RECORD OF DECISION, INTERIM ACTION

TINKHAM GARAGE SUPERFUND SITE

LONDONDERRY, NH

NHD062004569

PREPARED BY:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 1 – NEW ENGLAND

SEPTEMBER 30, 2025

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PART 1: THE DECLARATION FOR THE RECORD OF DECISION, INTERIM ACTION

A. SITE NAME AND LOCATION

Tinkham Garage Site
Londonderry, New Hampshire
EPA ID Number: NHD062004569

B. STATEMENT OF BASIS AND PURPOSE

This decision document presents the selected Interim Remedial Action for the Tinkham Garage Superfund Site (Site), in Londonderry, New Hampshire, which was chosen in accordance with the Comprehensive Environmental Response, Compensation and Liability Act of 1980 as amended (CERCLA, also commonly referred to as "Superfund"), 42 USC § 9601 *et seq.*, and, to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) as amended, 40 CFR Part 300. The selected Interim Remedial Action addresses exposure to contaminated groundwater used as a drinking water source in target neighborhoods; it does not address groundwater itself, or other potentially contaminated media, as a final remedial action for the entire Site will be selected in a future decision document. The Director of the Superfund and Emergency Management Division (SEMD) has been delegated the authority to approve this Interim Action Record of Decision. (IROD).

This decision was based on the Administrative Record for the Site, which has been developed in accordance with Section 113(k) of CERCLA, 42 U.S.C. § 9613(k). The Administrative Record is available for review online at http://www.epa.gov/superfund/tinkham, via computer access to the internet at Leach Library, 276 Mammoth Road, Londonderry, NH 03053, and at the United States Environmental Protection Agency (EPA) Region 1 Superfund and Emergency Management Division (SEMD) Records Center located at 5 Post Office Square, Boston, Massachusetts. The Administrative Record Index (Appendix F of this IROD) identifies each of the items comprising the Administrative Record upon which the selection of the remedial action is based.

The New Hampshire Department of Environmental Services (NHDES), as the support agency, concurs with the selected remedy (see Appendix A of this IROD for a copy of the concurrence letter).

This interim remedial action addresses exposure to contaminated groundwater from Site contaminants and a final Record of Decision is expected at the conclusion of the remedial investigations to address all remaining unacceptable risks at the Site. This IROD does not address source materials constituting principal threats nor establish cleanup levels for contaminants of concern, as groundwater remediation is not being addressed in this action.

C. ASSESSMENT OF THE SITE

The remedial action selected in this Interim Record of Decision (IROD) is necessary to protect the public health or welfare or the environment from actual or threatened releases of hazardous substances, pollutants, or contaminants into the environment, which may present an imminent and substantial endangerment to public health or welfare. The November 2024 Remedial Investigation (RI) Summary Memorandum for the Site summarizes the historical activities and investigations at the Site to date, the nature and extent of the contamination and presents a Conceptual Site Model (CSM) and was used to prepare the June 2025 Focused Feasibility Study (FFS) Report that identified remedial alternatives considered for addressing risk from exposure to groundwater used as drinking water at the Site.

The Site includes approximately 375-acres and includes current and former Tinkham properties, a 13-unit condominium development, a large over-55 condominium development, a large shopping center, a large wetland area (conservation land) and nearby neighborhoods impacted by groundwater and surface water migration.

D. DESCRIPTION OF THE SELECTED REMEDY

This IROD sets forth an interim action to mitigate risk from groundwater used as drinking water at the Site, as described in the June 2025 Proposed Plan and after consideration of public comments.

The selected interim remedial action addresses current and future risks from ingestion of groundwater but does not address the cleanup or restoration of Site groundwater. The interim action requires measures to protect human health from exposure via ingestion to contaminated groundwater used as a drinking water source, while a final remedial solution for the Site is being developed. Remedial Investigations to further assess contaminants in soil, sediment, surface water, groundwater and air are on-going. This interim action is not inconsistent with a final Site ROD which will provide long-term protection of human health and the environment by addressing all remaining current and potential future risks resulting from potential exposure to contamination remaining at the Site.

This interim remedial action provides a permanent, alternative water source (extension of a nearby municipal water line) to prevent exposure to site-related contaminants via ingestion of groundwater used as drinking water by residents within the target neighborhoods of Ross and Tokanel Drives, Boston/Albany/Charleston Avenues, as well as along Gail and Gilcrest Roads. Further, this interim action will reduce the volume and mobility of contaminants via the minimization of stresses within the bedrock aquifer resulting from the decommissioning of water supply wells.

The general approach includes the following components:

- Extension of the existing municipal water line into certain target neighborhoods where groundwater is used as a drinking water source, and connections of homes impacted or

potentially impacted by the site-related contaminants of concern that were not previously connected to the existing water line.

- Continued long-term monitoring of groundwater at the Site to assess the progress and effectiveness of remedial actions.

- Periodic reviews, at a minimum of every five years, to assess the protectiveness of the remedy would continue at the Site.

The estimated cost of the preferred alternative is $6.8 million. It is estimated that it may take up to 2-3 years to complete the design and extension of the waterline as well as the connection of homes within these neighborhoods to the water line.

E. STATUTORY DETERMINATIONS

The selected Interim Remedial Action is protective of human health and the environment, complies with federal and state requirements that are applicable or relevant and appropriate to the remedial action (unless justified by a waiver), is cost-effective, and utilizes permanent solutions and alternative treatment (or resource recovery) technologies to the maximum extent practicable.

Because the Interim Remedial Action does not constitute the final remedial action for the Site, the statutory preference for remedial actions that employ treatment that reduces toxicity, mobility, or volume as a principal element, while not addressed by this selected Interim Remedial Action, will be addressed by a final decision document. Further, past response actions taken at the Site, as required by the 1986 ROD, met the statutory preference for treatment.

Because this interim remedial action will continue to result in Site contaminants remaining on-site above levels that allow for unlimited use and unrestricted exposure (and groundwater and/or land use restrictions are necessary), reviews, which are currently conducted every five years at the Site will be on-going to ensure that the remedy continues to provide adequate protection of human health and the environment.

Special Findings

Floodplain Impacts

EPA has determined that, under federal regulations at 44 C.F.R. Part 9, implementing requirements under Executive Order 11988 (Floodplain Management), there is no practicable alternative to temporary activities that may affect or result in the occupancy and modification of wetlands or the 100- and 500-year floodplain. Through its analysis of alternatives, EPA has determined that this interim action, and the majority of the Site and areas of groundwater impacted by contaminants of concern, are not within the current Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map for the Town of Londonderry 100- or 500-year floodplains. Parts of the neighborhoods nearest Beaver Brook and its associated wetlands are located within the FEMA 100- and 500-year floodplain, however EPA has

determined that the interim remedy will not have an impact on wetlands or floodplain areas, and utilization of best management practices and any mitigation measures will be taken, if required. Through its Proposed Plan, EPA solicited comments concerning its determination that the interim remedy is (1) unlikely to affect wetlands, and EPA will use, as necessary best management practices to minimize any harmful impacts to wetland resources; and (2) protective of floodplain resources.

F. DATA CERTIFICATION CHECKLIST

The following information is included in the Decision Summary section of this IROD. Additional information can be found in the Administrative Record file for this Site.

	IROD DATA	LOCATION
☑	Contaminants of concern (COCs).	Sections G.1
☑	Risk Assessment represented by the COCs.	Section G.1
☑	Cleanup levels established for COCs and the basis for the levels.	Not Applicable
☑	How source materials constituting principal threats are addressed.	Not Applicable
☑	Current and reasonably anticipated future land and groundwater use assumptions used in the risk assessment.	Section F
☑	Land and groundwater use that will be available at the Site as a result of the selected remedy.	Section F
☑	Estimated capital, annual operation and maintenance (O&M), and total present worth costs, discount rate, and the number of years over which the remedy cost estimates are projected.	Appendix B Table 2
☑	Decisive factors that led to selecting the Interim Remedial Action.	Section K

G. AUTHORIZING SIGNATURES

This IROD documents the selected Interim Remedial Action for groundwater used as drinking water at the Tinkham Garage Site. This Interim Remedial Action was selected by EPA with concurrence of the NHDES. A copy of the State's concurrence letter is attached to this IROD (Appendix A).

By: Bryan Olson Digitally signed by Bryan Olson Date: 2025.09.30 20:34:40 -04'00' Date: _____

Bryan Olson, Director
Superfund and Emergency Management Division
U.S. Environmental Protection Agency, Region 1

PART 2: THE DECISION SUMMARY

A. SITE NAME, LOCATION, AND DESCRIPTION

- Tinkham Garage
- Londonderry, New Hampshire
- EPA Id Number: NHD062004569
- Lead Agency: Environmental Protection Agency
- Support Agency: New Hampshire Department of Environmental Services

Located in Londonderry, New Hampshire, the roughly 375-acre Site is comprised of residential, commercial, and undeveloped conservation land. (See Figure 1) In addition to the 13-unit Woodland Village Condominium complex (formerly the Londonderry Green Apartments) to the west, there are single family homes along Mercury and McAllister Drives to the north, along Gilcreast Road and the Boston/Charleston/Albany neighborhood to the east, northeast, and the Ross/Tokanel neighborhood to the south. In January 2003, Gilcreast Realty Holdings II, LLC purchased the 95-acre area in the central portion of the Site for development into active senior housing called 'The Nevins.' The Nevins Retirement Cooperative Association owns the land upon which individually owned residential structures were constructed from about 2005 through 2013 (see Figure 2). The Tinkham Realty office and Tinkham Garage are located in the northeastern portion of the Site. In 2003, land to the northeast of these properties was sold and a commercial retail development was constructed that contains Home Depot, Staples, The 99 Restaurant, and Dunkin' Donuts. A portion of the former source area, where hazardous substances were released to the environment, east of the Tinkham Garage, extends beneath the western end of the parking lot of these properties. A groundwater management permit (GMP) issued by the NHDES, includes a groundwater management zone (GMZ) and required monitoring and management of Site groundwaters. (See Figure 3)

To the south, and to the east, there are approximately 89 residences that are located within the Ross/Tokanel neighborhood and the Boston/Charleston/Albany neighborhood who continue to rely on groundwater as their drinking water source.

The topography of the Site is relatively flat, and surface drainage is from north to south. Several unnamed streams and intermittent tributaries collect and direct precipitation and discharge groundwater from the Site southward, eventually discharging off-site to Beaver Brook. These streams and tributaries passed through the Site and historically and currently pass through the Ross/Tokanel neighborhood towards the large wetlands southwest of the neighborhood and towards Beaver Brook. The large wetland area located southwest of the Site, where the unnamed streams enter Beaver Brook, eventually discharges to the Merrimack River farther south.

A more complete description of the Site can be found in Section 2 of the Remedial Investigation (RI) Summary Memorandum Report (Weston, 2024).

B. SITE HISTORY AND ENFORCEMENT ACTIVITIES

1. History of Site Activities

The Tinkham Garage Superfund Site is one of four Cannon Engineering Superfund Sites. The Cannon Engineering Corporation (CEC) Site in Bridgewater, MA, is associated with three other Superfund Sites through operations, transportation and disposal practices: the Tinkham Garage Site in Londonderry, NH, the Sylvester Site in Nashua, NH and the Cannon Engineering Plymouth Harbor Site, in Plymouth, MA. The Cannon's Bridgewater facility stored and disposed of wastes such as motor oils, solvents and pesticides, however also allegedly accepted industrial emulsions, lacquers, cyanide-laden electroplating waste and other manufacturing organic and inorganic residuals. Incineration operations became overburdened as the waste facility became inundated from hundreds of generators from all over New England, and additional tanks were leased at the Plymouth, MA facility. At the same time, truckers hauled and illegally disposed of chemical wastes at the two sites in New Hampshire. (EPA 520-f-94-011)

The Tinkham Garage served as a facility for the storage, maintenance, and cleaning of truck(s) associated with Tinkham Enterprises. It is understood that Tinkham Enterprises was approached by Cannon Engineering to haul and dispose of liquid chemical wastes from the CEC Bridgewater Site in 1977 or 1978. During 1979, Mr. John Tinkham transported liquid hazardous waste from/for the CEC Bridgewater facility, which were transported to the former sand and gravel pit at the Nashua Site (Sylvester's/Gilson Road Site) where bulk hazardous chemicals were disposed of into a drainpipe that flowed under a field behind the Sylvester garage. Reportedly, after wastes were transported to and otherwise disposed of at Sylvester's garage, drivers returned to the Tinkham garage to service the trucks which included washing out the tanker(s) and disposing of residuals at the Site. Reportedly, trucks from the CEC Bridgewater facility were hauled to the Nashua Site before returning to the Londonderry Site (Tinkham Garage). Waste residual from tankers used to haul wastes for CEC were reportedly disposed of in septic systems of the Londonderry Green Apartments (now Woodland Condominiums) which were serviced by Tinkham Enterprises as part of their routine maintenance. Reports of seepage from the leach field for Buildings I and J were noted and the leach field was reportedly pumped and the contents allowed to spill over the side into the clearing below and sludge was bulldozed to the side. Leach field failures were reported within the apartment complex and leach field soils collected from the leach field repairs was deposited behind what was referred to at the time as Building C.

Similar to the management of the trucking operations used for transporting CEC wastes, the same tanker truck(s) were used in Tinkham's business cleaning out septic tanks as well as the servicing of septic tanks from the nearby condominium complex. Reportedly, the tanker truck(s) used for septage hauling as well as from transportation of wastes from CEC, could still contained

200-500 gallons of waste which would need to be rinsed out before switching from hauling from hauling septage and industrial waste.

While the above documentation of operations at the Site is a general summary of potential disposal at the Site, the investigations and data collected over time from the various media at the Site indicate additional disposal likely occurred during this time period, including disposal into the area referred to as the "solvent swale." There is no other known disposal at the time at the Site other than from the transportation of oils, CEC wastes or from septic services and truck maintenance as provided by Mr. Tinkham through his business operations.

Industries, transporters and owners associated with the four CEC Sites and the transport and disposal of hazardous substances in Massachusetts and New Hampshire have been held accountable under CERCLA for the cleanup of four Superfund Sites via Consent Decrees, which required the Cannons Sites Group (CSG) and Tinkham Settling parties to contribute to cleanup costs and/or to undertake response activities.

