	NS	NS	500,000†	NS	490,000	1,000,000	1,000	700	1,000	NS	12,000	120,000	700	960,000	1,000	96,000	28,000	NS	720,000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
B-1	11/27/17	1	2																																	1.7	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1
B-1	11/27/17	5	6																																	<0.99	<0.99	<0.99	<0.99	<0.99	<0.99	<0.99	<0.99	<0.99	<0.99	<0.99
B-1	11/27/17	10	11																																	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2
B-2	11/27/17	10	12							<27	<5.39	<2.7		<2.7	<2.7	<2.7	<2.7	<5.39	<2.7	ND	ND	<72.9	<72.9	<72.9	<72.9	<72.9	<72.9	<72.9	<72.9	<72.9	<72.9	<72.9	<72.9	<72.9	<72.9	<72.9	ND											
B-3	11/27/17	1	3																																	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1
B-3	11/27/17	8	9																																	<1	<1	<1	<1	<1	5.1	<1	<1	<1	11	<1
B-3	11/27/17	11	12							<46.4	<9.27	<4.64		<4.64	<4.64	<4.64	<4.64	<9.27	<4.64	ND	ND	<84	<84	<84	<84	<84	<84	<84	<84	<84	<84	<84	<84	<84	<84	<84	ND	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3
B-4	11/28/17	1	2																																	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
B-4	11/28/17	7	8																																	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
B-4	11/28/17	11	12																																	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2
B-5	11/28/17	1	2																																	<0.94	<0.94	<0.94	<0.94	<0.94	<0.94	<0.94	<0.94	<0.94	<0.94	<0.94
B-5	11/28/17	7	8																																	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
B-5	11/28/17	11	12																																	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2
B-6	11/28/17	1	2																																	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
B-6	11/28/17	7	8																																	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1
B-6	11/28/17	11	12																																	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2
Dry Well	04/16/18	--	--	**13.4**	184	15.6	68.2	**709**	0.346	150	48	3.4	2.9	1	3.1	4.8	5.6	7.7	2.5	10	218.8	250	220	400	520	870	420	290	780	110	860	360	170	120	550	970	6,890	1.6	2.2	1.4	2.8	46	3.3	16	10	13	1.8	2.8

Notes:
1. Historical sample data was tabulated from lab electronic data deliverables, from Alpha Analytical Inc. or taken from Table 3 of the "Site Investigation Report" by Stantec Consulting Services, Inc., submitted June 1, 2018.

2. Concentrations for metals are presented in milligrams per kilogram (mg/kg) which are equivalent to parts per million (ppm); concentrations for VOCs and PAHs are presented in micrograms per kilogram (ug/kg) which are equivalent to parts per billion (ppb); and concentrations for PFAS are presented in nanograms per gram (ng/g) which are equivalent to parts per billion (ppb).

3. Only detected concentrations are shown herein.

4. "<" indicates the analyte was not detected above the indicated laboratory reporting limit (RL).
"ND" indicates the analyte was not detected above the laboratory reporting limit.
"J" indicates the result is estimated.
A blank cell indicates the sample was not analyzed for this analyte.
[3] = number of carbons in the perfluorinated alkyl chain for perfluorinated carboxylic acids (PFCAs). The carbon included in the carboxylic functional group is non-fluorinated.
[4S] = number of carbons in the perfluorinated alkyl chain for perfluorinated sulfonic acids (PFSAs). All of the carbons are fluorinated.

5. "S-1" (SRSs) refer to the Method 1 S-1 Soil Standards established under the New Hampshire Department of Environmental Services (NHDES) "Contaminated Sites Risk Characterization and Management Policy" (RCMP) (January 1998, with 2000 through 2018 revisions/addenda). The S-1 Soil Standards are typically equivalent to the Soil Remediation Standards (SRSs) promulgated in Env-Or 600 (June 2015). For analytes where the S-1 and SRS differ, the values presented reflect the S-1 standards in the latest RCMP update.

6. "NS" indicates the analyte is not listed in the RCMP.

7. **Bold** values exceed the S1 (SRS) Soil Standard.

Table 2
Monitoring Well Groundwater Analytical Results
Kingston Fire Department
148 Main Street, Kingston, NH

Sample Location	Sample Date	Sample Type	Dissolved Metals		Other			VOCs	PAHs	Perfluoroalkyl Carboxylic Acids											Perfluoroalkyl Sulfonic Acids					Fluorotelomers		Perfluoroalkane Sulfonamides			Perfluoroalkane Sulfonyl Substances				Per- and Polyfluoroalkyl Ether Carboxylic Acids
			mg/L					ug/L		ng/L																									
			Arsenic	Lead	Total Organic Carbon (TOC), Rep 1	Total Organic Carbon (TOC), Rep 2	Total Organic Carbon (TOC), Rep 3	Total VOCs	Total PAHs	Perfluorobutanoic Acid (PFBA) [3]	Perfluoropentanoic Acid (PFPeA) [4]	Perfluorohexanoic Acid (PFHxA) [5]	Perfluoroheptanoic Acid (PFHpA) [6]	Perfluorooctanoic Acid (PFOA) [7]	Perfluorononanoic Acid (PFNA) [8]	Perfluorodecanoic Acid (PFDA) [9]	Perfluoroundecanoic Acid (PFUnA) [10]	Perfluorododecanoic Acid (PFDoA) [11]	Perfluorotridecanoic Acid (PFTrDA) [12]	Perfluorotetradecanoic Acid (PFTeA) [13]	Perfluorobutanesulfonic Acid (PFBS) [4S]	Perfluorohexanesulfonic Acid (PFHxS) [6S]	Perfluoroheptanesulfonic Acid (PFHpS) [7S]	Perfluorooctanesulfonic Acid (PFOS) [8S]	Perfluorodecanesulfonic Acid (PFDS) [10S]	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	Perfluorooctanesulfonamide (PFOSA)	N-ethyl perfluorooctane sulfonamide (EtFOSA)	N-methyl perfluorooctane sulfonamide (MeFOSA)	N-ethyl perfluorooctanesulfonamido ethanol (EtFOSE)	N-methyl perfluorooctanesulfonamido ethanol (MeFOSE)	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propanoic acid (HFPO-DA)
GW-1 (AGQS)			0.005	0.015	NS	NS	NS	NS	NS	NS	NS	NS	NS	12	11	NS	NS	NS	NS	NS	NS	18	NS	15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-1	12/12/17	N								36	140	120	150	**42**	**38**	<4.6	<4.6	<4.6	<4.6	<4.6	17	<4.6	<4.6	<4.6	<4.6	24	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6			<4.6
MW-1	01/03/18	N								27	110	110	100	**47**	**41**	<4.4	<4.4	<4.4	<4.4	<4.4	19	<4.4	<4.4	<4.4	<4.4	12	<4.4	<4.4			<4.4	<4.4	<4.4	<4.4	<4.4
MW-1	01/25/19	N	<0.005	<0.01	3.09	3.13	3.39			98	260	220	110	**23**	**12**	<4.1	<4.1	<4.1	<4.1	<4.1	17	<4.1	<4.1	<4.1	<4.1	4.7	0.2 J	<4.1			<4.1	<4.1	<4.1	<4.1	
MW-1	05/21/19	N								24	67	73	60	**23**	**22**	<4.3	<4.3	<4.3	<4.3	<4.3	23	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3			<4.3	<4.3	<4.3	<4.3	
MW-1	09/09/19	N								70.5	193	186	115	**32.6**	**37.3**	<1.86	<1.86	<1.86	<1.86	<1.86	45.7	<1.86	<1.86	<1.86	<1.86	6.29	<1.86	<1.86			<46.5	<46.5	<1.86	<1.86	
MW-2	12/12/17	N						ND	ND	51	180	220	110	**31**	<4.5	4.7	<4.5	<4.5	<4.5	<4.5	210	<4.5	<4.5	<4.5	<4.5	27	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5			<4.5
MW-2	01/03/18	N						ND	ND	95	270	310	130	**81**	8.1	<4.5	<4.5	<4.5	<4.5	<4.5	700	<4.5	<4.5	<4.5	<4.5	92	<4.5	<4.5			<4.5	<4.5	<4.5	<4.5	<4.5
MW-2	01/25/19	N	<0.005	<0.01	6.92	6.92	6.98			15	32	42	160	**210**	**15**	12	<4.2	<4.2	<4.2	<4.2	37	4.7	<4.2	15	1.3 J	150	1.2 J	5.8			<4.2	<4.2	22	<4.2	
MW-2	05/21/19	N								64	170	210	110	**77**	10	4.6	<4.1	<4.1	<4.1	<4.1	72	<4.1	<4.1	8.8	<4.1	33	<4.1	6.2			<4.1	<4.1	22	<4.1	
MW-2	09/09/19	N								30.8	88.6	84.2	61.1	**75.4**	**38**	14.8	<1.89	<1.89	<1.89	<1.89	207	<1.89	<1.89	**15.8**	<1.89	19.7	<1.89	4.28			<47.2	<47.2	<1.89	<1.89	
MW-3	12/12/17	N						ND	ND	150	730	400	270	**120**	**60**	11	<4.6	<4.6	<4.6	<4.6	36	12	<4.6	13	<4.6	180	25	18	<4.6	<4.6	<4.6	<4.6			<4.6
MW-3	01/03/18	N						ND	ND	230	910	500	470	**96**	**75**	10	<4.4	<4.4	<4.4	<4.4	42	11	<4.4	**17**	<4.4	200	76	13			<4.4	<4.4	<4.4	<4.4	<4.4
MW-3	01/25/19	N	<0.005	<0.01	10.9	11.6	11.3			19	58	66	93	**240**	5	34	29	7.3	<4.2	<4.2	46	4.7	<4.2	13	<4.2	130	330	32			<4.2	<4.2	24	<4.2	
MW-3	05/21/19	N								45	160	170	120	**200**	5.9	39	9	<4.3	<4.3	<4.3	120	12	<4.3	**17**	<4.3	200	250	27			<4.3	<4.3	17	<4.3	
MW-3	09/09/19	N								75.9	232	233	222	**232**	8.68	28.4	<1.86	<1.86	<1.86	<1.86	251	16.4	<1.86	**15.4**	<1.86	213	157	5.37			<46.5	<46.5	2.67	<1.86	
MW-4	12/12/17	N								30	110	100	100	**39**	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7			<4.7
MW-4	01/03/18	N								32	110	110	140	**36**	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3			<4.3	<4.3	<4.3	<4.3	<4.3
MW-4	01/03/18	FD								32	120	110	150	**34**	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4			<4.4	<4.4	<4.4	<4.4	<4.4
MW-4	01/25/19	N	<0.005	<0.01	2.57	2.44	2.79			150	500	470	370	**92**	<4	<4	<4	<4	<4	<4	16	2.6 J	<4	<4	<4	<4	0.16 J	<4			<4	<4	<4	<4	
MW-4	05/21/19	N								80	340	270	340	**80**	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	13	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4			<4.4	<4.4	<4.4	<4.4	
MW-4	09/09/19	N								62.6	213	173	190	**70.8**	<1.87	<1.87	<1.87	<1.87	<1.87	<1.87	6.62	<1.87	<1.87	<1.87	<1.87	<1.87	<1.87	<1.87			<46.8	<46.8	<1.87	<1.87	
MW-5	12/12/17	N								52	160	100	86	**32**	**13**	<4.6	<4.6	<4.6	<4.6	<4.6	5.8	<4.6	<4.6	<4.6	<4.6	20	17	<4.6	<4.6	<4.6	<4.6	<4.6			<4.6
MW-5	12/12/17	FD								62	160	86	75	**28**	**17**	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	17	13	<4.6	<4.6	<4.6	<4.6	<4.6			<4.6
MW-5	01/03/18	N								57	140	83	60	**30**	**17**	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	12	15	<4.5			<4.5	<4.5	<4.5	<4.5	<4.5
MW-5	01/25/19	N	<0.005	<0.01	1.58	1.64	1.64			92	350	250	210	**96**	4.3	<4.2	<4.2	<4.2	<4.2	<4.2	14	3.6 J	<4.2	1.8 J	<4.2	2.4 J	2.5 J	<4.2			<4.2	<4.2	<4.2	<4.2	
MW-5	05/21/19	N								94	360	270	420	**83**	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	10	4.2	<4.1	<4.1	<4.1	5	<4.1	<4.1			<4.1	<4.1	<4.1	<4.1	
MW-5	09/09/19	N								20.3	55.8	51.7	123	**100**	3.09	<1.92	<1.92	<1.92	<1.92	<1.92	2.42	3.86	<1.92	<1.92	<1.92	2.72	<1.92	<1.92			<47.9	<47.9	<1.92	<1.92	
MW-6	12/12/17	N								41	170	100	94	**140**	**36**	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	9.4	<4.6	310	18	<4.6	<4.6	<4.6	<4.6	<4.6			<4.6
MW-6	01/03/18	N								44	170	97	95	**130**	**49**	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	7.5	<4.4	190	38	<4.4			<4.4	<4.4	<4.4	<4.4	<4.4
MW-6	01/25/19	N	<0.005	<0.01	2.79	2.9	2.89			54	210	160	160	**400**	**110**	<4.2	<4.2	<4.2	3.2 J	<4.2	38	6	0.47 J	12	<4.2	550	18	<4.2			<4.2	<4.2	<4.2	<4.2	
MW-6	05/21/19	N								33	130	57	70	**230**	**65**	<4.2	<4.2	<4.2	<4.2	<4.2	13	<4.2	<4.2	**18**	<4.2	390	33	<4.2			<4.2	<4.2	<4.2	<4.2	
MW-6	09/09/19	N								57.2	185	133	78.2	**172**	**76.5**	<1.84	<1.84	<1.84	<1.84	<1.84	167	7.69	<1.84	**24.2**	<1.84	339	32.6	<1.84			<46.1	<46.1	<1.84	<1.84	

Table 2
Monitoring Well Groundwater Analytical Results
Kingston Fire Department
148 Main Street, Kingston, NH

Notes:
1. Historical sample data was tabulated from lab electronic data deliverables, from Alpha Analytical Inc. or ALS Environmental or taken from Table 4 of the "Site Investigation Report" by Stantec Consulting Services, Inc., submitted June 1, 2018.

2. Concentrations for metals and TOC are presented in milligrams per liter (mg/L) which are equivalent to parts per million (ppm); concentrations for VOCs and PAHs are presented in micrograms per liter (ug/L) which are equivalent to parts per billion (ppb); and concentrations for PFAS are presented in nanograms per liter (ng/L) which are equivalent to parts per trillion (ppt).

3. For VOCs and PAHs, only detected concentrations are shown herein.

4. "<" indicates the analyte was not detected above the indicated laboratory reporting limit (RL).
"ND" indicates the analyte was not detected above the laboratory reporting limit.
"J" indicates the result is estimated.
A blank cell indicates the sample was not analyzed for this analyte.
[3] = number of carbons in the perfluorinated alkyl chain for perfluorinated carboxylic acids (PFCAs). The carbon included in the carboxylic functional group is non-fluorinated.
[4S] = number of carbons in the perfluorinated alkyl chain for perfluorinated sulfonic acids (PFSAs). All of the carbons are fluorinated.

5. "GW-1" refers to the New Hampshire GW-1 Groundwater Standards as defined in New Hampshire Department of Environmental Services (NHDES) Contaminated Sites Risk Characterization and Management Policy (RCMP) (January 1998, with 2000 through 2018 revisions/addenda). GW-1 Groundwater Standards are intended to be equivalent to the Ambient Groundwater Quality Standards (AGQSs) promulgated in Env-Or 600 (June 2015 with October 2016, September 2018, September 2019, May 2020, January 2021 and July 2021 amendments). For analytes where GW-1 and AGQS values differ, the values presented in this table reflect the AGQSs in the latest Env-Or 600 update. The AGQS/GW-1 Groundwater Standards are intended to be protective of groundwater as a source of drinking water.

6. "NS" indicates the analyte is not listed in the RCMP.

7. **Bold** values exceed the GW-1 (AGQS) Groundwater Standard.

Table 3
Private Well Groundwater Analytical Results
Kingston Fire Department
148 Main Street, Kingston, NH

Location	Sample Date	Tax Map/Lot	Concentrations in ng/L																									
			Perfluoroalkyl Carboxylic Acids											Perfluoroalkyl Sulfonic Acids					Fluorotelomers			Perfluoroalkane Sulfonamides			Perfluoroalkane Sulfonyl Substances				Per- and Polyfluoroalkyl Ether Carboxylic Acids
			Perfluorobutanoic Acid (PFBA) [3]	Perfluoropentanoic Acid (PFPeA) [4]	Perfluorohexanoic Acid (PFHxA) [5]	Perfluoroheptanoic Acid (PFHpA) [6]	Perfluorooctanoic Acid (PFOA) [7]	Perfluorononanoic Acid (PFNA) [8]	Perfluorodecanoic Acid (PFDA) [9]	Perfluoroundecanoic Acid (PFUnA) [10]	Perfluorododecanoic Acid (PFDoA) [11]	Perfluorotridecanoic Acid (PFTrDA) [12]	Perfluorotetradecanoic Acid (PFTeA) [13]	Perfluorobutanesulfonic Acid (PFBS) [4S]	Perfluorohexanesulfonic Acid (PFHxS) [6S]	Perfluoroheptanesulfonic Acid (PFHpS) [7S]	Perfluorooctanesulfonic Acid (PFOS) [8S]	Perfluorodecanesulfonic Acid (PFDS) [10S]	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	Perfluorooctanesulfonamide (PFOSA)	N-ethyl perfluorooctane sulfonamide (EtFOSA)	N-methyl perfluorooctane sulfonamide (MeFOSA)	N-ethyl perfluorooctanesulfonamido ethanol (EtFOSE)	N-methyl perfluorooctanesulfonamido ethanol (MeFOSE)	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propanoic acid (HFPO-DA)
			375-22-4	2706-90-3	307-24-4	375-85-9	335-67-1	375-95-1	335-76-2	2058-94-8	307-55-1	72629-94-8	376-06-7	375-73-5	355-46-4	375-92-8	1763-23-1	335-77-3	757124-72-4	27619-97-2	39108-34-4	754-91-6	4151-50-2	31506-32-8	1691-99-2	24448-09-7	2991-50-6	2355-31-9	13252-13-6
		GW-1 (AGQS)	NS	NS	NS	NS	12	11	NS	NS	NS	NS	NS	NS	18	NS	15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
38 Ball Rd	12/16/19	R23-43	<1.83	<1.83	<1.83	<1.83	2.39	<1.83	<1.83	<1.83	<1.83	<1.83	<1.83	<1.83	<1.83	<1.83	2.44	<1.83		<1.83	<1.83	<1.83			<45.8	<45.8	<1.83	<1.83	
4 Bartlett St	01/25/19	U9-9	7.9	21	14	13	11	1.2 J	<4.1	<4.1	<4.1	<4.1	<4.1	1 J	1.7 J	<4.1	1.6 J	<4.1		3.3 J	0.19 J	<4.1			<4.1	<4.1	<4.1	<4.1	
4 Bartlett St	05/22/19	U9-9	4.6	19	<9.2	9.5	6.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2		<4.2	<4.2	<4.2			<4.2	<4.2	<4.2	<4.2	
4 Bartlett St	09/30/19	U9-9	10.4	27.4	15.8	12	9.28	<1.76	<1.76	<1.76	<1.76	<1.76	<1.76	<1.76	<1.76	<1.76	<1.76	<1.76		1.99	<1.76	<1.76			<44	<44	<1.76	<1.76	
4 Bartlett St	02/28/23	U9-9	8.40	25.4	15.9	17.7	**13.4**	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98		<1.98	<1.98	47.3			<1.98	<2.47	<1.98	<1.98	
6 Bartlett St	12/17/19	U9-12	2.36	4.83	4.78	4.04	4.2	3.46	3.3	3.4	3.3	3.72	3.87	<1.87	<1.87	<1.87	<1.87	<1.87		<1.87	<1.87	<1.87			<46.8	<46.8	16.8	16.7	
8 Bartlett St	12/16/19	U9-13	<1.77	3.24	4.02	<1.77	11.8	<1.77	<1.77	<1.77	<1.77	<1.77	<1.77	4.77	<1.77	<1.77	2.98	<1.77		<1.77	<1.77	<1.77			<44.2	<44.2	<1.77	<1.77	
28 Clark Rd	12/27/16	U11-70	<9.3	13	19	17	**26**	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	8.6	<4.7	<4.7	12	<4.7		<4.7	<4.7	<4.7			<4.7	<4.7	<4.7	<4.7	<4.7
28 Clark Rd	05/20/19	U11-70	9.1	27	35	32	**34**	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	12	5.5	<4.2	12	<4.2		<4.2	<4.2	<4.2			<4.2	<4.2	<4.2	<4.2	
28 Clark Rd	09/27/19	U11-70	11.2	24.6	38.6	36.5	**48.6**	3.78	<1.74	<1.74	<1.74	<1.74	<1.74	10.9	4.6	<1.74	**15.5**	<1.74		<1.74	<1.74	<1.74			<43.4	<43.4	<1.74	<1.74	
28 Clark Rd	12/07/22	U11-70	6.07	13.8	18.0	17.0	**26.7**	3.41	<2.05	<2.05	<2.05	<2.05	<2.05	5.62	<2.05	<2.05	8.64	<2.05		<2.05	<2.05	<2.05			<2.05	<2.57	<2.05	<2.05	
29 Clark Rd	12/17/19	U11-74	4.46	1.91	4.2	1.93	9.76	<1.85	<1.85	<1.85	<1.85	<1.85	<1.85	13.4	7.09	<1.85	9.64	<1.85		<1.85	<1.85	<1.85			<46.3	<46.3	<1.85	<1.85	
29 Clark Rd	12/07/22	U11-74	<1.95	<1.95	<1.95	<1.95	4.08	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	3.37	<1.95	<1.95	5.67	<1.95		<1.95	<1.95	<1.95			<1.95	<2.44	<1.95	<1.95	
31 Clark Rd	12/16/19	U11-73	<1.81	<1.81	<1.81	<1.81	3.78	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	5.09	2.98	<1.81	3.67	<1.81		<1.81	<1.81	<1.81			<45.3	<45.3	<1.81	<1.81	
31 Clark Rd	02/28/23	U11-73	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95		<1.95	<1.95	<1.95			<1.95	<2.44	<1.95	<1.95	
3 Church St	12/17/19	U10-21	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9		<1.9	<1.9	<1.9			<47.5	<47.5	<1.9	<1.9	
4 Church St	12/16/19	U10-11	2.23	2.92	2.93	1.96	8.4	2.32	3.59	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	**50.1**	<1.82		<1.82	<1.82	<1.82			<45.6	<45.6	<1.82	<1.82	
4 Church St	12/06/22	U10-11	<1.91	3.97	3.40	2.45	7.05	<1.91	3.48	<1.91	<1.91	<1.91	<1.91	<1.91	<1.91	<1.91	**24.2**	<1.91		<1.91	<1.91	<1.91			<1.91	<2.39	<1.91	<1.91	
6 Church St	12/06/22	U10-12	<1.99	2.96	2.57	2.96	4.41	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	9.03	<1.99	<1.99	<1.99	<1.99		<1.99	<1.99	<1.99			<1.99	<2.49	<1.99	<1.99	
2 Colcord Rd	02/01/17	U11-30	<9.7	<4.9	<4.9	<4.9	<2	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9		<4.9	<4.9	<4.9			<4.9	<4.9	<4.9	<4.9	<4.9
2 Colcord Rd	02/03/19	U11-30	6	11	16	1.4 J	3.1	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	3.7 J	<4.7	<4.7	2.2 J	<4.7		<4.7	<4.7	<4.7			<4.7	<4.7	<4.7	<4.7	
6 Colcord Rd	12/27/16	U11-31	12	50	31	11	7.7	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5		24	<4.5	<4.5			<4.5	<4.5	<4.5	<4.5	<4.5
6 Colcord Rd	01/13/17	U11-31	<9.3	<4.7	5.2	<4.7	4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7		<4.7	<4.7	<4.7			<4.7	<4.7	<4.7	<4.7	<4.7
6 Colcord Rd	01/22/19	U11-31	11	50	35	11	7.8	<4	<4	<4	<4	<4	<4	1.7 J	<4	<4	2.1 J	<4		40	<4	<4			<4	<4	<4	<4	
6 Colcord Rd	05/20/19	U11-31	14	63	41	15	9.4	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2		36	<4.2	<4.2			<4.2	<4.2	<4.2	<4.2	
6 Colcord Rd	09/26/19	U11-31	14.6	61.5	47.3	16.1	11	<2.03	<2.03	<2.03	<2.03	<2.03	<2.03	<2.03	<2.03	<2.03	<2.03	<2.03		40.2	<2.03	<2.03			<50.8	<50.8	<2.03	<2.03	
6 Colcord Rd	12/07/22	U11-31	7.31	32.3	22.9	8.57	6.63	<2.02	<2.02	<2.02	<2.02	<2.02	<2.02	<2.02	<2.02	<2.02	<2.02	<2.02		17.2	<2.02	<2.02			<2.02	<2.52	<2.02	<2.02	
7 Colcord Rd	12/16/19	U11-40	11.2	51.9	35.2	10.1	7.33	<1.74	<1.74	<1.74	<1.74	<1.74	<1.74	<1.74	<1.74	<1.74	2.13	<1.74		41.5	<1.74	<1.74			<43.4	<43.4	<1.74	<1.74	
7 Colcord Rd	02/28/23	U11-40	9.86	41.9	28.9	9.75	9.30	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01		37.0	<2.01	9.53			<2.01	<2.52	<2.01	<2.01	
10 Colcord Rd	12/16/19	U11-38	2.51	7.78	6.72	2.05	4.91	<1.77	<1.77	<1.77	<1.77	<1.77	<1.77	<1.77	<1.77	<1.77	3.78	<1.77		5.58	<1.77	<1.77			<44.3	<44.3	<1.77	<1.77	
5 Country Ln	12/16/19	U10-30A	<1.83	<1.83	<1.83	<1.83	<1.83	<1.83	<1.83	<1.83	<1.83	<1.83	<1.83	<1.83	<1.83	<1.83	<1.83	<1.83		<1.83	<1.83	<1.83			<45.8	<45.8	<1.83	<1.83	
4 Depot Rd	12/16/19	U10-32	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81		<1.81	<1.81	<1.81			<45.3	<45.3	<1.81	<1.81	
5 Depot Rd	12/17/19	U10-36	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92		<1.92	<1.92	<1.92			<48.1	<48.1	<1.92	<1.92	

Table 3
Private Well Groundwater Analytical Results
Kingston Fire Department
148 Main Street, Kingston, NH