The Site has been the subject of numerous investigations and remedial activities since the initial complaint in April 1978, when a resident along Ross Drive alerted the Town of septic odors and excessive foam in a small brook crossing Ross Drive and in their water supply well. This led the Town to the Tinkham Garage as the source. The Health Department investigation revealed that liquids and sludges associated with tanker truck washings, as well as oily materials, had been dumped to the groundwater in fields behind the garage. Wastes contained in the tanker truck(s) could include septage, detergents, acids, oils, and hazardous substances. Reportedly, the tanker truck(s) could contain waste which would be rinsed out as part of routine operations and released at the Site. The fields near the Tinkham Garage slope towards Ross Drive and are abutted by streams and woody swampy areas. The large swamp borders Ross Drive and water which infiltrates into the wetland flows into Ross Drive and through the neighborhood. Aerial photographs of the Site taken from 1970 through 1984, reference or otherwise indicate, numerous trenches and ground stains extending from the rear of Tinkham Garage southeastward toward the wetland area starting in 1974, a trench near Constitutional Avenue and standing liquid behind Building C as well as areas of sand and gravel ground scars. In 1978 a ground stain is reported east of the garage building which is noted as giving the impression of flowing liquid. By 1984, additional ground scars and disturbed areas are noted as well. While these aerial photos do not detail the historical entirety of the operations at the Site, nor define all of the known and suspected areas where contamination may have been released or currently is found, these figures provide a basic understanding of the areas of the Site where operations may have been performed and where features are noted which support on-going investigations at the Site as to the potential extent of Site contamination.

A subsequent citizen complaint in 1978 to the New Hampshire Water Supply and Pollution Control Commission (now NHDES) resulted in that department issuing an order to clean up the site by removing surface contamination. As part of this initial cleanup activity, a diversion trench was excavated along the existing surface water stream to redirect surface water runoff from behind the Tinkham Garage away from Ross Drive and toward the west.

Initial field investigations performed by the EPA in 1981 indicated that groundwater, soil, and surface water were contaminated with numerous volatile organic compounds (VOCs) and other hazardous substances and noted that groundwater in the vicinity of the Site was being used for drinking water. In January 1983, the drinking water supply well (Londonderry Green Supply Well) servicing the Londonderry Green Apartments (now Woodland Village Condominiums) and several residential supply wells along Mercury and McAllister Drives were removed from service because of documented VOC contamination. Bottled water and point of entry treatment systems were temporarily provided until a feasibility study could be completed and a municipal pipeline could be extended to affected homes. The VOCs identified at the Site included the gasoline constituent's benzene, toluene, ethylbenzene, and xylene (BTEX) as well as acetone and numerous chlorinated solvents, including tetrachloroethene (PCE), trichloroethene (TCE), and their associated breakdown products.

In September 1983, the Site was added to the National Priorities List. A Remedial Investigation as to the source(s) of the contamination noted within the condominium water supply well and nearby water supply wells was completed in January 1986 and which documented VOC contamination in the overburden and bedrock aquifers as well as in soils and surface water. Investigations determined, or otherwise inferred, that wash waters and tanker truck washings were released behind the Tinkham Garage property to the south and to the east. Within the condominium area, disposal was allegedly directed into the leach fields as well as into a "solvent swale" situated between buildings E/F and the stream which runs north to south within the condominium property. Soils from the failed leach fields were reportedly excavated and deposited behind building C. The EPA Field Investigation Reports produced in the early 1980's infers additional suspected source areas. A Feasibility Study was completed in September 1986 to evaluate remedial alternatives to address contamination found in soil, groundwater, and surface water during the remedial investigations. A Record of Decision documenting EPA's cleanup plan was filed shortly after. A Consent Decree that required the responsible parties to implement the remedial action, among other things, was administered by the District Court and became effective on August 14, 1989. The remedial action for soils began in 1994 and included excavation of contaminated leach field soils and placement of those soils over the source area contaminated soils east of the Tinkham Garage and the removal of VOCs from those shallow soils using dual phase vacuum extraction. Groundwater was addressed through extraction of shallow groundwater with the on-site soil treatment before being combined with bedrock groundwater extracted from the former and alternate pumping wells at the condominium, for off-site treatment to further reduce or remove contaminant concentrations. The vacuum extraction and groundwater extraction and treatment actions were required to reduce groundwater contamination to attain drinking water levels and to minimize migration of contaminants in groundwater toward Ross Drive. The remedy also required these actions to mitigate further releases and eliminate or minimize threats posed to public health from the source areas.

In 2003, EPA modified the groundwater remedy from active extraction to natural attenuation and long-term monitoring. This change was documented in an Explanation of Significant Differences, which also established that the State of New Hampshire's 1993 Groundwater

Management Permit Program (at the time ENV-Ws410) satisfied the Institutional Controls (IC) objective though establishment of a Groundwater Management Zone (GMZ), within which use of groundwater would be monitored and managed until ambient water quality standards were attained. The first Groundwater Management Permit (GMP) was issued for the Site to the CSG by the State of New Hampshire on October 30, 2002 (GWP-199004008-L-001), is typically reissued every 5 years and was recently reissued in October 2024.

In 2008, 1,4-dioxane, an emerging contaminant associated with chlorinated solvents of the type found at the Site, was first identified in Site groundwater and added to the monitoring of groundwater at the Site. Investigations to assess contaminant concentrations in discrete bedrock fractures within the Site were conducted in 2014 to help establish an understanding of contaminant distribution and potential migration pathways. Subsequent investigations in 2016 confirmed the widespread presence of 1,4-dioxane in groundwater across the Site, with the highest concentrations found in a bedrock wells proximate to the Tinkham Garage field, with a high concentration of 1,510 µg/L detected in fractures at 90 feet below ground surface.

In 2014, the State of New Hampshire also alerted EPA of VOC contamination, including 1,4-dioxane, east of the Site, within residential wells along Boston and Charleston Avenues. In 2016, EPA issued an Explanation of Significant Differences, which established a 3 µg/L cleanup level for 1,4-dioxane in groundwater, required that five households along Boston and Charleston Avenues be connected to the nearby water line and required the responsible parties for the Site perform supplemental investigations as to the nature and extent of residual contamination at the Site and assess potential migration pathways specifically within the bedrock aquifer, which remained the current source of drinking water for several neighborhoods near the Site.

Monitoring of household water supply wells in the Ross/Tokanel neighborhood in 2018 and 2019, indicated the presence of 1,4-dioxane. Previously, monitoring performed at supply wells at nine households along Ross Drive had not detected 1,4-dioxane above the detection limit in 2009. NHDES lowered the Ambient Groundwater Quality Standards (AGQS) for 1,4-dioxane in September 2018 from 3 µg/L to 0.32 µg/L. The 2018 and 2019 sampling indicated that 11 household water supply wells exceeded this newly lowered standard. Monitoring of household wells continued and in 2024, water supply wells at 13 households have been documented in exceedance of the New Hampshire AGQS and another 10 residential water supply wells had detections below the AGQS. The data demonstrates that 1,4-dioxane has and continues to migrate into the neighborhood consistent with the 1986 ROD and groundwater migration pathways being evaluated at the Site.

The distribution of 1,4-dioxane in groundwater across the Site and within the neighborhood also suggests that on-site pumping from former water supply wells, including the primary supply well for the condominium area, as well as continued pumping from residential water supply wells may be influencing the migration of contaminants into the neighborhoods as well as the spread of contaminants within the bedrock aquifer across the neighborhood. Homes with well samples that currently exceed the lowered New Hampshire AGQS for 1,4- dioxane within the neighborhoods have been offered bottled water from CSG as a temporary mitigation measure.

In November 2016, EPA issued a Lifetime Health Advisory for two per- and polyfluoroalkyl substances (PFAS): perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS). In May 2018, EPA requested that source area groundwater monitoring wells be sampled for PFAS to assess whether PFAS may be present at the Site. PFAS have been widely used in many industrial processes, such as the those whose wastes were ultimately disposed at the Tinkham Garage Site, as well as in consumer products, and are often found in septic wastes. In the summer of 2018, PFAS were detected in groundwater within Site source areas, in groundwater across the Site, and detected in residential water supply wells within the Ross/Tokanel neighborhood as well as the Boston/Charleston/Albany neighborhood. Both groundwater monitoring and water supply sampling has continued at the Site. Currently, 65 households with detections above federal and/or state standards have been offered bottled water by the Responsible Parties or by the Agencies as a temporary mitigation measure while investigations continue. PFAS and 1,4-dioxane have been documented in groundwater within the Site and in nearby neighborhoods and in residential water supply wells across the neighborhoods at levels which exceed state and federal drinking water standards; the result of which was an expanding concern for the continued use of groundwater as a drinking water source within the neighborhoods.

An RI Summary Memorandum was prepared in November 2024, which summarizes historical investigations, remedial cleanup and monitoring activities and the ongoing current remedial investigations at the Site. The RI Summary Memorandum presents conceptual site models for surface water and groundwater based on information collected to date, and which documents both historical releases at the Site and potential migration pathways.

Previous decision documents for the Site have addressed unacceptable risk from ingestion of contaminated groundwater for the nearly 400 residents living within the Woodland Village Condominium (former Lexington Green) area of the Site and along Mercury and McAllister Drives via a 1983 water line extension. Construction of the Nevins development, within the central portion of the Site, from 2005-2013 required the connection to both the extended water line and a sewer line for those residents. Five additional households along Boston and Charleston Avenues were connected to the existing water line to mitigate exposure via ingestion of groundwater as required in the 2016 ESD.

Consistent with EPA guidance, EPA may, during remedial investigations, determine that an interim action, limited in scope and which addresses media that will also be addressed by a final ROD, is warranted. At the Tinkham Garage Site, where data has been collected on the nature, extent and migration pathways of 1,4-dioxane and PFAS contamination in groundwater, and where these same emerging contaminants were found in water supply wells within downgradient neighborhoods, EPA determined that an interim action was necessary.

Due to consistent detections of 1,4-dioxane and PFAS in residential water supply wells, a risk evaluation was performed on water supply well data to assess risks related to ingestion of groundwater used as drinking water by residents within these nearby neighborhoods. As described in the risk evaluation memo, included in Appendix A of the FFS, the risk evaluation

was performed using private well data for approximately 80 residences collected between 2014 and 2023 for 1,4-dioxane and for selected PFAS compounds. Risks were calculated for a residential exposure scenario for the combined private well data which indicated that risks exceed EPA target criteria for both cancer and non-cancer risk.

The results of the risk evaluation for the target neighborhoods in addition to the CSM information indicating patterns of release and contaminant migration, formed the basis for action and informed the Focused Feasibility Study (FFS), which was prepared in June 2025. The FFS was limited in scope and considered remedial options to provide an alternate water source to residents within the target neighborhoods which would mitigate the current and future exposure as an interim remedial measure while on-going investigations are being completed in support of a final remedial action for the Site. Further detail and discussion on the comparison of alternatives can be found in the FFS.

A more detailed description of the Site's history and activities can be found in Section 2 of the Remedial Investigation Summary Memorandum Report. (Weston, 2024)

The PRPs have been involved in the Site cleanup since the 1988 Consent Decree, and have been involved in the interim remedy selection process for this Site through the performance of on-going investigations and the collection of data related to the nature, extent and migration of contaminants within and from the Site into the neighborhoods, including the collection of groundwater and water supply well data within the target neighborhoods. Responsible Party representatives have attended EPA's informational and public hearing meetings on the Proposed Plan and provided oral and written comment during the public comment period which have been summarized for the Responsiveness Summary and included in the Administrative Record.

C. COMMUNITY PARTICIPATION

Throughout the Site's lengthy history, community concern and involvement had both periods of high community involvement as well as years of low community interest. EPA has kept the Town, the community, and other interested parties apprised of Site activities through informal meetings, fact sheets, press releases and public meetings. The PRPs have provided residents with written reports summarizing data results from sampling events and have provided temporary mitigation of risks to residents whose well water was found to exceed federal and/or state standards through the provision of bottled water, as required under NH Regulations or as agreed to.

Public outreach efforts related to the Proposed Plan included, but were not limited to, the following:

- In June 2024, EPA and NHDES published a Fact Sheet to provide residents with an update on Site investigation work, including the finding of PFAS and 1,4-dioxane in both groundwater and in residential water supply wells, and additional information about future steps to be taken in response to those findings. The fact sheet described the RI

Summary Memorandum, the alternatives being considered in the Focused Feasibility Study, the public process for the release of the Proposed Plan and how and when to comment.

- In September 2024, EPA released a community relations plan that outlined a program to address community concerns and keep citizens informed about and involved in remedial activities.

- On June 25, 2025, EPA and NHDES met with Town of Londonderry officials, including the Town Administrator, Fire Department and Public Works to discuss the release of the Proposed Plan and plans for the public meeting and public hearing.

- On July 10, 2025, EPA published a notice of availability of the Proposed Plan in the Londonderry Times newspaper, mailed the Proposed Plan to residents within the target neighborhoods and made the plan available to the public online at www.epa.gov/superfund/tinkham, and on the Town's website at https://www.londonderrynh.gov/617/Tinkham-Garage-Superfund-Site. Access to the internet is available at the EPA's Records Center, 5 Post Office Square, Boston, MA and at the Leach Library, 276 Mammoth Road, Londonderry, NH 03053. Notice was provided in the Proposed Plan of a determination that there is no practicable alternative to temporary activities that affect or result in the occupancy and modification of wetlands or the 100- and 500-year floodplain but the preferred alternative is unlikely to affect wetlands or floodplain areas, that best management practices and any mitigation measures will be taken, if required and that a determination was made by EPA that the preferred alternative offers the best practicable alternative.

- On July 10, 2025, EPA held an informational meeting to discuss the results of the Remedial Investigation Summary Memorandum, the alternatives presented in the Focused Feasibility Study and to present the Agency's Proposed Plan. The meeting was advertised to a broader community audience than those that had already been involved with or impacted by contamination at the Site. At this meeting, representatives from EPA, NHDES and our oversight contractor, Weston Solutions, Inc., answered questions from the public. A copy of the EPA presentation and video recording of the meeting was made available to the public on the Town's webpage at: https://www.londonderrynh.gov/617/Tinkham-Garage-Superfund-Site.

- On July 11, 2025, EPA made the Proposed Plan and the Administrative Record available for public review online at http://www.epa.gov/superfund/tinkham and for review and comment online at https://www.regulations.gov/docket/EPA-R01-SFUND-2025-0117.

- From July 11, 2025, to August 12, 2025, the Agency held a 30-day public comment period to accept public comment on the alternatives presented in the Focused Feasibility

Study and EPA's preferred alternative presented in the Proposed Plan. An extension to the public comment period was requested by the CSG and, as a result, it was extended to August 26, 2025.

- On July 29, 2025, EPA held a public hearing to briefly present the Proposed Plan and to accept any oral comments from the community. A transcript of this meeting, comments received and the Agency's response to comments are included in the Responsiveness Summary, which is included as Part 3 of this IROD.

D. SCOPE AND ROLE OF INTERIM RESPONSE ACTION

This Interim Remedial Action addresses groundwater used as drinking water within target neighborhoods. The final response action for the Site, including Site-wide groundwater restoration, will be selected in a future decision document. This Interim Remedial Action will neither be inconsistent with, nor preclude implementation of the final remedial action for the Site.

An "interim action" is limited in scope and solely addresses areas/media that will also be addressed by a final ROD. Interim actions are implemented to:

- Take quick action to protect human health and the environment from an imminent threat in the short term while a final remedial action is being developed, or

- Institute temporary measures to stabilize the site or operable unit and/or prevent further migration of contaminants or further environmental degradation.

Here, it is appropriate to take an interim action to mitigate a current and potential future exposure, via ingestion, of Site-related contaminants in groundwater used as drinking water within target neighborhoods. The selected Interim Remedial Action will mitigate exposure from ingestion of groundwater which poses an unacceptable risk to human health in a reasonable timeframe. Specifically, EPA determined that the groundwater, used as drinking water within the target neighborhoods, contains site related contaminants at concentrations which exceed EPA's acceptable risk range for cancer and EPA's Hazard Index target of 1 for non-cancer risks. Currently, Site data has documented that these same emerging contaminants are found in Site source areas and across the Site within groundwater and surface waters and are the subject of on-going remedial investigations at the Site.

Because the Interim Remedial Action does not constitute the final remedial action for the Site, the statutory preference for remedial actions that employ treatment that reduces toxicity, mobility, or volume as a principal element, while not addressed by this selected Interim Remedial Action, will be addressed by a final decision document. Further, past response actions taken at the Site, as required by the 1986 ROD, met the statutory preference for treatment.

On-going remedial investigations are expected to result in a future final ROD which will address requirements for the restoration and attainment of cleanup standards in groundwater at the Site and address any remaining unacceptable risks related to exposure at the Site.

E. SITE CHARACTERISTICS

Chapter 1 of the Focused Feasibility Study contains an overview of the Remedial Investigation Summary Memorandum. The significant findings of that memorandum are summarized below.

1. Overview of the Site

Site Description:

Located in Londonderry, New Hampshire, the roughly 375-acre Site is comprised of residential, commercial, and undeveloped conservation land. In addition to the 13-unit Woodland Village Condominium complex (formerly the Londonderry Green Apartments) to the west, there are single family homes along Mercury and McAllister Drives to the north, along Gilcreast Road and the Boston/Charleston/Albany neighborhood to the northeast, and the Ross/Tokanel neighborhood to the south and southeast. In January 2003, Gilcreast Realty Holdings II, LLC purchased the 95-acre area in the central portion of the Site for development into active senior housing called ‘The Nevins.’ The Nevins Retirement Cooperative Association owns the land upon which individually owned residential structures were constructed from about 2005 through 2013 (see Figure 2).

The Tinkham Realty Office and Tinkham Garage are located in the northeastern portion of the Site. In the early 2000’s, a portion of land to the northeast of these properties was sold and a commercial retail development was constructed that contains Home Depot, Staples, The 99 Restaurant, and Dunkin' Donuts. A portion of the former source area where hazardous substances were released to the environment, and where former remedial actions were undertaken, south and east of the Tinkham Garage, extends beneath the western end of the parking lot of these properties. The topography of the Site is relatively flat, and surface drainage is from north to south. Several unnamed streams and intermittent tributaries collect and direct precipitation and discharge groundwater from the Site southward, eventually discharging off-site to Beaver Brook. These streams and tributaries passed through the Site and historically and currently pass through the Ross/Tokanel neighborhood towards the large wetlands southwest of the neighborhood and towards Beaver Brook. The large wetland area located southwest of the Site, where the unnamed streams enter Beaver Brook, eventually discharges to the Merrimack River farther south. (See Figure 3)

2. Conceptual Site Model

The Conceptual Site Model (CSM) is a three-dimensional “picture” of site conditions that illustrates known and suspected contaminant source areas, release mechanisms, exposure pathways, potential migration routes, and potential human receptors. It documents current and

potential future site conditions and shows what is known about human and environmental exposure through contaminant release, migration to and exposure for potential receptors. The risk assessment and response action for groundwater used as drinking water is based on this CSM. Below is a summary of the current site CSM as summarized in the FFS. For a more detailed CSM please refer to the RI Summary Memorandum (Weston, 2024). The CSM presented in the RI Summary Memorandum provides the EPA's current understanding of the releases based on site history and investigations undertaken to date at the Site, a description of identified and potential migration pathways, and the distribution of contaminants at and from the Site.

Description of Releases

Tinkham Enterprises maintained a trucking service operation which transported both septic and liquid industrial wastes to disposal sites during the 1970s. The Tinkham Garage is understood to have served as a facility for the storage, maintenance, and cleaning of tanker truck(s) associated with Tinkham Enterprises. The tanker truck(s) were used to service septic system, including those at the former Londonderry Green apartment buildings, and the disposal of septage wastes. Residual materials in the truck(s) were disposed of or otherwise washed out and the wash water and residual sludges were allowed to flow onto the ground surface at the garage building. Mr. Tinkham was hired by the Cannons Engineering Corporation to transport hazardous waste and/or industrial wash waters to and from their Bridgewater facility and to other facilities for disposal. Mr. Tinkham transported and disposed of materials at the Gilson Road facility operated by Mr. Sylvester (now the Gilson Road Superfund Site). It is understood that the truck(s) performing this transport and disposal would, as noted above, have any residuals be removed and be washed out at the garage. It is understood that releases of residuals and wash waters were released to the field located east of the Tinkham Garage. It was also reported that releases of industrial wastes into the septic systems also occurred. As such, wastes contained in the tanker truck(s) which transported hazardous wastes and septic waste reportedly could include septage, detergents, acids, oils, as well as hazardous substances. Historical information and data collected at the Site confirm the release of wash waters and the presence of elevated levels of hazardous substances in fields at the Tinkham Garage.

Environmental investigations in 1982 also identified very high levels of VOCs within a water-filled trench or trenches located in a wooded area behind Buildings E/F of the Londonderry Green Apartments. This location was designated the 'solvent swale' and was covered with several feet of soil in 1982 by the property owners at the request of EPA to prevent direct human contact with the contaminated surface water and sediments. Initial environmental investigations also identified elevated levels of VOCs within and downslope of leaching fields serving several of the former Londonderry Green Apartments, as liquid wastes from Tinkham Enterprises were reportedly discharged into the various septic system/leach fields servicing these apartments.

A pile of soil located behind condominium Building C was also identified and found to be contaminated with VOCs as this pile was understood to be the bedding materials from leaching fields that had failed and had been dug out. By the mid-late 1980s it is understood that all of the leach fields had been replaced by the owners of the apartments. However, the

subsurface impacts to soil and groundwater from those discharges were not addressed by the limited short-term remedial efforts.

The initial RI Report and 1986 ROD identified many, if not all, of the leach fields as being potential sources of groundwater contamination from disposal activities. The Pre-Design Investigations identified the leach fields associated with Buildings K/L, I/J, and C as being the most contaminated from a soil cleanup perspective.

Based on the initial investigations and subsequent environmental studies and testing results, four confirmed release areas or "source areas" were identified:

1. The field/wetland areas southeast of the Tinkham Garage, and the trenches directly behind (east) of the Tinkham Garage.
2. The 'solvent swale' located south of condominium Building F.
3. The soils within leach fields of the Londonderry Green apartments (now the Woodland Village Condominium Complex), with the leach fields for Buildings K/L, and I/J being deemed the most contaminated.
4. A soil pile behind condominium Building C believed to be contaminated bedding material previously excavated from failed leach field(s).

The solvent swale, which was reported as an open, water-filled trench, was noted as containing high levels of toluene, 1,1,1-TCA, and TCE in surface water and toluene and 1,1,1-TCA in soils in October 1982 (NUS, 1983 and 1984). This trench was backfilled on November 18, 1982, and its location is currently not demarcated at the Site as the leach field for buildings formerly known as E/F are now located above it. Remediation of the solvent swale in 1982 included covering of the swale with clean fill to reduce potential contact and incidental ingestion. Subsurface impacts to soil, groundwater, and surface water are not known based on the limited and short-term nature of the historical investigative and cleanup efforts.

The leach field materials which exceeded soil VOC cleanup standards and the soils from the soil pile were excavated and placed onto the soils at the Tinkham Garage via dual-phased SVE treatment.

Migration Pathways:

Following each successive release from a tanker truck, there was contaminant 1) infiltration into the ground surface, 2) runoff into and transport via surface water pathways accentuated during precipitation, and 3) groundwater discharge into and subsequent transport via perennial surface water pathways. Contaminants that were discharged directly to the ground surface and not washed into streams by precipitation and carried downstream infiltrated the overburden soils and migrated downward into deep overburden, and eventually bedrock, providing residual columns of contaminants in soil media, which produce and sustain groundwater contamination over time. Vertical contaminant migration through the overburden was slowed by the dense to very dense tills, where present, in the lower portion of the overburden, which likely acted as and continues to act as a potential longer term "sink," or storage reservoir for contaminants via adsorption and

diffusion processes. Thus, following initial portions of the release history, contaminants which had penetrated deeply into the soil column and into the till matrix represent a secondary source zone of stored or residual contaminants which allow for the sustained slow release of dissolved contaminants to groundwater over decades in the Tinkham Garage source area and to a lesser extent in the Woodland Village Condo source areas.

As well as affecting till and other materials in the lower portion of the overburden, vertical downward migration of contaminants would have also impacted underlying bedrock, likely accumulating at capillary barriers such as along the overburden/bedrock contact, eventually locally penetrating further into the bedrock via migration along fractures of various orientations. (See Figure 4) The effect of these many and varied contaminant migration pathways has resulted in a patchwork of composite secondary sources in shallow overburden, till, and bedrock within the broad regions of primary contamination.

Similarly, contaminants which were disposed of or released within the Woodland Village Condo area would be expected to infiltrate into the overburden and bedrock, as evidenced by the elevated concentrations seen in ERT-06 during the initial RI, as well as having been transported to the south and southeast by Streams 1A and 1B, respectively. Shallow overburden wells FW18 and FW19 were formerly located proximate to the leach field of Buildings E/F (which at the time of the initial RI were located in the front of the buildings, near Stream 1B) and found to be contaminated. The leach fields for Building E/F were later constructed behind the buildings, in the area of the former solvent swale. Streams 1A and 1B are converging streams which pass to the west of the Ross/Tokanel neighborhood and enter a large wetland which continues to flow toward the south/southwest ultimately discharging to Beaver Brook. (See Figure 5)

Surface water/groundwater interactions have also likely played a significant role in contaminant fate and transport at the Site. The groundwater/surface water interaction study performed by H&A (H&A, 2019) demonstrated that groundwater discharges into the upper reaches of Stream 1D in the vicinity of the Tinkham Garage source area. Overburden groundwater in the Tinkham Garage source area has been shown to flow to the east toward Stream 1D. Concentrations of 1,4-dioxane were significantly higher in groundwater than in surface water where upward gradients were observed, suggesting that as groundwater is passing under the stream, some of the overburden groundwater from the Tinkham Garage source area discharges to the upper reaches of Stream 1D, while the remaining groundwater passes beneath the stream and continues to flow further east and southward. Neutral and downward gradients have been shown to exist at least during certain portions of the year in the lower reaches of Stream 1D, beginning northeast of FW28D. 1,4-Dioxane concentrations in surface water are roughly double those in groundwater where neutral to downward gradients are observed, suggesting that the impacted surface water of Stream 1D recharges groundwater in the lower reaches of the stream, in addition to traveling along its flow path across the Nevins to Stream 1C and ultimately discharging into Beaver Brook. Contaminants released at the multiple Tinkham Garage source areas have thus been transported downstream via surface water and recharge and interact with groundwater where they can then migrate downward into bedrock near the Ross/Tokanel neighborhood as well as migrate toward further downgradient regions via both the surface water and groundwater pathways.

Contaminants in the Tinkham Garage source area migrate downward through the fill and overburden deposits into the underlying till units, and eventually deep into bedrock via the high angle to near vertical fractures that have been shown to pervade the Site. Once in bedrock, contaminants are then transported from initial release sites or secondary source areas to distant areas, traveling through interconnecting fractures within the bedrock. Three predominant fracture sets have been mapped at the Site: 1) a primary fracture set that trends NE to NNE and is parallel to the strike of regional structural trends, 2) a secondary fracture set that is roughly perpendicular to the primary fracture set (trending roughly NW to WNW), and 3) sheeting fractures that are low angle to near horizontal and cross-cut the other two fracture sets. With the exception of the sub-horizontal "sheeting" fractures, the other fracture sets are steeply dipping, near vertical in many cases. Strike-parallel fractures include near vertical as well as fractures which generally follow the foliation (layering) in the rocks and dip moderately to steeply to the northwest. The higher frequency of the primary strike-parallel fracture set relative to the other two imparts a strong NE to NNE anisotropy on the bedrock groundwater flow system. However, NW to WNW trending fracture sets crosscut the strike-parallel features and thus provide pathways where groundwater can migrate across strike in response to hydraulic gradients which are directed generally from north to south.

The upper portion of the bedrock warrants particular attention relative to groundwater movement and contaminant transport. The overburden/bedrock contact zone is an important horizon as the interface is typically characterized by large contrasts in permeability and hydraulic conductivity. In this respect, groundwater and contaminants commonly migrate laterally on this interface, accumulating in localized low spots. The bedrock/overburden interface is also typically characterized by an uppermost zone of weathering with variable thickness. This uppermost "weathered zone" is characterized by irregular intervals of chemically altered or "weathered" bedrock as well as intervals of more intense fracturing. Sub-horizontal sheeting fractures are flat features that occur in the upper part of bedrock masses. Such sheeting fractures are more prevalent near the upper portion of the bedrock including the weathered layer, with sheeting fracture density decreasing with increasing depth below the bedrock-overburden contact. Sheeting fractures commonly act as important groundwater and contaminant migration pathways, and while they are more prevalent in shallow bedrock, they may persist to depths of hundreds of feet below ground surface.