Location	Sample Date	Tax Map/Lot	Concentrations in ng/L																										
			Perfluoroalkyl Carboxylic Acids											Perfluoroalkyl Sulfonic Acids					Fluorotelomers			Perfluoroalkane Sulfonamides			Perfluoroalkane Sulfonyl Substances				Per- and Polyfluoroalkyl Ether Carboxylic Acids
			Perfluorobutanoic Acid (PFBA) [3]	Perfluoropentanoic Acid (PFPeA) [4]	Perfluorohexanoic Acid (PFHxA) [5]	Perfluoroheptanoic Acid (PFHpA) [6]	Perfluorooctanoic Acid (PFOA) [7]	Perfluorononanoic Acid (PFNA) [8]	Perfluorodecanoic Acid (PFDA) [9]	Perfluoroundecanoic Acid (PFUnA) [10]	Perfluorododecanoic Acid (PFDoA) [11]	Perfluorotridecanoic Acid (PFTrDA) [12]	Perfluorotetradecanoic Acid (PFTeA) [13]	Perfluorobutanesulfonic Acid (PFBS) [4S]	Perfluorohexanesulfonic Acid (PFHxS) [6S]	Perfluoroheptanesulfonic Acid (PFHpS) [7S]	Perfluorooctanesulfonic Acid (PFOS) [8S]	Perfluorodecanesulfonic Acid (PFDS) [10S]	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	Perfluorooctanesulfonamide (PFOSA)	N-ethyl perfluorooctane sulfonamide (EtFOSA)	N-methyl perfluorooctane sulfonamide (MeFOSA)	N-ethyl perfluorooctanesulfonamido ethanol (EtFOSE)	N-methyl perfluorooctanesulfonamido ethanol (MeFOSE)	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propanoic acid (HFPO-DA)
			375-22-4	2706-90-3	307-24-4	375-85-9	335-67-1	375-95-1	335-76-2	2058-94-8	307-55-1	72629-94-8	376-06-7	375-73-5	355-46-4	375-92-8	1763-23-1	335-77-3	757124-72-4	27619-97-2	39108-34-4	754-91-6	4151-50-2	31506-32-8	1691-99-2	24448-09-7	2991-50-6	2355-31-9	13252-13-6
		GW-1 (AGQS)	NS	NS	NS	NS	12	11	NS	NS	NS	NS	NS	NS	18	NS	15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
9 Depot Rd	01/24/19	U10-35	5.8	4.8	<9.2	2.7 J	**14**	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	9.8	5.9	<4.2	2 J	<4.2		<4.2	<4.2	<4.2			<4.2	<4.2	<4.2	<4.2	
9 Depot Rd	09/27/19	U10-35	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88		<1.88	<1.88	<1.88			<47	<47	<1.88	<1.88	
9 Depot Rd	12/08/22	U10-35	3.47	6.77	7.73	3.21	3.74	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	5.04	<1.98	<1.98	<1.98	<1.98		<1.98	<1.98	<1.98			<1.98	<2.47	<1.98	<1.98	
10 Depot Rd	12/16/19	U10-34	<1.83	<1.83	<1.83	<1.83	<1.83	<1.83	<1.83	<1.83	<1.83	<1.83	<1.83	<1.83	<1.83	<1.83	<1.83	<1.83		<1.83	<1.83	<1.83			<45.8	<45.8	<1.83	<1.83	
15 Depot Rd	12/16/19	U9-27	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	2.65	<1.88	<1.88	<1.88		<1.88	<1.88	<1.88			<47	<47	<1.88	<1.88	
19 Depot Rd	12/19/19	U9-25	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82		<1.82	<1.82	<1.82			<45.4	<45.4	<1.82	<1.82	
3 Derby Ln	12/17/19	R15-4B-1	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95		<1.95	<1.95	<1.95			<48.8	<48.8	<1.95	<1.95	
6 Fifield Brook Rd	12/27/16	U11-17	<9	31	19	<4.5	2	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5		31	<4.5	<4.5			<4.5	<4.5	<4.5	<4.5	<4.5
6 Fifield Brook Rd	01/23/19	U11-17	8.2	34	22	6	2.7	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	0.85 J	<4.2		50	<4.2	<4.2			<4.2	<4.2	<4.2	<4.2	
6 Fifield Brook Rd	05/20/19	U11-17	8.8	44	24	7.5	2.8	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1		47	<4.1	<4.1			<4.1	<4.1	<4.1	<4.1	
6 Fifield Brook Rd	10/01/19	U11-17	8.78	42	25.8	6.94	2.87	<1.73	<1.73	<1.73	<1.73	<1.73	<1.73	<1.73	<1.73	<1.73	<1.73	<1.73		54.2	<1.73	<1.73			<43.2	<43.2	<1.73	<1.73	
7 Fifield Brook Rd	12/27/16	U11-35	<9	<4.5	<4.5	<4.5	5.1	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	6	<4.5		<4.5	<4.5	<4.5			<4.5	<4.5	<4.5	<4.5	<4.5
2 Ginger Way	01/25/19	U11-29	2.9 J	7	<9.2	3.2 J	4	<4	<4	<4	<4	<4	<4	1.2 J	<4	<4	1.7 J	<4		<4	<4	<4			<4	<4	<4	<4	
2 Ginger Way	05/22/19	U11-29	<4.1	11	<9.2	6.1	6.5	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1		<4.1	<4.1	<4.1			<4.1	<4.1	<4.1	<4.1	
2 Ginger Way	09/30/19	U11-29	2.65	6.07	5.01	2.4	4.57	1.85	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82		<1.82	<1.82	<1.82			<45.4	<45.4	<1.82	<1.82	
2 Ginger Way	12/08/22	U11-29	5.81	10.2	7.20	3.08	4.24	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	3.45	<1.99	<1.99	2.33	<1.99		<1.99	<1.99	<1.99			<1.99	<2.49	<1.99	<1.99	
1A/1B Lamprey Rd	12/17/19	R30-65	14.8	48.6	29.1	29.4	**34.3**	3.27	<1.93	<1.93	<1.93	<1.93	<1.93	2.79	<1.93	<1.93	3.39	<1.93		18.9	<1.93	<1.93			<48.3	<48.3	<1.93	<1.93	
1A/1B Lamprey Rd	12/07/22	R30-65	3.06	7.94	5.02	4.81	7.42	<2.01	<2.01	<2.01	<2.01	<2.01	<2.01	2.37	<2.01	<2.01	2.19	<2.01		<2.01	<2.01	<2.01			<2.01	<2.51	<2.01	<2.01	
2 Lamprey Rd	01/24/19	R30-60	0.41 J	<4.1	<9.2	0.69 J	3	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	4.1 J	<4.1	<4.1	4.1 J	<4.1		<4.1	<4.1	0.73 J			<4.1	2.8 J	<4.1	<4.1	
2 Lamprey Rd	05/20/19	R30-60	<4.2	<4.2	<9.2	<4.2	<1.7	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2		<4.2	<4.2	<4.2			<4.2	<4.2	<4.2	<4.2	
2 Lamprey Rd	09/27/19	R30-60	<1.8	<1.8	1.84	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	3.87	<1.8	<1.8	<1.8	<1.8		<1.8	<1.8	<1.8			<45	<45	<1.8	<1.8	
7 Lamprey Rd	12/13/16	R30-65A	<9.7	<4.9	<4.9	<4.9	3.6	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9		<4.9	<4.9	<4.9			<4.9	<4.9	<4.9	<4.9	<4.9
8 Lamprey Rd	12/13/16	R30-63	<9.7	<4.9	<4.9	<4.9	<2	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9		<4.9	<4.9	<4.9			<4.9	<4.9	<4.9	<4.9	<4.9
2 Library Ln	10/19/16	R33-21-2	<9.6	<4.8	<4.8	<4.8	<1.9	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8		<4.8	<4.8	<4.8			<4.8	<4.8	<4.8	<4.8	<4.8
12 Main St	10/19/16	R21-33	<8.9	<4.5	<4.5	<4.5	3.1	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5		<4.5	<4.5	<4.5			<4.5	<4.5	<4.5	<4.5	<4.5
119 Main St	02/01/17	U8-17	<9	<4.5	<4.5	<4.5	<1.8	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5		<4.5	<4.5	<4.5			<4.5	<4.5	<4.5	<4.5	<4.5
134 Main St	12/30/16	U11-5	<9.7	<4.9	<4.9	<4.9	2	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9		<4.9	<4.9	<4.9			<4.9	<4.9	<4.9	<4.9	<4.9
136 Main St	01/24/19	U11-6	<4	<4	<9.2	1.6 J	5.4	<4	<4	<4	<4	<4	<4	0.98 J	2.3 J	<4	0.87 J	<4		<4	<4	<4			<4	<4	<4	<4	
136 Main St	05/20/19	U11-6	<4.1	<4.1	<9.2	<4.1	4.3	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1		<4.1	<4.1	<4.1			<4.1	<4.1	<4.1	<4.1	
137 Main St	02/02/19	U9-45	<4	<4	<9.2	<4	0.53 J	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4		<4	<4	<4			<4	<4	<4	<4	
137 Main St	05/22/19	U9-45	<4	<4	<9.2	<4	<1.6	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4		<4	<4	<4			<4	<4	<4	<4	
138 Main St	01/23/19	U11-7	<4.1	<4.1	<9.2	<4.1	0.42 J	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1		<4.1	<4.1	<4.1			<4.1	<4.1	<4.1	<4.1	
138 Main St	05/20/19	U11-7	<4.1	<4.1	<9.2	<4.1	<1.6	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1		<4.1	<4.1	<4.1			<4.1	<4.1	<4.1	<4.1	

Table 3
Private Well Groundwater Analytical Results
Kingston Fire Department
148 Main Street, Kingston, NH

Location	Sample Date	Tax Map/Lot	Concentrations in ng/L																										
			Perfluoroalkyl Carboxylic Acids											Perfluoroalkyl Sulfonic Acids					Fluorotelomers			Perfluoroalkane Sulfonamides			Perfluoroalkane Sulfonyl Substances				Per- and Polyfluoroalkyl Ether Carboxylic Acids
			Perfluorobutanoic Acid (PFBA) [3]	Perfluoropentanoic Acid (PFPeA) [4]	Perfluorohexanoic Acid (PFHxA) [5]	Perfluoroheptanoic Acid (PFHpA) [6]	Perfluorooctanoic Acid (PFOA) [7]	Perfluorononanoic Acid (PFNA) [8]	Perfluorodecanoic Acid (PFDA) [9]	Perfluoroundecanoic Acid (PFUnA) [10]	Perfluorododecanoic Acid (PFDoA) [11]	Perfluorotridecanoic Acid (PFTrDA) [12]	Perfluorotetradecanoic Acid (PFTeA) [13]	Perfluorobutanesulfonic Acid (PFBS) [4S]	Perfluorohexanesulfonic Acid (PFHxS) [6S]	Perfluoroheptanesulfonic Acid (PFHpS) [7S]	Perfluorooctanesulfonic Acid (PFOS) [8S]	Perfluorodecanesulfonic Acid (PFDS) [10S]	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	Perfluorooctanesulfonamide (PFOSA)	N-ethyl perfluorooctane sulfonamide (EtFOSA)	N-methyl perfluorooctane sulfonamide (MeFOSA)	N-ethyl perfluorooctanesulfonamido ethanol (EtFOSE)	N-methyl perfluorooctanesulfonamido ethanol (MeFOSE)	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propanoic acid (HFPO-DA)
			375-22-4	2706-90-3	307-24-4	375-85-9	335-67-1	375-95-1	335-76-2	2058-94-8	307-55-1	72629-94-8	376-06-7	375-73-5	355-46-4	375-92-8	1763-23-1	335-77-3	757124-72-4	27619-97-2	39108-34-4	754-91-6	4151-50-2	31506-32-8	1691-99-2	24448-09-7	2991-50-6	2355-31-9	13252-13-6
		GW-1 (AGQS)	NS	NS	NS	NS	12	11	NS	NS	NS	NS	NS	NS	18	NS	15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
139 Main St	01/25/19	U9-44	<4.1	<4.1	<9.2	<4.1	<1.6	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1		<4.1	<4.1	<4.1			<4.1	<4.1	<4.1	<4.1	
139 Main St	05/20/19	U9-44	<4.2	<4.2	<9.2	<4.2	<1.7	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2		<4.2	<4.2	<4.2			<4.2	<4.2	<4.2	<4.2	
140 Main St	01/24/19	U11-8	2.2 J	<4	<9.2	0.82 J	5.1	<4	<4	<4	<4	<4	<4	2.1 J	2.1 J	<4	3.8 J	<4		<4	<4	<4			<4	<4	<4	<4	
140 Main St	05/20/19	U11-8	<4.1	<4.1	<9.2	<4.1	4.5	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1		<4.1	<4.1	<4.1			<4.1	<4.1	<4.1	<4.1	
141 Main St	12/27/16	U9-43	<9.7	<4.9	11	<4.9	<2	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9		18	<4.9	<4.9			<4.9	<4.9	<4.9	<4.9	<4.9
141 Main St	01/22/19	U9-43	5.1	20	14	4.7 J	3	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5		48	<5	<5			<5	<5	<5	<5	
142 Main St	02/02/19	U11-9	<4	<4	<9.2	<4	1.1 J	<4	<4	<4	<4	<4	<4	0.42 J	<4	<4	<4	<4		<4	<4	<4			<4	<4	<4	<4	
142 Main St	05/20/19	U11-9	<4.2	18	<9.2	<4.2	<1.7	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2		<4.2	<4.2	<4.2			<4.2	<4.2	<4.2	<4.2	
143 Main St	01/25/19	U9-42	1.9 J	7.1	<9.2	1.2 J	1.2 J	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1		16	<4.1	<4.1			<4.1	<4.1	<4.1	<4.1	
143 Main St	05/22/19	U9-42	<4	4.5	<9.2	<4	<1.6	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4		6.4	<4	<4			<4	<4	<4	<4	
144 Main St	11/08/16	U11-10	<8.9	6	12	6.6	**30**	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	8.8	**31**	<4.5	**110**	<4.5		40	<4.5	5.5			<4.5	<4.5	<4.5	<4.5	<4.5
144 Main St	03/16/17	U11-10				7	**28**	<2						<9	9		**77**												
144 Main St	07/20/17	U11-10				2	7	<2						<9	4		**22**												
144 Main St	12/12/17	U11-10	<13	10	9.7	7.6	**22**	<6.4	<6.4	<6.4	<6.4	<6.4	<6.4	6.8	8.8	<6.4	**48**	<6.4		<6.4	<6.4	<6.4	<6.4	<6.4	<6.4	<6.4			<6.4
144 Main St	01/18/18	U11-10				5	**22**	<2						<9	5		**45**												
144 Main St	01/22/19	U11-10	0.85 J	<4.3	<9.2	0.93 J	2.4	1.2 J	<4.3	<4.3	<4.3	<4.3	<4.3	1.4 J	2.1 J	<4.3	14	<4.3		2.8 J	<4.3	<4.3			4.2 J	7.6	<4.3	<4.3	
144 Main St	05/21/19	U11-10	<4.2	<4.2	<9.2	<4.2	1.9	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	5.4	<4.2		<4.2	<4.2	<4.2			<4.2	<4.2	<4.2	<4.2	
144 Main St	09/27/19	U11-10	<1.78	1.96	2.03	<1.78	4.1	<1.78	<1.78	<1.78	<1.78	<1.78	<1.78	<1.78	<1.78	<1.78	12.9	<1.78		<1.78	<1.78	<1.78			<44.5	<44.5	<1.78	<1.78	
144 Main St	01/27/20	U11-10	<2	2.89	<2	<2	3.08	<2						<2	2.37		**18.6**												
144 Main St	01/26/21	U11-10	2.80	4.26	2.87	2.39	4.78	<2						<2	3.84		**18.8**												
144 Main St	01/17/22	U11-10	<2	2.53	<2	<2	2.50	<2						<2	<2		7.31												
144 Main St	01/18/23	U11-10	<2	<2	<2	<2	<2	<2						<2	<2		11.7												
146 Main St	10/19/16	U11-12	<8.9	<4.5	<4.5	<4.5	2.8	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	8.5	<4.5		<4.5	<4.5	<4.5			<4.5	<4.5	<4.5	<4.5	<4.5
146 Main St	01/22/19	U11-12	2.7 J	5.3	<9.2	1 J	4.7	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	0.58 J	1.8 J	<4.2	2.4 J	<4.2		1.7 J	<4.2	<4.2			<4.2	<4.2	<4.2	<4.2	
146 Main St	09/26/19	U11-12	<1.78	<1.78	<1.78	<1.78	3.01	<1.78	<1.78	<1.78	<1.78	<1.78	<1.78	<1.78	<1.78	<1.78	4.63	<1.78		<1.78	<1.78	<1.78			<44.5	<44.5	<1.78	<1.78	
146 Main St	12/06/22	U11-12	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	3.79	<1.95		<1.95	<1.95	4.69			<1.95	<2.43	<1.95	<1.95	
148 Main St-Dug	01/25/19	U9-71	1.8 J	<4.1	<9.2	1.2 J	2.7	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	0.8 J	1.7 J	<4.1	7.4	<4.1		<4.1	<4.1	<4.1			<4.1	<4.1	<4.1	<4.1	
148 Main St-Dug	01/25/19	U9-71	1.8 J	<4.1	<9.2	1.2 J	2.7	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	0.8 J	1.7 J	<4.1	7.4	<4.1		<4.1	<4.1	<4.1			<4.1	<4.1	<4.1	<4.1	
148 Main St-Dug	05/21/19	U9-71	<4	<4	<9.2	<4	2.7	<4	<4	<4	<4	<4	<4	<4	<4	<4	6.8	<4		<4	<4	<4			<4	<4	<4	<4	
148 Main St-Well Pt	10/19/16	U9-71	40	87	59	73	**61**	9.2	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3		11	<4.3	<4.3			<4.3	<4.3	<4.3	<4.3	<4.3
148 Main St-Well Pt	01/25/19	U9-71	31	77	42	52	**34**	**27**	<4	<4	<4	<4	<4	4.1	<4	<4	1.1 J	<4		7.7	0.33 J	<4			<4	<4	<4	<4	
148 Main St-Well Pt	05/22/19	U9-71	31	88	46	50	**34**	**21**	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3		<4.3	<4.3	<4.3			<4.3	<4.3	<4.3	<4.3	
148 Main St-Well Pt	10/01/19	U9-71	39.2	117	66.6	72.5	**58.4**	**27.4**	<1.75	<1.75	<1.75	<1.75	<1.75	6.24	<1.75	<1.75	<1.75	<1.75		<1.75	<1.75	<1.75			<43.7	<43.7	<1.75	<1.75	

Table 3
Private Well Groundwater Analytical Results
Kingston Fire Department
148 Main Street, Kingston, NH

Location	Sample Date	Tax Map/Lot	Concentrations in ng/L																									
			Perfluoroalkyl Carboxylic Acids											Perfluoroalkyl Sulfonic Acids					Fluorotelomers			Perfluoroalkane Sulfonamides			Perfluoroalkane Sulfonyl Substances				Per- and Polyfluoroalkyl Ether Carboxylic Acids
			Perfluorobutanoic Acid (PFBA) [3]	Perfluoropentanoic Acid (PFPeA) [4]	Perfluorohexanoic Acid (PFHxA) [5]	Perfluoroheptanoic Acid (PFHpA) [6]	Perfluorooctanoic Acid (PFOA) [7]	Perfluorononanoic Acid (PFNA) [8]	Perfluorodecanoic Acid (PFDA) [9]	Perfluoroundecanoic Acid (PFUnA) [10]	Perfluorododecanoic Acid (PFDoA) [11]	Perfluorotridecanoic Acid (PFTrDA) [12]	Perfluorotetradecanoic Acid (PFTeA) [13]	Perfluorobutanesulfonic Acid (PFBS) [4S]	Perfluorohexanesulfonic Acid (PFHxS) [6S]	Perfluoroheptanesulfonic Acid (PFHpS) [7S]	Perfluorooctanesulfonic Acid (PFOS) [8S]	Perfluorodecanesulfonic Acid (PFDS) [10S]	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	Perfluorooctanesulfonamide (PFOSA)	N-ethyl perfluorooctane sulfonamide (EtFOSA)	N-methyl perfluorooctane sulfonamide (MeFOSA)	N-ethyl perfluorooctanesulfonamido ethanol (EtFOSE)	N-methyl perfluorooctanesulfonamido ethanol (MeFOSE)	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propanoic acid (HFPO-DA)
			375-22-4	2706-90-3	307-24-4	375-85-9	335-67-1	375-95-1	335-76-2	2058-94-8	307-55-1	72629-94-8	376-06-7	375-73-5	355-46-4	375-92-8	1763-23-1	335-77-3	757124-72-4	27619-97-2	39108-34-4	754-91-6	4151-50-2	31506-32-8	1691-99-2	24448-09-7	2991-50-6	2355-31-9	13252-13-6
		GW-1 (AGQS)	NS	NS	NS	NS	12	11	NS	NS	NS	NS	NS	NS	18	NS	15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
148 Main St	09/27/16	U11-13	90	280	230	200	**140**	**87**	<5	<5	<5	<5	<5	15	<5	<5	<5	<5		280	94	<5			<5	<5	<5	<5	<5
148 Main St	10/19/16	U11-13	99	300	250	210	**140**	**92**	<4.6	<4.6	<4.6	<4.6	<4.6	18	<4.6	<4.6	<4.6	<4.6		240	110	<4.6			<4.6	<4.6	<4.6	<4.6	<4.6
148 Main St	12/12/17	U11-13	46	160	110	140	**72**	**130**	<4.6	<4.6	<4.6	<4.6	<4.6	14	<4.6	<4.6	<4.6	<4.6		180	66	<4.6	<4.6	<4.6	<4.6	<4.6			<4.6
148 Main St	01/24/19	U11-13	46	130	110	180	**100**	**72**	1.5 J	<4	<4	<4	<4	17	2.8 J	<4	1 J	<4		250	88	<4			<4	<4	<4	<4	
148 Main St	05/22/19	U11-13	74	310	180	220	**95**	**110**	<4.2	<4.2	<4.2	<4.2	<4.2	25	<4.2	<4.2	<4.2	<4.2		230	95	<4.2			<4.2	<4.2	<4.2	<4.2	
148 Main St	09/09/19	U11-13	203	733	588	495	**212**	**121**	<1.87	<1.87	<1.87	<1.87	<1.87	46.2	<1.87	<1.87	<1.87	<1.87		524	131	<1.87			<46.8	<46.8	<1.87	<1.87	
148 Main St	01/27/20	U11-13	165	642	571	611	**194**	**76.8**						29.5	<2		<2												
148 Main St	01/26/21	U11-13	59.3	175	166	256	**338**	**124**						21.5	<2		<2												
148 Main St	01/17/22	U11-13	47.8	165	141	193	**241**	**112**						13.0	<2		<2												
148 Main St	01/18/23	U11-13	100	283	228	229	**168**	**100**						18.0	2.04		<2												
149 Main St	11/15/16	U9-8	<8.9	5.1	7.9	<4.5	**15**	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	7.2	<4.5	13	<4.5		<4.5	<4.5	<4.5			<4.5	<4.5	<4.5	<4.5	<4.5
149 Main St	12/12/17	U9-8	<9.8	<4.9	6.8	<4.9	9.7	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	5.2	<4.9	7.7	<4.9		<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9			<4.9
149 Main St	01/24/19	U9-8	2.3 J	3.6 J	<9.2	2.1 J	9.2	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	3 J	6.9	0.76 J	6.7	<4.1		<4.1	<4.1	<4.1			<4.1	<4.1	<4.1	<4.1	
149 Main St	09/26/19	U9-8	2.76	5.35	7.46	3.15	11.9	<1.86	<1.86	<1.86	<1.86	<1.86	<1.86	3.76	6.05	<1.86	7.9	<1.86		<1.86	<1.86	<1.86			<46.5	<46.5	<1.86	<1.86	
149 Main St	12/08/22	U9-8	3.12	4.89	5.48	2.13	9.64	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	3.94	4.72	<1.96	8.84	<1.96		<1.96	<1.96	7.07			<1.96	<2.45	<1.96	<1.96	
150 Main St	10/19/16	U10-5	<8.9	9.1	8	<4.5	12	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	9.9	<4.5	<4.5	**24**	<4.5		<4.5	<4.5	<4.5			<4.5	<4.5	<4.5	<4.5	<4.5
150 Main St	12/12/17	U10-5	<10	6.7	5.1	<5.1	7.4	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	8.3	<5.1	<5.1	11	<5.1		<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1			<5.1
150 Main St	01/22/19	U10-5	5.3	9.6	<9.2	2.7 J	**15**	<4	<4	<4	<4	<4	<4	12	3 J	0.47 J	11	<4		1.2 J	<4	0.56 J			<4	<4	<4	<4	
150 Main St	05/21/19	U10-5	<4.1	12	<9.2	5.9	**13**	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	7.7	<4.1	<4.1	7.6	<4.1		<4.1	<4.1	<4.1			<4.1	<4.1	<4.1	<4.1	
150 Main St	09/27/19	U10-5	7.49	12	11.4	6.97	**23**	<1.77	<1.77	<1.77	<1.77	<1.77	<1.77	11.4	2.1	<1.77	10.4	<1.77		<1.77	<1.77	<1.77			<44.2	<44.2	<1.77	<1.77	
152 Main St	10/19/16	U10-6	<9.3	<4.6	<4.6	<4.6	<1.9	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6		<4.6	<4.6	<4.6			<4.6	<4.6	<4.6	<4.6	<4.6
152 Main St	01/22/19	U10-6	<4	<4	<9.2	<4	0.72 J	<4	<4	<4	<4	<4	<4	1.9 J	<4	<4	0.53 J	<4		2.6 J	<4	<4			<4	0.31 J	<4	<4	
152 Main St	12/06/22	U10-6	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	8.87	<1.98	<1.98	<1.98	<1.98		<1.98	<1.98	<1.98			<1.98	<2.47	<1.98	<1.98	
152A Main St	10/19/16	U10-6	<8.9	<4.5	<4.5	<4.5	4.8	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	14	<4.5		<4.5	<4.5	<4.5			<4.5	<4.5	<4.5	<4.5	<4.5
152A Main St	01/22/19	U10-6	1.6 J	<4	<9.2	1.2 J	6	<4	<4	<4	<4	<4	<4	2.7 J	1.9 J	<4	8.1	<4		1.8 J	<4	<4			<4	<4	<4	<4	
152A Main St	09/27/19	U10-6	11.5	15.5	9.14	6.28	**17.1**	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	5.81	<1.94	<1.94	5.34	<1.94		<1.94	<1.94	<1.94			<48.4	<48.4	<1.94	<1.94	
152A Main St	12/06/22	U10-6	<1.95	<1.95	2.81	<1.95	3.53	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	5.56	<1.95	<1.95	2.95	<1.95		<1.95	<1.95	6.56			<1.95	<2.44	<1.95	<1.95	
153 Main St	10/19/16	U9-2	<9.3	5.1	7.6	<4.6	8	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	6.3	<4.6	6.3	<4.6		<4.6	<4.6	<4.6			<4.6	<4.6	<4.6	<4.6	<4.6
153 Main St	01/23/19	U9-2	3.9 J	8	9.6	3.2 J	**15**	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	3.6 J	5.4	<4.1	6.7	<4.1		0.63 J	<4.1	<4.1			<4.1	<4.1	<4.1	<4.1	
153 Main St	09/26/19	U9-2	5.12	10.3	11.8	4.98	**22.9**	<1.75	<1.75	<1.75	<1.75	<1.75	<1.75	3.61	4.59	<1.75	7.37	<1.75		<1.75	<1.75	<1.75			<43.7	<43.7	<1.75	<1.75	
153 Main St	12/08/22	U9-2	5.65	10.6	11.1	4.95	**22.0**	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	3.63	3.52	<1.98	9.28	<1.98		<1.98	<1.98	21.6			<1.98	<2.48	<1.98	<1.98	
154 Main St-Artesian	01/24/19	U10-7	9.7	35	24	10	7.5	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	1.6 J	<4.1	**18**	<4.1		81	0.22 J	<4.1			<4.1	<4.1	<4.1	<4.1	
154 Main St-Artesian	05/20/19	U10-7	11	48	30	16	9.2	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1		87	<4.1	<4.1			<4.1	<4.1	<4.1	<4.1	

Table 3
Private Well Groundwater Analytical Results
Kingston Fire Department
148 Main Street, Kingston, NH

Location	Sample Date	Tax Map/Lot	Concentrations in ng/L																										
			Perfluoroalkyl Carboxylic Acids											Perfluoroalkyl Sulfonic Acids					Fluorotelomers			Perfluoroalkane Sulfonamides			Perfluoroalkane Sulfonyl Substances				Per- and Polyfluoroalkyl Ether Carboxylic Acids
			Perfluorobutanoic Acid (PFBA) [3]	Perfluoropentanoic Acid (PFPeA) [4]	Perfluorohexanoic Acid (PFHxA) [5]	Perfluoroheptanoic Acid (PFHpA) [6]	Perfluorooctanoic Acid (PFOA) [7]	Perfluorononanoic Acid (PFNA) [8]	Perfluorodecanoic Acid (PFDA) [9]	Perfluoroundecanoic Acid (PFUnA) [10]	Perfluorododecanoic Acid (PFDoA) [11]	Perfluorotridecanoic Acid (PFTrDA) [12]	Perfluorotetradecanoic Acid (PFTeA) [13]	Perfluorobutanesulfonic Acid (PFBS) [4S]	Perfluorohexanesulfonic Acid (PFHxS) [6S]	Perfluoroheptanesulfonic Acid (PFHpS) [7S]	Perfluorooctanesulfonic Acid (PFOS) [8S]	Perfluorodecanesulfonic Acid (PFDS) [10S]	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	Perfluorooctanesulfonamide (PFOSA)	N-ethyl perfluorooctane sulfonamide (EtFOSA)	N-methyl perfluorooctane sulfonamide (MeFOSA)	N-ethyl perfluorooctanesulfonamido ethanol (EtFOSE)	N-methyl perfluorooctanesulfonamido ethanol (MeFOSE)	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propanoic acid (HFPO-DA)
			375-22-4	2706-90-3	307-24-4	375-85-9	335-67-1	375-95-1	335-76-2	2058-94-8	307-55-1	72629-94-8	376-06-7	375-73-5	355-46-4	375-92-8	1763-23-1	335-77-3	757124-72-4	27619-97-2	39108-34-4	754-91-6	4151-50-2	31506-32-8	1691-99-2	24448-09-7	2991-50-6	2355-31-9	13252-13-6
		GW-1 (AGQS)	NS	NS	NS	NS	12	11	NS	NS	NS	NS	NS	NS	18	NS	15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
154 Main St-Artesian	09/30/19	U10-7	14.4	59.2	39.9	23.7	**15.2**	<1.83	<1.83	<1.83	<1.83	<1.83	<1.83	<1.83	<1.83	<1.83	2.68	<1.83		143	<1.83	<1.83			<45.8	<45.8	<1.83	<1.83	
154 Main St-Artesian	12/14/22	U10-7	9.59	42.4	27.7	18.5	11.8	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99		82.0	<1.99	<1.99			<1.99	<2.48	<1.99	<1.99	
154 Main St-Dug	01/24/19	U10-7	7.7	7	<9.2	1.5 J	4.7	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	9.2	<4.1	<4.1	1 J	<4.1		<4.1	<4.1	<4.1			<4.1	<4.1	<4.1	<4.1	
154 Main St-Dug	05/20/19	U10-7	<4.1	<4.1	<9.2	<4.1	2.2	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1		<4.1	<4.1	<4.1			<4.1	<4.1	<4.1	<4.1	
154 Main St-Dug	12/14/22	U10-7	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	9.35	<1.97	<1.97	<1.97	<1.97		<1.97	<1.97	<1.97					<1.97	<1.97	
155 Main St	01/23/19	U9-1	6.6	17	30	4.4	**20**	<4	<4	<4	<4	<4	<4	11	7.6	0.61 J	8.7	<4		<4	<4	<4			<4	<4	1.1 J	<4	
155 Main St	05/21/19	U9-1	6.8	30	41	6.5	**26**	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	11	<4.1	<4.1	12	<4.1		<4.1	<4.1	<4.1			<4.1	<4.1	<4.1	<4.1	
155 Main St	09/26/19	U9-1	7.87	30.4	44.3	7.14	**30.6**	<1.79	<1.79	<1.79	<1.79	<1.79	<1.79	13.4	5.58	<1.79	12.6	<1.79		<1.79	<1.79	<1.79			<44.8	<44.8	<1.79	<1.79	
155 Main St	12/08/22	U9-1	11.5	47.6	46.8	6.24	**24.3**	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	12.5	5.02	<1.95	14.2	<1.95		<1.95	<1.95	8.33			<1.95	<2.44	<1.95	<1.95	
156 Main St	12/13/16	U10-8	<9	<4.5	<4.5	<4.5	8.8	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	7	<4.5		<4.5	<4.5	<4.5			<4.5	<4.5	<4.5	<4.5	<4.5
156 Main St	01/24/19	U10-8	1.4 J	<4.2	<9.2	1.2 J	4.9	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	1.5 J	1.7 J	<4.2	5.5	<4.2		<4.2	<4.2	<4.2			<4.2	<4.2	<4.2	<4.2	
156 Main St	09/27/19	U10-8	<1.83	<1.83	<1.83	<1.83	5.5	<1.83	<1.83	<1.83	<1.83	<1.83	<1.83	<1.83	2	<1.83	6.93	<1.83		<1.83	<1.83	<1.83			<45.8	<45.8	<1.83	<1.83	
156 Main St	12/06/22	U10-8	4.66	3.53	3.09	2.65	**13.2**	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	2.11	<1.94	<1.94	4.68	<1.94		<1.94	<1.94	<1.94			<1.94	<2.42	<1.94	<1.94	
157 Main St	01/26/17	U10-42	<9	8.4	14	22	**29**	6.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	7.1	<4.5		<4.5	<4.5	<4.5			<4.5	<4.5	<4.5	<4.5	<4.5
157 Main St	01/23/19	U10-42	6.6	8	12	7.8	9.9	1.2 J	<4.1	<4.1	<4.1	<4.1	<4.1	3.8 J	2.3 J	0.57 J	4.3	<4.1		0.83 J	<4.1	<4.1			<4.1	<4.1	<4.1	<4.1	
157 Main St	05/21/19	U10-42	<4.1	9.2	10	4.8	6.3	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1		<4.1	<4.1	<4.1			<4.1	<4.1	<4.1	<4.1	
157 Main St	09/30/19	U10-42	4.52	10.2	16.6	6.19	**12.4**	<1.87	<1.87	<1.87	<1.87	<1.87	<1.87	4.37	2.14	<1.87	4.25	<1.87		<1.87	<1.87	<1.87			<46.8	<46.8	<1.87	<1.87	
157 Main St	12/08/22	U10-42	5.91	10.7	14.1	11.8	**18.4**	2.84	<2.01	<2.01	<2.01	<2.01	<2.01	3.06	<2.01	<2.01	6.83	<2.01		<2.01	<2.01	13.6			<2.01	<2.51	<2.01	<2.01	
157 Main St	01/18/23	U10-42	6.05	10.9	15.9	19.6	**17.3**	4						4.14	2.2		5.57												
158 Main St	12/16/19	U10-10	2.3	7.19	8.14	2.84	6.74	2.54	<1.84	<1.84	<1.84	<1.84	<1.84	4.19	<1.84	<1.84	7.24	<1.84		<1.84	<1.84	<1.84			<46.1	<46.1	<1.84	<1.84	
158 Main St	12/06/22	U10-10	2.55	8.21	7.25	3.68	9.58	3.09	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	<1.97	5.57	<1.97		<1.97	<1.97	3.69			<1.97	<2.47	<1.97	<1.97	
159 Main St	01/23/19	U10-41	<4	<4	<9.2	<4	0.35 J	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4		0.61 J	<4	<4			<4	<4	<4	<4	
159 Main St	05/21/19	U10-41	<4	<4	<9.2	<4	<1.6	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4		<4	<4	<4			<4	<4	<4	<4	
159 Main St	09/26/19	U10-41	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81		<1.81	<1.81	<1.81			<45.3	<45.3	<1.81	<1.81	
159 Main St	12/15/22	U10-41	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99	<1.99		<1.99	<1.99	<1.99			<1.99	<2.49	<1.99	<1.99	
160 Main St	12/18/19	U10-9	4.77	14.6	15.4	5.19	**13.1**	**23.9**	<1.82	<1.82	<1.82	<1.82	<1.82	7.14	2.27	<1.82	6.02	<1.82		<1.82	<1.82	<1.82			<45.4	<45.4	<1.82	<1.82	
160 Main St	10/24/22	U10-9	5.72	15.5	13.9	4.79	10.9	4.16	<1.99	<1.99	<1.99	<1.99	<1.99	8.64	8.77	<1.99	7.72	<1.99		<1.99	<1.99	<1.99					<1.99	<1.99	
160 Main St	01/27/23	U10-9	3.32	11.7	10.2	2.37	7.83	5.48	<1.93	<1.93	<1.93	<1.93	<1.93	3.06	2.81	<1.93	6.52	<1.93		<1.93	<1.93	<1.93					<1.93	<1.93	
161 Main St	01/23/19	U10-40	9.5	18	24	29	**180**	9.6	1.6 J	<4.1	<4.1	<4.1	<4.1	10	**32**	12	**200**	<4.1		<4.1	<4.1	0.63 J			<4.1	<4.1	<4.1	<4.1	
161 Main St	05/21/19	U10-40	5.5	15	18	25	**110**	**12**	<4.2	<4.2	<4.2	<4.2	<4.2	5.3	**20**	8.2	**180**	<4.2		<4.2	<4.2	<4.2			<4.2	<4.2	<4.2	<4.2	
161 Main St	05/21/19	U10-40	6.5	13	20	21	**150**	**12**	<4.2	<4.2	<4.2	<4.2	<4.2	6.3	**20**	8.7	**220**	<4.2		<4.2	<4.2	<4.2			<4.2	<4.2	<4.2	<4.2	
161 Main St	09/30/19	U10-40	13.3	34.7	41.9	40.9	**213**	**16**	3.3	<1.84	<1.84	<1.84	<1.84	10.2	**41.6**	8.3	**326**	<1.84		<1.84	<1.84	<1.84			<46	<46	<1.84	<1.84	
161 Main St	01/27/20	U10-40	5.46	15.4	16.8	16.6	**109**	10.9						7.88	**23.8**		**244**												

Table 3
Private Well Groundwater Analytical Results
Kingston Fire Department
148 Main Street, Kingston, NH

Location	Sample Date	Tax Map/Lot	Concentrations in ng/L																										
			Perfluoroalkyl Carboxylic Acids											Perfluoroalkyl Sulfonic Acids					Fluorotelomers			Perfluoroalkane Sulfonamides			Perfluoroalkane Sulfonyl Substances				Per- and Polyfluoroalkyl Ether Carboxylic Acids
			Perfluorobutanoic Acid (PFBA) [3]	Perfluoropentanoic Acid (PFPeA) [4]	Perfluorohexanoic Acid (PFHxA) [5]	Perfluoroheptanoic Acid (PFHpA) [6]	Perfluorooctanoic Acid (PFOA) [7]	Perfluorononanoic Acid (PFNA) [8]	Perfluorodecanoic Acid (PFDA) [9]	Perfluoroundecanoic Acid (PFUnA) [10]	Perfluorododecanoic Acid (PFDoA) [11]	Perfluorotridecanoic Acid (PFTrDA) [12]	Perfluorotetradecanoic Acid (PFTeA) [13]	Perfluorobutanesulfonic Acid (PFBS) [4S]	Perfluorohexanesulfonic Acid (PFHxS) [6S]	Perfluoroheptanesulfonic Acid (PFHpS) [7S]	Perfluorooctanesulfonic Acid (PFOS) [8S]	Perfluorodecanesulfonic Acid (PFDS) [10S]	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	Perfluorooctanesulfonamide (PFOSA)	N-ethyl perfluorooctane sulfonamide (EtFOSA)	N-methyl perfluorooctane sulfonamide (MeFOSA)	N-ethyl perfluorooctanesulfonamido ethanol (EtFOSE)	N-methyl perfluorooctanesulfonamido ethanol (MeFOSE)	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propanoic acid (HFPO-DA)
			375-22-4	2706-90-3	307-24-4	375-85-9	335-67-1	375-95-1	335-76-2	2058-94-8	307-55-1	72629-94-8	376-06-7	375-73-5	355-46-4	375-92-8	1763-23-1	335-77-3	757124-72-4	27619-97-2	39108-34-4	754-91-6	4151-50-2	31506-32-8	1691-99-2	24448-09-7	2991-50-6	2355-31-9	13252-13-6
		GW-1 (AGQS)	NS	NS	NS	NS	12	11	NS	NS	NS	NS	NS	NS	18	NS	15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
161 Main St	03/01/21	U10-40	5.60	10.7	12.2	12.5	**127**	**16.5**						10.6	**26.2**		**408**												
161 Main St	01/17/22	U10-40	17.1	66.8	49.8	29.4	**161**	**14.9**						10.3	**20.0**		**464**												
161 Main St	01/18/23	U10-40	10.3	27.3	30	18.8	**89.7**	**17.1**						7.62	13.5		**341**												
163 Main St	01/04/17	U10-39	<9.7	<4.9	<4.9	<4.9	<2	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9		<4.9	<4.9	<4.9			<4.9	<4.9	<4.9	<4.9	<4.9
163 Main St	03/07/19	U10-39	<4.2	<4.2	<9.2	<4.2	<1.7	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2		7	<4.2	<4.2			<4.2	<4.2	<4.2	<4.2	
167 Main St	01/13/17	U10-37	<9	<4.5	<4.5	<4.5	<1.8	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5		<4.5	<4.5	<4.5			<4.5	<4.5	<4.5	<4.5	<4.5
169 Main St	12/18/19	U10-31	28.5	9.47	6.08	10.8	**64.5**	<1.75	<1.75	<1.75	<1.75	<1.75	<1.75	9.7	6.62	<1.75	11	<1.75		<1.75	<1.75	<1.75			<43.8	<43.8	<1.75	<1.75	
169 Main St	12/07/22	U10-31	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	2.91	<1.98		<1.98	<1.98	<1.98			<1.98	<2.48	<1.98	<1.98	
171 Main St	12/30/17	U10-30	<9.3	<4.7	<4.7	<4.7	6.9	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	7.6	<4.7		<4.7	<4.7	<4.7			<4.7	<4.7	<4.7	<4.7	<4.7
171 Main St	09/30/19	U10-30	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8		<1.8	<1.8	<1.8			<45	<45	<1.8	<1.8	
171 Main St	02/28/23	U10-30	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98		3.19	<1.98	21.7			<1.98	<2.48	<1.98	<1.98	
172 Main St	12/18/19	U10-24	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82		<1.82	<1.82	<1.82			<45.6	<45.6	<1.82	<1.82	
173 Main St	12/17/19	U10-29	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92		<1.92	<1.92	<1.92			<48.1	<48.1	<1.92	<1.92	
3 Rockrimmon Rd	12/02/16	U10-4	23	52	29	19	**31**	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9		<4.9	<4.9	<4.9			<4.9	<4.9	<4.9	<4.9	<4.9
3 Rockrimmon Rd	01/22/19	U10-4	14	32	19	11	**14**	2.1 J	<4.2	<4.2	<4.2	<4.2	<4.2	3.9 J	1.6 J	<4.2	2.1 J	<4.2		2.9 J	<4.2	<4.2			<4.2	<4.2	<4.2	<4.2	
3 Rockrimmon Rd	09/30/19	U10-4	19.7	46.2	24.2	19.6	**15.7**	1.93	<1.86	<1.86	<1.86	<1.86	<1.86	2.98	<1.86	<1.86	<1.86	<1.86		2.55	<1.86	<1.86			<46.5	<46.5	<1.86	<1.86	
3 Rockrimmon Rd	12/06/22	U10-4	13.2	32.0	23.5	26.1	**21.8**	3.96	<1.99	<1.99	<1.99	<1.99	<1.99	3.42	<1.99	<1.99	<1.99	<1.99		<1.99	<1.99	<1.99			<1.99	<2.48	<1.99	<1.99	
4 Rockrimmon Rd	11/08/16	U11-14	13	30	21	19	**28**	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8		<4.8	<4.8	<4.8			<4.8	<4.8	<4.8	<4.8	<4.8
4 Rockrimmon Rd	12/12/17	U11-14	<9.3	22	14	11	10	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6		<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6			<4.6
4 Rockrimmon Rd	01/22/19	U11-14	3.6 J	9.5	8.9 J	3.8 J	3.5	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	1.5 J	<4.1	<4.1	1.3 J	<4.1		1.7 J	<4.1	<4.1			<4.1	<4.1	<4.1	<4.1	
4 Rockrimmon Rd	09/30/19	U11-14	2.08	8.12	6.41	2.64	<1.85	<1.85	<1.85	<1.85	<1.85	<1.85	<1.85	<1.85	<1.85	<1.85	<1.85	<1.85		<1.85	<1.85	<1.85			<46.3	<46.3	<1.85	<1.85	
5 Rockrimmon Rd	10/19/16	U10-3	20	39	26	23	**20**	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	6.2	<4.5		<4.5	<4.5	<4.5			<4.5	<4.5	<4.5	<4.5	<4.5
5 Rockrimmon Rd	12/12/17	U10-3	<9.3	23	12	10	7.5	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	4.8	<4.6	<4.6	<4.6	<4.6		<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6			<4.6
5 Rockrimmon Rd	01/22/19	U10-3	7.1	20	13	6.2	4.4	<4	<4	<4	<4	<4	<4	5.7	<4	<4	0.67 J	<4		1.4 J	<4	<4			<4	<4	<4	<4	
5 Rockrimmon Rd	09/30/19	U10-3	23.2	67.2	52.6	42.1	**13.5**	<1.77	<1.77	<1.77	<1.77	<1.77	<1.77	3.11	<1.77	<1.77	<1.77	<1.77		2.7	<1.77	<1.77			<44.3	<44.3	<1.77	<1.77	
5 Rockrimmon Rd	12/08/22	U10-3	15.6	35.5	24.3	29.2	**16.0**	2.32	<1.98	<1.98	<1.98	<1.98	<1.98	2.35	<1.98	<1.98	<1.98	<1.98		2.40	<1.98	15.7			<1.98	<2.47	<1.98	<1.98	
5 Rockrimmon Rd Dup	12/08/22	U10-3	15.7	35.6	23.9	30.8	**14.9**	2.26	<1.97	<1.97	<1.97	<1.97	<1.97	2.31	<1.97	<1.97	<1.97	<1.97		2.42	<1.97	7.28			<1.97	<2.46	<1.97	<1.97	
7 Rockrimmon Rd	11/08/16	U10-2	40	120	83	83	**78**	8.3	<4.6	<4.6	<4.6	<4.6	<4.6	5.9	<4.6	<4.6	8.7	<4.6		32	18	<4.6			<4.6	<4.6	<4.6	<4.6	<4.6
7 Rockrimmon Rd	02/01/17	U10-2				<2	<2	<2						<9	<3		<4												
7 Rockrimmon Rd	03/16/17	U10-2				<2	<2	<2						<9	<3		<4												
7 Rockrimmon Rd	05/02/17	U10-2				121	**93**	**13**						<9	<3		<4												
7 Rockrimmon Rd	07/20/17	U10-2				33	**31**	6						<9	<3		<4												
7 Rockrimmon Rd	12/12/17	U10-2	20	72	51	41	**29**	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	7.4	<4.6	<4.6	<4.6	<4.6		18	5.7	<4.6	<4.6	<4.6	<4.6	<4.6			<4.6

Table 3
Private Well Groundwater Analytical Results
Kingston Fire Department
148 Main Street, Kingston, NH

Location	Sample Date	Tax Map/Lot	Concentrations in ng/L																									
			Perfluoroalkyl Carboxylic Acids											Perfluoroalkyl Sulfonic Acids					Fluorotelomers			Perfluoroalkane Sulfonamides			Perfluoroalkane Sulfonyl Substances				Per- and Polyfluoroalkyl Ether Carboxylic Acids
			Perfluorobutanoic Acid (PFBA) [3]	Perfluoropentanoic Acid (PFPeA) [4]	Perfluorohexanoic Acid (PFHxA) [5]	Perfluoroheptanoic Acid (PFHpA) [6]	Perfluorooctanoic Acid (PFOA) [7]	Perfluorononanoic Acid (PFNA) [8]	Perfluorodecanoic Acid (PFDA) [9]	Perfluoroundecanoic Acid (PFUnA) [10]	Perfluorododecanoic Acid (PFDoA) [11]	Perfluorotridecanoic Acid (PFTrDA) [12]	Perfluorotetradecanoic Acid (PFTeA) [13]	Perfluorobutanesulfonic Acid (PFBS) [4S]	Perfluorohexanesulfonic Acid (PFHxS) [6S]	Perfluoroheptanesulfonic Acid (PFHpS) [7S]	Perfluorooctanesulfonic Acid (PFOS) [8S]	Perfluorodecanesulfonic Acid (PFDS) [10S]	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	Perfluorooctanesulfonamide (PFOSA)	N-ethyl perfluorooctane sulfonamide (EtFOSA)	N-methyl perfluorooctane sulfonamide (MeFOSA)	N-ethyl perfluorooctanesulfonamido ethanol (EtFOSE)	N-methyl perfluorooctanesulfonamido ethanol (MeFOSE)	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propanoic acid (HFPO-DA)
			375-22-4	2706-90-3	307-24-4	375-85-9	335-67-1	375-95-1	335-76-2	2058-94-8	307-55-1	72629-94-8	376-06-7	375-73-5	355-46-4	375-92-8	1763-23-1	335-77-3	757124-72-4	27619-97-2	39108-34-4	754-91-6	4151-50-2	31506-32-8	1691-99-2	24448-09-7	2991-50-6	2355-31-9	13252-13-6
		GW-1 (AGQS)	NS	NS	NS	NS	12	11	NS	NS	NS	NS	NS	NS	18	NS	15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
7 Rockrimmon Rd	01/18/18	U10-2				22	**25**	3						<9	<3		4												
7 Rockrimmon Rd	01/22/19	U10-2	68	230	150	120	**43**	4.4 J	<4.7	<4.7	<4.7	<4.7	<4.7	6.7	1.8 J	<4.7	1.7 J	<4.7		18	4.5 J	<4.7			<4.7	<4.7	<4.7	<4.7	
7 Rockrimmon Rd	05/20/19	U10-2	45	190	120	110	**51**	5.2	<4.2	<4.2	<4.2	<4.2	<4.2	6.8	<4.2	<4.2	4.3	<4.2		8.9	4.3	<4.2			<4.2	<4.2	<4.2	<4.2	
7 Rockrimmon Rd	09/30/19	U10-2	65.8	253	164	165	**82.3**	**20.3**	<1.89	<1.89	<1.89	<1.89	<1.89	6.94	<1.89	<1.89	<1.89	<1.89		57.6	5.75	<1.89			<47.3	<47.3	<1.89	<1.89	
7 Rockrimmon Rd	01/30/20	U10-2	28.6	102	68.8	59.5	**29.8**	6.46						3.69	<2		<2												
7 Rockrimmon Rd	01/26/21	U10-2	15.6	48.6	30.2	25.3	**21.4**	3.32						4.92	<2		3.54												
7 Rockrimmon Rd	02/03/22	U10-2	8.19	20.1	13.6	11.3	9.18	<2						2.39	<2		2.39												
7 Rockrimmon Rd	01/18/23	U10-2	22.9	69.3	50.8	50.9	**30.7**	5.14						7.35	<2		4.06												
8 Rockrimmon Rd	01/13/17	U11-15	20	57	35	26	**26**	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7		<4.7	<4.7	<4.7			<4.7	<4.7	<4.7	<4.7	<4.7
8 Rockrimmon Rd	01/22/19	U11-15	5.9	21	18	15	**18**	1.2 J	<4	<4	<4	<4	<4	3.5 J	3.4 J	<4	5.1	<4		1 J	<4	<4			<4	<4	<4	<4	
8 Rockrimmon Rd	09/30/19	U11-15	4.77	11.4	10.9	6.51	**13.2**	<1.79	<1.79	<1.79	<1.79	<1.79	<1.79	2.64	<1.79	<1.79	4.9	<1.79		<1.79	<1.79	<1.79			<44.8	<44.8	<1.79	<1.79	
8 Rockrimmon Rd	12/07/22	U11-15	2.97	7.60	5.16	2.42	4.47	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	2.23	<1.94		<1.94	<1.94	<1.94			<1.94	<2.43	<1.94	<1.94	
9 Rockrimmon Rd	11/08/16	U10-1	66	230	160	110	**69**	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	4.6	<4.5		380	<4.5	<4.5			<4.5	<4.5	<4.5	<4.5	<4.5
9 Rockrimmon Rd	03/16/17	U10-1				140	**77**	4						<9	<3		<4												
9 Rockrimmon Rd	07/20/17	U10-1				110	**70**	<2						<9	<3		<4												
9 Rockrimmon Rd	12/12/17	U10-1	60	250	140	120	**74**	6.7	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6		380	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6			<4.6
9 Rockrimmon Rd	01/18/18	U10-1				100	**70**	5						<9	<3		<4												
9 Rockrimmon Rd	01/23/19	U10-1	60	220	140	110	**94**	6.5	<4.1	<4.1	<4.1	<4.1	<4.1	1.3 J	2.9 J	<4.1	5	<4.1		490	7.7	<4.1			0.2 J	0.46 J	<4.1	<4.1	
9 Rockrimmon Rd	05/22/19	U10-1	64	260	150	140	**100**	7.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	4.7	<4.4		390	7.4	<4.4			<4.4	<4.4	<4.4	<4.4	
9 Rockrimmon Rd	09/30/19	U10-1	59.4	242	145	128	**94.1**	6.37	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	4.1	<1.94		427	12.8	<1.94			<48.4	<48.4	<1.94	<1.94	
9 Rockrimmon Rd	01/28/20	U10-1	60.5	259	150	131	**101**	7.63						<2.01	<2.01		5.03												
9 Rockrimmon Rd	02/15/21	U10-1	55.5	214	130	118	**107**	9.12						2.20	<2		4.68												
9 Rockrimmon Rd	01/17/22	U10-1	47.9	193	110	106	**80.4**	6.93						<2	<2		4.29												
9 Rockrimmon Rd	01/18/23	U10-1	38	154	94.7	91.5	**70.6**	7.66						2.29	<2		3.74												
11 Rockrimmon Rd	01/23/19	R30-67	41	170	110	72	**53**	3.7 J	<4.1	<4.1	<4.1	<4.1	<4.1	1.2 J	<4.1	<4.1	3.3 J	<4.1		310	0.61 J	<4.1			<4.1	<4.1	<4.1	<4.1	
11 Rockrimmon Rd	05/22/19	R30-67	43	190	110	79	**52**	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4		260	<4	<4			<4	<4	<4	<4	
11 Rockrimmon Rd	10/01/19	R30-67	43.1	187	113	83.5	**52.2**	2.87	<1.86	<1.86	<1.86	<1.86	<1.86	<1.86	<1.86	<1.86	2.01	<1.86		331	<1.86	<1.86			<46.5	<46.5	<1.86	<1.86	
11 Rockrimmon Rd	12/08/22	R30-67	34.9	132	77.1	57.0	**40.0**	2.26	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92	<1.92		218	<1.92	15.6			<1.92	<2.40	<1.92	<1.92	
12 Rockrimmon Rd	11/08/16	U11-28	20	66	45	29	**22**	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5		<4.5	<4.5	<4.5			<4.5	<4.5	<4.5	<4.5	<4.5
12 Rockrimmon Rd	12/12/17	U11-28	16	67	32	27	**19**	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5		<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5			<4.5
12 Rockrimmon Rd	01/22/19	U11-28	21	68	41	33	**29**	2.5 J	<4.1	<4.1	<4.1	<4.1	<4.1	3.3 J	1.6 J	<4.1	3.8 J	<4.1		6.5	<4.1	<4.1			<4.1	0.4 J	<4.1	<4.1	
12 Rockrimmon Rd	09/30/19	U11-28	19.6	71.1	43.2	36.5	**33.6**	1.82	<1.75	<1.75	<1.75	<1.75	<1.75	3.5	<1.75	<1.75	4.44	<1.75		<1.75	<1.75	<1.75			<43.8	<43.8	<1.75	<1.75	
12 Rockrimmon Rd	12/07/22	U11-28	11.6	43.3	23.7	21.8	**17.8**	2.09	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98		<1.98	<1.98	<1.98			<1.98	<2.47	<1.98	<1.98	

Table 3
Private Well Groundwater Analytical Results
Kingston Fire Department
148 Main Street, Kingston, NH

Location	Sample Date	Tax Map/Lot	Concentrations in ng/L																									
			Perfluoroalkyl Carboxylic Acids											Perfluoroalkyl Sulfonic Acids					Fluorotelomers			Perfluoroalkane Sulfonamides			Perfluoroalkane Sulfonyl Substances				Per- and Polyfluoroalkyl Ether Carboxylic Acids
			Perfluorobutanoic Acid (PFBA) [3]	Perfluoropentanoic Acid (PFPeA) [4]	Perfluorohexanoic Acid (PFHxA) [5]	Perfluoroheptanoic Acid (PFHpA) [6]	Perfluorooctanoic Acid (PFOA) [7]	Perfluorononanoic Acid (PFNA) [8]	Perfluorodecanoic Acid (PFDA) [9]	Perfluoroundecanoic Acid (PFUnA) [10]	Perfluorododecanoic Acid (PFDoA) [11]	Perfluorotridecanoic Acid (PFTrDA) [12]	Perfluorotetradecanoic Acid (PFTeA) [13]	Perfluorobutanesulfonic Acid (PFBS) [4S]	Perfluorohexanesulfonic Acid (PFHxS) [6S]	Perfluoroheptanesulfonic Acid (PFHpS) [7S]	Perfluorooctanesulfonic Acid (PFOS) [8S]	Perfluorodecanesulfonic Acid (PFDS) [10S]	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	Perfluorooctanesulfonamide (PFOSA)	N-ethyl perfluorooctane sulfonamide (EtFOSA)	N-methyl perfluorooctane sulfonamide (MeFOSA)	N-ethyl perfluorooctanesulfonamido ethanol (EtFOSE)	N-methyl perfluorooctanesulfonamido ethanol (MeFOSE)	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propanoic acid (HFPO-DA)
			375-22-4	2706-90-3	307-24-4	375-85-9	335-67-1	375-95-1	335-76-2	2058-94-8	307-55-1	72629-94-8	376-06-7	375-73-5	355-46-4	375-92-8	1763-23-1	335-77-3	757124-72-4	27619-97-2	39108-34-4	754-91-6	4151-50-2	31506-32-8	1691-99-2	24448-09-7	2991-50-6	2355-31-9	13252-13-6
		GW-1 (AGQS)	NS	NS	NS	NS	12	11	NS	NS	NS	NS	NS	NS	18	NS	15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
13 Rockrimmon Rd	12/13/16	R30-66	23	77	47	31	**30**	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	5.1	<4.7		21	<4.7	<4.7			<4.7	<4.7	<4.7	<4.7	<4.7
13 Rockrimmon Rd	01/22/19	R30-66	17	77	42	25	**16**	<4	<4	<4	<4	<4	<4	0.52 J	<4	<4	3.6 J	<4		56	0.25 J	<4			<4	<4	<4	<4	
13 Rockrimmon Rd	09/30/19	R30-66	18.5	70.1	37.7	28.7	**21.6**	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	2.13	<1.8	<1.8	2.69	<1.8		13	<1.8	<1.8			<45	<45	<1.8	<1.8	
13 Rockrimmon Rd	02/28/23	R30-66	13.2	39.3	28.3	22.9	**19.7**	2.68	<2.01	<2.01	<2.01	<2.01	<2.01	2.66	<2.01	<2.01	6.35	<2.01		3.79	2.43	5.28			<2.01	<2.52	<2.01	<2.01	
15 Rockrimmon Rd	01/22/19	R30-62	7.6	28	18	14	11	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	1.4 J	<3.9	<3.9	4.7	<3.9		7.4	0.28 J	<3.9			<3.9	<3.9	<3.9	<3.9	
15 Rockrimmon Rd	05/20/19	R30-62	18	84	50	31	**19**	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	4.5	<4.2		44	<4.2	<4.2			<4.2	<4.2	<4.2	<4.2	
15 Rockrimmon Rd	10/01/19	R30-62	18	78.8	45.2	26.3	**17.2**	<1.85	<1.85	<1.85	<1.85	<1.85	<1.85	<1.85	<1.85	<1.85	2.87	<1.85		29.2	<1.85	<1.85			<46.3	<46.3	<1.85	<1.85	
16 Rockrimmon Rd	01/04/17	U11-42	<9.3	18	12	<4.7	<1.9	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7		6.9	<4.7	<4.7			<4.7	<4.7	<4.7	<4.7	<4.7
16 Rockrimmon Rd	01/22/19	U11-42	3.7 J	18	12	4.1 J	1.5 J	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1		13	<4.1	<4.1			<4.1	<4.1	<4.1	<4.1	
16 Rockrimmon Rd	05/20/19	U11-42	4.9	26	16	5.1	<1.7	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2		11	<4.2	<4.2			<4.2	<4.2	<4.2	<4.2	
16 Rockrimmon Rd	09/30/19	U11-42	4	19	12.7	3.68	<1.87	<1.87	<1.87	<1.87	<1.87	<1.87	<1.87	<1.87	<1.87	<1.87	<1.87	<1.87		9.35	<1.87	<1.87			<46.8	<46.8	<1.87	<1.87	
17 Rockrimmon Rd	12/30/16	R30-61	<10	7.7	5.4	<5	3.4	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5		<5	<5	<5			<5	<5	<5	<5	<5
17 Rockrimmon Rd	01/22/19	R30-61	1.8 J	4.4	<9.2	1.4 J	1.8	<4	<4	<4	<4	<4	<4	1.2 J	<4	<4	1.1 J	<4		1.3 J	<4	<4			0.32 J	0.37 J	<4	<4	
17 Rockrimmon Rd	02/28/23	R30-61	2.43	7.55	9.89	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95		<1.95	<1.95	2.05			<1.95	<2.44	<1.95	<1.95	
18 Rockrimmon Rd	12/13/16	U11-43	13	56	34	11	6.3	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7		20	<4.7	<4.7			<4.7	<4.7	<4.7	<4.7	<4.7
18 Rockrimmon Rd	09/30/19	U11-43	14.9	70.6	44.6	14.1	4.31	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8		40.6	<1.8	<1.8			<45	<45	<1.8	<1.8	
18 Rockrimmon Rd	12/07/22	U11-43	12.2	57.4	34.1	11.6	4.22	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96		27.0	<1.96	<1.96			<1.96	<2.45	<1.96	<1.96	
19 Rockrimmon Rd	02/02/19	R30-60C	<4	<4	<9.2	<4	1.7	<4	<4	<4	<4	<4	<4	<4	<4	<4	0.84 J	<4		<4	<4	<4			<4	<4	<4	<4	
19 Rockrimmon Rd	07/01/19	R30-60C	2.2 J	<4.2	<9.2	1.3 J	2.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	1 J	<4.2	<4.2	0.9 J	<4.2		<4.2	<4.2	<4.2			<4.2	<4.2	<4.2	<4.2	
19 Rockrimmon Rd	09/30/19	R30-60C	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82		<1.82	<1.82	<1.82			<45.6	<45.6	<1.82	<1.82	
20 Rockrimmon Rd	12/13/16	U11-44	11	36	20	6.1	5.1	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9		22	<4.9	<4.9			<4.9	<4.9	<4.9	<4.9	<4.9
21 Rockrimmon Rd	12/18/19	R30-60B	<1.79	2	2.14	<1.79	1.96	<1.79	<1.79	<1.79	<1.79	<1.79	<1.79	<1.79	<1.79	<1.79	<1.79	<1.79		<1.79	<1.79	<1.79			<44.8	<44.8	<1.79	<1.79	
22 Rockrimmon Rd	12/27/16	U11-45	<9	<4.5	<4.5	<4.5	2.2	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5		<4.5	<4.5	<4.5			<4.5	<4.5	<4.5	<4.5	<4.5
23 Rockrimmon Rd	12/27/16	R30-60A	<9	<4.5	<4.5	<4.5	<1.8	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5		<4.5	<4.5	<4.5			<4.5	<4.5	<4.5	<4.5	<4.5
24 Rockrimmon Rd	12/27/16	U11-46	<9	<4.5	<4.5	<4.5	2	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5		<4.5	<4.5	<4.5			<4.5	<4.5	<4.5	<4.5	<4.5
2 Ronnie Ln	05/22/19	U9-3	38	210	140	17	7.1	<4	<4	<4	<4	<4	<4	7.7	<4	<4	<4	<4		<4	<4	<4			<4	<4	<4	<4	
2 Ronnie Ln	09/26/19	U9-3	16.5	72	61.7	6.43	5.92	<1.74	<1.74	<1.74	<1.74	<1.74	<1.74	5.41	<1.74	<1.74	3.22	<1.74		<1.74	<1.74	<1.74			<43.6	<43.6	<1.74	<1.74	
2 Ronnie Ln	02/28/23	U9-3	2.36	6.79	5.93	<1.98	6.37	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98	<1.98		<1.98	<1.98	<1.98			<1.98	<2.48	<1.98	<1.98	
5 Ronnie Ln	12/17/19	U9-4	4.72	14.9	16.6	3.4	10.4	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8		<1.8	<1.8	<1.8			<45.1	<45.1	<1.8	<1.8	
5 Ronnie Ln	12/07/22	U9-4	3.19	4.78	8.27	2.48	7.17	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94		<1.94	<1.94	<1.94			<1.94	<2.42	<1.94	<1.94	
1 Thayer Rd	12/27/16	U11-37	<9.7	<4.9	<4.9	<4.9	5.7	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	5.4	<4.9		<4.9	<4.9	<4.9			<4.9	<4.9	<4.9	<4.9	<4.9
3 Thayer Rd	12/13/16	U11-50	<10	<5	<5	<5	5.9	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5		<5	<5	<5			<5	<5	<5	<5	<5
4 Thayer Rd	12/16/19	U11-51	<1.84	<1.84	<1.84	<1.84	1.94	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	2.69	<1.84		<1.84	<1.84	<1.84			<46	<46	<1.84	<1.84	