The nature of the weathered bedrock layer requires that for many drilling and well installation technologies, this area or interval is typically cased off by permanently installed steel casing to prevent cave-ins, fluid loss or other potential problems during the drilling of deeper bedrock holes. Drilling programs therefore often systemically overlook this interval by virtue of the typical installation of permanent steel casings, which by design, "seal off" and obfuscate the weathered zone. Given the prevalence of fracturing and variable weathering in the uppermost bedrock, this zone will require further scrutiny in the on-going remedial investigations for groundwater. The present CSM for the Site currently does not have adequate evaluation of this zone, as most of the borings to date have either targeted shallow overburden materials or deeper bedrock intervals and have used permanently grouted steel casing across these zones to do so. Within the neighborhoods, shallow bedrock wells were required by the EPA for

installation however, the installation of these wells were disputed by the CSG in 2023 and have not been installed.

Groundwater moves through the bedrock via the three fracture sets in response to the hydraulic gradient. The overall hydraulic gradient across the Site is to the east-southeast towards Beaver Brook (see Figures 6a and 6b), but because the primary fracture set in the bedrock imparts a strong anisotropy, actual groundwater flow paths (and therefore contaminant migration) will follow a more complex pattern and may not flow directly down the hydraulic gradient. The distribution of fractures is not uniform; there are areas where either fractures are better developed (larger, longer or more open) or are more frequent (clustered). These areas represent preferential pathways in bedrock. These preferential bedrock pathways can be expressed as linear features on the ground surface and/or can be confirmed, located, and mapped by surface geophysical methods. Lineament analysis and surface geophysics were employed at this Site in an effort to identify and further delineate potential preferential pathways. Identified lineaments and surface geophysical anomalies are shown on Figure 4. The results of the transducer groundwater elevation monitoring program were used to assess which of the mapped lineaments and geophysical anomalies might represent viable hydraulic and contaminant migration pathways. Hydraulic connections identified from the transducer data are shown on Figure 7.

Historical transport of contaminants within bedrock groundwater appears to have been influenced by the pumping of the LGSW which drew contaminants from the Tinkham Garage source area to the southwest along the major axis of anisotropy, parallel to the predominant fracture strike. This is evidenced by the drawdown ellipse that was observed during the pumping test that was carried out as part of the 1983 NUS/FIT Field Investigation (see Figure 8). Londonderry Green Supply Well was pumped at a constant rate of 20 gpm to simulate pumping conditions prior to the shutdown of LGSW in January 1983. The drawdown ellipse extended from LGSW to the northeast and through a portion of the Tinkham Garage source area where Site COC concentrations are the highest reported for the Site (e.g., FW11D). Surface geophysics conducted at the Site as part of the current RI identified a potential northeast-southwest fracture zone extending from LGSW toward the Tinkham Garage source area and while it was not mapped as extending beneath the Nevins, based upon the drawdown observed during the LGSW pump test, the fracture zone does extend beyond The Nevins to the southwest and at least through the Tinkham Garage source area to the northeast.

The Boston/Charleston/Albany neighborhood is situated to the east of the Tinkham Garage source area. Strike-parallel transport along the primary axis of anisotropy under pumping conditions likely drew the contaminants from the Tinkham Garage source area to that neighborhood, which would explain the similar contaminants observed within the Boston/Charleston/Albany neighborhood. Several homes in this neighborhood were connected to the existing water line in this neighborhood by the 2016 ESD, which reduced pumping stress placed on the bedrock aquifer. Contaminant concentrations from these wells following cessation of pumping have declined significantly.

Another fracture zone mapped by the surface geophysics (see Figure 4), trending roughly northwest to southeast (parallel to the secondary fracture set), connects LGSW to the LGAW,

which is located approximately 1,120 ft to the south-southeast of LGSW. Londonderry Green Auxiliary Well was allegedly never used for water supply due to sulfide contamination; however, that well is artesian suggesting recharge from an area to the north or northeast that has higher groundwater elevations. During the LGSW pumping test, drawdown was not observed (see Figure 8), indicating that pumping LGSW at 20 gpm was not enough to overcome the artesian conditions at LGAW. However, it is possible that contaminants migrated south-southeast along the identified fractures from LGSW to LGAW under the natural hydraulic gradient at the Site. Historical analytical data indicate that Site COCs have been present in LGAW at elevated concentrations since sampling was initiated in 1982. It is also possible that the contamination in LGAW could be from releases associated with the Woodland Village Condo including the nearby solvent swale and leach fields E/F. Contamination present at LGAW continues to migrate southeast.

The LGSW water supply well was removed from service in January 1983 with the waterline connections to the condominiums and nearby households on Mercury and McAllister Drives as required by EPA. Pumping of this well was resumed temporarily along with LGAW as a component of the Remedial Action operating from May 1995 through July 1996. Contaminant migration in bedrock to the southwest from the Tinkham Garage source area would have slowed during non-pumping durations and instead would be influenced by the ambient bedrock hydraulic head field directed to the south, facilitated by fracture flow to the south along the NNW-SSE and N-S striking fracture as well as tertiary (sheeting fractures) fractures. Pumping-induced stresses from the nearby neighborhoods to the south likely increased southward directed flow gradients. Contaminants that existed in bedrock groundwater in the vicinity of the former Londonderry Green Apartments (now Woodland Village Condos) were subject to continued pumping stresses from the residential wells in the southern portion of the Ross/Tokanel neighborhood. As expected, pumping-induced stresses on bedrock groundwater are likely to have increased and/or have had some variability as the neighborhoods have developed and new supply wells installed over the 40 years since the initial releases occurred.

A fracture zone was identified during the surface geophysics study that originates in the former field east of the Tinkham Garage (northeast of wells FW20, HA20-03, and OW2S/D) and runs through the northern portion of the Ross/Tokanel neighborhood, thereby connecting the Tinkham Garage source area to the northern portion of the Ross/Tokanel neighborhood. Contamination released in the Tinkham Garage fields would likely have migrated easterly to this area before entering the bedrock. Groundwater samples from FW20 (a shallow bedrock well) and OW2D (an overburden well) have had elevated concentrations of 1,2-DCA, cDCE, PCE, TCE, and vinyl chloride before, during, and after completion of the initial remedial actions, suggesting that the remedial efforts likely had limited effectiveness. As noted above, the surface geophysics performed by CSG identified a series of ‘high confidence’ bedrock structures that trend NW-SE (parallel to the secondary fracture set) and extend into and through the northern end of the Ross/Tokanel neighborhood. The presence of both PFAS and 1,4-dioxane has been documented in residential water supply wells along this pathway, within the northern end of the Ross/Tokanel neighborhood. PFAS were recently detected in bedrock monitoring well FW25D, which is located just south of an identified fracture pathway and where 1,4-dioxane was also detected in

the spring of 2022. Additionally, 1,4-dioxane was detected in November 2022 for the first time at well FW26D, which is also along a potential migration pathway suspected to reach the Boston/Charleston/Albany neighborhood. This suggests that the bedrock groundwater plume along these potential migration pathways may be continuing to expand, likely in response to reduced pumping of water supply wells within the Site and continued pumping in the Ross/Tokanel neighborhood and nearby areas.

Figures 11A and 11B summarize the CSM for the groundwater and surface water pathways, respectively.

a. Known or Suspected Source of Contamination and Contaminant Distribution

Based upon the data collected to date, it is evident that VOCs and other hazardous substances, pollutants and contaminants were released at the Site in at least four known source areas, migrated downward into and through the till units of the Tinkham Garage and Woodland Village Condo source areas. The VOCs would have adsorbed to soil within the till units, which may continue to act as a secondary source for continued low-level releases to bedrock in those areas. Initially, VOCs migrated laterally within the overburden to the east and southeast from the Tinkham Garage source area as indicated by highly elevated concentrations measured in FW11 and the M- and K-series monitoring wells (no overburden wells were located downgradient of FW11, so the full extent of the initial overburden impacts was not determined). As part of the remedial actions undertaken at the Site OW2d was installed east of FW11 and consistently reported some of the highest concentrations; this area, and FW11 were outside of the designated soil source area behind the Tinkham Garage. Currently, lateral migration of VOCs outside of the Tinkham Garage and Woodland Village Condo source areas within the overburden appears to be limited. Lateral migration of VOCs in FW-20 which is installed in shallow bedrock east of the source area reported over 400 µg/L 1,4-dioxane in 2023 as well as MCL exceedances for vinyl chloride, 1,2-DCA and has concentrations of PFAS (PFHxS, PFOA, and PFOS) above their NH AGQS and EPA MCLs. The Woodland Village Condo source areas within the overburden appears to be limited, however most of the monitoring wells within the condominium area are not located within leach fields and those remaining are screened in bedrock. The current overburden and bedrock groundwater VOC plume maps (Figures 10A and 10B, respectively), indicate plume geometries generally restricted to the source areas and limited detections in the residential areas.

Chlorinated VOCs generally lend themselves to migrating downward and are less likely to be widespread than other, lighter, and more mobile VOCs under conditions that persist at the Site (low transmissivity of the till and lower hydraulic stresses after pumping of LGSW ceased). The highest historical and present-day concentrations of VOCs at the Site exist within the Tinkham Garage source area. Similar contaminants were found in the Condominium area and in residential wells in the Boston/Charleston/Albany neighborhood in 2014, which were the subject of the 2016 ESD.

The 1,4-dioxane concentrations in groundwater at the Site exceed EPA's risk-based groundwater screening level of 46 µg/L set at a cancer risk target of 1×10^{-4}. Additionally, concentrations in groundwater are several orders of magnitude above the Site cleanup level set at 3 µg/L in the

2016 ESD, and well above the current NHDES AGQS of 0.32 µg/L in and downgradient of the source areas. This compound has been detected in monitoring wells across the 375-acre Site at concentrations exceeding the ROD cleanup level as well as in the Boston/Charleston/Albany neighborhood and in the Ross/Tokanel neighborhood above the current New Hampshire AGQS since the compound was initially analyzed. (see Figure 11)

Given the highly soluble and recalcitrant nature of 1,4-dioxane as well as its vertical distribution, it appears that residual 1,4-dioxane is being transported from former release areas at the Site into the neighborhoods via bedrock fractures along deeper flow paths. In the 2020 Annual Water Quality Monitoring Report (H&A, 2021b), H&A updated their CSM to acknowledge that 1,4-dioxane from the Tinkham Garage source area had migrated into the Ross/Tokanel neighborhood. Continued migration of 1,4-dioxane along this pathway is illustrated by the observed increasing concentration of 1,4-dioxane within discrete fractures and increasing trends within deeper intervals such as at FW28.

Closer to the Tinkham Garage source area, at FW11D, where 1,4-dioxane was reported at over 1 ppm in 2023 and FW11DX, 1,4-dioxane concentrations increase with depth to about 300 ft and then decrease, suggesting that the core of the plume is likely shallower near the release area, as would be expected. As noted above, the 1,4-dioxane plume then moves deeper under predominantly downward vertical gradients present along the major migration pathways as it moves downgradient towards the receptors. This observation is further supported by the potential hydraulic connections that were identified during the evaluation of transducer data. These potential connections appear to link the Tinkham Garage source area to downgradient locations FW28D, HA20-01, HA20-02, and HA20-06 as shown on Figure 7.

While less studied than the southeastern pathway, it is likely that a northern pathway exists from the FW20 area eastward to FW25 and into the northern portion of the Ross/Tokanel neighborhood where 1,4-dioxane has historically been detected below the New Hampshire AGQS at 4 and 10 Ross and 3, 5, and 7 Tokanel. Surface geophysics has mapped several large high-confidence anomalies along this pathway that may represent water-bearing fractures. Further investigation and monitoring of the northern pathway is ongoing.

As evident from Figure 11, the majority of the 1,4-dioxane migration has occurred to the southwest from the Tinkham Garage source area toward former water supply well LGSW. While it was originally postulated that historical operation of that well had pulled contamination in that direction along the bedrock pathway identified during the pumping tests performed during the initial RI and pre-design investigations, the fact that 1,4-dioxane concentrations along that pathway have not significantly attenuated since termination of pumping in 1996 (about 27 years ago) suggests that there may also be a natural component of flow along that pathway.

Similar to 1,4-dioxane, PFAS are widely distributed across the Site, with the highest concentrations found in the Tinkham Garage source area as well as in a residential water supply well along Ross Drive, proximate to a surface drainage feature off of Stream 1D (see Figures 12A and 12B). Concentrations which exceed EPA MCLs as well as AGQS for PFOA and/or PFOS are found across the Site and have been noted in residential supply wells

within the neighborhoods monitored. EPA RSLs were last updated in November 2024 and Site data indicate there are exceedances of PFAS RSLs in nearly all residential water supply wells. Elevated PFAS concentrations are found at the northeastern portion of the Ross/Tokanel neighborhood, with several homes found to be in exceedance of the EPA MCL for PFAS, suggesting that PFAS may be migrating along fractures ("the northern pathway") as discussed above.

b. Routes of Exposure and Potential Receptors

Exposure occurs when humans or other living organisms eat, drink, breathe or have direct skin contact with a hazardous substance or waste material. There must be a current or potential exposure to a hazardous substance for there to be a risk to human health. EPA develops various site-specific exposure scenarios to determine potential risks, appropriate cleanup levels for contaminants, and potential cleanup approaches.

Consistent with EPA guidance, an interim remedy may be warranted at a site before the remedial investigations are complete and before the formal baseline or supplemental risk assessment is performed. Whenever there is a release or substantial threat of release of a hazardous substance into the environment which may present an imminent and substantial danger to public health or welfare, CERCLA provides EPA with the authority to take any response action consistent with the National Contingency Plan (NCP) deemed necessary to protection human health.

While interim action RODs do not require a completed baseline risk assessment, enough information must be available to demonstrate an exposure, the potential for risk, and the need to take action. Data sufficient to support the interim action decision is in the ongoing RI and monitoring at the Site and set out in the FFS, which includes a short analysis of a limited number of alternatives (55 Fed. Reg. at 8704). This selected interim remedial action addresses a completed exposure via ingestion for residents who continue to rely on groundwater for their household use, including use as drinking water.

This IROD includes an assessment of 1,4-dioxane and selected PFAS compounds for residents using groundwater as drinking water and are located downgradient of the Site. The CSM indicates that PFAS and 1,4-dioxane may have migrated or continues to migrate from the Site. Although inhalation and dermal absorption pathways are possibly complete for these receptors, these exposure pathways were not considered in this interim action due to limited or unavailable toxicity information for PFAS.