Table 3
Private Well Groundwater Analytical Results
Kingston Fire Department
148 Main Street, Kingston, NH

Location	Sample Date	Tax Map/Lot	Concentrations in ng/L																										
			Perfluoroalkyl Carboxylic Acids											Perfluoroalkyl Sulfonic Acids					Fluorotelomers			Perfluoroalkane Sulfonamides			Perfluoroalkane Sulfonyl Substances				Per- and Polyfluoroalkyl Ether Carboxylic Acids
			Perfluorobutanoic Acid (PFBA) [3]	Perfluoropentanoic Acid (PFPeA) [4]	Perfluorohexanoic Acid (PFHxA) [5]	Perfluoroheptanoic Acid (PFHpA) [6]	Perfluorooctanoic Acid (PFOA) [7]	Perfluorononanoic Acid (PFNA) [8]	Perfluorodecanoic Acid (PFDA) [9]	Perfluoroundecanoic Acid (PFUnA) [10]	Perfluorododecanoic Acid (PFDoA) [11]	Perfluorotridecanoic Acid (PFTrDA) [12]	Perfluorotetradecanoic Acid (PFTeA) [13]	Perfluorobutanesulfonic Acid (PFBS) [4S]	Perfluorohexanesulfonic Acid (PFHxS) [6S]	Perfluoroheptanesulfonic Acid (PFHpS) [7S]	Perfluorooctanesulfonic Acid (PFOS) [8S]	Perfluorodecanesulfonic Acid (PFDS) [10S]	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	Perfluorooctanesulfonamide (PFOSA)	N-ethyl perfluorooctane sulfonamide (EtFOSA)	N-methyl perfluorooctane sulfonamide (MeFOSA)	N-ethyl perfluorooctanesulfonamido ethanol (EtFOSE)	N-methyl perfluorooctanesulfonamido ethanol (MeFOSE)	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propanoic acid (HFPO-DA)
			375-22-4	2706-90-3	307-24-4	375-85-9	335-67-1	375-95-1	335-76-2	2058-94-8	307-55-1	72629-94-8	376-06-7	375-73-5	355-46-4	375-92-8	1763-23-1	335-77-3	757124-72-4	27619-97-2	39108-34-4	754-91-6	4151-50-2	31506-32-8	1691-99-2	24448-09-7	2991-50-6	2355-31-9	13252-13-6
		GW-1 (AGQS)	NS	NS	NS	NS	12	11	NS	NS	NS	NS	NS	NS	18	NS	15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
5 Thayer Rd	12/17/19	U11-54	<1.89	<1.89	<1.89	<1.89	<1.89	<1.89	<1.89	<1.89	<1.89	<1.89	<1.89	<1.89	<1.89	<1.89	<1.89	<1.89		<1.89	<1.89	<1.89			<47.2	<47.2	<1.89	<1.89	
7 Thayer Rd	12/07/22	U11-65	<1.96	2.22	2.78	<1.96	3.87	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	<1.96	5.90	<1.96		<1.96	<1.96	<1.96			<1.96	<2.45	<1.96	<1.96	
8 Thayer Rd	12/16/19	U11-69	7.61	16.3	18.4	16.6	**29**	4.08	1.92	<1.83	<1.83	<1.83	<1.83	5.93	3.68	<1.83	**25.6**	<1.83		<1.83	<1.83	<1.83			<45.8	<45.8	<1.83	<1.83	
8 Thayer Rd	12/07/22	U11-69	2.08	4.77	5.25	3.61	10.1	<1.95	<1.95	<1.95	<1.95	<1.95	<1.95	2.84	<1.95	<1.95	13.3	<1.95		<1.95	<1.95	<1.95			<1.95	<2.44	<1.95	<1.95	
4 Toppan Rd	01/13/17	U11-47	<9.3	<4.7	5.2	<4.7	4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7		<4.7	<4.7	<4.7			<4.7	<4.7	<4.7	<4.7	<4.7
5 Toppan Rd	12/18/19	U11-55	<1.94	2.16	2.49	<1.94	2.32	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94		<1.94	<1.94	<1.94			<48.6	<48.6	<1.94	<1.94	
6 Toppan Rd	12/13/16	U11-49	<9.7	<4.9	<4.9	<4.9	6	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	6.4	<4.9		<4.9	<4.9	<4.9			<4.9	<4.9	<4.9	<4.9	<4.9

Notes:
1. Historical sample data was tabulated from lab electronic data deliverables, from Alpha Analytical Inc. or ALS Environmental or taken from Table 2 of the "Data Submittal for December 2019 Sampling Event" Report by Stantec Consulting Services, Inc., submitted April 21, 2022.

2. Concentrations are presented in nanograms per liter (ng/L) which are equivalent to parts per trillion (ppt).

3. "<" indicates the analyte was not detected above the indicated laboratory reporting limit (RL).
"ND" indicates the analyte was not detected above the laboratory reporting limit.
"J" indicates the result is estimated.
A blank cell indicates the sample was not analyzed for this analyte.
[3] = number of carbons in the perfluorinated alkyl chain for perfluorinated carboxylic acids (PFCAs). The carbon included in the carboxylic functional group is non-fluorinated.
[4S] = number of carbons in the perfluorinated alkyl chain for perfluorinated sulfonic acids (PFSAs). All of the carbons are fluorinated.

4. "GW-1" refers to the New Hampshire GW-1 Groundwater Standards as defined in New Hampshire Department of Environmental Services (NHDES) Contaminated Sites Risk Characterization and Management Policy (RCMP) (January 1998, with 2000 through 2018 revisions/addenda). GW-1 Groundwater Standards are intended to be equivalent to the Ambient Groundwater Quality Standards (AGQSs) promulgated in Env-Or 600 (June 2015 with October 2016, September 2018, September 2019, May 2020, January 2021 and July 2021 amendments). For analytes where GW-1 and AGQS values differ, the values presented in this table reflect the AGQSs in the latest Env-Or 600 update. The AGQS/GW-1 Groundwater Standards are intended to be protective of groundwater as a source of drinking water.

5. "NS" indicates the analyte is not listed in the RCMP.

6. **Bold** values exceed the MCL/GW-1 (AGQS) Groundwater Standard.

Table 4
Summary of Private Well Information
Kingston Fire Department
148 Main Street, Kingston, NH

Location	Tax Map/Lot	Well Type	Recommended Sampling Frequency	Portable Water Supplied	Number of Samples	PFAS Minimum Concentration (ng/L)	PFAS Maximum Concentration (ng/L)	Earliest Sample Date	Most Recent Sample					
									Sample Date	PFOA (AGQS 12 ng/L)	PFNA (AGQS 11 ng/L)	PFHxS (AGQS 18 ng/L)	PFOS (AGQS 15 ng/L)	AGQS Exceedance
1 Ronnie Ln	U9-6	Unknown	TBD		0	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 Thayer Rd	U11-37	Unknown	None		1	11	11	12/27/16	12/27/16	5.7	<4.9	<4.9	5.4	2
10 Colcord Rd	U11-38	OB	None		1	8.7	8.7	12/16/19	12/16/19	4.91	<1.77	<1.77	3.78	2
10 Depot Rd	U10-34	OB	None		1	0	0	12/16/19	12/16/19	<1.83	<1.83	<1.83	<1.83	1
11 Rockrimmon Rd	R30-67	BR	Annual	Bottled water	4	42	60	01/23/19	12/8/22	40	2.26	<1.92	<1.92	4
119 Main St	U8-17	Unknown	None		1	0	0	02/01/17	2/1/17	<1.8	<4.5	<4.5	<4.5	1
12 Main St	R21-33	Unknown	*		1	3.1	3.1	10/19/16	10/19/16	3.1	<4.5	<4.5	<4.5	2
12 Rockrimmon Rd	U11-28	OB	Annual	Bottled water	5	19	40	11/08/16	12/7/22	17.8	2.09	<1.98	<1.98	4
13 Rockrimmon Rd	R30-66	OB	Annual	Bottled water	4	20	35	12/13/16	2/28/23	19.7	2.68	<2.01	6.35	4
134 Main St	U11-5	Unknown	None		1	2.0	2.0	12/30/16	12/30/16	2	<4.9	<4.9	<4.9	2
136 Main St	U11-6	Unknown	None		2	4.3	8.6	01/24/19	5/20/19	4.3	<4.1	<4.1	<4.1	2
137 Main St	U9-45	Unknown	None		2	0	0.53	02/02/19	5/22/19	<1.6	<4	<4	<4	1
138 Main St	U11-7	Unknown	None		2	0	0.42	01/23/19	5/20/19	<1.6	<4.1	<4.1	<4.1	1
139 Main St	U9-44	OB	None		2	0	0	01/25/19	5/20/19	<1.7	<4.2	<4.2	<4.2	1
140 Main St	U11-8	OB	None		2	4.5	11	01/24/19	5/20/19	4.5	<4.1	<4.1	<4.1	2
141 Main St	U9-43	BR	None		2	0	3.0	12/27/16	1/22/19	3	<5	<5	<5	2
142 Main St	U11-9	Unknown	None		2	0	1.1	02/02/19	5/20/19	<1.7	<4.2	<4.2	<4.2	1
143 Main St	U9-41	Unknown	TBD		0	NA	NA	NA	NA	NA	NA	NA	NA	NA
143 Main St	U9-42	BR	None		2	0	1.2	01/25/19	5/22/19	<1.6	<4	<4	<4	1
144 Main St	U11-10	OB	Annual	POET	12	7.3	171	11/08/16	1/18/23	<2	<2	<2	11.7	3
146 Main St	U11-12	OB	None		4	3.8	11	10/19/16	12/6/22	<1.95	<1.95	<1.95	3.79	2
148 Main St	U11-13	OB	Annual	POET	10	176	462	09/27/16	1/18/23	168	100	2.04	<2	4
148 Main St-Dug	U9-71	OB	None		3	9.5	12	01/25/19	5/21/19	2.7	<4	<4	6.8	2
148 Main St-Well Pt	U9-71	OB	None		4	55	86	10/19/16	10/1/19	58.4	27.4	<1.75	<1.75	4
149 Main St	U9-8	OB	Annual	Bottled water	5	23	35	11/15/16	12/8/22	9.64	<1.96	4.72	8.84	3
15 Depot Rd	U9-27	OB	None		1	2.7	2.7	12/16/19	12/16/19	<1.88	<1.88	2.65	<1.88	2
15 Rockrimmon Rd	R30-62	Unknown	Annual	Bottled water	3	16	24	01/22/19	10/1/19	17.2	<1.85	<1.85	2.87	4
150 Main St	U10-5	Unknown	Annual	Bottled water	5	18	36	10/19/16	9/27/19	23	<1.77	2.1	10.4	4
151 Main St	U9-7	Unknown	TBD		0	NA	NA	NA	NA	NA	NA	NA	NA	NA
152 Main St	U10-6	OB	None		3	0	1.3	10/19/16	12/6/22	<1.98	<1.98	<1.98	<1.98	1
152A Main St	U10-6	OB	Annual	Bottled water	4	6.5	22	10/19/16	12/6/22	3.53	<1.95	<1.95	2.95	2
153 Main St	U9-2	OB	Annual	Bottled water	4	21	35	10/19/16	12/8/22	22	<1.98	3.52	9.28	4
154 Main St-Artesian	U10-7B	BR	Annual	Bottled water	4	9.2	27	01/24/19	12/14/22	11.8	<1.99	<1.99	<1.99	3
154 Main St-Dug	U10-7A	OB	None		3	0	5.7	01/24/19	12/14/22	<1.97	<1.97	<1.97	<1.97	1
155 Main St	U9-1	OB	Annual	Bottled water	4	36	49	01/23/19	12/8/22	24.3	<1.95	5.02	14.2	4
156 Main St	U10-8	OB	Annual	Bottled water	4	12	18	12/13/16	12/6/22	13.2	<1.94	<1.94	4.68	4
157 Main St	U10-42	OB	Annual	POET	6	6.3	43	01/26/17	1/18/23	17.3	4	2.2	5.57	4
158 Main St	U10-10	OB	Semi-annual		2	17	18	12/16/19	12/6/22	9.58	3.09	<1.97	5.57	3
159 Main St	U10-41	Unknown	None		4	0	0.35	01/23/19	12/15/22	<1.99	<1.99	<1.99	<1.99	1
16 Rockrimmon Rd	U11-42	BR	None		4	0	1.5	01/04/17	9/30/19	<1.87	<1.87	<1.87	<1.87	1
160 Main St	U10-9	OB	Semi-annual		3	23	45	12/18/19	1/27/23	7.83	5.48	2.81	6.52	3
161 Main St	U10-40	OB	Annual	POET	8	322	660	01/23/19	1/18/23	89.7	17.1	13.5	341	4
163 Main St	U10-39	OB	None		2	0	0	01/04/17	3/7/19	<1.7	<4.2	<4.2	<4.2	1
167 Main St	U10-37	Unknown	None		1	0	0	01/13/17	1/13/17	<1.8	<4.5	<4.5	<4.5	1
169 Main St	U10-31	OB	Annual	Bottled water offered	2	2.9	82	12/18/19	12/7/22	<1.98	<1.98	<1.98	2.91	2
17 Rockrimmon Rd	R30-61	OB	Once more		3	0	3.4	12/30/16	2/28/23	<1.95	<1.95	<1.95	<1.95	1
171 Main St	U10-30	BR	None		3	0	15	12/30/17	2/28/23	<1.98	<1.98	<1.98	<1.98	1

Table 4
Summary of Private Well Information
Kingston Fire Department
148 Main Street, Kingston, NH

Location	Tax Map/Lot	Well Type	Recommended Sampling Frequency	Portable Water Supplied	Number of Samples	PFAS Minimum Concentration (ng/L)	PFAS Maximum Concentration (ng/L)	Earliest Sample Date	Most Recent Sample					
									Sample Date	PFOA (AGQS 12 ng/L)	PFNA (AGQS 11 ng/L)	PFHxS (AGQS 18 ng/L)	PFOS (AGQS 15 ng/L)	AGQS Exceedance
172 Main St	U10-24	Unknown	None		1	0	0	12/18/19	12/18/19	<1.82	<1.82	<1.82	<1.82	1
173 Main St	U10-29	Unknown	None		1	0	0	12/17/19	12/17/19	<1.92	<1.92	<1.92	<1.92	1
18 Rockrimmon Rd	U11-43	BR	None		3	4.2	6.3	12/13/16	12/7/22	4.22	<1.96	<1.96	<1.96	2
19 Depot Rd	U9-25	Unknown	None		1	0	0	12/19/19	12/19/19	<1.82	<1.82	<1.82	<1.82	1
19 Rockrimmon Rd	R30-60C	Unknown	None		3	0	3.1	02/02/19	9/30/19	<1.82	<1.82	<1.82	<1.82	1
1A/1B Lamprey Rd	R30-65	BR	Annual	Bottled water	2	9.6	41	12/17/19	12/7/22	7.42	<2.01	<2.01	2.19	3
2 Colcord Rd	U11-30	Unknown	None		2	0	5.3	02/01/17	2/3/19	3.1	<4.7	<4.7	2.2	2
2 Ginger Way	U11-29	OB	None		4	5.7	6.6	01/25/19	12/8/22	4.24	<1.99	<1.99	2.33	2
2 Lamprey Rd	R30-60	Unknown	None		3	0	7.1	01/24/19	9/27/19	<1.8	<1.8	<1.8	<1.8	1
2 Library Ln	R33-21-2	Unknown	*		1	0	0	10/19/16	10/19/16	<1.9	<4.8	<4.8	<4.8	1
2 Ronnie Ln	U9-3	OB	Semi-annual		3	6.4	9.1	05/22/19	2/28/23	6.37	<1.98	<1.98	<1.98	3
20 Rockrimmon Rd	U11-44	OB	None		1	5.1	5.1	12/13/16	12/13/16	5.1	<4.9	<4.9	<4.9	2
21 Rockrimmon Rd	R30-60B	Unknown	None		1	2.0	2.0	12/18/19	12/18/19	1.96	<1.79	<1.79	<1.79	2
22 Rockrimmon Rd	U11-45	OB	None		1	2.2	2.2	12/27/16	12/27/16	2.2	<4.5	<4.5	<4.5	2
23 Rockrimmon Rd	R30-60A	Unknown	None		1	0	0	12/27/16	12/27/16	<1.8	<4.5	<4.5	<4.5	1
24 Rockrimmon Rd	U11-46	BR	None		1	2.0	2.0	12/27/16	12/27/16	2	<4.5	<4.5	<4.5	2
28 Clark Rd	U11-70	OB	Annual	Bottled water	4	38	72	12/27/16	12/7/22	26.7	3.41	<2.05	8.64	4
29 Clark Rd	U11-74	OB	None		2	9.8	26	12/17/19	12/7/22	4.08	<1.95	<1.95	5.67	2
3 Church St	U10-21	Unknown	Once more		1	0	0	12/17/19	12/17/19	<1.9	<1.9	<1.9	<1.9	1
3 Derby Ln	R15-4B-1	Unknown	*		1	0	0	12/17/19	12/17/19	<1.95	<1.95	<1.95	<1.95	1
3 Rockrimmon Rd	U10-4	OB	Annual	Bottled water	4	18	31	12/02/16	12/6/22	21.8	3.96	<1.99	<1.99	4
3 Ronnie Ln	U9-5	Unknown	TBD		0	NA	NA	NA	NA	NA	NA	NA	NA	NA
3 Thayer Rd	U11-50	Unknown	None		1	5.9	5.9	12/13/16	12/13/16	5.9	<5	<5	<5	2
31 Clark Rd	U11-73	BR	None		2	0	10	12/16/19	2/28/23	<1.95	<1.95	<1.95	<1.95	1
38 Ball Rd	R23-43	Unknown	*		1	4.8	4.8	12/16/19	12/16/19	2.39	<1.83	<1.83	2.44	2
4 Bartlett St	U9-9	OB	Annual	Bottled water	4	6.2	16	01/25/19	2/28/23	13.4	<1.98	<1.98	<1.98	4
4 Church St	U10-11	OB	Annual	Bottled water	2	31	61	12/16/19	12/6/22	7.05	<1.91	<1.91	24.2	4
4 Depot Rd	U10-32	BR	None		1	0	0	12/16/19	12/16/19	<1.81	<1.81	<1.81	<1.81	1
4 Rockrimmon Rd	U11-14	Unknown	None		4	0	28	11/08/16	9/30/19	<1.85	<1.85	<1.85	<1.85	1
4 Thayer Rd	U11-51	OB	None		1	4.6	4.6	12/16/19	12/16/19	1.94	<1.84	<1.84	2.69	2
4 Toppan Rd	U11-47	BR	None		1	4.7	4.7	01/13/17	1/13/17	4.7	<4.7	<4.7	<4.7	2
5 Country Ln	U10-30A	Unknown	None		1	0	0	12/16/19	12/16/19	<1.83	<1.83	<1.83	<1.83	1
5 Depot Rd	U10-36	OB	None		1	0	0	12/17/19	12/17/19	<1.92	<1.92	<1.92	<1.92	1
5 Rockrimmon Rd	U10-3	OB	Annual	Bottled water	6	5.1	26	10/19/16	12/8/22	16	2.32	<1.98	<1.98	4
5 Ronnie Ln	U9-4	OB	Semi-annual		2	7.2	10	12/17/19	12/7/22	7.17	<1.94	<1.94	<1.94	3
5 Thayer Rd	U11-54	BR	None		1	0	0	12/17/19	12/17/19	<1.89	<1.89	<1.89	<1.89	1
5 Toppan Rd	U11-55	BR	None		1	2.3	2.3	12/18/19	12/18/19	2.32	<1.94	<1.94	<1.94	2
6 Bartlett St	U9-12	BR	Once more		1	7.7	7.7	12/17/19	12/17/19	4.2	3.46	<1.87	<1.87	2
6 Church St	U10-12	OB	Once more		1	4.4	4.4	12/06/22	12/6/22	4.41	<1.99	<1.99	<1.99	2
6 Colcord Rd	U11-31	BR	Semi-annual		6	4.7	11	12/27/16	12/7/22	6.63	<2.02	<2.02	<2.02	3
6 Fifield Brook Rd	U11-17	Unknown	None		4	2.0	3.6	12/27/16	10/1/19	2.87	<1.73	<1.73	<1.73	2
6 Toppan Rd	U11-49	OB	None		1	12	12	12/13/16	12/13/16	6	<4.9	<4.9	6.4	2
7 Bartlett St	U9-40	Unknown	TBD		0	NA	NA	NA	NA	NA	NA	NA	NA	NA
7 Colcord Rd	U11-40	OB	Semi-annual		2	9.3	9.5	12/16/19	2/28/23	9.3	<2.01	<2.01	<2.01	3
7 Fifield Brook Rd	U11-35	OB	None		1	11	11	12/27/16	12/27/16	5.1	<4.5	<4.5	6	2
7 Lamprey Rd	R30-65A	Unknown	None		1	3.6	3.6	12/13/16	12/13/16	3.6	<4.9	<4.9	<4.9	2

Table 4
Summary of Private Well Information
Kingston Fire Department
148 Main Street, Kingston, NH

Location	Tax Map/Lot	Well Type	Recommended Sampling Frequency	Portable Water Supplied	Number of Samples	PFAS Minimum Concentration (ng/L)	PFAS Maximum Concentration (ng/L)	Earliest Sample Date	Most Recent Sample					
									Sample Date	PFOA (AGQS 12 ng/L)	PFNA (AGQS 11 ng/L)	PFHxS (AGQS 18 ng/L)	PFOS (AGQS 15 ng/L)	AGQS Exceedance
7 Rockrimmon Rd	U10-2	OB	Annual	POET	14	0	106	11/08/16	1/18/23	30.7	5.14	<2	4.06	4
7 Thayer Rd	U11-65	BR	None		1	9.8	9.8	12/07/22	12/7/22	3.87	<1.96	<1.96	5.9	2
8 Bartlett St	U9-13	OB	Semi-annual		1	15	15	12/16/19	12/16/19	11.8	<1.77	<1.77	2.98	3
8 Lamprey Rd	R30-63	Unknown	None		1	0	0	12/13/16	12/13/16	<2	<4.9	<4.9	<4.9	1
8 Rockrimmon Rd	U11-15	OB	Annual	Bottled water	4	6.7	28	01/13/17	12/7/22	4.47	<1.94	<1.94	2.23	2
8 Thayer Rd	U11-69	OB	Annual	Bottled water	2	23	62	12/16/19	12/7/22	10.1	<1.95	<1.95	13.3	3
9 Depot Rd	U10-35	OB	Annual	Bottled water	3	0	22	01/24/19	12/8/22	3.74	<1.98	<1.98	<1.98	2
9 Rockrimmon Rd	U10-1	BR	Annual	POET	12	70	121	11/08/16	1/18/23	70.6	7.66	<2	3.74	4
Main St (Kingston Plains)	U10-43	None	None		0	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
1. "PFAS" refers to the concentrations of the four regulated compounds, Perfluorooctanoic Acid (PFOA), Perfluorononanoic Acid (PFNA), Perfluorohexanesulfonic Acid (PFHxS), and Perfluorooctanesulfonic Acid (PFOS).
2. In the "AGQS Exceedance" column: "1" indicates no PFAS detected, "2" indicates PFAS detected but ≤0.5 AGQS, "3" indicates PFAS >0.5 AGQS and ≤ AGQS, and "4" indicates PFAS > AGQS.
3. Minimum, maximum, and average PFAS concentrations are rounded to one decimal place where applicable for concentrations from 1 to 9.99. Concentrations above 10 are rounded to the nearest whole number.
4. "<" indicates the analyte was not detected above the indicated laboratory reporting limit (RL).
   '--" indicates only one sample was collected so an average was not calculated.
5 "*" indicates property is outside of the area of investigation for the Kingston Fire Station.
6. NA - not applicable; TBD - to be determined after well is sampled.