Because other risks may be assessed at the Site at the completion of the RI, this risk evaluation expresses only one pathway for receptors in support of an interim action (ingestion of groundwater as drinking water within target neighborhoods).

1) Human Health

Due to consistent detections of PFAS and 1,4-dioxane in residential wells, a risk evaluation was performed for groundwater used as drinking water and utilized private well data collected from approximately 80 residences in these neighborhoods for 1,4-dioxane and selected PFAS

compounds, including PFOA, PFOS, perfluorononanoic acid (PFNA), perfluorobutanesulfonic acid (PFBS), perfluorobutanoic acid (PFBA), perfluorohexanesulfonic acid (PFHxS), and perfluorohexanoic acid (PFHxA), which is summarized in Section G below. Residents within the Ross/Tokanel neighborhood and the Boston/Charleston/Albany neighborhood as well as those on Gilcreast Road, who are not currently connected to a municipal water line, utilize groundwater as their potable water source via private water supply wells.

3. Other Site-Specific Factors

The 1986 ROD established RAOs to address the numerous source areas and both soil and groundwater contamination to reduce concentrations to prevent further migration of site contaminants toward Ross Drive. The target neighborhoods addressed in this IROD are located south and east of the Tinkham Garage and those areas addressed in the 1986 ROD. In 2016, EPA required a waterline connection to five households located east of the Tinkham Garage whose water supply wells were found to contain contaminants similar to the Tinkham Garage Site at concentrations which exceeded federal and state drinking water standards. Long-term monitoring at the Site had consisted of approximately 8 open borehole monitoring locations since 2003. In 2014 EPA packer testing and bedrock fracture analysis in three of those monitoring locations indicated elevated 1,4-dioxane concentrations in shallow fractures downgradient of the original designated source area. In 2016, EPA required a completed round of groundwater samples be collected across the Site which indicated widespread contamination by 1,4-dioxane. In 2018, PFAS was identified in Site source areas and in Site groundwater.

The target neighborhoods which are the subject of this IROD are located in the direction of groundwater flow, as identified by the 1986 ROD and confirmed through on-going remedial investigations, to the south and receptors located between the Site and those households placed on the waterline in 2016 to the East. Contamination in groundwater has also been documented beyond the Site to the southwest, in both monitoring wells and a neighborhood irrigation well, however those residents are currently relying on a waterline for drinking water.

F. CURRENT AND POTENTIAL FUTURE SITE LAND USE

Prior to the completion of I-93 in 1962, most of what is now considered the Tinkham Garage Site, consisted of agricultural fields, undeveloped wooded land, and wetlands. Soon after 1962, residential and commercial development began along Route 102. In the early to mid-1970s, the Londonderry Green Apartments (now Woodland Village Condominiums) and single-family homes were constructed on and around the Site, including in the Ross/Tokanel neighborhood located to the south and Boston/Charleston/Albany neighborhood to the east. In the mid-2000s the Nevins development was constructed within the center portion of the Site. The 90-acre wetlands located east and southeast of the Tinkham Garage remain as conservation land, while the northeastern portion of the Site was developed for commercial use and is a popular shopping center. Public water supply lines provide potable water to residents living in the Woodland

Village Condominiums, Mercury and McCallister Drives, the Nevins, as well as provides water to the shopping center. Similarly, sewer lines have been installed to replace the Woodland Village Condominium leach fields and as part of the Nevins development to collect and direct wastewater to the nearby Derry Publicly Owned Treatment Works (POTW). Three new residential developments recently constructed, or currently undergoing construction, on lands near the Site, will utilize public water line connections for their water supply.

There are approximately 89 residences that are located within the Ross/Tokanel neighborhood and the Boston/Charleston/Albany neighborhood which continue to rely on groundwater as their drinking water source.

The current and reasonably anticipated future land uses of the Site form the basis for the exposure assumptions that are used for the risk assessment, are considered in the development of remedial objectives and remedial alternatives and are considered in the selection of the appropriate interim remedial action.

The current land use(s) at the Site are currently residential and commercial. The current and future anticipated land use in the target neighborhoods and the target areas for this interim action, is residential. As this in an interim remedial action, the risk assessment focused specifically on the current and future potential exposure to site contaminants, via ingestion of groundwater used as drinking within the target residential neighborhoods.

G. RISK EVALUATION FOR RESIDENTIAL USE OF GROUNDWATER

The risk evaluation performed in support of this IROD estimates risks that could occur from using groundwater as a drinking water source if no remedial action is taken. It provides the basis for taking action and identifies the contaminants and exposure pathway that will need to be addressed by the interim remedial action. The following sections summarize the results of the risk evaluation. The Risk Evaluation of PFAS and 1,4-dioxane in residential wells at the Tinkham Garage Site is found in Appendix A of the June 2025 FFS.

A completed exposure pathway has been documented for residents living near the Site for ingestion of groundwater that has been, or potentially may be, impacted by contaminants released at the Site via uncontrolled migration of groundwater, transport via surface drainage, and/or from stresses placed on the bedrock aquifer related to continuous pumping of water supply wells. Concentrations of contaminants including 1,4-dioxane and PFAS are currently found in water supply wells in excess of federal and State applicable or relevant and appropriate requirements (ARAR) and EPA RSLs; therefore, a risk evaluation was performed to assess potential cancer and non-cancer risks for the residential well data as described below.

1. Human Health Risk Assessment

While interim action RODs do not require a completed baseline risk assessment, enough information must be available to demonstrate an exposure, the potential for risk, and the need to

take action. The risk evaluation performed for residential well data follows the same outline as a baseline human health risk assessment which includes a four-step process:

1) hazard identification, which identified those hazardous substances which, given the specifics of the site were of significant concern.
2) exposure assessment, which identified the exposure pathway, characterized the potentially exposed populations, and determined the extent of possible exposure.
3) toxicity assessment, which considered the types and magnitude of adverse health effects associated with exposure to hazardous substances; and
4) risk characterization and uncertainty analysis, which integrated the three earlier steps to summarize the potential and actual risks posed by hazardous substances at the site, including carcinogenic and non-carcinogenic risks and a discussion of the uncertainty in the risk estimates.

The results of the risk evaluation are presented in the June 2025 Focused Feasibility Study Report (FFS) and are summarized below.

a. Hazard Identification

PFAS and 1,4-dioxane were identified as contaminants of concern requiring further evaluation based on consistent detections found in groundwater and in drinking water supply wells within the target neighborhoods.

1,4-Dioxane is a synthetic industrial chemical that was widely used as a stabilizer of chlorinated solvents such as the kind found at the Site. 1,4-Dioxane can be produced as a byproduct and may remain present in consumer and commercial products, including soaps and detergents, cleaning products, antifreeze, textile dyes, and paints/lacquers. 1,4-Dioxane is released to the environment from industrial releases and from consumer and commercial products that are washed down the drain or disposed of in landfills. 1,4-Dioxane is completely miscible in water, is highly mobile, and does not readily biodegrade in the environment. 1,4-Dioxane has been detected in groundwater and in water supply wells at the Site. Within water supply wells, 1,4-dioxane concentrations ranged from ND -1.65 µg/L.

Per- and polyfluoroalkyl substances (PFAS) are a group of human-made chemicals that have been used in industry and consumer products since the 1940s. PFAS are used in many industrial processes including plating, electronics, and certain textile and paper manufacturers and found in a wide range of consumer products such as non-stick products (e.g., Teflon cookware), pizza boxes, stain- and water-repellent fabrics, polishes, waxes, paints, and cleaning products. Another source of PFAS in the environment is fire-fighting foams. PFAS compounds are very persistent in the environment – meaning they do not break down and can accumulate over time. Select PFAS compounds were included in the risk evaluation for the following PFAS: PFOA, PFOS, PFNA, PFBS, PFBA, PFHxS, and PFHxA.

Private well data is unavailable for PFDA, therefore, it is not included in the risk evaluation. Additionally, EPA does not currently have toxicity values available for PFPeA or PFHpA,

therefore, risks for these compounds could not be estimated. Concentrations of PFOA and PFOS, the primary PFAS noted in the groundwater varied in water supply wells across the neighborhood; monitoring data is compiled in Annual Reports submitted by the CSG.

b. Exposure Assessment

Exposures to PFAS and 1,4-dioxane were evaluated using private well data for approximately 80 residences collected between 2014 and 2023 for 1,4-dioxane and the selected PFAS compounds. Risks were evaluated for a residential tap water scenario which assumes potable uses of water such as drinking and bathing and that a person may be exposed to contaminants through ingestion, dermal and inhalation routes. However, there is currently limited dermal toxicity data for PFAS compounds. Additionally, EPA does not currently have inhalation toxicity data available for PFAS compounds. Therefore, only ingestion exposure was evaluated for the residential well data. There is potential for risks to be underestimated due to limited toxicity information for the dermal and inhalation pathways.

A completed exposure pathway has been documented for residents living near the Site for ingestion of groundwater that has been, or potentially may be, impacted by contaminants released at the Site via uncontrolled migration of groundwater, transported via surface drainage, and/or from stresses placed on the bedrock aquifer related to continuous pumping of water supply wells. Concentrations of contaminants including 1,4-dioxane and PFAS are currently found in water supply wells in excess of federal and State applicable or relevant and appropriate requirements (ARAR) and RSLs and a risk evaluation of cancer and non-cancer risks has been performed by an EPA risk assessor. The complete Risk Evaluation Memorandum is presented in Appendix A of the FFS (Weston, 2025) and is summarized below.

To estimate exposure for residents relying on private wells in the target neighborhoods, an approach was used to combine the residential data from all individual residential wells monitored in order to calculate the 95% UCLs for 1,4-dioxane and the selected PFAS compounds for the risk evaluation. While it is noted that this approach may increase uncertainty, this method was determined to be a reasonable approach for this risk evaluation for these residential receptors.

As documented in the RI Summary Memorandum (WESTON, 2024), contaminant migration in fractured bedrock is driven by both the hydraulic gradient and the orientation of the fractures. Thus, the residential wells in this data were determined to be comparable in that they are all located within the bedrock aquifer and hydraulically downgradient of the Site or along predominant fracture orientations which has been mapped at the Site. The residential wells are open borehole construction and as such groundwater can flow into the well along the length of the well prior to being pumped into a household. Additionally, patterns for the migration of contaminants have been noted for Site contaminants, including 1,4-dioxane and PFAS, which have raised concerns about the uncontrolled migration of Site contaminants, the continued use of private wells, and the further pulling of Site contamination toward residential wells. Therefore,

the approach of combining the residential well data was determined to be appropriate for the risk evaluation.

The 95% UCLs for PFOA, PFOS, PFNA, PFBA, PFBS, PFHxS, PFHxA, and 1,4-dioxane were calculated using ProUCL (version 5.2), using the collective residential well data from the target neighborhoods and are as follows:

Exposure Point Concentrations

1,4-dioxane	PFOA	PFOS	PFNA	PFBA	PFBS	PFHxS	PFHxA
0.197 µg/L	13.08 ng/L	4.74 ng/L	1.72 ng/L	2.94 ng/L	4.28 ng/L	2.36 ng/L	3.76 ng/L

The EPCs obtained for the PFAS compounds and 1,4-dioxane representing the 95% UCLs were used in the EPA RSL calculator to generate estimates of risk for residential tap water use. The exposure parameters used for the resident scenario are provided in Table 2 of the risk evaluation found in Appendix A of the FFS and represent standard default assumptions used for the adult and child resident.

c. Toxicity Assessment

1) Carcinogenic Effects

The potential for exposure to a contaminant to result in a carcinogenic effect is generally described by two factors: a statement reflecting the degree of confidence that the compound causes cancer in humans and a potency estimate, indicating how potent the contaminant may be at causing cancer, with the general assumption that every exposure has some probability of resulting in cancer. The descriptor reflecting the degree of confidence that the compound causes cancer in humans may be one of five standard hazard descriptors (e.g. Carcinogenic to Humans, Likely to Be Carcinogenic to Humans, Suggestive Evidence of Carcinogenic Potential, Inadequate information to Assess Carcinogenic Potential or Not as Likely to Be Carcinogenic to Humans") or a narrative. Both are closely tied to the nature and extent of information available from human and animal studies. The cancer potency estimate is a quantitative measure of a compound's ability to cause cancer and is generally expressed as either an oral slope factor or an inhalation unit risk value. Cancer potency estimates and unit risk values are toxicity estimates developed by EPA based on epidemiological and/or animal studies and they reflect a conservative "upper bound" of the potency of the carcinogenic compound. That is, the true potency is unlikely to be greater than the potency described by Table 4 of the risk evaluation and found in Appendix A of the FFS, which presents cancer toxicity values for PFAS and 1,4-dioxane.

In some cases, however, EPA may conclude that it is not appropriate to generate a cancer potency estimate, or unit risk value given the mode of action of the known or suspect carcinogen. Currently, EPA's default procedure for characterizing cancer risk for compounds which may exhibit a threshold for carcinogenic effects, mirrors the process used to describe the potential for

adverse non-cancer effects described in the section which follows. Cancer toxicity information is still limited for PFAS; however, cancer slope values for ingestion exposure are available for PFOA and PFOS. Additionally, a cancer slope value for ingestion is available for 1,4-dioxane. As indicated in the risk evaluation, only ingestion exposure is evaluated for the residential wells due to limited or unavailable toxicity information for inhalation and dermal exposure for PFAS. A summary of the cancer toxicity data relevant to PFAS and 1,4-dioxane are presented in Table 4 of the risk evaluation and found in Appendix A of the FFS**.**

2) Non-Carcinogenic Effects and Non-Linear Carcinogenic Effects

For addressing non-carcinogenic effects and effects of carcinogenic compounds which exhibit a threshold, it is EPA's policy to assume that a threshold exposure level exists, which is described by the reference dose (RfD) or reference concentration (RfC). RfDs and RfCs have been developed by EPA as estimates of a daily exposure that is likely to be without an appreciable risk of an adverse health effect when exposure occurs over the duration of a lifetime. RfDs and RfCs are derived from epidemiological and/or animal studies and incorporate uncertainty factors to help ensure that adverse health effects will not occur. As indicated in the risk evaluation, only ingestion exposure was evaluated for the residential wells due to the lack of inhalation and dermal toxicity information for PFAS compounds. The RfDs relevant to this site are presented in Table 4 of the risk evaluation as found in Appendix A to the FFS.

Risk Characterization

The risk characterization combines the exposure estimate with the toxicity information to estimate the probability or potential that adverse health effects may occur if no action were to be taken at a site. Cancer risks are generally expressed as a probability whereas the potential for adverse non-cancer effects are described in terms what is thought to be a safe exposure level.

For exposure to most known or potentially carcinogenic substances, it is assumed that as the exposure increases, the cancer risk increases. In characterizing risk to these types of carcinogenic compounds, a contaminant-specific exposure level is generally multiplied with the cancer potency factor to estimate incremental lifetime cancer risk as a result of exposure to site contaminants. Incremental lifetime cancer risk (ILCR), sometimes known as excess cancer risk, is the incremental probability that an individual will develop cancer over a lifetime as a result of exposure to carcinogenic contaminants. Typically, the resulting cancer risk estimates are expressed in scientific notation as a probability (e.g. 1 x 10^{-6} or 1E-06 for 1/1,000,000) and indicate (using this example), that an average individual is not likely to have greater that a one in a million chance of developing cancer over 70 years as a result of site-related exposure (as defined) to the compound at the stated concentration.

All risks estimated for ILCR represent an ILCR from exposures to Site-related contaminants. These are risks above background cancer risk (e.g. genetics, lifestyle factors) that is not attributable to the site. EPA generally views site related cancer risks in excess of 10^{-4} to 10^{-6} as unacceptable per the NCP. Current EPA practice considers carcinogenic risks to be additive when assessing exposure to a mixture of hazardous substances.

In assessing the potential for adverse non-carcinogenic effects, a hazard quotient (HQ) is calculated by expressing the exposure (or the exposure concentration in the case of air exposures) as a ratio of the reference value (RfD or RfC). A HQ ≤ 1 indicates that a receptor's exposure to a single contaminant is less than the threshold value and that adverse effects are unlikely. Conversely, a HQ >1 indicates that adverse effects as a result of exposure to the contaminant are possible. To account for additive effects resulting from exposure to more than one compound, a Hazard Index (HI) is generated by adding the HQs for all contaminants of concern that have the same or a similar mechanism or mode of action. As a conservative measure and a common practice, HQs are often added for all compounds of concern that affect the same organ or system (i.e. liver, nervous system) since the mechanism or mode of action is not always known. A HI < 1 indicates that adverse effects are unlikely whereas a HI >1 indicates adverse effects are possible. Generally, EPA views HI values based on site-related exposure in excess of one as unacceptable. It should be noted that the magnitude of the HQ or HI is not proportional to the likelihood that an adverse effect will be observed.

The risk evaluation for the residential wells calculated estimates of ILCR from PFAS and 1,4-dioxane in residential wells in the target neighborhoods. Additionally, non-cancer HQs were also calculated which represent the risk of health effects other than cancer from exposure to PFAS and 1,4-dioxane in groundwater used as drinking water. As described in the risk evaluation, the EPCs obtained for the PFAS compounds and 1,4-dioxane representing the 95% UCLs were used in the EPA RSL calculator to generate estimates of risk for residential tap water use within the target neighborhoods. For comparison purposes, estimations of risk were also calculated using the minimum and maximum concentrations detected for PFAS and 1,4-dioxane using the combined residential well data. The maximum and minimum concentrations detected (above ND) in the data set are presented in Tables 7 and 9 of the risk evaluation and found in Appendix A of the FFS. Further detail on the formulas used in the EPA RSL Calculator are provided in Table 3 of the risk evaluation, provided in Appendix A of the FFS.

The risk results using the 95% UCLs are presented in Tables 5 and 6 of the risk evaluation for cancer and non-cancer risk, which are also provided below for reference.

Table 5 from the Risk Evaluation– ILCR Estimates for PFAS and 1,4-Dioxane using 95 UCLs as EPCs

Chemical	Exposure Point Concentration	Ingestion Risk	Dermal Risk	Inhalation Risk	Incremental Lifetime Cancer Risk (ILCR)
PFOA	13.08 ng/L	**4.92E-03**	8.97E-06	-	**4.93E-03**
PFOS	4.74 ng/L	2.40E-06	-	-	2.40E-06
PFNA	1.72 ng/L	-	-	-	-
PFBA	2.94 ng/L	-	-	-	-
PFBS	4.28 ng/L	-	-	-	-
PFHxS	2.36 ng/L	-	-	-	-

PFHxA	3.76 ng/L	-	-	-	-
1,4-Dioxane	0.197 µg/L	2.53E-07	8.66E-10	1.75E-07	4.29E-07
Total Risk		**4.92E-03**	8.97E-06	1.75E-07	**4.93E-03**

Table 6 from the Risk Evaluation – Non-cancer Hazard Estimates for PFAS and 1,4-Dioxane using 95 UCLs as EPCs

Chemical	Exposure Point Concentration	Ingestion HQ	Dermal HQ	Inhalation HQ	Non-cancer hazard quotient (HQ)
PFOA	13.08 ng/L	**2.17E+01**	3.65E-02	-	**2.18E+01**
PFOS	4.74 ng/L	**2.36E+00**	-	-	**2.36E+00**
PFNA	1.72 ng/L	2.86E-02	6.09E-04	-	2.92E-02
PFBA	2.94 ng/L	1.47E-04	1.27E-05	-	1.59E-04
PFBS	4.28 ng/L	7.11E-04	5.10E-07	-	7.12E-04
PFHxS	2.36 ng/L	5.88E-03	1.08E-04	-	5.99E-03
PFHxA	3.76 ng/L	3.75E-04	4.10E-06	-	3.79E-04
1,4-Dioxane	0.197 µg/L	3.27E-04	1.03E-06	3.15E-03	3.48E-03
Total Hazard		**2.41E+01**	3.72E-02	3.15E-03	**2.42E+01**
			Developmental HI **2.42E+01** Kidney HI 3.48E-03 Liver HI 3.48E-03 Thyroid HI 8.71E-04 Endocrine HI 5.99E-03 Nasal HI 3.15E-03		

Risk results for the 95% UCLs for PFAS and 1,4-dioxane indicate that the total ILCR exceeds the EPA target cancer risk range of 10^{-4} to 10^{-6}. Additionally, the results for non-cancer hazard using the 95% UCLs indicate that the total non-cancer HI exceeds a target limit of 1; therefore, non-cancer hazard was then broken down by target organ to determine if organ specific HIs exceed the target limit of 1. The breakdown by target organ indicates that the HI for developmental effects exceeds the target limit of 1 due to concentrations of PFOA, PFOS, PFNA, and PFHxA.

For comparison, risk results were also calculated using the minimum and maximum detected concentrations of PFAS and 1,4-dioxane for the combined residential well data. The risk results using minimum detected concentrations show that cancer risk exceeds the target risk range and non-cancer hazard exceeds the target limit of 1 for developmental effects. Risk results using maximum concentrations showed significant increases in risk for cancer and non-cancer effects.

The results of the risk evaluation indicate that cancer and non-cancer risks are exceeded for the residential well data. These risk results, along with the CSM showing source areas, potential migration patterns for groundwater under natural and pumping conditions, potential contaminant migration related to releases, and years of data collection confirming the extent of impact, distribution and complete exposure pathway in the neighborhoods, collectively indicate there is a current and future potential risk from groundwater used as drinking water.

2. Basis for Action

EPA has determined that there are current and future potential threats to human health at the Site from ingestion of groundwater used as drinking water. Based on the results of the risk evaluation, PFOA and PFOS are selected as contaminants of concern (COCs) as they are the risk drivers for cancer risk and also result in a non-cancer hazard above the target limit of 1 for developmental effects. Additionally, though 1,4-dioxane is not a risk driver for the residential well data, it is a Site COC due to evidence in the CSM supporting patterns of migration from Site-related sources. Further, 1,4-dioxane was previously identified as a COC in Site groundwater as documented in the 2016 ESD. Contaminants released at the Site infiltrated the ground surface, migrating into subsurface soil and into bedrock, contaminating groundwater in the overburden and in bedrock beneath the Site and/or were transported as runoff into surface water pathways accentuated during precipitation events. Once in bedrock, contaminants are transported through interconnecting fractures within the bedrock. Groundwater moves through the Site primarily to the south, southeast, and southwest through the neighborhoods, and towards Beaver Brook. Pumping from wells also influences groundwater and contaminant migration along pathways situated east to west. The bedrock groundwater plume along migration pathways may be continuing to expand due to natural flow and continued pumping in the Ross/Tokanel neighborhood and nearby areas.

PFAS and 1,4-dioxane are present in bedrock groundwater within the Boston/Charleston/Albany, Gilcreast Road, and Ross/Tokanel neighborhoods. The majority of all households sampled had detectable levels of PFAS (specifically PFOA and PFOS) in their drinking water. Residents in these neighborhoods use groundwater as their source of potable water, relying on individual supply wells that tap the bedrock aquifer. The risk evaluation performed by EPA has concluded that concentrations of PFAS and 1,4-dioxane found in bedrock groundwater within the target neighborhoods present unacceptable risk with regard to both cancer and non-cancer risks for residential receptors. Therefore, there is a need for an interim remedial action to mitigate ongoing ingestion of contaminated groundwater by residents. Mitigation of exposure to PFAS and 1,4-dioxane via ingestion would remove or otherwise significantly reduce risk to residents living near the Site.

The 95% UCLs used in the risk evaluation included results from nearly 80 households sampled within the affected neighborhoods (there have been a few that have declined sampling of their tap water, and several households within the Boston/Charleston and Albany neighborhood were sampled after 2023 by Weston for the NHDES). As such, the 95% UCL represents the average

exposure concentration in bedrock groundwater within the neighborhoods. The results of historical private well sampling since 2018 has shown there is a high degree of spatial and temporal variability in contaminant concentrations, particularly for PFAS. This is due to the nature of groundwater flow through fractured bedrock and also to the highly variable pumping rates/durations of the residential wells. Because the individual water supply wells are screened in the same bedrock aquifer, contamination can migrate from the Site, into the neighborhoods, and between homes via interconnected fractures. Continued use of individual wells can draw contamination from one property onto an adjacent property, thus spreading the contaminant plume and increasing exposure to homes previously unaffected. As a result, the action to be taken to mitigate risk by reducing or removing current and potential future exposures would apply to all households currently relying on groundwater as their drinking water source within these target neighborhood areas of concern and address risk associated with exposure to COCs.

The response action selected in this IROD is necessary to protect public health or welfare or the environment from actual or threatened releases of hazardous substances and pollutants or contaminants into the environment which may present an imminent and substantial endangerment to public health or welfare.

H. REMEDIAL ACTION OBJECTIVES

1. Remedial Action Objectives

Remedial action objectives (RAOs) are media-specific cleanup goals that define the objective of remedial actions to protect human health and the environment. RAOs specify the COCs, potential exposure routes and receptors and provide a general description of what the cleanup will accomplish. The RAOs are based on available information and standards, such as applicable or relevant and appropriate requirements (ARARs), to-be-considered (TBC) guidance, and site-specific risk-based levels. Separate RAOs were established in the original ROD for Source Control and Management of Migration as follows:

Source Control RAOs:

- Mitigating further release of contaminants to the surrounding environmental media.
- Eliminating or minimizing the threat posed to public health, welfare, and the environment from the source area.

Management of Migration (MOM) RAOs:

- Mitigating further migration of contaminants beyond their current extent.
- Eliminating or minimizing the threat posed to public health, welfare, and the environment from the current extent of contaminant migration.

Based on the findings to date from the collected data obtained by the on-going remedial investigation and monitoring conducted as part of the GMP, an interim remedial action is appropriate to protect human health in the short term while a final remedial solution is being developed. As such, this interim remedy does not modify or alter the existing RAO's for the Site (as outlined in the 1986 ROD, as amended and restated above). The RAO's presented below are specific to the selected interim action, were developed to mitigate and prevent existing and future potential threats to human health and are as follows:

- Prevent current and potential future exposure to Site contaminants in groundwater (including 1,4-dioxane and PFAS) via ingestion of groundwater from individual supply wells at levels that pose an unacceptable risk.

- Reduce or minimize continued migration of contaminated groundwater from the Site by reducing the hydraulic stresses on the bedrock aquifer via removal from service of those residential water supply wells that continue to draw groundwater for household use.

I. DEVELOPMENT AND SCREENING OF ALTERNATIVES

1. Statutory Requirements/Response Objectives

Under its legal authorities, EPA's primary responsibility at Superfund sites is to undertake remedial actions that are protective of human health and the environment. The goal of the Superfund program as stated in the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) at 40 C.F.R. § 300.430(a)(1)(i) is to select remedies that are protective of human health and the environment, that maintain protection over time, and that minimize untreated waste. In addition, Section 121 of CERCLA establishes several other statutory requirements and preferences, including: 1) a requirement that EPA's remedial action, when complete, must comply with all federal and more stringent state environmental and facility siting standards, requirements, criteria or limitations, unless a waiver is invoked; 2) a requirement that EPA select a remedial action that is cost-effective and that utilizes permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable; and 3) a preference for remedies in which treatment permanently and significantly reduces the volume, toxicity or mobility of the hazardous substances over remedies not involving such treatment. Remedial alternatives were developed to be consistent with these statutory requirements and preferences, while acknowledging the limited scope of this interim remedial action.

2. Technology and Alternative Development and Screening

CERCLA and the NCP set forth the process by which remedial actions are evaluated.

As discussed in more detail in Section 3 of the FFS Report, treatment technology options were identified, assessed and screened based on implementability, effectiveness, and cost. General response actions were evaluated for their applicability to site-specific conditions, the environmental media of concern, the nature of the contaminants and their ability to migrate,

potential risks and attainment towards RAO's. General Response actions and/or technologies determined to be inappropriate for the site-specific conditions or app were eliminated from further consideration.

Six general response actions were identified for possible use at this Site, including No Action, which serves as a baseline for comparison. The general response actions identified as applicable for this interim remedial action included the following:

- No Action
- Alternate Water Supply
- Limited Action
- Hydraulic Containment
- Physical Containment
- In Situ Treatment

Section 3.2 of the FFS includes a brief description of each general response action. The technologies and process options are evaluated, and representative process options are selected, based on effectiveness, implementability, and cost. The technologies and process options selected are retained for further evaluation and selection of remedial alternatives.

The No Action alternative does not implement any remedial technology and does not include monitoring or restricting access to contaminated media. The No Action alternative is used as a baseline for comparison to the other alternatives and will be carried forward for that reason only.