Table 5
Summary of Point of Entry Treatment System Analytical Results
Kingston Fire Department
148 Main Street, Kingston, NH

Location	Sample Date	Tax Map/Lot	Concentrations in ng/L																									
			Perfluoroalkyl Carboxylic Acids											Perfluoroalkyl Sulfonic Acids					Fluorotelomers		Perfluoroalkane Sulfonamides			Perfluoroalkane Sulfonyl Substances				Per- and Polyfluoroalkyl Ether Carboxylic Acids
			Perfluorobutanoic Acid (PFBA) [3]	Perfluoropentanoic Acid (PFPeA) [4]	Perfluorohexanoic Acid (PFHxA) [5]	Perfluoroheptanoic Acid (PFHpA) [6]	Perfluorooctanoic Acid (PFOA) [7]	Perfluorononanoic Acid (PFNA) [8]	Perfluorodecanoic Acid (PFDA) [9]	Perfluoroundecanoic Acid (PFUnA) [10]	Perfluorododecanoic Acid (PFDoA) [11]	Perfluorotridecanoic Acid (PFTrDA) [12]	Perfluorotetradecanoic Acid (PFTeA) [13]	Perfluorobutanesulfonic Acid (PFBS) [4S]	Perfluorohexanesulfonic Acid (PFHxS) [6S]	Perfluoroheptanesulfonic Acid (PFHpS) [7S]	Perfluorooctanesulfonic Acid (PFOS) [8S]	Perfluorodecanesulfonic Acid (PFDS) [10S]	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	Perfluorooctanesulfonamide (PFOSA)	N-ethyl perfluorooctane sulfonamide (EtFOSA)	N-methyl perfluorooctane sulfonamide (MeFOSA)	N-ethyl perfluorooctanesulfonamido ethanol (EtFOSE)	N-methyl perfluorooctanesulfonamido ethanol (MeFOSE)	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propanoic acid (HFPO-DA)
			375-22-4	2706-90-3	307-24-4	375-85-9	335-67-1	375-95-1	335-76-2	2058-94-8	307-55-1	72629-94-8	376-06-7	375-73-5	355-46-4	375-92-8	1763-23-1	335-77-3	27619-97-2	39108-34-4	754-91-6	4151-50-2	31506-32-8	1691-99-2	24448-09-7	2991-50-6	2355-31-9	13252-13-6
		GW-1 (AGQS)	NS	NS	NS	NS	12	11	NS	NS	NS	NS	NS	NS	18	NS	15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
136 Main St	01/24/19	U11-6	<4	<4	<9.2	1.6 J	5.4	<4	<4	<4	<4	<4	<4	0.98 J	2.3 J	<4	0.87 J	<4	<4	<4	<4			<4	<4	<4	<4	
136 Main St-Mid	01/24/19	U11-6	<4	<4	<9.2	1.1 J	3.8	<4	<4	<4	<4	<4	<4	0.73 J	2.3 J	<4	<4	<4	<4	<4	<4			<4	<4	<4	<4	
136 Main St-Post	01/24/19	U11-6	<4.1	<4.1	<9.2	<4.1	0.75 J	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1			0.2 J	<4.1	<4.1	<4.1	
144 Main St	03/16/17	U11-10				7	**28**	<2						<9	9		**77**											
144 Main St	07/20/17	U11-10				2	7	<2						<9	4		**22**											
144 Main St	12/12/17	U11-10	<13	10	9.7	7.6	**22**	<6.4	<6.4	<6.4	<6.4	<6.4	<6.4	6.8	8.8	<6.4	**48**	<6.4	<6.4	<6.4	<6.4	<6.4	<6.4					<6.4
144 Main St	01/18/18	U11-10				5	**22**	<2						<9	5		**45**											
144 Main St	01/22/19	U11-10	0.85 J	<4.3	<9.2	0.93 J	2.4	1.2 J	<4.3	<4.3	<4.3	<4.3	<4.3	1.4 J	2.1 J	<4.3	14	<4.3	2.8 J	<4.3	<4.3			4.2 J	7.6	<4.3	<4.3	
144 Main St	05/21/19	U11-10	<4.2	<4.2	<9.2	<4.2	1.9	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	5.4	<4.2	<4.2	<4.2	<4.2			<4.2	<4.2	<4.2	<4.2	
144 Main St	09/27/19	U11-10	<1.78	1.96	2.03	<1.78	4.1	<1.78	<1.78	<1.78	<1.78	<1.78	<1.78	<1.78	<1.78	<1.78	12.9	<1.78	<1.78	<1.78	<1.78			<44.5	<44.5	<1.78	<1.78	
144 Main St	01/27/20	U11-10	<2	2.89	<2	<2	3.08	<2						<2	2.37		**18.6**											
144 Main St	01/26/21	U11-10	2.80	4.26	2.87	2.39	4.78	<2						<2	3.84		**18.8**											
144 Main St	01/17/22	U11-10	<2	2.53	<2	<2	2.5	<2						<2	<2		7.31											
144 Main St	01/18/23	U11-10	<2	<2	<2	<2	<2	<2						<2	<2		11.7											
144 Main St-Mid	03/16/17	U11-10				<2	<2	<2						<9	<3		<4											
144 Main St-Mid	07/20/17	U11-10				<2	<2	<2						<9	<3		<4											
144 Main St-Mid	12/12/17	U11-10	<9.1	<4.5	<4.5	<4.5	<1.8	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5			<4.5
144 Main St-Mid	01/18/18	U11-10				<2	<2	<2						<9	<3		<4											
144 Main St-Mid	01/22/19	U11-10	<4.9	<4.9	<9.8	<4.9	<2	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	3 J	<4.9	<4.9			<4.9	<4.9	<4.9	<4.9	
144 Main St-Mid	05/21/19	U11-10	<4.2	<4.2	<9.2	<4.2	<1.7	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2		<4.2	<4.2	<4.2	<4.2	
144 Main St-Mid	09/27/19	U11-10	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<45	<45	<1.8	<1.8	
144 Main St-Mid	01/27/20	U11-10	<2	<2	<2	<2	<2	<2						<2	<2		<2											
144 Main St-Mid	01/26/21	U11-10	<2	<2	<2	<2	<2	<2						<2	<2		<2											
144 Main St-Mid	01/17/22	U11-10	<2	<2	<2	<2	<2	<2						<2	<2		<2											
144 Main St-Mid	01/18/23	U11-10	<2	<2	<2	<2	<2	<2						<2	<2		<2											
144 Main St-Post	03/16/17	U11-10				<2	<2	<2						<9	<3		<4											
144 Main St-Post	07/20/17	U11-10				<2	<2	<2						<9	<3		<4											
144 Main St-Post	12/12/17	U11-10	<9.3	<4.6	<4.6	<4.6	<1.9	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6			<4.6
144 Main St-Post	01/18/18	U11-10				<2	<2	<2						<9	<3		<4											
144 Main St-Post	01/22/19	U11-10	<4.7	<4.7	<9.4	<4.7	0.37 J	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	3 J	<4.7	<4.7			<4.7	<4.7	<4.7	<4.7	

Table 5
Summary of Point of Entry Treatment System Analytical Results
Kingston Fire Department
148 Main Street, Kingston, NH

Location	Sample Date	Tax Map/Lot	Concentrations in ng/L																									
			Perfluoroalkyl Carboxylic Acids											Perfluoroalkyl Sulfonic Acids					Fluorotelomers		Perfluoroalkane Sulfonamides			Perfluoroalkane Sulfonyl Substances				Per- and Polyfluoroalkyl Ether Carboxylic Acids
			Perfluorobutanoic Acid (PFBA) [3]	Perfluoropentanoic Acid (PFPeA) [4]	Perfluorohexanoic Acid (PFHxA) [5]	Perfluoroheptanoic Acid (PFHpA) [6]	Perfluorooctanoic Acid (PFOA) [7]	Perfluorononanoic Acid (PFNA) [8]	Perfluorodecanoic Acid (PFDA) [9]	Perfluoroundecanoic Acid (PFUnA) [10]	Perfluorododecanoic Acid (PFDoA) [11]	Perfluorotridecanoic Acid (PFTrDA) [12]	Perfluorotetradecanoic Acid (PFTeA) [13]	Perfluorobutanesulfonic Acid (PFBS) [4S]	Perfluorohexanesulfonic Acid (PFHxS) [6S]	Perfluoroheptanesulfonic Acid (PFHpS) [7S]	Perfluorooctanesulfonic Acid (PFOS) [8S]	Perfluorodecanesulfonic Acid (PFDS) [10S]	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	Perfluorooctanesulfonamide (PFOSA)	N-ethyl perfluorooctane sulfonamide (EtFOSA)	N-methyl perfluorooctane sulfonamide (MeFOSA)	N-ethyl perfluorooctanesulfonamido ethanol (EtFOSE)	N-methyl perfluorooctanesulfonamido ethanol (MeFOSE)	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propanoic acid (HFPO-DA)
			375-22-4	2706-90-3	307-24-4	375-85-9	335-67-1	375-95-1	335-76-2	2058-94-8	307-55-1	72629-94-8	376-06-7	375-73-5	355-46-4	375-92-8	1763-23-1	335-77-3	27619-97-2	39108-34-4	754-91-6	4151-50-2	31506-32-8	1691-99-2	24448-09-7	2991-50-6	2355-31-9	13252-13-6
		GW-1 (AGQS)	NS	NS	NS	NS	12	11	NS	NS	NS	NS	NS	NS	18	NS	15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
144 Main St-Post	05/21/19	U11-10	<4.4	<4.4	<9.2	<4.4	<1.8	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4			<4.4	<4.4	<4.4	<4.4	
144 Main St-Post	09/27/19	U11-10	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84			<46	<46	<1.84	<1.84	
144 Main St-Post	01/27/20	U11-10	<2	<2	<2	<2	<2	<2						<2	<2		<2											
144 Main St-Post	01/26/21	U11-10	<2	<2	<2	<2	<2	<2						<2	<2		<2											
144 Main St-Post	01/17/22	U11-10	<2	<2	<2	<2	2.21	<2						<2	<2		<2											
144 Main St-Post	01/18/23	U11-10	<2	<2	<2	<2	<2	<2						<2	<2		<2											
148 Main St	01/24/19	U11-13	46	130	110	180	**100**	**72**	1.5 J	<4	<4	<4	<4	17	2.8 J	<4	1 J	<4	250	88	<4			<4	<4	<4	<4	
148 Main St	05/22/19	U11-13	74	310	180	220	**95**	**110**	<4.2	<4.2	<4.2	<4.2	<4.2	25	<4.2	<4.2	<4.2	<4.2	230	95	<4.2			<4.2	<4.2	<4.2	<4.2	
148 Main St	09/09/19	U11-13	203	733	588	495	**212**	**121**	<1.87	<1.87	<1.87	<1.87	<1.87	46.2	<1.87	<1.87	<1.87	<1.87	524	131	<1.87			<46.8	<46.8	<1.87	<1.87	
148 Main St	01/27/20	U11-13	165	642	571	611	**194**	**76.8**						29.5	<2		<2											
148 Main St	01/26/21	U11-13	59.3	175	166	256	**338**	**124**						21.5	<2		<2											
148 Main St	01/17/22	U11-13	47.8	165	141	193	**241**	**112**						13	<2		<2											
148 Main St	01/18/23	U11-13	100	283	228	229	**168**	**100**						18.0	2.04		<2											
148 Main St-Mid	01/24/19	U11-13	<3.9	<3.9	<9.2	<3.9	<1.6	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9			<3.9	<3.9	<3.9	<3.9	
148 Main St-Mid	05/22/19	U11-13	13	32	15	13	4.7	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	8.7	<4.4	<4.4			<4.4	<4.4	<4.4	<4.4	
148 Main St-Mid	09/09/19	U11-13	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84			<46.1	<46.1	<1.84	<1.84	
148 Main St-Mid	01/27/20	U11-13	<2	<2	<2	<2	<2	<2						<2	<2		<2											
148 Main St-Mid	01/26/21	U11-13	<2	<2	<2	<2	2.14	<2						<2	<2		<2											
148 Main St-Mid	01/17/22	U11-13	3.01	<2	<2	<2	<2	<2						<2	<2		<2											
148 Main St-Mid	01/18/23	U11-13	17.3	4.81	<2	<2	<2	<2						<2	<2		<2											
148 Main St-Post	01/24/19	U11-13	<4.1	<4.1	<9.2	<4.1	0.81 J	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	12	<4.1	<4.1			<4.1	<4.1	<4.1	<4.1	
148 Main St-Post	05/22/19	U11-13	<4.2	<4.2	<9.2	<4.2	<1.7	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2			<4.2	<4.2	<4.2	<4.2	
148 Main St-Post	09/09/19	U11-13	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8			<45.1	<45.1	<1.8	<1.8	
148 Main St-Post	01/27/20	U11-13	<2	<2	<2	<2	<2	<2						<2	<2		<2											
148 Main St-Post	01/26/21	U11-13	<2	<2	<2	<2	<2	<2						<2	<2		<2											
148 Main St-Post	01/17/22	U11-13	<2	<2	<2	<2	<2	<2						<2	<2		<2											
148 Main St-Post	01/18/23	U11-13	5.37	<2	<2	<2	<2	<2						<2	<2		<2											
157 Main St	01/18/23	U10-42	6.05	10.9	15.9	19.6	**17.3**	4						4.14	2.2		5.57											
157 Main St-Mid	01/18/23	U10-42	<2	2.04	2.18	<2	2.04	<2						<2	<2		<2											
157 Main St-Post	01/18/23	U10-42	<2	<2	<2	<2	**<2**	<2						<2	<2		<2											

Table 5
Summary of Point of Entry Treatment System Analytical Results
Kingston Fire Department
148 Main Street, Kingston, NH

Location	Sample Date	Tax Map/Lot	Concentrations in ng/L																									
			Perfluoroalkyl Carboxylic Acids											Perfluoroalkyl Sulfonic Acids					Fluorotelomers		Perfluoroalkane Sulfonamides			Perfluoroalkane Sulfonyl Substances				Per- and Polyfluoroalkyl Ether Carboxylic Acids
			Perfluorobutanoic Acid (PFBA) [3]	Perfluoropentanoic Acid (PFPeA) [4]	Perfluorohexanoic Acid (PFHxA) [5]	Perfluoroheptanoic Acid (PFHpA) [6]	Perfluorooctanoic Acid (PFOA) [7]	Perfluorononanoic Acid (PFNA) [8]	Perfluorodecanoic Acid (PFDA) [9]	Perfluoroundecanoic Acid (PFUnA) [10]	Perfluorododecanoic Acid (PFDoA) [11]	Perfluorotridecanoic Acid (PFTrDA) [12]	Perfluorotetradecanoic Acid (PFTeA) [13]	Perfluorobutanesulfonic Acid (PFBS) [4S]	Perfluorohexanesulfonic Acid (PFHxS) [6S]	Perfluoroheptanesulfonic Acid (PFHpS) [7S]	Perfluorooctanesulfonic Acid (PFOS) [8S]	Perfluorodecanesulfonic Acid (PFDS) [10S]	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	Perfluorooctanesulfonamide (PFOSA)	N-ethyl perfluorooctane sulfonamide (EtFOSA)	N-methyl perfluorooctane sulfonamide (MeFOSA)	N-ethyl perfluorooctanesulfonamido ethanol (EtFOSE)	N-methyl perfluorooctanesulfonamido ethanol (MeFOSE)	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propanoic acid (HFPO-DA)
			375-22-4	2706-90-3	307-24-4	375-85-9	335-67-1	375-95-1	335-76-2	2058-94-8	307-55-1	72629-94-8	376-06-7	375-73-5	355-46-4	375-92-8	1763-23-1	335-77-3	27619-97-2	39108-34-4	754-91-6	4151-50-2	31506-32-8	1691-99-2	24448-09-7	2991-50-6	2355-31-9	13252-13-6
		GW-1 (AGQS)	NS	NS	NS	NS	12	11	NS	NS	NS	NS	NS	NS	18	NS	15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
159 Main St	05/21/19	U10-41	<4	<4	<9.2	<4	<1.6	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4			<4	<4	<4	<4	
159 Main St	09/26/19	U10-41	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81	<1.81			<45.3	<45.3	<1.81	<1.81	
159 Main St-Mid	05/21/19	U10-41	<4	<4	<9.2	<4	<1.6	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4			<4	<4	<4	<4	
159 Main St-Mid	09/26/19	U10-41	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88			<47	<47	<1.88	<1.88	
159 Main St-Post	05/21/19	U10-41	<4.4	<4.4	<9.2	<4.4	<1.8	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4			<4.4	<4.4	<4.4	<4.4	
159 Main St-Post	09/26/19	U10-41	<1.86	<1.86	<1.86	<1.86	<1.86	<1.86	<1.86	<1.86	<1.86	<1.86	<1.86	<1.86	<1.86	<1.86	<1.86	<1.86	<1.86	<1.86	<1.86			<46.6	<46.6	<1.86	<1.86	
161 Main St	05/21/19	U10-40	5.5	15	18	25	**110**	**12**	<4.2	<4.2	<4.2	<4.2	<4.2	5.3	**20**	8.2	**180**	<4.2	<4.2	<4.2	<4.2	<4.2			<4.2	<4.2	<4.2	<4.2	
161 Main St	05/21/19	U10-40	6.5	13	20	21	**150**	**12**	<4.2	<4.2	<4.2	<4.2	<4.2	6.3	**20**	8.7	**220**	<4.2	<4.2	<4.2	<4.2	<4.2			<4.2	<4.2	<4.2	<4.2	
161 Main St	09/30/19	U10-40	13.3	34.7	41.9	40.9	**213**	**16**	3.3	<1.84	<1.84	<1.84	<1.84	10.2	41.6	8.3	**326**	<1.84	<1.84	<1.84	<1.84	<1.84			<46	<46	<1.84	<1.84	
161 Main St	01/27/20	U10-40	5.46	15.4	16.8	16.6	**109**	10.9						7.88	**23.8**		**244**												
161 Main St	03/01/21	U10-40	5.6	10.7	12.2	12.5	**127**	**16.5**						10.6	**26.2**		**408**												
161 Main St	01/17/22	U10-40	17.1	66.8	49.8	29.4	**161**	**14.9**						10.3	**20.0**		**464**												
161 Main St	01/18/23	U10-40	10.3	27.3	30	18.8	**89.7**	**17.1**						7.62	13.5		**341**												
161 Main St-Mid	05/21/19	U10-40	<4.3	<4.3	<9.2	<4.3	<1.7	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3			<4.3	<4.3	<4.3	<4.3	
161 Main St-Mid	09/30/19	U10-40	<1.85	<1.85	<1.85	<1.85	<1.85	<1.85	<1.85	<1.85	<1.85	<1.85	<1.85	<1.85	<1.85	<1.85	<1.85	<1.85	<1.85	<1.85	<1.85			<46.3	<46.3	<1.85	<1.85	
161 Main St-Mid	01/27/20	U10-40	3.09	8.62	6.38	5.34	**31.5**	2.25						2.15	4.37		**32.9**												
161 Main St-Mid	03/01/21	U10-40	2.29	<2	<2	<2	<2	<2						<2	<2		<2												
161 Main St-Mid	01/17/22	U10-40	4.18	6.26	2.65	<2	8.46	<2						<2	<2		**19.9**												
161 Main St-Mid	01/18/23	U10-40	12.9	14.5	10.1	3.68	**12.5**	<2						<2	<2		5.72												
161 Main St-Post	05/21/19	U10-40	5.8	15	19	22	**120**	**12**	<4.3	<4.3	<4.3	<4.3	<4.3	5.1	**22**	8.3	**200**	<4.3	<4.3	<4.3	<4.3	<4.3			<4.3	<4.3	<4.3	<4.3	
161 Main St-Post	05/21/19	U10-40	6	12	18	19	**130**	**12**	<4.1	<4.1	<4.1	<4.1	<4.1	5.9	**19**	7.2	**200**	<4.1	<4.1	<4.1	<4.1	<4.1			<4.1	<4.1	<4.1	<4.1	
161 Main St-Post	07/08/19	U10-40	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82			<1.82	<1.82	<1.82	<1.82	
161 Main St-Post	09/30/19	U10-40	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72	<1.72			<43.1	<43.1	<1.72	<1.72	
161 Main St-Post	01/27/20	U10-40	<2	<2	<2	<2	<2	<2						<2	<2		<2												
161 Main St-Post	03/01/21	U10-40	<2	<2	<2	<2	<2	<2						<2	<2		<2												
161 Main St-Post	01/17/22	U10-40	<2	<2	<2	<2	<2	<2						<2	<2		<2												
161 Main St-Post	01/18/23	U10-40	3.35	<2	<2	<2	<2	<2						<2	<2		<2												
7 Rockrimmon Rd	02/01/17	U10-2				<2	<2	<2						<9	<3		<4												
7 Rockrimmon Rd	03/16/17	U10-2				<2	<2	<2						<9	<3		<4												
7 Rockrimmon Rd	05/02/17	U10-2				121	**93**	**13**						<9	<3		<4												

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			Perfluoroalkyl Carboxylic Acids											Perfluoroalkyl Sulfonic Acids					Fluorotelomers		Perfluoroalkane Sulfonamides			Perfluoroalkane Sulfonyl Substances				Per- and Polyfluoroalkyl Ether Carboxylic Acids
			Perfluorobutanoic Acid (PFBA) [3]	Perfluoropentanoic Acid (PFPeA) [4]	Perfluorohexanoic Acid (PFHxA) [5]	Perfluoroheptanoic Acid (PFHpA) [6]	Perfluorooctanoic Acid (PFOA) [7]	Perfluorononanoic Acid (PFNA) [8]	Perfluorodecanoic Acid (PFDA) [9]	Perfluoroundecanoic Acid (PFUnA) [10]	Perfluorododecanoic Acid (PFDoA) [11]	Perfluorotridecanoic Acid (PFTrDA) [12]	Perfluorotetradecanoic Acid (PFTeA) [13]	Perfluorobutanesulfonic Acid (PFBS) [4S]	Perfluorohexanesulfonic Acid (PFHxS) [6S]	Perfluoroheptanesulfonic Acid (PFHpS) [7S]	Perfluorooctanesulfonic Acid (PFOS) [8S]	Perfluorodecanesulfonic Acid (PFDS) [10S]	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	Perfluorooctanesulfonamide (PFOSA)	N-ethyl perfluorooctane sulfonamide (EtFOSA)	N-methyl perfluorooctane sulfonamide (MeFOSA)	N-ethyl perfluorooctanesulfonamido ethanol (EtFOSE)	N-methyl perfluorooctanesulfonamido ethanol (MeFOSE)	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propanoic acid (HFPO-DA)
			375-22-4	2706-90-3	307-24-4	375-85-9	335-67-1	375-95-1	335-76-2	2058-94-8	307-55-1	72629-94-8	376-06-7	375-73-5	355-46-4	375-92-8	1763-23-1	335-77-3	27619-97-2	39108-34-4	754-91-6	4151-50-2	31506-32-8	1691-99-2	24448-09-7	2991-50-6	2355-31-9	13252-13-6
		GW-1 (AGQS)	NS	NS	NS	NS	12	11	NS	NS	NS	NS	NS	NS	18	NS	15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
7 Rockrimmon Rd	07/20/17	U10-2				33	**31**	6						<9	<3		<4												
7 Rockrimmon Rd	12/12/17	U10-2	20	72	51	41	**29**	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	7.4	<4.6	<4.6	<4.6	<4.6	18	5.7	<4.6	<4.6	<4.6	<4.6	<4.6			<4.6
7 Rockrimmon Rd	01/18/18	U10-2				22	**25**	3						<9	<3		4												
7 Rockrimmon Rd	01/22/19	U10-2	68	230	150	120	**43**	4.4 J	<4.7	<4.7	<4.7	<4.7	<4.7	6.7	1.8 J	<4.7	1.7 J	<4.7	18	4.5 J	<4.7			<4.7	<4.7	<4.7	<4.7	
7 Rockrimmon Rd	05/20/19	U10-2	45	190	120	110	**51**	5.2	<4.2	<4.2	<4.2	<4.2	<4.2	6.8	<4.2	<4.2	4.3	<4.2	8.9	4.3	<4.2			<4.2	<4.2	<4.2	<4.2	
7 Rockrimmon Rd	09/30/19	U10-2	65.8	253	164	165	**82.3**	**20.3**	<1.89	<1.89	<1.89	<1.89	<1.89	6.94	<1.89	<1.89	<1.89	<1.89	57.6	5.75	<1.89			<47.3	<47.3	<1.89	<1.89	
7 Rockrimmon Rd	01/30/20	U10-2	28.6	102	68.8	59.5	**29.8**	6.46						3.69	<2		<2											
7 Rockrimmon Rd	01/26/21	U10-2	15.6	48.6	30.2	25.3	**21.4**	3.32						4.92	<2		3.54											
7 Rockrimmon Rd	02/03/22	U10-2	8.19	20.1	13.6	11.3	9.18	<2						2.39	<2		2.39											
7 Rockrimmon Rd	01/18/23	U10-2	22.9	69.3	50.8	50.9	**30.7**	5.14						7.35	<2		4.06											
7 Rockrimmon Rd-Mid	02/01/17	U10-2				<2	<2	<2						<9	<3		<4											
7 Rockrimmon Rd-Mid	03/16/17	U10-2				<2	<2	<2						<9	<3		<4											
7 Rockrimmon Rd-Mid	07/20/17	U10-2				<2	<2	<2						<9	<3		<4											
7 Rockrimmon Rd-Mid	12/12/17	U10-2	<9.3	<4.6	<4.6	<4.6	<1.9	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6			<4.6
7 Rockrimmon Rd-Mid	01/18/18	U10-2				<2	<2	<2						<9	<3		<4											
7 Rockrimmon Rd-Mid	01/22/19	U10-2	<4.6	<4.6	<9.3	<4.6	0.41 J	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	1.6 J	<4.6	<4.6			<4.6	<4.6	<4.6	<4.6	
7 Rockrimmon Rd-Mid	05/20/19	U10-2	<4.4	<4.4	<9.2	<4.4	<1.8	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4			<4.4	<4.4	<4.4	<4.4	
7 Rockrimmon Rd-Mid	09/30/19	U10-2	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84	<1.84			<46	<46	<1.84	<1.84	
7 Rockrimmon Rd-Mid	01/30/20	U10-2	<2	<2	<2	<2	<2	<2						<2	<2		<2											
7 Rockrimmon Rd-Mid	01/26/21	U10-2	<2	<2	<2	<2	<2	<2						<2	<2		<2											
7 Rockrimmon Rd-Mid	02/03/22	U10-2	<2	<2	<2	<2	<2	<2						<2	<2		<2											
7 Rockrimmon Rd-Mid	01/18/23	U10-2	<2	<2	<2	<2	<2	<2						<2	<2		<2											
7 Rockrimmon Rd-Post	02/01/17	U10-2				<2	<2	<2						<9	<3		<4											
7 Rockrimmon Rd-Post	03/16/17	U10-2				<2	<2	<2						<9	<3		<4											
7 Rockrimmon Rd-Post	07/20/17	U10-2				<2	<2	<2						<9	<3		<4											
7 Rockrimmon Rd-Post	12/12/17	U10-2	<9.4	<4.7	<4.7	<4.7	<1.9	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7			<4.7
7 Rockrimmon Rd-Post	01/18/18	U10-2				<2	<2	<2						<9	<3		<4											
7 Rockrimmon Rd-Post	01/22/19	U10-2	<4.6	<4.6	<9.3	<4.6	0.48 J	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	1.6 J	<4.6	<4.6			<4.6	<4.6	<4.6	<4.6	
7 Rockrimmon Rd-Post	05/20/19	U10-2	<4.4	<4.4	<9.2	<4.4	<1.8	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4			<4.4	<4.4	<4.4	<4.4	
7 Rockrimmon Rd-Post	09/30/19	U10-2	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88			<47	<47	<1.88	<1.88	

Table 5
Summary of Point of Entry Treatment System Analytical Results
Kingston Fire Department
148 Main Street, Kingston, NH

Location	Sample Date	Tax Map/Lot	Concentrations in ng/L																										
			Perfluoroalkyl Carboxylic Acids											Perfluoroalkyl Sulfonic Acids					Fluorotelomers		Perfluoroalkane Sulfonamides			Perfluoroalkane Sulfonyl Substances				Per- and Polyfluoroalkyl Ether Carboxylic Acids
			Perfluorobutanoic Acid (PFBA) [3]	Perfluoropentanoic Acid (PFPeA) [4]	Perfluorohexanoic Acid (PFHxA) [5]	Perfluoroheptanoic Acid (PFHpA) [6]	Perfluorooctanoic Acid (PFOA) [7]	Perfluorononanoic Acid (PFNA) [8]	Perfluorodecanoic Acid (PFDA) [9]	Perfluoroundecanoic Acid (PFUnA) [10]	Perfluorododecanoic Acid (PFDoA) [11]	Perfluorotridecanoic Acid (PFTrDA) [12]	Perfluorotetradecanoic Acid (PFTeA) [13]	Perfluorobutanesulfonic Acid (PFBS) [4S]	Perfluorohexanesulfonic Acid (PFHxS) [6S]	Perfluoroheptanesulfonic Acid (PFHpS) [7S]	Perfluorooctanesulfonic Acid (PFOS) [8S]	Perfluorodecanesulfonic Acid (PFDS) [10S]	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	Perfluorooctanesulfonamide (PFOSA)	N-ethyl perfluorooctane sulfonamide (EtFOSA)	N-methyl perfluorooctane sulfonamide (MeFOSA)	N-ethyl perfluorooctanesulfonamido ethanol (EtFOSE)	N-methyl perfluorooctanesulfonamido ethanol (MeFOSE)	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propanoic acid (HFPO-DA)
			375-22-4	2706-90-3	307-24-4	375-85-9	335-67-1	375-95-1	335-76-2	2058-94-8	307-55-1	72629-94-8	376-06-7	375-73-5	355-46-4	375-92-8	1763-23-1	335-77-3	27619-97-2	39108-34-4	754-91-6	4151-50-2	31506-32-8	1691-99-2	24448-09-7	2991-50-6	2355-31-9	13252-13-6
		GW-1 (AGQS)	NS	NS	NS	NS	12	11	NS	NS	NS	NS	NS	NS	18	NS	15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
7 Rockrimmon Rd-Post	01/30/20	U10-2	<2	<2	<2	<2	<2	<2						<2	<2		<2												
7 Rockrimmon Rd-Post	01/26/21	U10-2	<2	<2	<2	<2	<2	<2						<2	<2		<2												
7 Rockrimmon Rd-Post	02/03/22	U10-2	<2	<2	<2	<2	<2	<2						<2	<2		<2												
7 Rockrimmon Rd-Post	01/18/23	U10-2	<2	<2	<2	<2	<2	<2						<2	<2		<2												
9 Rockrimmon Rd	03/16/17	U10-1				140	**77**	4						<9	<3		<4												
9 Rockrimmon Rd	07/20/17	U10-1				110	**70**	<2						<9	<3		<4												
9 Rockrimmon Rd	12/12/17	U10-1	60	250	140	120	**74**	6.7	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	380	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6			<4.6
9 Rockrimmon Rd	01/18/18	U10-1				100	**70**	5						<9	<3		<4												
9 Rockrimmon Rd	01/23/19	U10-1	60	220	140	110	**94**	6.5	<4.1	<4.1	<4.1	<4.1	<4.1	1.3 J	2.9 J	<4.1	5	<4.1	490	7.7	<4.1			0.2 J	0.46 J	<4.1	<4.1	
9 Rockrimmon Rd	05/22/19	U10-1	64	260	150	140	**100**	7.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	4.7	<4.4	390	7.4	<4.4			<4.4	<4.4	<4.4	<4.4	
9 Rockrimmon Rd	09/30/19	U10-1	59.4	242	145	128	**94.1**	6.37	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	<1.94	4.1	<1.94	427	12.8	<1.94			<48.4	<48.4	<1.94	<1.94	
9 Rockrimmon Rd	01/28/20	U10-1	60.5	259	150	131	**101**	7.63						<2.01	<2.01		5.03												
9 Rockrimmon Rd	02/15/21	U10-1	55.5	214	130	118	**107**	9.12						2.2	<2		4.68												
9 Rockrimmon Rd	01/17/22	U10-1	47.9	193	110	106	**80.4**	6.93						<2	<2		4.29												
9 Rockrimmon Rd	01/18/23	U10-1	38	154	94.7	91.5	**70.6**	7.66						2.29	<2		3.74												
9 Rockrimmon Rd-Mid	03/16/17	U10-1				<2	<2	<2						<9	<3		<4												
9 Rockrimmon Rd-Mid	07/20/17	U10-1				<2	<2	<2						<9	<3		<4												
9 Rockrimmon Rd-Mid	12/12/17	U10-1	<9.1	<4.5	<4.5	<4.5	<1.8	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5			<4.5
9 Rockrimmon Rd-Mid	01/18/18	U10-1				<2	<2	<2						<9	<3		<4												
9 Rockrimmon Rd-Mid	01/23/19	U10-1	<4.2	<4.2	<9.2	<4.2	0.65 J	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	1.8 J	<4.2	0.85 J			<4.2	<4.2	<4.2	<4.2	
9 Rockrimmon Rd-Mid	05/22/19	U10-1	<4.2	<4.2	<9.2	<4.2	<1.7	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2			<4.2	<4.2	<4.2	<4.2	
9 Rockrimmon Rd-Mid	09/30/19	U10-1	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9			<47.5	<47.5	<1.9	<1.9	
9 Rockrimmon Rd-Mid	01/28/20	U10-1	<2	<2	<2	<2	<2	<2						<2	<2		<2												
9 Rockrimmon Rd-Mid	02/15/21	U10-1	71.6	<2	<2	<2	<2	<2						<2	<2		<2												
9 Rockrimmon Rd-Mid	01/17/22	U10-1	3.94	<2	<2	<2	<2	<2						<2	<2		<2												
9 Rockrimmon Rd-Mid	01/18/23	U10-1	38	93.7	<2	<2	<2	<2						<2	<2		<2												
9 Rockrimmon Rd-Post	03/16/17	U10-1				<2	<2	<2						<9	<3		<4												
9 Rockrimmon Rd-Post	07/20/17	U10-1				<2	<2	<2						<9	<3		<4												
9 Rockrimmon Rd-Post	12/12/17	U10-1	<9.1	<4.5	<4.5	<4.5	<1.8	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5			<4.5
9 Rockrimmon Rd-Post	01/18/18	U10-1				<2	<2	<2						<9	<3		<4												