An Alternative Water Supply would focus on mitigating the risk to residents of the target neighborhoods by providing an alternate drinking water source, either by treating the groundwater pumped from the bedrock aquifer by the individual residential wells before use or by replacing that pumped groundwater with water supplied by an alternate source. Consistent with EPA guidance, the general response action "alternate water supply," includes technologies that provide new supplies and technologies that treat existing supplies at impacted residential groundwater wells.[2] The FFS considered a Replacement Water supply and Residential Well Treatment.

[2] *Guidance Document for Providing Alternate Water Supplies*, EPA 540/G-87/006, OSWER Directive 9355.3-03(Feb. 1988), p. 2-1.

The provision of a replacement drinking water source directly addresses the RAOs by preventing current and future exposure to impacted groundwater pumped from private water supply wells and may minimize contaminant migration should stresses on the aquifer be removed. This technology includes two process options, both of which are well proven, widely available, and can be implemented in a timely manner. The two process options identified for this technology are the provision of bottled water and the extension of and connection of the homes to a municipal water supply line. Providing an alternative water supply may involve furnishing drinkable water on a permanent or temporary basis. Providing bottled water would be considered a temporary replacement water supply until such time as groundwater attained drinking water standards or a permanent replacement water supply is provided whereas providing an extension of and connections to an existing water line would be considered a permanent replacement water supply.

The residential well treatment technology includes POET systems as a process option. The POET systems can be installed in individual residences to remove contaminants from groundwater pumped from private wells. Such systems can provide effective treatment of groundwater and protect residents from exposure to PFAS and 1,4-dioxane. However, POET systems would still require pumping of groundwater from the individual wells and would therefore continue to stress the bedrock aquifer and would not limit contaminant migration. POETs are typically used as a temporary or interim option until a more permanent solution is available or until groundwater attains drinking water standards and the use of the POET is no longer deemed necessary.

The Limited Action general response action includes the associated technologies of monitoring and Institutional Controls (ICs). Monitoring can involve the collection of drinking water samples from homes and analyzing them for COCs to estimate receptor exposures. Monitoring is currently performed as a component of the on-going groundwater monitored natural attenuation remedy, where COCs in groundwater are analyzed and assessed to determine remedy effectiveness and attainment of cleanup levels. Currently, the MNA remedy has not been determined to be effective for 1,4-dioxane or for PFAS in groundwater at the Site and therefore could not be a stand-alone remedy, however monitoring can be useful to confirm protectives as a supporting technology. Institutional Controls include legal restrictions and management on the use of groundwater including the pumping and contacting of contaminated groundwater, thereby mitigating current and potential future risk. Like monitoring, ICs are a component of the current remedy at the Site, and while they cannot be a stand-alone alternative, can be a supporting component of an alternative.

Hydraulic containment refers to controlling groundwater flow such that impacted groundwater cannot migrate from source areas at the Site to the target residential neighborhoods where it can enter the residential supply wells. Applicable technologies would include groundwater extraction and treatment to intercept the contaminant plume, treat the impacted groundwater with one or more process options to remove the contaminants and discharge of treated effluent to the subsurface or to the publicly owned treatment works. the contaminated groundwater plume currently extends into and through the neighborhoods and has reached residential supply wells. Hydraulic containment may be effective at mitigating potential future risks from contaminated

groundwater, but it would not address the current risk. It would likely take many years for the groundwater downgradient of the hydraulic containment system to attenuate to below risk levels at all of the impacted residential wells. As a result, this response action would not mitigate the risk in a timely manner and therefore does not meet RAOs for this FFS and proposed interim response action.

Physical containment is similar to hydraulic containment in that the objective is to prevent migration of impacted groundwater from the contaminant source area to the private water supply wells. Studies have shown that the contaminant plume extends over 300 ft into the underlying bedrock aquifer. Construction of a barrier within the bedrock to those depths would be expensive and it would likely not be possible to fully contain the contaminated groundwater in the contaminant source area or across the Site and as contaminated groundwater has migrated and is already impacting the nearby residential supply wells. This response action would not mitigate the risk in a reasonable time period and does not meet RAOs for this interim response action.

In-situ treatment involves the application of treatment technologies to groundwater in the subsurface. There are several in situ groundwater treatment technologies that are readily available including in situ chemical oxidation, in situ chemical reduction, in situ biological treatment, and in situ thermal treatment. Regardless of the specific technology chosen, in situ treatment could not be employed within the residential areas because of safety and access challenges. As a result, any in situ technology would need to be implemented well upgradient of the neighborhood and would be subject to the same limitations as the hydraulic and physical containment options. For those reasons, in situ treatment is not retained.

Based on the general response action and technology screening, five technology types and their associated process options were deemed appropriate for further evaluation:

- No Action
- Replacement Water Supply (Bottled Water, Municipal Water Line Extension)
- Residential Well Treatment (Point of Entry Treatment)
- Monitoring
- Institutional Controls

Due to the nature of the RAOs and the limited scope of the interim remedial action, the three process options provided under Alternate Water Supply general response action (including both options under the New Water Supply technology type) were all retained for detailed analysis and formed the basis of the three remedial alternatives evaluated in addition to No Action. A fourth remedial alternative, No Action, serves as a baseline for comparison.

Monitoring and Institutional Controls were retained as components to the Alternate Water Supply alternatives as these actions are currently being implemented at the Site and as required by previous decision documents.

Section 4 and 5 of the FFS Report presents the three remedial alternatives for providing an alternate source of water for the homes within the target neighborhoods to mitigate current and potential future risks associated with ingestion of contaminated groundwater: 1) bottled water, 2) POET systems, and 3) connection to a municipal water line extension. A fourth remedial alternative, No Action, serves as the comparison baseline.

J. DESCRIPTION OF ALTERNATIVES

This Section provides a narrative summary of each alternative evaluated in Section 3 of the FFS. These alternatives were developed by combining response actions and technologies to address the estimated exposure risks to human health and the environment.

The specific details of each remedial alternative are conceptual and are used for costing purposes. The specific design details and costs for the selected remedy will be reevaluated during the remedial design. The costs are intended to be within the target accuracy of -30 to +50% of the actual cost. All present worth costs associated with O&M and periodic expenditures are based on a 4.5 % discount rate over 30 years.

1. Alternative 1 – No Action

In accordance with Section 300.430(e)(6) of the NCP, Alternative 1, the No Action Alternative, is required to be evaluated and is used as a baseline for comparison to the other alternatives. “No Action”, means no additional actions to maintain or improve current conditions at the Site, limit migration of groundwater contaminants, or to limit ingestion of Site contaminants in groundwater. Under this alternative, no additional action would be taken to address risk to human receptors in the target neighborhoods and RAOs would not be achieved. Any reduction in toxicity or concentration of contaminants would occur solely because of on-going natural processes. Long-term monitoring of groundwater Five-Year Reviews of the Site are currently being performed for the existing remedy and would continue to be required because COCs would remain on-site at concentrations exceeding levels that would allow for unrestricted use and exposure. There is no cost estimated as part of this alternative.

2. Alternative 2- Bottled Water

This alternative involves providing an alternate drinking water supply to impacted residents in the target neighborhoods through the provision of bottled water. Bottled water would be offered to households that are currently not connected to a municipal water supply. This includes all households who continue to rely on the bedrock aquifer for their potable water source within the Boston/Charleston/Albany neighborhood, Gilcreast Road, and the Ross/Tokanel neighborhoods. Because the provision of bottled water would require continued pumping of groundwater from the individual wells for other household uses, this alternative would continue to stress the bedrock aquifer and would not minimize contaminant migration.

For cost purposes an estimated 89 households reside within those target neighborhoods. Bottled water would be supplied for drinking, cooking, and other potential ingestions uses (e.g., brushing teeth) but would not be provided for other uses (showering, bathing, washing dishes, etc.). Bottled water would be supplied on a routine basis depending on the number of persons at each residence and the estimated rate of consumption until such time as groundwater attains drinking water quality. Currently, bottled water has been offered to residents in the Ross/Tokanel, Gilcreast and Boston/Charleston neighborhoods by CSG or the Agencies as a temporary action following detection of Site contaminants in compliance with the NHDES Contaminated Site Management Rules and as agreed to by CSG following federal issuance of MCLs for PFAS in 2024. This alternative and the estimated costs allow for the offering of bottled water to all households within the target neighborhoods utilizing groundwater as drinking water such time as a permanent alternative water source in the form of a connection to a nearby water line occurs or until groundwater is restored to drinking water quality.

For the purposes of developing a cost estimate, it was assumed that each household would be provided with monthly shipments of 10 cases of six 1–gallon jugs (60 gallons) and 5 cases of 0.5-liter bottles. That volume of supplied water is based on discussions with local water companies and represents demand for an average household. The assumed bottled water supply volume/frequency used to develop the costs estimate under this alternative is also consistent with what is currently being provided to homes as a temporary measure.

Long-term monitoring of Site groundwater would continue as currently required by the 1986 ROD (as amended), via the on-going remedial investigations, and as a component of the GMP. Samples collected from the residential wells would continue to be analyzed for VOCs, PFAS, and 1,4-dioxane. The results of all sampling events would be reported to the residents and regulatory agencies. No additional costs for monitoring are included in this alternative because the monitoring is already part of ongoing work.

CERCLA Five-Year Reviews, which are currently being performed every 5 years for the existing remedy, will continue and will also assess the protectiveness of the selected interim remedy. Data collected as part of on-going monitoring efforts would be used to support the Five-Year Review. No additional costs are included for Five-Year Reviews because they are already being performed.

For costs estimate purposes, Alternative 2 includes providing bottled water to all 89 households within the targeted neighborhoods, who are not currently connected to the existing water line, for a period of 30 years. There are no upfront capital costs for this alternative, only the monthly cost of providing bottled water. The total estimated cost for Alternative 2 is approximately $2,800,000.

3. Alternative 3- Point-of-Entry Treatment Systems (POETs)

Alternative 3 requires treating groundwater as it enters household water supply wells to reduce concentrations and mitigate the risk from ingestion of contaminated groundwater. POET systems can provide effective treatment of ground water to protect residents from 1,4-dioxane and PFAS and would be offered to households that are not currently connected to a municipal water supply line and who would continue to rely on groundwater as their drinking water source within the target neighborhoods. The POET system would be installed in-line at each home to treat groundwater from the water supply well which would then be available for all household uses including drinking, cooking, showering, bathing, dish washing, etc. The installation of the POET system is used as a temporary measure to mitigate human health risks resulting from ingestion of contaminated groundwater until groundwater attains drinking water quality and treatment is no longer needed or a permanent alternate water supply is provided. Because POET systems require continued pumping of groundwater from individual wells, this alternative would continue to stress the bedrock aquifer and would not minimize contaminant migration.

For cost purposes an estimated 89 households would receive a POET as well as long term monitoring, operation, and maintenance. Each home would require its own specific engineered POET system based on the contaminant concentrations detected in the influent water, including treatment of other constituents in the influent water (metals, etc.), and based on household demands and the configuration of the plumbing system. Treatment for 1,4-dioxane and PFAS would require the typical POET system to include at a minimum: a particle filter to remove particulates, and at least two GAC vessels for a lead/lag system to remove 1,4-dioxane and PFAS. While activated carbon generally provides effective removal of PFAS at the range of concentrations detected in private wells at the Site, its effectiveness for removal of 1,4-dioxane is more limited. However, because the 1,4-dioxane concentrations in the private wells to be treated are relatively low, the use of GAC for this application is deemed to be acceptable. The POET systems would allow for performance monitoring via sampling ports upstream, between, and downstream of the carbon vessels to track contaminant breakthrough, pressure gauges to monitor plugging of the GAC, an in-line flow meter to document water use, and all necessary appurtenances for interconnection into the plumbing systems of the residences. These systems would require scheduled maintenance (changeout of the filter cartridges and GAC) and monitoring to ensure they are operating properly and reducing concentrations below drinking water standards. Figure 13 provides a schematic diagram of a typical POET system.

Because contamination is expected to remain in groundwater for an extended period, long-term O&M would be required for each installed POET system. The O&M program would include collection of water samples from the influent, between the GAC chambers, as well as the treated water (after the lag chamber) to document the contaminant loading, monitor for breakthrough, and verify that the contaminants are fully treated. The GAC will need to be replaced periodically (annually) based on the results of the system performance monitoring.

Monitoring of groundwater quality in the residential wells within the target neighborhoods under the GMP would be continued in order to document contaminant concentrations in the water supply wells. This would allow for continued assessment and the need for future modification of POET systems if required. Samples collected from the private residential water supply wells would be analyzed for VOCs, PFAS, and 1,4-dioxane. In addition, samples would also be collected from the sampling ports between the two carbon vessels and from the effluent of the POET system. The results of all sampling events would be reported to the residents and regulatory agencies. Monitoring of Site groundwater quality would continue under the 1986 ROD (as amended), as part of on-going remedial investigations, and as a component of the GMP. No additional costs for monitoring of groundwater beyond that require for O&M of the POET system is included in this alternative because monitoring is already part of on-going work.

CERCLA Five-Year Reviews, which are currently being performed every 5 years for the existing remedy, will continue and will also assess the protectiveness of the selected interim remedy. Data collected as part of on-going long-term monitoring efforts would be used to support the Five-Year Review. No additional costs are included for Five-Year Reviews because they are already being performed.

For cost estimate purposes, Alternative 3 includes the design and installation of POET systems in 89 homes within target neighborhoods, O&M of the POET systems for 30 years, including monitoring to ensure effectiveness of each system. The upfront capital cost for this alternative is estimated at approximately $892,492. The annual O&M cost for the POET systems (including changeout of the treatment media), periodic repairs of the treatment systems, and annual costs associated with monitoring is approximately $436,850. The total estimated cost for Alternative 3 is approximately $8,000,000.

4. Alternative 4 - Municipal Water Line Extension – EPA's Selected Alternative

Alternative 4 consists of extending an existing municipal water line that currently runs within the Site, along Gilcreast Road and within portions of the Boston/Charleston/Albany neighborhood into the target neighborhoods to provide a permanent alternate water source for residents that are currently relying on groundwater as their drinking water source. Use of a water line would mitigate exposure to COCs in groundwater and reduce or remove the continuous pumping from residential wells and reduce or minimize continued migration of contaminated groundwater from the Site by reducing the hydraulic stresses on the bedrock aquifer. For cost purposes, an estimated 89 homes within the target neighborhoods would be connected to municipal water under this alternative. Following connection to the municipal water line, private water supply wells would be disconnected and removed from service to prevent future exposure to the contaminated groundwater or modified and used for future long term monitoring activities at the Site with the approval of the homeowner.