Table 5
Summary of Point of Entry Treatment System Analytical Results
Kingston Fire Department
148 Main Street, Kingston, NH

Location	Sample Date	Tax Map/Lot	Concentrations in ng/L																									
			Perfluoroalkyl Carboxylic Acids											Perfluoroalkyl Sulfonic Acids					Fluorotelomers		Perfluoroalkane Sulfonamides			Perfluoroalkane Sulfonyl Substances				Per- and Polyfluoroalkyl Ether Carboxylic Acids
			Perfluorobutanoic Acid (PFBA) [3]	Perfluoropentanoic Acid (PFPeA) [4]	Perfluorohexanoic Acid (PFHxA) [5]	Perfluoroheptanoic Acid (PFHpA) [6]	Perfluorooctanoic Acid (PFOA) [7]	Perfluorononanoic Acid (PFNA) [8]	Perfluorodecanoic Acid (PFDA) [9]	Perfluoroundecanoic Acid (PFUnA) [10]	Perfluorododecanoic Acid (PFDoA) [11]	Perfluorotridecanoic Acid (PFTrDA) [12]	Perfluorotetradecanoic Acid (PFTeA) [13]	Perfluorobutanesulfonic Acid (PFBS) [4S]	Perfluorohexanesulfonic Acid (PFHxS) [6S]	Perfluoroheptanesulfonic Acid (PFHpS) [7S]	Perfluorooctanesulfonic Acid (PFOS) [8S]	Perfluorodecanesulfonic Acid (PFDS) [10S]	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	Perfluorooctanesulfonamide (PFOSA)	N-ethyl perfluorooctane sulfonamide (EtFOSA)	N-methyl perfluorooctane sulfonamide (MeFOSA)	N-ethyl perfluorooctanesulfonamido ethanol (EtFOSE)	N-methyl perfluorooctanesulfonamido ethanol (MeFOSE)	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propanoic acid (HFPO-DA)
			375-22-4	2706-90-3	307-24-4	375-85-9	335-67-1	375-95-1	335-76-2	2058-94-8	307-55-1	72629-94-8	376-06-7	375-73-5	355-46-4	375-92-8	1763-23-1	335-77-3	27619-97-2	39108-34-4	754-91-6	4151-50-2	31506-32-8	1691-99-2	24448-09-7	2991-50-6	2355-31-9	13252-13-6
		GW-1 (AGQS)	**NS**	**NS**	**NS**	**NS**	**12**	**11**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**18**	**NS**	**15**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**
9 Rockrimmon Rd-Post	01/23/19	U10-1	<4.2	<4.2	<9.2	<4.2	0.44 J	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	0.63 J	<4.2	<4.2			<4.2	<4.2	<4.2	<4.2	
9 Rockrimmon Rd-Post	05/22/19	U10-1	<4.5	<4.5	<9.2	<4.5	<1.8	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5			<4.5	<4.5	<4.5	<4.5	
9 Rockrimmon Rd-Post	09/30/19	U10-1	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	<1.88	3.53	<1.88	<1.88			<47	<47	<1.88	<1.88	
9 Rockrimmon Rd-Post	01/28/20	U10-1	<2	<2	<2	<2	<2	<2						<2	<2		<2											
9 Rockrimmon Rd-Post	02/15/21	U10-1	<2	<2	<2	<2	<2	<2						<2	<2		<2											
9 Rockrimmon Rd-Post	01/17/22	U10-1	<2	<2	<2	<2	<2	<2						<2	<2		<2											
9 Rockrimmon Rd-Post	01/18/23	U10-1	<2	<2	<2	<2	<2	<2						<2	<2		<2											

Notes:
1. Historical sample data was tabulated from lab electronic data deliverables, from Alpha Analytical Inc. or ALS Environmental or taken from Table 2 of the "Data Submittal for December 2019 Sampling Event" Report by Stantec Consulting Services, Inc., submitted April 21, 2022.

2. Concentrations are presented in nanograms per liter (ng/L) which are equivalent to parts per trillion (ppt).

3. "<" indicates the analyte was not detected above the indicated laboratory reporting limit (RL).
"ND" indicates the analyte was not detected above the laboratory reporting limit.
"J" indicates the result is estimated.
A blank cell indicates the sample was not analyzed for this analyte.
[3] = number of carbons in the perfluorinated alkyl chain for perfluorinated carboxylic acids (PFCAs). The carbon included in the carboxylic functional group is non-fluorinated.
[4S] = number of carbons in the perfluorinated alkyl chain for perfluorinated sulfonic acids (PFSAs). All of the carbons are fluorinated.

4. "GW-1" refers to the New Hampshire GW-1 Groundwater Standards as defined in New Hampshire Department of Environmental Services (NHDES) Contaminated Sites Risk Characterization and Management Policy (RCMP) (January 1998, with 2000 through 2018 revisions/addenda). GW-1 Groundwater Standards are intended to be equivalent to the Ambient Groundwater Quality Standards (AGQSs) promulgated in Env-Or 600 (June 2015 with October 2016, September 2018, September 2019, May 2020, January 2021 and July 2021 amendments). For analytes where GW-1 and AGQS values differ, the values presented in this table reflect the AGQSs in the latest Env-Or 600 update. The AGQS/GW-1 Groundwater Standards are intended to be protective of groundwater as a source of drinking water.

5. "NS" indicates the analyte is not listed in the RCMP.

6. **Bold** values exceed the MCL/GW-1 (AGQS) Groundwater Standard.

7. "Mid" water samples are collected between the lead and lag carbon treatment tanks; "Post" water samples are collected post treatment and represent the water being consumed. Water samples are collected after the treatment system has been operating for a year, just prior to replacing the carbon in the treatment tanks. If there is significant breakthrough in the mid sample, the carbon in both tanks is replaced, if not, then the carbon in the lead tank is replaced and the lead/lag tanks are switched.

Table 6
Summary of Groundwater Elevations
Kingston Fire Department
148 Main Street, Kingston, NH

Location	Measurement Date	Reference Elevation (ft)	Depth to Water (ft ref. pt.)	Groundwater Elevation (ft)
MW-1	12/12/17	95.79	10.16	85.63
MW-1	01/03/18	95.79	10.28	85.51
MW-1	01/25/19	95.79	7.51	88.28
MW-1	05/21/19	95.79	8.22	87.57
MW-1	09/09/19	95.79	9.76	86.03
MW-2	12/12/17	97.04	11.29	85.75
MW-2	01/03/18	97.04	11.44	85.60
MW-2	01/25/19	97.04	9.01	88.03
MW-2	05/21/19	97.04	9.44	87.60
MW-2	09/09/19	97.04	10.92	86.12
MW-3	12/12/17	97.06	11.50	85.56
MW-3	01/03/18	97.06	11.61	85.45
MW-3	01/25/19	97.06	9.32	87.74
MW-3	05/21/19	97.06	9.71	87.35
MW-3	09/09/19	97.06	11.16	85.90
MW-4	12/12/17	96.53	11.05	85.48
MW-4	01/03/18	96.53	11.20	85.33
MW-4	01/25/19	96.53	9.02	87.51
MW-4	05/21/19	96.53	9.34	87.19
MW-4	09/09/19	96.53	10.79	85.74
MW-5	12/12/17	96.52	11.10	85.42
MW-5	01/03/18	96.52	11.21	85.31
MW-5	01/25/19	96.52	9.10	87.42
MW-5	05/21/19	96.52	9.46	87.06
MW-5	09/09/19	96.52	10.82	85.70
MW-6	12/12/17	96.88	11.41	85.47
MW-6	01/03/18	96.88	11.52	85.36
MW-6	01/25/19	96.88	9.37	87.51
MW-6	05/21/19	96.88	9.76	87.12
MW-6	09/09/19	96.88	11.14	85.74

Notes:
1. Historical measurements were taken from Table 1 of the "Data Submittal for December 2019 Interim Groundwater Quality Monitoring Program" by Stantec Consulting Services, Inc., submitted April 21, 2022.

2. Reference elevation is in reference to a 100.00-foot site-specific datum (top of electric box at rear of building).

3. Fluctuations in groundwater elevations may occur due to variations in temperature, rainfall, and/or other factors.

Table 7
Mann-Kendall Trend Test Summary for PFOA+PFOS+PFHxS+PFNA
Kingston Fire Department
148 Main Street, Kingston, NH

Parcel	Street Address	Well Type	Depth (feet)	Mann-Kendall Trend
U11-31	6 Colcord Rd	BR	-	Stable
U11-10	144 Main St	Unk	-	Decreasing
U11-13	148 Main St	OB	17	No Trend
U9-8	149 Main St	OB	35	Stable
U10-42	157 Main St	OB	25	Stable
U10-40	161 Main St	Unk	-	Stable
U10-3	5 Rockrimmon Rd	OB	-	Stable
U10-2	7 Rockrimmon Rd	Unk	-	Probably Decreasing
U10-1	9 Rockrimmon Rd	BR	100	No Trend
U11-28	12 Rockrimmon Rd	OB	45	Stable

Notes:
1. The maximum annual concentration (PFOA+PFOS+PFHxS+PFNA) from samples collected between September 2019 and February 2023 were used for the Trend Test.

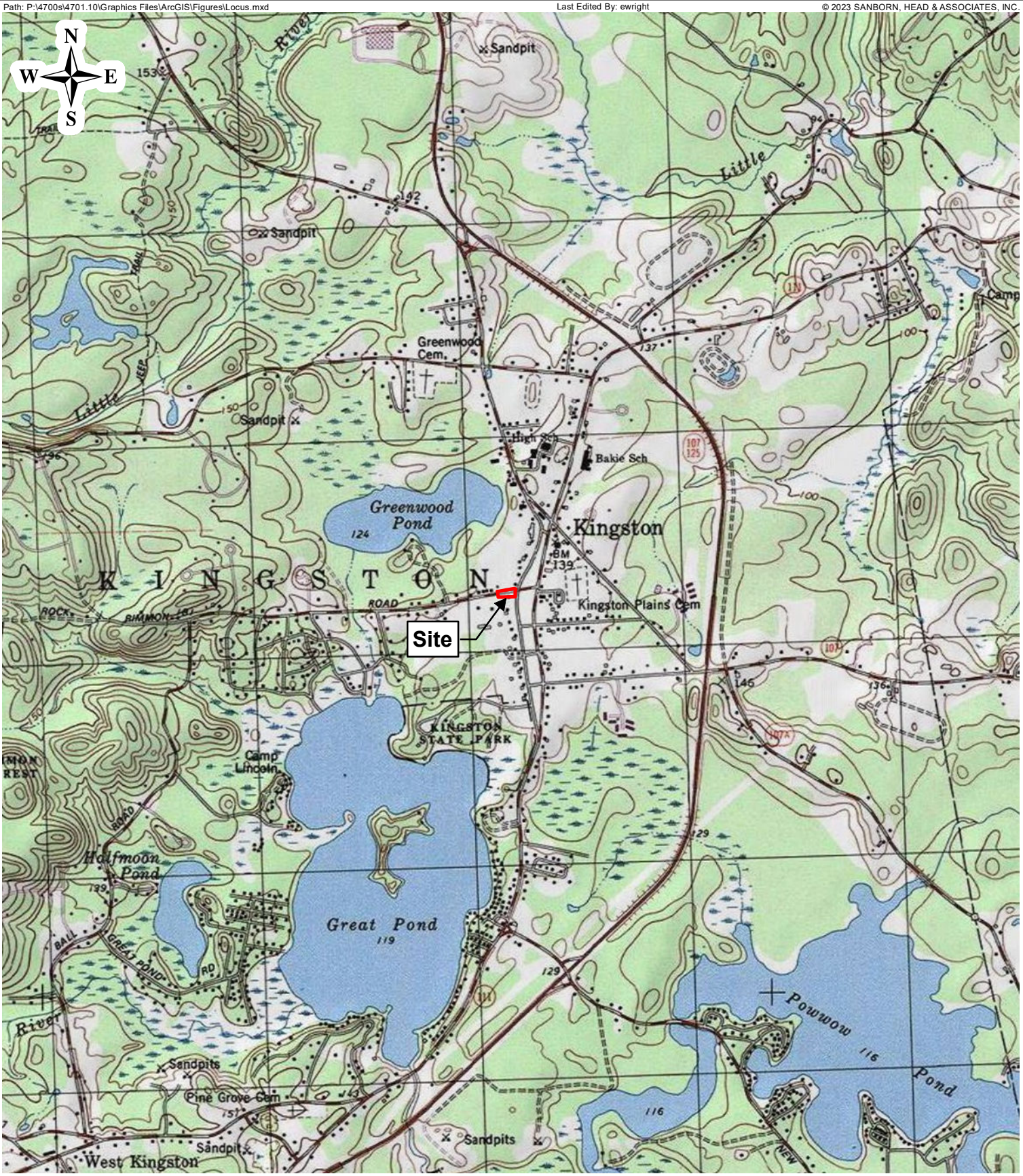
2. The Trend Test was conducted for locations sampled during at least four calendar years.

3. **Increasing** or **Decreasing** indicates that the confidence factor of an increasing or decreasing trend is greater than 95 percent**. Probably Increasing** or **Probably Decreasing** indicates that the confidence factor of an increasing or decreasing trend is greater than 90 and less than 95 percent**. Stable** indicates that the confidence factor of a decreasing trend is less than 90 percent and the concentrations are relatively constant (coefficient of variation is less than 1). **No Trend** indicates that either (i) the confidence factor of an increasing trend is less than 90 percent or (ii) the confidence factor of a decreasing trend is less than 90 percent and the concentrations are variable (coefficient of variation is greater than or equal to 1).

4. Well Type - OB: overburden well; BR: Bedrock well, Unk: unknown well type

5. Depth - reported depth of well in feet; "-" where unknown.

Figures



Drawn By: E. Wright
Designed By: A. Sheeham
Reviewed By: S. Zemba
Project No: 4701.01
Date: May 2023

1,000 500 0 1,000 2,000 Feet

SANBORN HEAD

Figure 1

Locus Plan

Kingston Fire Station
148 Main Street
Kingston, New Hampshire

Figure 2

Former Fire Station Site Features Plan

Kingston Fire Station
148 Main Street
Kingston, New Hampshire

Drawn By: E. Wright
Designed By: A. Sheehan
Reviewed By: S. Zemba
Project No: 4701.01
Date: May 2023

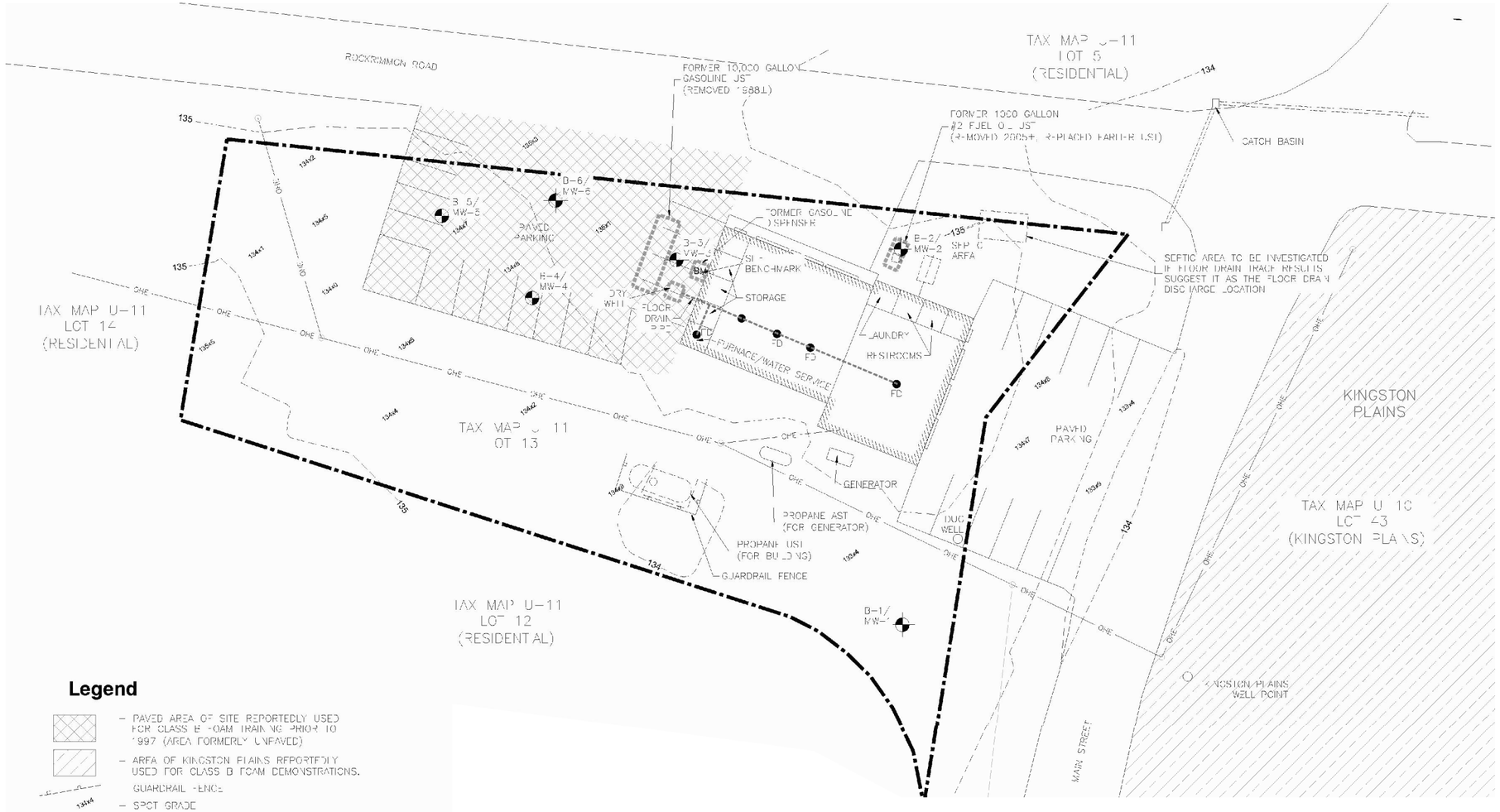
Figure Narrative

This figure shows the location of the former fire station and underground features associate with it.

Notes

1. Base plan based on a plan entitled, "Site Plan" dated March 15, 2018. Prepared for the Town of Kingston by Stantec Consulting Services Inc. of Auburn, New Hampshire.

2. Location of site features should be considered approximate.



Legend

- PAVED AREA OF SITE REPORTEDLY USED FOR CLASS B FOAM TRAINING PRIOR TO 1997 (AREA FORMERLY UNPAVED)
- AREA OF KINGSTON PLAINS REPORTEDLY USED FOR CLASS B FOAM DEMONSTRATIONS.
- GUARDRAIL FENCE
- 1344 – SPOT GRADE
- 135 – TOPOGRAPHIC CONTOUR LINE
- APPROXIMATE SITE BOUNDARY
- MW-1 – BORING / WELL LOCATION
- DUG WELL / WELL POINT
- FD – FLOOR DRAIN
- OHE – APPROXIMATE OVERHEAD ELECTRIC

N
W
E
S

20 10 0 20 40 Feet

SANBORN HEAD

File P:\4700s\4701.10\Graphics Files\CAD\Initial Site Visit\SitePlan.dwg Plot Date: 4-24-23

Figure 3

Current and Former Fire Station Site Features Plan

Kingston Fire Station
148 Main Street
Kingston, New Hampshire

Drawn By: E. Wright
Designed By: A. Sheehan
Reviewed By: S. Zemba
Project No: 4701.01
Date: May 2023

Figure Narrative

This figure shows the location of the former fire station and underground features associate with it. Also shown is the current fire station and its associated underground structures.

Notes

1. Base plan provided by Civil Construction Management on December 1, 2022.

Legend

- B-2/MW-2 — Former soil boring/monitoring well
- TP-2 — Test pit
- D — Drain pipe
- W — Waterline
- S — Sanitary pipe
- UU — Underground utility
- Utility pole

N W E S

20 10 0 20 40 Feet

SANBORN HEAD

File:P:\4700s\4701.10\Graphics Files\CAD\Initial Site Visit\SitePlan.dwg Plot Date: 4-24-23

Figure 4

Summary of PFAS Groundwater Sampling Results

Kingston Fire Station
148 Main Street
Kingston, New Hampshire

Drawn By:	H. LaPointe
Designed By:	A. Sheehan
Reviewed By:	S. Zemba
Project No:	4701.01
Date:	May 2023

Figure Narrative

This figure displays the site and surrounding properties. Also shown is a summary of private well PFAS sampling results, based on the detected concentration in samples collected between December 2022 and February 2023, or for wells not sampled since December 2022, based on the maximum concentration detected in samples collected between September 2016 and December 2019.

Notes

1. World Topographic Map Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community.

2. Parcel boundaries downloaded from NH Granit Geodata Portal May 5, 2023.

Legend

- Approximate Site boundary
- Site Buffer - 1,000 feet
- Residence with point of entry treatment system maintained by the Town of Kingston
- Residence with supplied bottled water
- Approximate parcel boundary
- U9-6 — Well recommended for sampling but no sample collected
- Well decomissioned in 2022
- U10-22 — No Well

Legend (Continued)

PFAS Concentrations in ng/L

- No PFAS detected
- PFAS detected but </=0.5 AGQS
- PFAS > 0.5 AGQS and </= AGQS
- PFAS > AGQS
- Wells Sampled 9/16 to 12/19
- Wells Sampled 12/22 to 2/23

*PFAS refers to concentrations of the four regulated compounds - PFOA, PFOS, PFHxS and PFNA

Ambient Groundwater Quality Standards (AGQS): PFOA - 12 ng/L; PFOS - 15 ng/L; PFHxS - 18 ng/L; PFNA - 11 ng/L

200 100 0 200 400 Feet

SANBORN HEAD

Figure 5

Groundwater Elevation Contour Plan

Kingston Fire Station
148 Main Street
Kingston, New Hampshire

Drawn By: E. Wright
Designed By: A. Sheehan
Reviewed By: S. Zemba
Project No: 4701.01
Date: May 2023

Figure Narrative

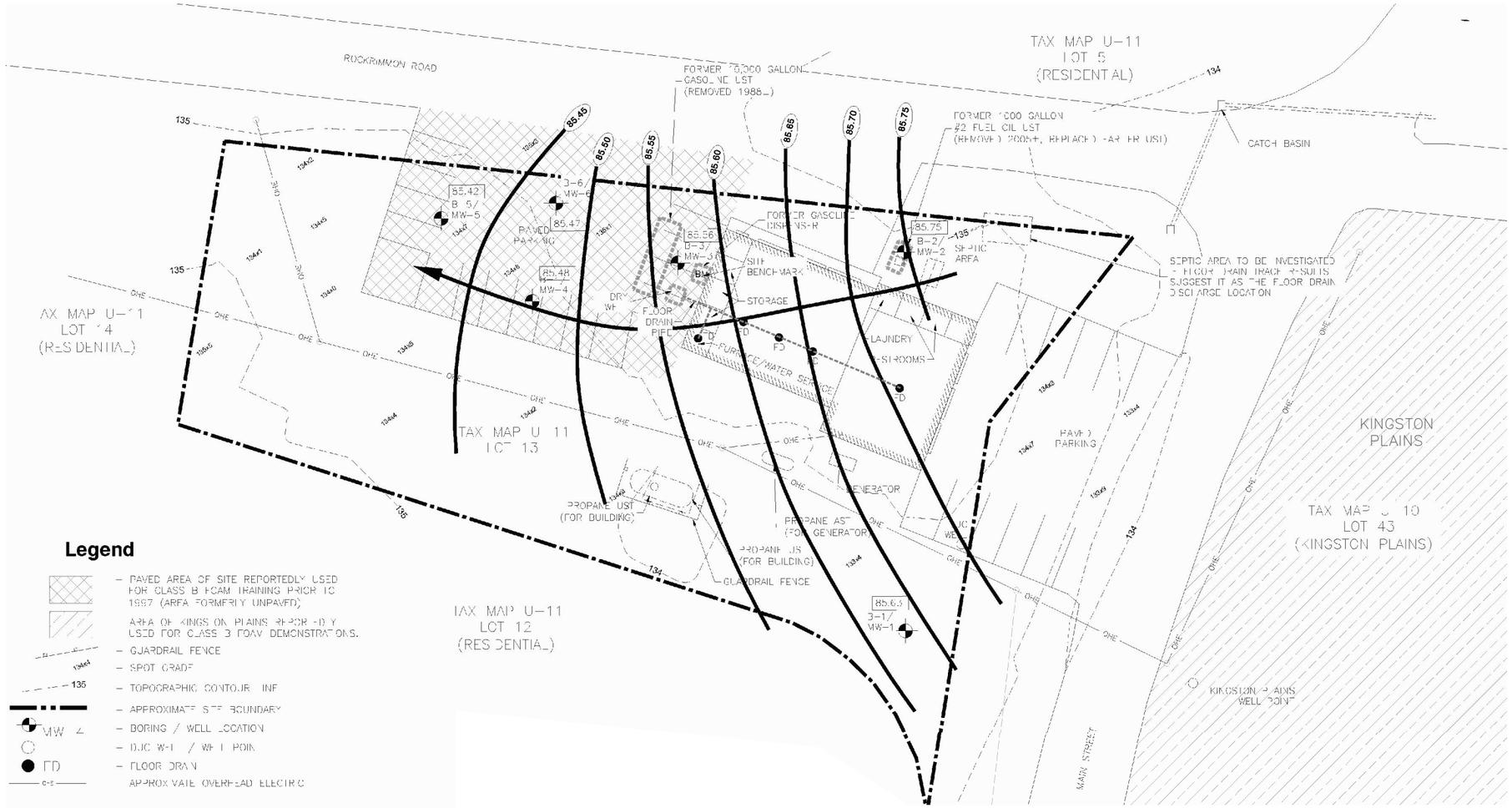
This figure shows the location of the former fire station and underground features associate with it. Groundwater elevations measured on December 12, 2017 are also shown.

Notes

1. Base plan based on a plan entitled, "Groundwater Flow" dated March 15, 2018. Prepared for the Town of Kingston by Stantec Consulting Services Inc. of Auburn, New Hampshire.

2. Location of site features should be considered approximate.

3. Different elevation datums were used for site topography and groundwater levels.



N
W
E
S

20 10 0 20 40 Feet

SANBORN HEAD

Last Edited By: hlapointe
Path: P:\4700s\4701.10\Graphics Files\ArcGIS\Figures\202302 Figures\PFOA.mxd

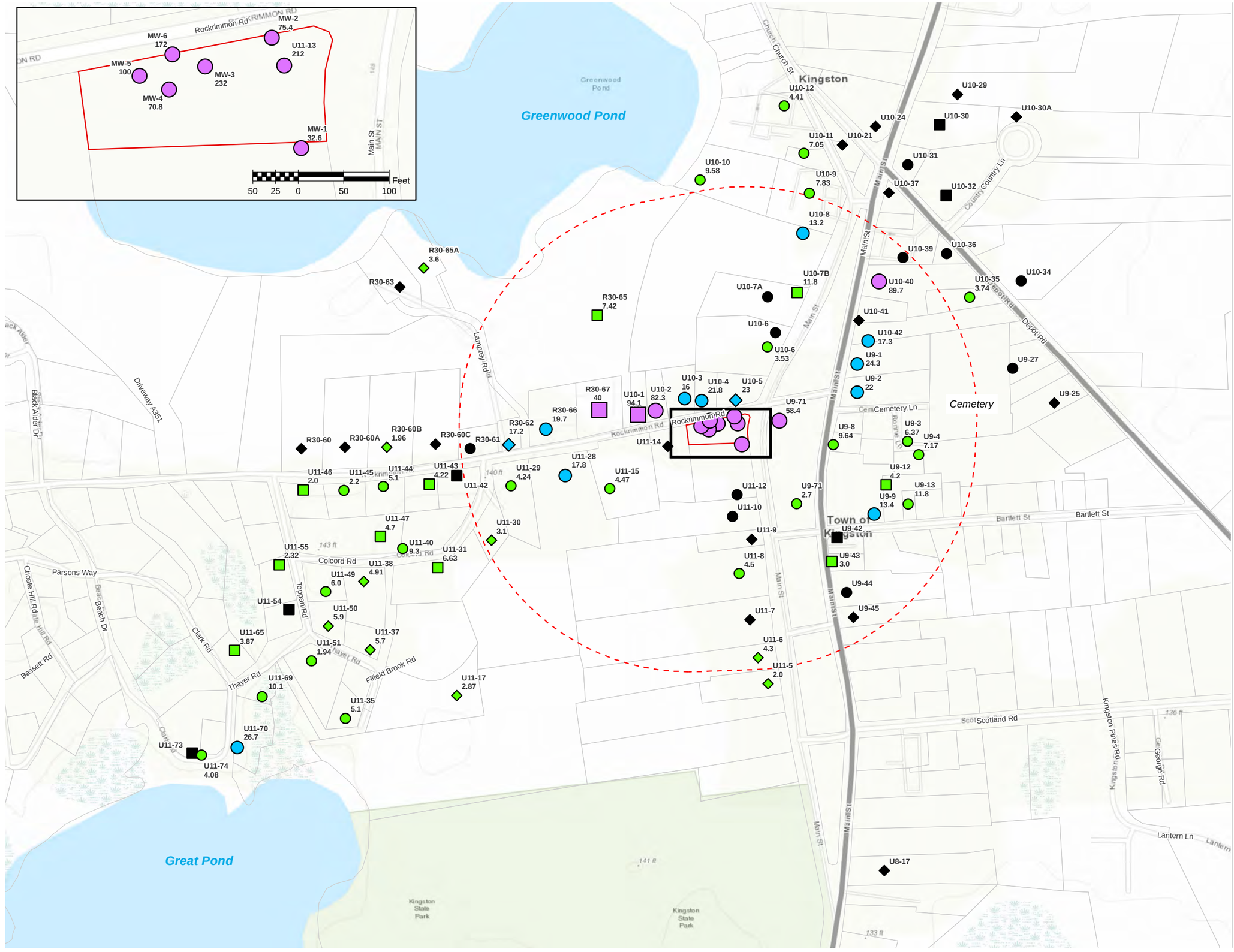


Figure 6

PFOA Concentration Distribution, Most Recent Sample Results

Kingston Fire Station
148 Main Street
Kingston, New Hampshire

Drawn By:	H. LaPointe
Designed By:	A. Sheehan
Reviewed By:	S. Zemba
Project No:	4701.01
Date:	May 2023

Figure Narrative

This figure displays the site and surrounding properties. Also shown, based on the most recent sample collected at each location, is the concentration of PFOA. Sample dates range from October 2016 to February 2023.

Notes

1. World Topographic Map Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community.

2. Refer to previous figures for additional notes.

Legend

- Approximate Site boundary
- Site Buffer - 1,000 feet
- Approximate parcel boundary

PFOA in Groundwater (ng/L)

- Not Detected (ND)
- 1 to <=12
- >12 to <=30
- >30

U9-12 Parcel ID
4.2 PFOA Concentration (ng/L)

- Overburden Well
- Bedrock Well
- Unknown Well Type

The AGQS for PFOA is 12 ng/L

N W E S

200 100 0 200 400 Feet

SANBORN HEAD

Last Edited By: hlapointe
Path: P:\4700s\4701.10\Graphics Files\ArcGIS\Figures\202302 Figures\PFOS.mxd

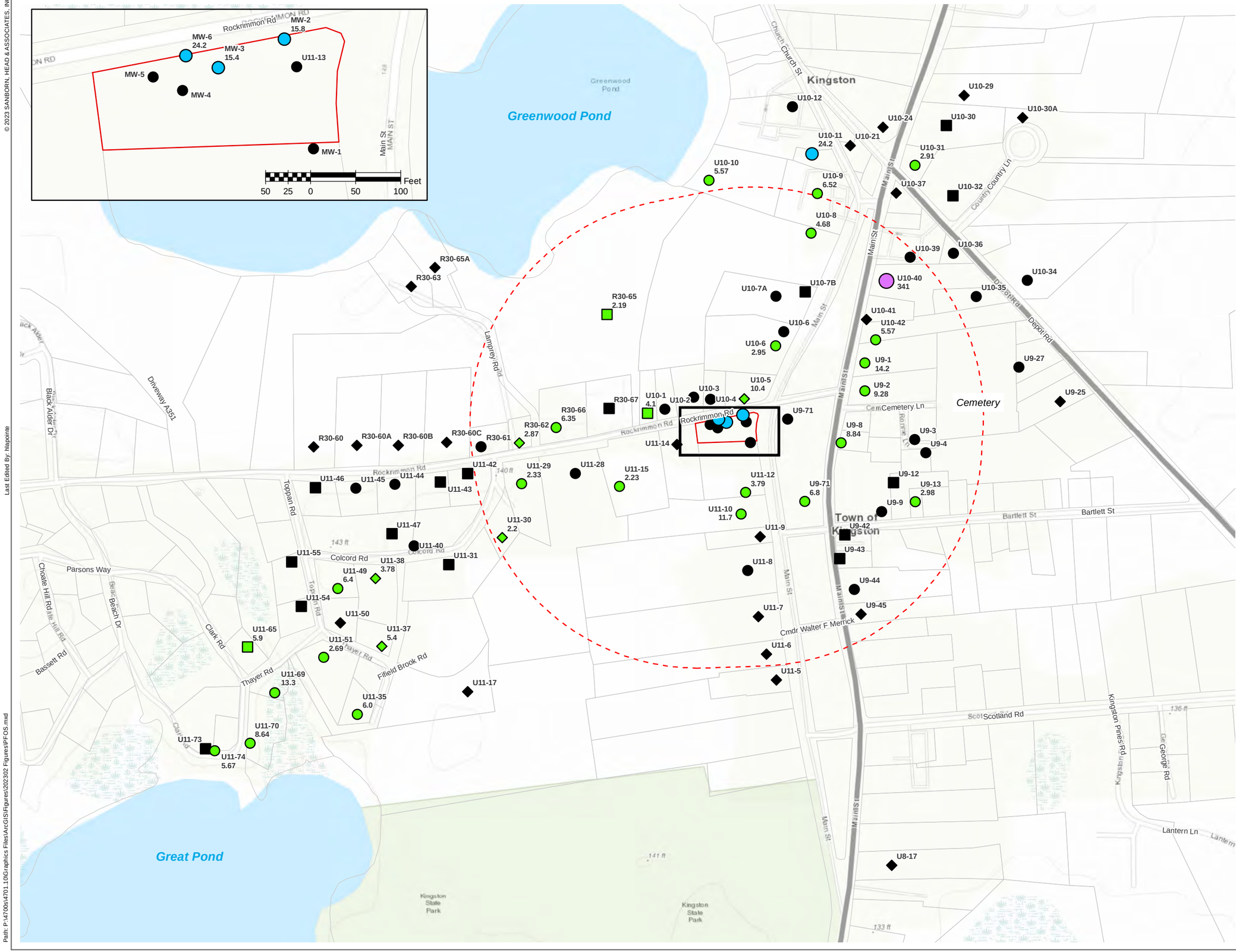


Figure 7

PFOS Concentration Distribution, Most Recent Sample Results

Kingston Fire Station
148 Main Street
Kingston, New Hampshire

Drawn By:	H. LaPointe
Designed By:	A. Sheehan
Reviewed By:	S. Zemba
Project No:	4701.01
Date:	May 2023

Figure Narrative

This figure displays the site and surrounding properties. Also shown, based on the most recent sample collected at each location, is the concentration of PFOS. Sample dates range from October 2016 to February 2023.

Notes

1. World Topographic Map Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community.

2. Refer to previous figures for additional notes.

Legend

- Approximate Site boundary
- Site Buffer - 1,000 feet
- Approximate parcel boundary

PFOS in Groundwater (ng/L)

- Not Detected (ND)
- 1 to <=15
- >15 to <=30
- >30

U9-13 Parcel ID
2.98 PFOS Concentration (ng/L)

- Overburden Well
- Bedrock Well
- Unknown Well Type

AGQS for PFOS is 15 ng/L

N W E S

200 100 0 200 400 Feet

SANBORN HEAD

Last Edited By: hlapointe
Path: P:\4700s\4701.10\Graphics Files\ArcGIS\Figures\202302 Figures\PFNA.mxd

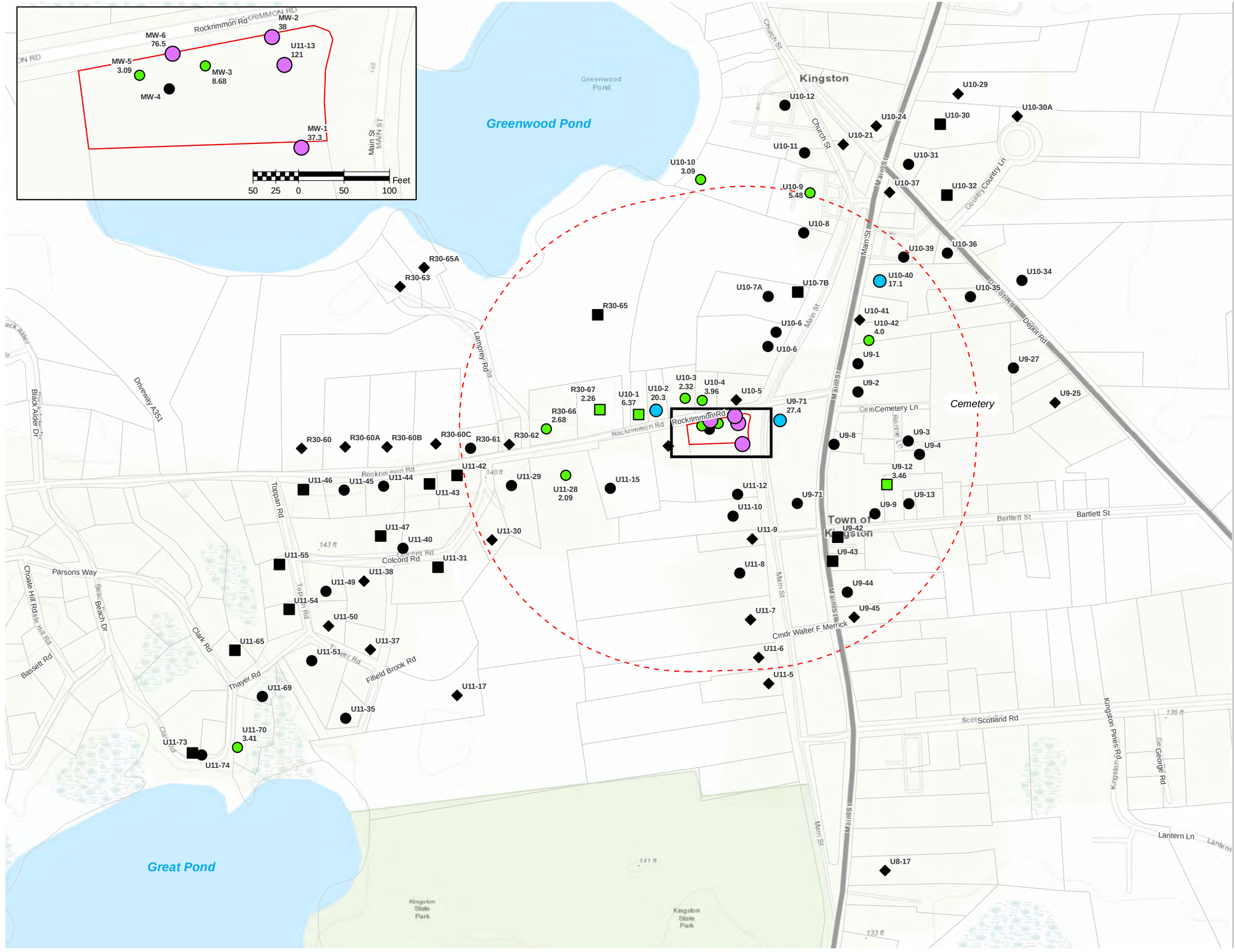


Figure 8

PFNA Concentration Distribution, Most Recent Sample Results

Kingston Fire Station
148 Main Street
Kingston, New Hampshire

Drawn By:	H. LaPointe
Designed By:	A. Sheehan
Reviewed By:	S. Zemba
Project No:	4701.01
Date:	May 2023

Figure Narrative

This figure displays the site and surrounding properties. Also shown, based on the most recent sample collected at each location, is the concentration of PFNA. Sample dates range from October 2016 to February 2023.

Notes

1. World Topographic Map Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community.

2. Refer to previous figures for additional notes.

Legend

- Approximate Site boundary
- Site Buffer - 1,000 feet
- Approximate parcel boundary

PFNA in Groundwater (ng/L)

- Not Detected (ND)
- 1 to <=11
- >11 to <= 30
- >30

U9-12 Parcel ID
3.46 PFNA Concentration (ng/L)

- Overburden Well
- Bedrock Well
- Unknown Well Type

The AGQS for PFNA is 11 ng/L

N W E S

200 100 0 200 400 Feet

SANBORN HEAD

Last Edited By: hlapointe
Path: P:\4700s\4701.10\Graphics Files\ArcGIS\Figures\202302 Figures\PFHxS.mxd

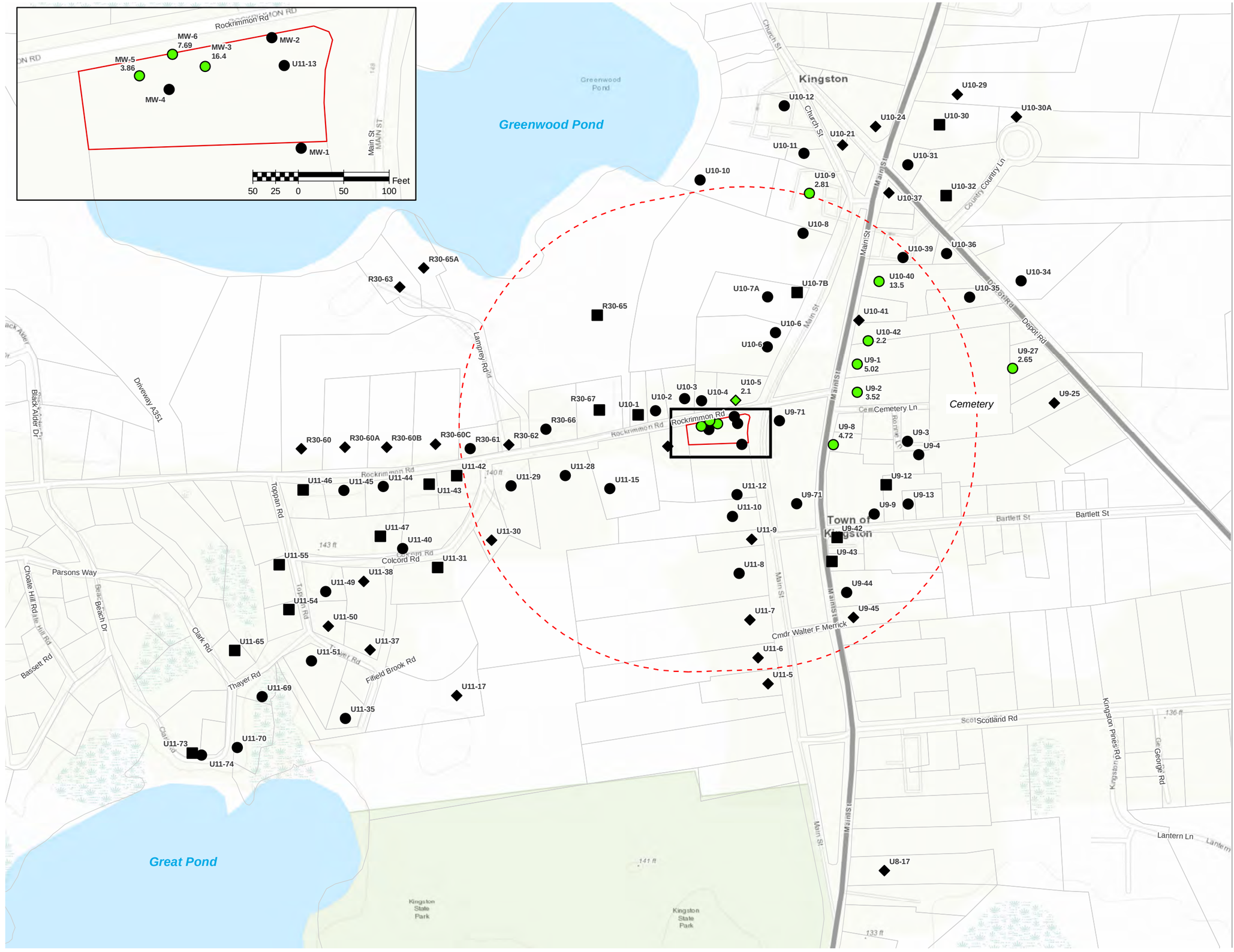


Figure 9

PFHxS Concentration Distribution, Most Recent Sample Results

Kingston Fire Station
148 Main Street
Kingston, New Hampshire

Drawn By:	H. LaPointe
Designed By:	A. Sheehan
Reviewed By:	S. Zemba
Project No:	4701.01
Date:	May 2023

Figure Narrative

This figure displays the site and surrounding properties. Also shown, based on the most recent sample collected at each location, is the concentration of PFHxS. Sample dates range from October 2016 to February 2023.

Notes

1. World Topographic Map Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community.

2. Refer to previous figures for additional notes.

Legend

- Approximate Site boundary
- Site Buffer - 1,000 feet
- Approximate parcel boundary

PFHxS in Groundwater (ng/L)

- Not Detected (ND)
- 1 to <=18
- >18 to <= 30
- >30

U9-8 Parcel ID
4.72 PFHxS Concentration (ng/L)

- Overburden Well
- Bedrock Well
- Unknown Well Type

The AGQS for PFHxS is 18 ng/L

N W E S

200 100 0 200 400 Feet

SANBORN HEAD

Last Edited By: hlapointe
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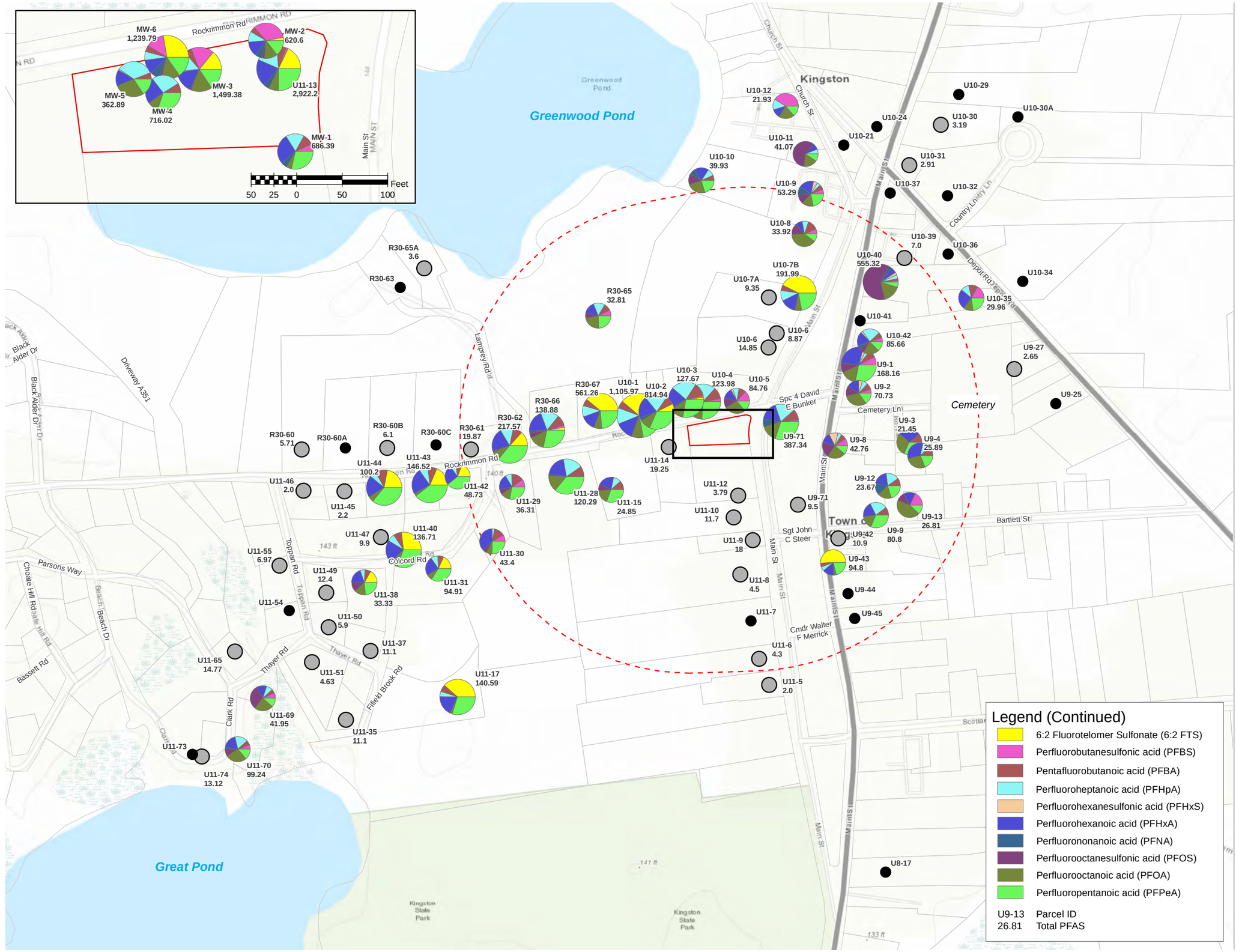

Legend (Continued)

- 6:2 Fluorotelomer Sulfonate (6:2 FTS)
- Perfluorobutanesulfonic acid (PFBS)
- Pentafluorobutanoic acid (PFBA)
- Perfluoroheptanoic acid (PFHpA)
- Perfluorohexanesulfonic acid (PFHxS)
- Perfluorohexanoic acid (PFHxA)
- Perfluorononanoic acid (PFNA)
- Perfluorooctanesulfonic acid (PFOS)
- Perfluorooctanoic acid (PFOA)
- Perfluoropentanoic acid (PFPeA)

U9-13 Parcel ID
26.81 Total PFAS

Figure 10

PFAS Composition Plan

Kingston Fire Station
148 Main Street
Kingston, New Hampshire

Drawn By:	H. LaPointe
Designed By:	A. Sheehan
Reviewed By:	S. Zemba
Project No:	4701.01
Date:	May 2023

Figure Narrative

This figure displays the site and surrounding properties. Also shown, based on the most recent sample collected at each location, is the sum of the concentrations of the ten most frequently detected PFAS and the relative composition of the 10 most frequently detected PFAS. For three properties (U11-13, U10-2 and U10-1), the last sampling round that included 6:2 FTS was used rather than the most recent sampling round.

Notes

1. World Topographic Map Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community.

2. Refer to previous figures for additional notes.

Legend

- Approximate Site boundary
- Site Buffer - 1,000 feet
- Approximate parcel boundary

Total PFAS in Groundwater (ng/L)

- Not Detected (ND)
- ND - <=20
- >20 - <=100
- >100 - <=1,000
- >1,000

N W E S

200 100 0 200 400 Feet

SANBORN HEAD

Last Edited By: hlapointe
Path: P:\4700s\4701.10\Graphics Files\ArcGIS\Figures\202302 Figures\PFAS_Pie_SumAll.mxd

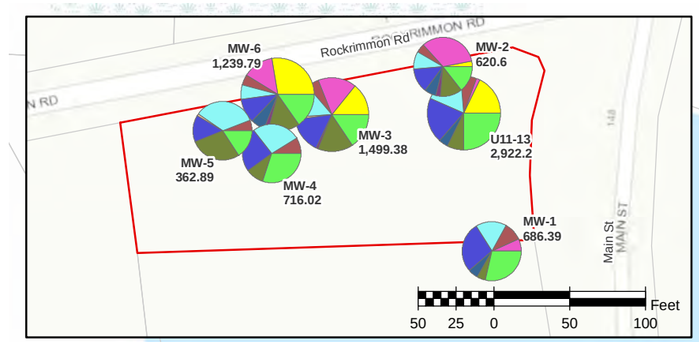

Figure 11

PFAS Composition Plan Overburden Locations

Kingston Fire Station
148 Main Street
Kingston, New Hampshire

Drawn By:	H. LaPointe
Designed By:	A. Sheehan
Reviewed By:	S. Zemba
Project No:	4701.01
Date:	May 2023

Figure Narrative

This figure displays the site and surrounding properties. Also shown, based on the most recent sample collected at each location, is the sum of the concentrations of the ten most frequently detected PFAS and the relative composition of the 10 most frequently detected PFAS for wells completed in the overburden. For three properties (U11-13, U10-2 and U10-1), the last sampling round that included 6:2 FTS was used rather than the most recent sampling round.

Notes

1. World Topographic Map Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community.

2. Refer to previous figures for additional notes.

Legend

- Approximate Site boundary
- Site Buffer - 1,000 feet
- Approximate parcel boundary

Total PFAS in Groundwater (ng/L)

- Not Detected (ND)
- ND - <=20
- >20 - <=100
- >100 - <=1,000
- >1,000

N W E S

200 100 0 200 400 Feet

Legend (Continued)

- 6:2 Fluorotelomer Sulfonate (6:2 FTS)
- Perfluorobutanesulfonic acid (PFBS)
- Pentafluorobutanoic acid (PFBA)
- Perfluoroheptanoic acid (PFHpA)
- Perfluorohexanesulfonic acid (PFHxS)
- Perfluorohexanoic acid (PFHxA)
- Perfluorononanoic acid (PFNA)
- Perfluorooctanesulfonic acid (PFOS)
- Perfluorooctanoic acid (PFOA)
- Perfluoropentanoic acid (PFPeA)

U9-13 Parcel ID
26.81 Total PFAS

SANBORN HEAD

Figure 12

PFAS Composition Plan Bedrock Locations

Kingston Fire Station
148 Main Street
Kingston, New Hampshire

Drawn By:	H. LaPointe
Designed By:	A. Sheehan
Reviewed By:	S. Zemba
Project No:	4701.01
Date:	May 2023

Figure Narrative

This figure displays the site and surrounding properties. Also shown, based on the most recent sample collected at each location, is the sum of the concentrations of the ten most frequently detected PFAS and the relative composition of the 10 most frequently detected PFAS for wells completed in the bedrock. For three properties (U11-13, U10-2 and U10-1), the last sampling round that included 6:2 FTS was used rather than the most recent sampling round.

Notes

1. World Topographic Map Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community.

2. Refer to previous figures for additional notes.

Legend

- Approximate Site boundary
- Site Buffer - 1,000 feet
- Approximate parcel boundary

Total PFAS in Groundwater (ng/L)

- Not Detected (ND)
- ND - <=20
- >20 - <=100
- >100 - <=1,000
- >1,000

Legend (Continued)

- 6:2 Fluorotelomer Sulfonate (6:2 FTS)
- Perfluorobutanesulfonic acid (PFBS)
- Pentafluorobutanoic acid (PFBA)
- Perfluoroheptanoic acid (PFHpA)
- Perfluorohexanesulfonic acid (PFHxS)
- Perfluorohexanoic acid (PFHxA)
- Perfluorononanoic acid (PFNA)
- Perfluorooctanesulfonic acid (PFOS)
- Perfluorooctanoic acid (PFOA)
- Perfluoropentanoic acid (PFPeA)

U9-13 Parcel ID
26.81 Total PFAS

N W E S

200 100 0 200 400 Feet

SANBORN HEAD

Last Edited By: hlapointe
Path: P:\4700s\4701.10\Graphics Files\ArcGIS\Figures\202302 Figures\PFAS_Pie_SumAll.mxd

Figure 13

PFAS Composition Plan
Unknown Completion

Kingston Fire Station
148 Main Street
Kingston, New Hampshire

Drawn By:	H. LaPointe
Designed By:	A. Sheehan
Reviewed By:	S. Zemba
Project No:	4701.01
Date:	May 2023

Figure Narrative

This figure displays the site and surrounding properties. Also shown, based on the most recent sample collected at each location, is the sum of the concentrations of the ten most frequently detected PFAS and the relative composition of the 10 most frequently detected PFAS for wells with unknown completion. For three properties (U11-13, U10-2 and U10-1), the last sampling round that included 6:2 FTS was used rather than the most recent sampling round.

Notes

1. World Topographic Map Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community.

2. Refer to previous figures for additional notes.

Legend

- Approximate Site boundary
- Site Buffer - 1,000 feet
- Approximate parcel boundary

Total PFAS in Groundwater (ng/L)

- Not Detected (ND)
- ND - <=20
- >20 - <=100
- >100 - <=1,000
- >1,000

Legend (Continued)

- 6:2 Fluorotelomer Sulfonate (6:2 FTS)
- Perfluorobutanesulfonic acid (PFBS)
- Pentafluorobutanoic acid (PFBA)
- Perfluoroheptanoic acid (PFHpA)
- Perfluorohexanesulfonic acid (PFHxS)
- Perfluorohexanoic acid (PFHxA)
- Perfluorononanoic acid (PFNA)
- Perfluorooctanesulfonic acid (PFOS)
- Perfluorooctanoic acid (PFOA)
- Perfluoropentanoic acid (PFPeA)

U9-13 Parcel ID
26.81 Total PFAS

N W E S

200 100 0 200 400 Feet

SANBORN HEAD

Last Edited By: hlapointe
Path: P:\4700s\4701.10\Graphics Files\ArcGIS\Figures\202302 Figures\Proposed_Interim_GWMP.mxd

Figure 14

Groundwater Monitoring Plan

Kingston Fire Station
148 Main Street
Kingston, New Hampshire

Drawn By:	H. LaPointe
Designed By:	A. Sheehan
Reviewed By:	S. Zemba
Project No:	4701.01
Date:	May 2023

Figure Narrative

This figure displays the site and surrounding properties. Also shown is a summary of private well PFAS sampling results, based on the detected concentration in samples collected between December 2022 and February 2023, or for wells not sampled since December 2022, based on the maximum concentration detected in samples collected between September 2016 and December 2019. The proposed monitoring frequency for each location is also shown.

Notes

1. World Topographic Map Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community.

2. Refer to previous figures for additional notes.

Legend

- Approximate Site boundary
- Residence with point of entry treatment system maintained by the Town of Kingston
- Residence with supplied bottled water
- Approximate parcel boundary
- Well decomissioned in 2022
- Annual Sampling
- Semi-Annual Sampling
- Sample Once More
- U9-6 — Attempt to Contact for Sampling
- U10-22 — No Well

Legend (Continued)

PFAS Concentrations in ng/L

- No PFAS detected
- PFAS detected but </=0.5 AGQS
- PFAS > 0.5 AGQS and </= AGQS
- PFAS > AGQS
- Wells Sampled 9/16 to 12/19
- Wells Sampled 12/22 to 2/23

*PFAS refers to concentrations of the four regulated compounds - PFOA, PFOS, PFHxS and PFNA

Ambient Groundwater Quality Standards (AGQS): PFOA - 12 ng/L; PFOS - 15 ng/L; PFHxS - 18 ng/L; PFNA - 11 ng/L

200 100 0 200 400 Feet

SANBORN HEAD

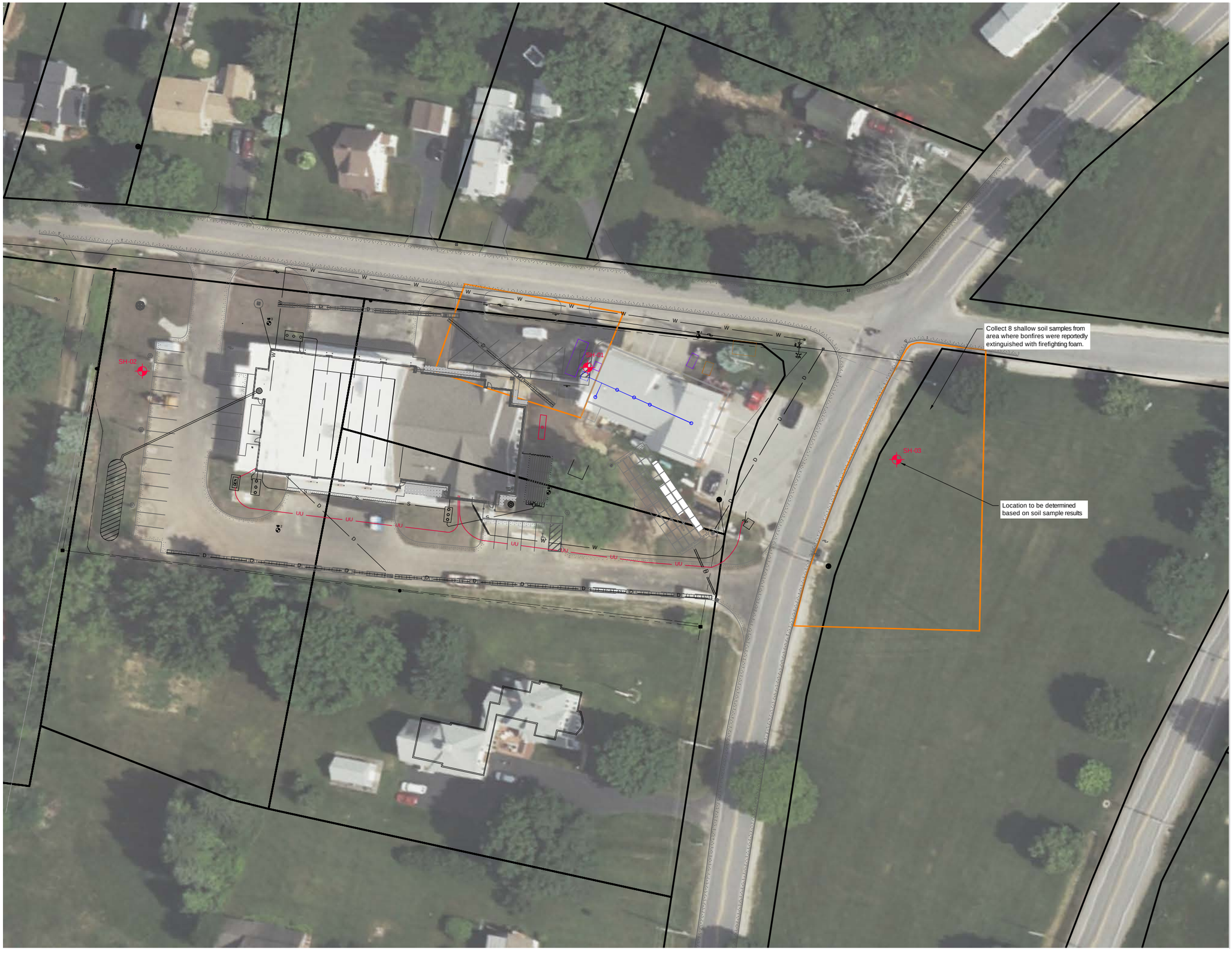

Figure 15

Proposed Soil Sampling and Monitoring Well Locations

Kingston Fire Station
148 Main Street
Kingston, New Hampshire

Drawn By: E. Wright
Designed By: A. Sheehan
Reviewed By: S. Zemba
Project No: 4701.01
Date: May 2023

Figure Narrative

This figure shows the location of the former fire station and underground features associate with it. Also shown is the current fire station and its associated underground structures. See Figures 2 and 3 for additional information related to the fire station property.

Notes

1. Aerial image obtained from Bing Maps via AutoCAD Civil 3D.

2. Refer to previous figures for additional notes and legend.

Legend

- SH-01 — Proposed monitoring well
- D — Drain pipe
- W — Waterline
- S — Sanitary pipe
- UU — Underground utility
- Utility pole

N
W
E
S

30 15 0 30 60 Feet

SANBORN HEAD

Last Edited By: ewright
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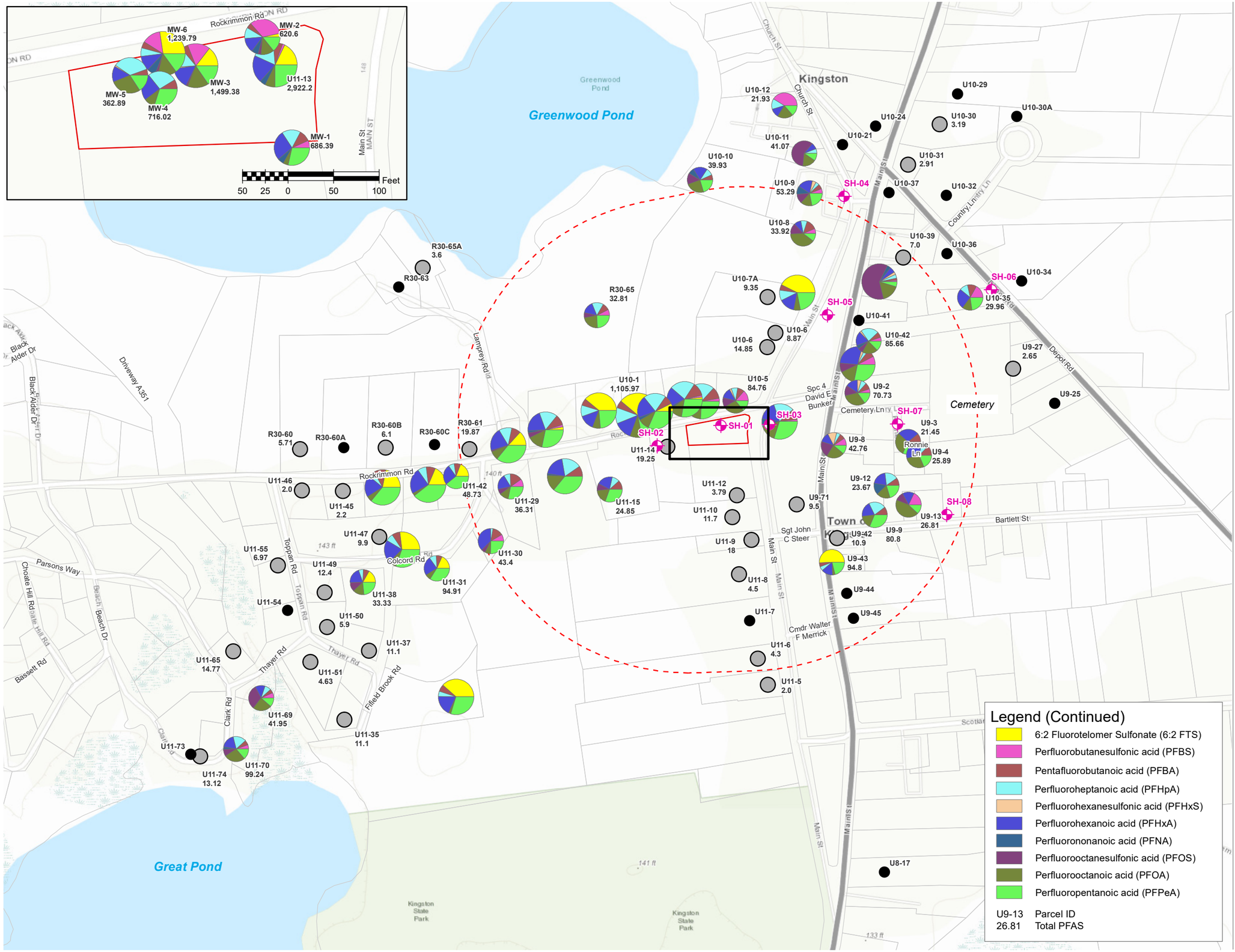


Figure 16

PFAS Composition Plan with Proposed Well Locations

Kingston Fire Station
148 Main Street

Kingston, New Hampshire

Drawn By:	H. LaPointe
Designed By:	A. Sheehan
Reviewed By:	S. Zemba
Project No:	4701.01
Date:	May 2023

Figure Narrative

This figure displays the site and surrounding properties. Also shown, based on the most recent sample collected at each location, is the sum of the concentrations of the ten most frequently detected PFAS and the relative composition of the 10 most frequently detected PFAS. For three properties (U11-13, U10-2 and U10-1), the last sampling round that included 6:2 FTS was used rather than the most recent sampling round. Also shown are proposed monitoring well locations.

Notes

1. World Topographic Map Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community.

Legend

- Approximate Site boundary
- Site Buffer - 1,000 feet
- Approximate parcel boundary

Total PFAS in Groundwater (ng/L)

- Not Detected (ND)
- >ND - <=20
- >20 - <=100
- >100 - <=1,000
- >1,000

SH-01 Proposed Monitoring Well

N W E S

200 100 0 200 400 Feet

SANBORN HEAD

Appendix A

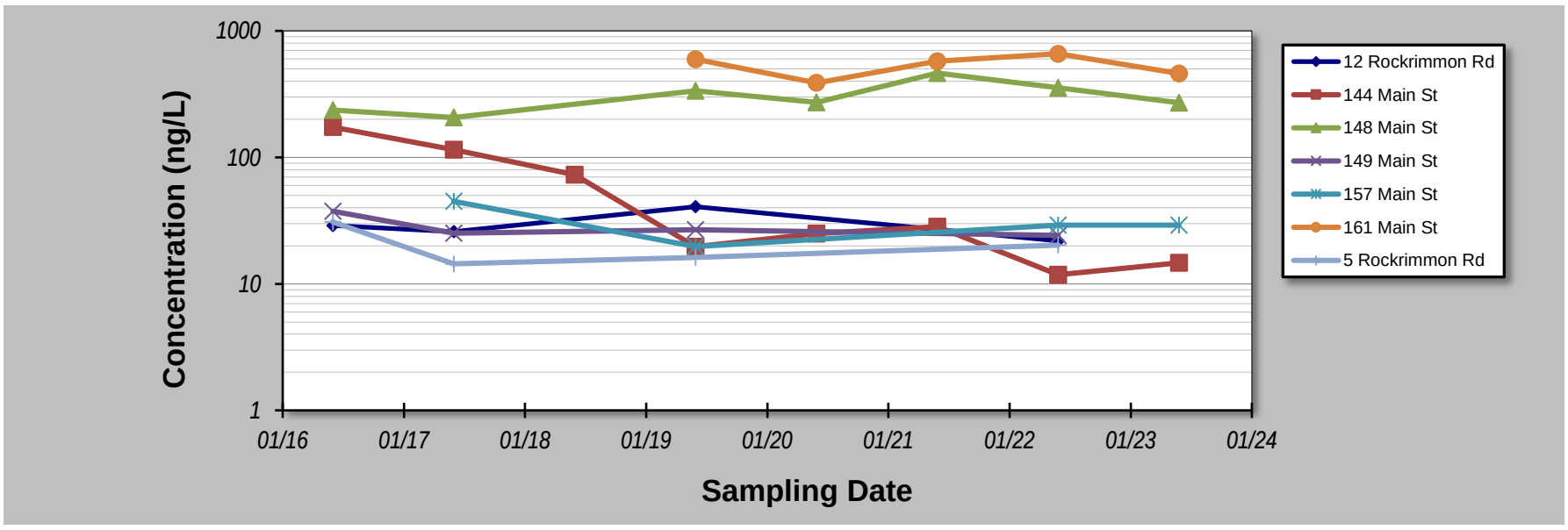
Mann-Kendall Trend Test Evaluation Data Sheets

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: **27-Feb-23**
Facility Name: **Kingston Fire Department**
Conducted By: **A. Sheehan**

Job ID: **4701.01**
Constituent: **PFOA+PFOS+PFNA+PFHxS**
Concentration Units: **ng/L**

Sampling Point ID:	12 Rockrimmon Rd	144 Main St	148 Main St	149 Main St	157 Main St	161 Main St	5 Rockrimmon Rd
Sampling Event	Sampling Date	PFOA+PFOS+PFNA+PFHXS CONCENTRATION (ng/L)						
1	2016	28.9	173.3	236.6	37.5			30.8
2	2017	25.9	115	206.6	25.1	44.9		14.4
3	2018		73					
4	2019	40.735	19.7	334.87	26.78	19.725	596.6	16.155
5	2020		25.05	272.8			387.7	
6	2021		28.42	464			577.7	
7	2022	21.87	11.81	355	24.18	29.08	659.9	20.3
8	2023		14.7	271.04		29.07	461.3	
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		**0.28**	**1.02**	**0.28**	**0.22**	**0.34**	**0.20**	**0.36**
Mann-Kendall Statistic (S):		**-2**	**-20**	**7**	**-4**	**-2**	**0**	**0**
Confidence Factor:		**62.5%**	**99.3%**	**80.9%**	**83.3%**	**62.5%**	**40.8%**	**37.5%**
Concentration Trend:		Stable	Decreasing	No Trend	Stable	Stable	Stable	Stable



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

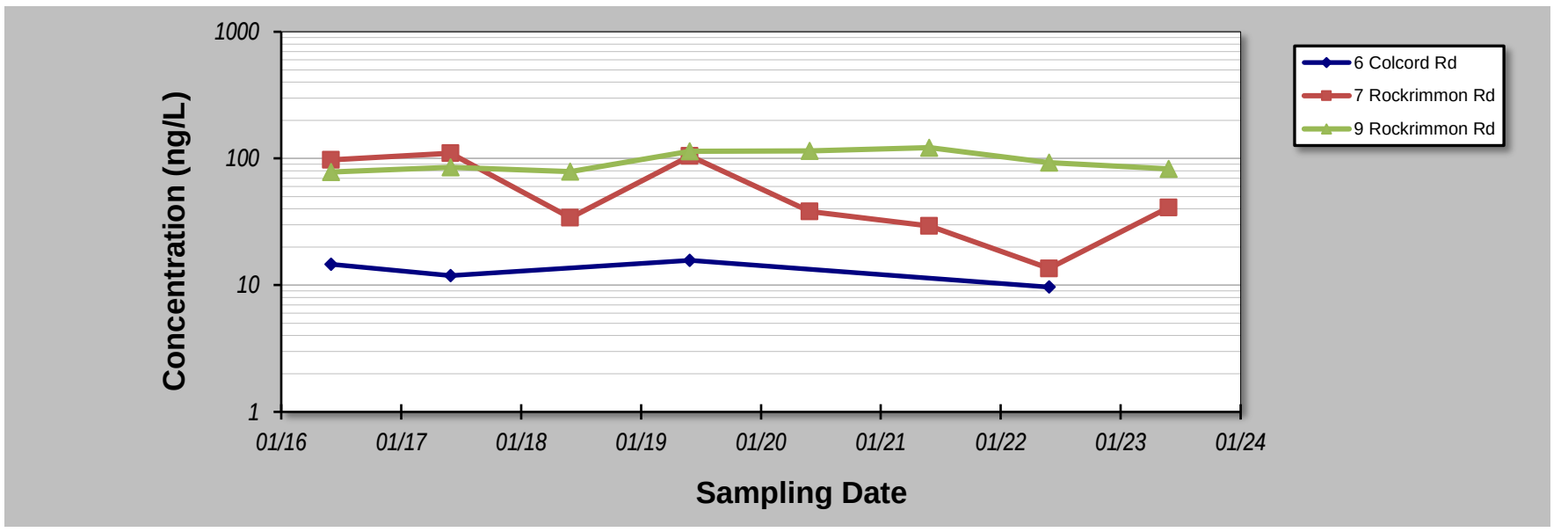
4 Non-detect results are bold and a value of half the reporting limit is used.

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: **27-Feb-23**
Facility Name: **Kingston Fire Department**
Conducted By: **A. Sheehan**

Job ID: **4701.01**
Constituent: **PFOA+PFOS+PFNA+PFHxS**
Concentration Units: **ng/L**

Sampling Point ID:	6 Colcord Rd	7 Rockrimmon Rd	9 Rockrimmon Rd				
Sampling Event	Sampling Date	PFOA+PFOS+PFNA+PFHXS CONCENTRATION (ng/L)						
1	2016	14.6	97.3	78.2				
2	2017	11.9	110	85.3				
3	2018		34	79				
4	2019	15.7	104.49	114.3				
5	2020		38.26	114.67				
6	2021		29.26	121.8				
7	2022	9.66	13.57	92.62				
8	2023		40.9	83				
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		**0.21**	**0.66**	**0.19**				
Mann-Kendall Statistic (S):		**-2**	**-12**	**10**				
Confidence Factor:		**62.5%**	**91.1%**	**86.2%**				
Concentration Trend:		Stable	Prob. Decreasing	No Trend				



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
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3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

4 Non-detect results are bold and a value of half the reporting limit is used.

Appendix B

NHDES Grant and Loan Funding Sources

COMMON GRANT AND LOAN SOURCES FOR PUBLIC WATER SYSTEMS (PWS) IN NEW HAMPSHIRE

Funding Program		Who's eligible	What can be funded	Terms	Application Timeframes	Contacts
New Hampshire Department of Environmental Services https://www.des.nh.gov business-and-community/loans-and-grants/drinking-water	Asset Management Grants	Community water systems ≥150 population	Development or expansion of asset management activities (inventory, financial, implementation)	Grant up to $100,000 – no match required, (100% grant)	Late Fall 2022	Luis Adorno DWGB, (603) 271-2472 Luis.Adorno@des.nh.gov
	Cyanotoxin Monitoring Grants	PWS that utilize a surface water source	Initial costs of approved equipment, supplies & training to perform cyanotoxin testing and/or monitoring	100% reimbursement of eligible costs, up to $10,000. No match required	Anytime	Liz Pelonzi DWGB, (603) 271-3906 Ann.Pelonzi@des.nh.gov
	Cybersecurity Implementation Grants	Community water systems ≥500 population	Implementation of recommendations from a cybersecurity assessment to mitigate the risk of a cybersecurity attack	Grant up to $50,000 (100% grant)	Ongoing until December 31, 2022 (or until funds are exhausted)	Stephanie Nistico DWGB, (603) 271-0867 Stephanie.Nistico@des.nh.gov
	Drinking Water State Revolving Fund (DWSRF) Loans	Community (publicly & privately owned) and non-profit, non-transient water systems	Capital improvements for drinking water infrastructure (design and construction)	Below-market interest rates; No closing costs; Up to 30 years for disadvantaged applicants	Spring	Johnna McKenna DWGB, (603) 271-7017 Johnna.McKenna@des.nh.gov
	Energy Audit Grants	Community water systems ≥150 population	Comprehensive Process Energy audit of drinking water facilities	Grant up to $20,000 – no match required, (100% grant)	Late Fall 2022	Luis Adorno DWGB, (603) 271-2472 Luis.Adorno@des.nh.gov
	Energy Audit Implementation Grant	Community water systems ≥150 population	Implementation of projects recommended in previous energy audits to reduce kWh's	Grant up to $200,000 – 100% (1:1) match required	Late Fall 2022	Luis Adorno DWGB, (603) 271-2472 Luis.Adorno@des.nh.gov
	Leak Detection Survey Grants	Community water systems	Acoustic leak detection surveys by a professional retained by NHDES	In-kind volunteer services required. No maximum, no match	Early Summer	Stacey Herbold DWGB, (603) 271-6685 Stacey.Herbold@des.nh.gov
	Local Source Water Protection Grants	PWS, municipalities, conservation districts, non-profits& regional planning commissions	Source security & other source water protection projects	Grant up to $25,000 ($30,000 if climate-related) – no match required, (100% grant)	Fall/Winter	Melissa Macheras DWGB, (603) 271-2950 Melissa.E.Macheras@des.nh.gov
	MtBE Remediation Fund	Public & private water systems impacted by MtBE contamination	Design & installation of drinking water infrastructure in areas with MtBE contamination	100% reimbursement for eligible costs	Anytime	Josh Whipple, MtBE Remediation Bureau (603) 271-7377 Joshua.C.Whipple@des.nh.gov

COMMON GRANT AND LOAN SOURCES FOR PUBLIC WATER SYSTEMS (PWS) IN NEW HAMPSHIRE						
Funding Program		**Who's eligible**	**What can be funded**	**Terms**	**Application Timeframes**	**Contacts**
New Hampshire Department of Environmental Services https://www.des.nh.gov business-and-community/loans-and-grants/drinking-water	**Petroleum Reimbursement Fund**	Public & private water systems impacted by petroleum contamination	Design & installation of drinking water infrastructure in areas w/ petroleum contamination from unknown source	100% reimbursement of eligible costs	Anytime	Jennifer Marts Petroleum Reimbursement Fund Program, (603) 271-2570 Jennifer.Marts@des.nh.gov
	PFAS Remediation Grant and Loan Fund	CWS, non-profit NTNC water systems (i.e., public schools) or municipality with raw water PFAS contamination	Drinking water infrastructure projects to address per-and polyfluoroalkyl (PFAS) maximum contaminant level (MCL) exceedances	Low interest loan rates; Up to 30-year term for disadvantaged applicants; Up to 50% contingent reimbursement Grants at $1.5M or 30% of the total cost of the project, whichever is greater	Anytime	Amy Rousseau PFAS Response Administrator (603) 271-8801 Amy.Rousseau@des.nh.gov
	PFAS Treatment Design Services Reimbursement	All schools and childcare centers, transient PWS and non-transient PWS	PFAS treatment design services	Up to 26% of the total cost of the project	Anytime	Amy Rousseau PFAS Response Administrator 603) 271-8801 Amy.Rousseau@des.nh.gov
	PFAS Consolidation Study Assistance Program	CWS, non-profit NTNC water systems (i.e., public schools) or municipality with raw water PFAS contamination	Engineering feasibility evaluation comparing interconnection to a larger community water system versus treating, maintaining, and operating a system's own water supply	100% Reimbursement program - requires submittal of an application and NHDES approval	Anytime	Amy Rousseau PFAS Response Administrator (603) 271-8801 Amy.Rousseau@des.nh.gov
	Strategic Planning Grants	Community water systems ≥150 population	Design projects intended to improve drinking water infrastructure	Grant up to $50,000 – no match required, (100% grant)	Late Fall 2022	Mat Deterling, DWGB (603) 271-1994 Mathew.G.Deterling@des.nh.gov

COMMON GRANT AND LOAN SOURCES FOR PUBLIC WATER SYSTEMS (PWS) IN NEW HAMPSHIRE						
Funding Program		**Who's eligible**	**What can be funded**	**Terms**	**Application Timeframes**	**Contacts**
NH Drinking Water & Groundwater Trust Fund	Construction Projects	PWS & Municipalities	Drinking water infrastructure improvements	Loan and grant program	Fall-Funding Applications	Cheryl Bondi, DWGTF (603) 271-8231 cheryl.a.bondi@des.nh.gov
	Source Water Protection (Land Conservation)	PWS, municipalities, conservation districts, non-profits & regional planning commissions	Water supply land protection projects and other project types	Grant Program	Spring-Eligibility Applications Fall- Funding Applications	Molly Thunberg DWGB, (603) 271-2862 Molly.L.Thunberg@des.nh.gov
	Consolidation Study Assistance Program	CWS serving < 1,000 people and non-profit, NTNC water systems (i.e., public schools) with raw water contamination or a documented water supply shortage	Engineering feasibility evaluation comparing interconnection to a larger community water system versus treating, maintaining, and operating a system's own water supply	100% Reimbursement program for up to $10,000 of eligible costs. Requires submittal of an application and NHDES approval	Anytime	Cheryl Bondi, DWGTF (603) 271-8231 cheryl.a.bondi@des.nh.gov
Community Development Block Grants (CDBG)	**Housing & Public Facilities Grants**	Municipalities, Counties, and non-profit associations and districts if endorsed by a governmental entity. *At least 51% of project beneficiaries must be of low to moderate income	Infrastructure repair or construction that results in improved community facilities and services	Public facilities grant fund up to $500,000/year/municipality 100% (1:1) match required	January & July of each year	Mollie Kaylor, CDFA-CDBG (603) 717-9112 mkaylor@nhcdfa.org
	Emergency Grants		Emergency Grants for infrastructure repair (must be related to Natural Disaster)	Up to $350,000/year for municipalities >10,000 populations or up to $500,000 for communities <10,000	Ongoing	
	Planning Grants		Preliminary engineering design, income surveys, etc.	Up to $12,000/year/municipality	April & Oct of each year	

COMMON GRANT AND LOAN SOURCES FOR PUBLIC WATER SYSTEMS (PWS) IN NEW HAMPSHIRE

Funding Program		Who's eligible	What can be funded	Terms	Application Timeframes	Contacts
USDA Rural Development	Water& Waste Disposal Loans & Grants	Municipalities, districts, special purpose districts & non-profit organizations <10,000 population; Area to be served must also have median household income (MHI) less than state's MHI.	Capital improvements, engineering design & construction	Fixed, long-term (up to 40 years) low-interest loans; Grant funds may be available	Applications are accepted year-round and evaluated typically in December & April of each year. Applications may be filed electronically using RD Apply.	Eric Law, USDA-RD NH Community Programs Director Eric.Law@usda.gov (802) 828-6033
	Pre-Development Planning Grants		Initial planning and development of an USDA-RD loan/grant application	Up to $30,000 maximum or 75% of the pre-development planning costs		
	Emergency Community Water Assistance Grants		Emergency related water infrastructure construction/repairs/ replacement/extension	Water transmission line-up to $150,000. Water source-up to $1,000,000. *No match required but funding partnerships encouraged		
	SEARCH Grants	Rural populations <2,500 w/ MHI below the poverty line or <80% of state MHI	Pre-development feasibility studies, PER development, & technical assistance on proposed water/waste projects	Up to $30,000 maximum/grant		
ROC-NH creating opportunity and value for manufactured-home owners	NH Community Loan Fund	Resident owned manufactured housing communities/coops	Interim financing; infrastructure evaluation, repair or replacement	Contact ROC-NH for details and loan terms		Kelli Cicirelli, ROC-NH (603) 224-6669 x744 KCicirelli@rocnh.org
NHMBB NH Municipal Bond Bank		Local governmental units (towns/counties/ school/water/fire/ village districts)	Capital improvement (design & construction) projects	Competitive interest rates; terms based on lifespan of asset	Applications due in April & November	Tammy St. Gelais NHMBB, (603) 271-2595 tstgelais@nhmbb.com
Northern Border Regional Commission Economic & Infrastructure Grants		Infrastructure projects that enhance economic development opportunities within Belknap, Carroll, Cheshire, Coos, Grafton & Sullivan Counties		Up to a $1,000,000 maximum award to eligible infrastructure projects; up to 50% match required	Contact NBRC for information	Benoit Lamontagne, NBRC (603) 419-9713 benoit.L.Lamontagne@ livefree.nh.gov

COMMON GRANT AND LOAN SOURCES FOR PUBLIC WATER SYSTEMS (PWS) IN NEW HAMPSHIRE						
Funding Program		**Who's eligible**	**What can be funded**	**Terms**	**Application Timeframes**	**Contacts**
NH Homeland Security and Emergency Management	**Emergency Management Performance Grant (EMPG)**	Municipalities, and some Private Non-Profit (PNP) organizations	LEOP & COOP Plans, generators and EOC equipment, communications equipment, electronic sign boards, emergency management trailers	Up to a $75,000 maximum award for generators 50% / 50% Cost Share	Ongoing	Sarah Osborne, EMPG Program Manager 603-223-3686 NHEMPG.Program@dos.nh.gov
	Building Resilient Infrastructure and Communities (BRIC)	State agencies, local governments and communities	Structure demolition, relocation, elevation, generators, flood risk reduction, soil stabilization* *check NHDOS HSEM for all eligible activities	75% Federal / Non-Federal 25%* Cost Share *Select applicants are eligible for increased federal cost share Three-year timeline to complete project after receiving award.	Application deadline varies	Natasha Cole, State Hazard Mitigation Officer (603) 223-8808 Natasha.L.Cole@dos.nh.gov