The connection of receptors to water lines in 1983 (Londonderry Green condominiums and Mercury/McAllister neighborhood) and again in 2016 (Boston/Charleston neighborhood) appears to have reduced hydraulic stresses within the bedrock in those areas and VOC

concentrations subsequently decreased within those former supply wells based on results of subsequent sampling. The connection of receptors in the target neighborhoods to the waterline would be expected to facilitate achieving the RAO related to minimizing stresses on the aquifer, which over time may reduce the overall plume extent by minimizing contaminant migration at the Site.

Under Alternative 4, it would be expected that the existing water line on Gilcreast Road would be extended into the Ross/Tokanel neighborhood and into the Boston/Albany/Charleston neighborhood, and that all households within these target neighborhoods would be connected to the municipal water line. The total estimated length of the water line extension is 8,300 linear feet. Design and installation of the water line extension would need to be coordinated with the local water purveyor (Pennichuck East). The proposed layout of the water line extension is shown on Figure 14. Water line installation would consist of road opening and trenching to a depth below the frost line (approximately 4-5 ft); installation, connection, and testing of the new water pipe; backfill; and road restoration. Blasting of bedrock or other means for removal of bedrock may be required in portions of the Ross/Tokanel neighborhood to attain the proper installation depth for the water line. It has been estimated that 30% of the construction along Ross Drive and the end of Tokanel Drive (~2,500 linear feet) would be impeded by bedrock and require blasting or other means for removal of bedrock (see Figure 14 for the locations requiring bedrock removal). Design and construction of the water line would require an upfront capital investment and specialized engineering, but once installed would be largely maintenance-free.

Once the water line is extended into the neighborhoods, each residence would require a unique plan for connection to the waterline. That plan would include interior as well as exterior plumbing considerations, and landscape impacts and restoration. Upon completion of the water line extension, connection to all residences, and removal of the residential wells from service or modification to a groundwater monitoring well, there would be immediate and long-term risk mitigation to human health. There would be minimal long-term O&M costs related to the water line, and the on-going long-term monitoring, remedial investigations and the monitoring program under the GMP would address residential well conversion to a groundwater monitoring well as required or warranted to meet the objectives of those programs. Consistent with EPA policy, following the connections and property restoration, the on-going costs (payments) for the water provided to each household would be the responsibility of each resident. Long-term monitoring of groundwater would continue as a component of the initial remedy, as amended. Institutional controls in the form of a town ordinance or deed notices or restrictions would be implemented as part of the final remedial action for the Site following the completion of the remedial investigations and selection of a final remedial action to manage the use of groundwater within the GMZ.

CERCLA Five-Year Reviews, which are currently being performed every 5 years for the existing remedy, will continue and will also assess the protectiveness of the selected interim remedy. Data collected as part of on-going long-term monitoring efforts would be used to support the

Five-Year Review. No additional costs are included for Five-Year Reviews because they are already being performed.

For cost estimate purposes, it was assumed that shallow bedrock would be present along approximately 30% of the proposed alignment (or about 2,500 linear feet) and would require removal (blasting, etc.) to install the water line in those areas. The total estimated cost of Alternative 4, which includes upfront capital costs for design, construction, and connection of the homes to the water line extension, is estimated at approximately $6,832,000.

K. SUMMARY OF THE COMPARATIVE ANALYSIS OF ALTERNATIVES

Section 121(b)(1) of CERCLA presents several factors that at a minimum EPA is required to consider in its assessment of alternatives. Building upon these specific statutory mandates, the NCP articulates nine evaluation criteria to be used in assessing the individual remedial alternatives.

A detailed analysis was performed on the alternatives using the nine evaluation criteria in order to select a site remedy. The comparative analysis of alternatives was presented in Section 5 of the FFS Report. The following is a summary of the comparison of each alternative's strength and weakness with respect to the nine evaluation criteria. These criteria are summarized as follows:

Threshold Criteria

The two threshold criteria described below *must* be met for the alternatives to be eligible for selection in accordance with the NCP:

- **Overall protection of human health and the environment** addresses whether a remedy provides adequate protection and describes how risks posed through each pathway are eliminated, reduced or controlled through treatment, engineering controls, or institutional controls.
- **Compliance with applicable or relevant and appropriate requirements (ARARs)** addresses whether a remedy will meet all Federal environmental and more stringent State environmental and facility siting standards, requirements, criteria or limitations, unless a waiver is invoked.

Primary Balancing Criteria

The following five criteria are utilized to compare and evaluate the elements of one alternative to another that meet the threshold criteria:

- **Long-term effectiveness and permanence** address the criteria that are utilized to assess alternatives for the long-term effectiveness and permanence they afford, along with the degree of certainty that they will prove successful.
- **Reduction of toxicity, mobility, or volume through treatment** addresses the degree to which alternatives employ recycling or treatment that reduces toxicity, mobility, or

volume, including how treatment is used to address the principal threats posed by the site.

- **Short term effectiveness** addresses effectiveness of remedial alternative in addressing short-term risks that might be posed to the community during implementation, potential impacts to workers and the effectiveness and reliability of protective measures, potential environmental impacts and mitigation measures and time until protection is achieved.
- **Implementability** addresses the technical and administrative feasibility of a remedy, including the availability of materials and services needed to implement a particular option.
- **Cost** includes estimated capital and Operation Maintenance (O&M) costs, as well as present-worth costs.

Modifying Criteria

The modifying criteria are used as the final evaluation of remedial alternatives, generally after EPA has received State and public comment on the RI/FS and Proposed Plan:

- **State acceptance** addresses the State's position and key concerns related to the preferred alternative and other alternatives, and the State's comments on ARARs or the proposed use of waivers.
- **Community acceptance** addresses the public's general response to the alternatives described in the Proposed Plan and RI/FS report.

Following the detailed analysis of each individual alternative, a comparative analysis, focusing on the relative performance of each alternative against the nine criteria, was conducted. This comparative analysis can be found in Table 3 of the FFS Report and in Table 1 of Appendix B of the IROD.

The section below presents the nine criteria and a brief narrative summary of the alternatives and the strengths and weaknesses according to the detailed and comparative analysis. Only those alternatives which satisfied the first two threshold criteria were balanced and modified using the remaining seven criteria.

1. Comparative Analysis

a. Overall Protection of Human Health and the Environment

Alternative 1 (No Action) would not be protective of human health or the environment because exposure via ingestion to contaminated groundwater would remain an exposure pathway and expansion of the plume would continue.

Alternative 2 (Bottled Water) would provide alternate drinking water to mitigate the ingestion risk from drinking and cooking with contaminated groundwater, but it would not address risks

associated with incidental ingestion during showering or bathing. Because Alternative 2 would not remove residential water supply wells from service, it does not achieve the RAO of reducing hydraulic stresses on the bedrock aquifer and does not reduce or minimize continued migration of contaminated groundwater from the Site.

Alternative 3 (POET Systems) would treat all groundwater entering the homes and provide clean water for all household uses, mitigating all current and future risk to residents related to the use of groundwater. Performance monitoring and O&M would be required under Alternative 3 to ensure that the POET systems continue to operate properly. Because Alternative 3 would not remove residential water supply wells from service, it does not achieve the RAO of reducing hydraulic stresses on the bedrock aquifer and does not reduce or minimize continued migration of contaminated groundwater from the Site. Alternatives 2 and 3 offer temporary actions until such time as groundwater attains drinking water quality in the future or a permanent alternative water is provided.

Alternative 4 (Water Line) would provide the highest level of protection to human health as it would mitigate or remove exposure to groundwater used as drinking water and therefore mitigate all risk associated with household use of groundwater. Extension of and connection to a nearby water line would provide a permanent alternate source of water for all household uses. Alternative 4 relies on provision from a local purveyor (municipal source) and would not require O&M or monitoring to ensure protectiveness.

b. Compliance with Applicable or Relevant and Appropriate Requirements

Each alternative must be assessed to determine whether it can attain ARARs under federal and State environmental or facility siting laws or provide grounds for invoking a pertinent waiver. This action is an interim remedy to mitigate exposure to Site contamination through the provision of an alternative water supply and is not expected to attain chemical-specific ARARs for groundwater throughout the Site.

Alternative 1 takes no action and as a result, there are no ARARs associated with this alternative. Alternatives 2, 3, and 4 would comply with the substantive requirements of any chemical-specific, location-specific, and action-specific ARARs that are either applicable or relevant and appropriate to each alternative.

The ARARs and TBCs for these alternatives are outlined in Appendix B of the FFS and in Appendix D of this IROD.

c. Long-Term Effectiveness and Permanence

Alternative 1 (No Action) would have no expected long-term effectiveness or permanence in reducing risk to human receptors exposed to contaminated groundwater.

Alternative 2 (Bottled Water) would mitigate most ingestion risk but would not address incidental ingestion or dermal contact associated with showering and bathing. While bottled water may be an effective temporary response to mitigate exposures, its long-term effectiveness

and permanence may be limited due to the inconvenience to residents, as well as the time frame which may be required for residents to rely on bottled water until a permanent water source is provided or until groundwater returns to drinking water quality in the future, and effectiveness is expected to diminish over time.

Alternative 3 (POETs) would mitigate risk by treating the groundwater (tap water) entering the home prior to use. This alternative would significantly reduce the risk of ingestion of contaminated groundwater and have the added advantage of eliminating other contact (dermal contact) as well. It would have some impact on the residential users as it would involve the addition of treatment equipment into their residence and integration of that equipment into their existing plumbing. Residents would be involved with coordination of maintenance work on the POET systems over the long term. However, there would likely be less inconvenience of use and long-term compliance would likely be higher than for Alternative 2 (Bottled Water). Monitoring is included with Alternative 3 (POET Systems) to ensure that the systems are working properly and effectively mitigating risk and to assess the need to replace spent media. While use of POET systems may be an effective temporary response to mitigate ingestion exposures, its long-term effectiveness and permanence may be limited due to the inconvenience to residents related to O&M requirements, as well as the time frame for these systems to remain in place until groundwater returns to drinking water quality in the future. Alternative 3 is not effective at reducing migration of contaminated groundwater from the Site, as residences will continue to draw groundwater for household use.

Alternative 4 (Water Line) provides the greatest long-term effectiveness and permanence and will prevent ingestion of and other contact with (dermal contact) contaminated groundwater by connecting all homes in the target neighborhoods to a municipal water line. Under this alternative, residents would pay for the municipal water and any O&M of the pipeline would be performed by the local water purveyor using those fees, providing a high level of confidence that the system will remain effective. Residents would need to pay for the alternate water supply based on their household usage.

d. Reduction of Contaminant Toxicity, Mobility, or Volume through Treatment

There would be no reduction of the toxicity, mobility or volume under Alternative 1 (No Action) and Alternative 2 (Bottled Water) because those alternatives do not include treatment of the contaminated groundwater and allow for continued use of water supply wells, which may allow for continued migration and may extend the contaminant plume. Alternative 4 (water line) also does not provide treatment of the groundwater. However, the removal of the water supply wells would be expected to minimize migration into and across the neighborhoods. Alternative 3 (POET Systems) would reduce concentrations in groundwater used as drinking water through treatment. However, continued use of water supply wells may allow for continued migration from the Site into and across the neighborhoods.

Alternative 2 (Bottled Water) and Alternative 4 (Water Line) each provide an alternate source of drinking water obtained offsite, while Alternative 3 (POETs) treats the on-site current source of drinking water.

e. Short-term Effectiveness

Alternative 1(No Action) does not have any short-term effectiveness because it does not provide any mitigation of the risk from ingestion of contaminated groundwater. It also does not present any risks to the community during implementation because it does not involve any work.

Alternative 2 (Bottled Water) would be effective in the short-term at reducing human health risk from ingestion of contaminated groundwater. The short-term impacts associated with implementation of this alternative include an increase in truck traffic in the residential neighborhoods resulting from the delivery of the bottled water. Bottled water would be delivered on a set schedule, and it is estimated that weekly deliveries would be needed to service all homes. This frequency is unlikely to represent a measurable increase in risk when compared to routine package delivery trucks (UPS, Amazon, FedEx, etc.) and other services such as fuel oil and propane that service these neighborhoods.

Alternative 3 (POET Systems) would have limited short-term effectiveness because it will take time to meet with each homeowner, develop a house-specific POET design, procure the necessary materials and an installation contractor, and complete the installation. This process would likely take a year or more to complete for all homes. However, upon installation each household, well water would begin receiving treatment and risk would be mitigated. Short-term effectiveness is less of a concern at this Site because most impacted residents would continue to be provided with bottled water until their POET system is installed and operational. Short-term risks associated with implementation of this alternative would include increased truck traffic from the contractors accessing the neighborhood and working in residences to install and maintain the systems. This impact would not likely be significant. There would be relatively small short-term impacts during routine maintenance of the POET systems.

The design and construction of Alternative 4 (Water Line), which will include field investigations, survey and subsequently design of the water line extension, and connections to each household to the waterline, may take up to 2-3 years. Short-term effectiveness is less of a concern at this Site because most residents are currently already being offered bottled water, which would continue until the connections of all households are completed. Alternative 4 is associated with greater short-term impacts than the other alternatives. Short-term risks associated with this alternative include primarily risks to workers associated with excavation and subsurface construction. There may also be risks of worker exposure to contaminated groundwater and/or soil during installation of the water line in areas where shallow groundwater is present. Precautions must be taken to protect site workers from any noise, dust, and construction hazards. Precautions must also be taken to protect public and private infrastructure through use of a Dig Safe permit and through administrative controls (access agreements, etc.). Construction will have short-term effects on the community because of increased site activity including the operation of

more trucks and construction vehicles on local streets and construction-related noise. Additionally, minor short-term effects will occur on individual properties during the operation of construction equipment when connecting homes to the water line which will require restoration.

f. Implementability

Alternative 1 does not require implementation as no action would be taken. Alternative 2 – bottled water is an easily implementable alternative and involves monthly delivery of bottled water. Currently bottled water is being provided at the Site in accordance with NH regulations. While there are no concerns with this alternative, it is considered a temporary provision of alternative water and delivery and household use for drinking and cooking would continue for 30 years, until a permanent water source is provided or until groundwater attains drinking water quality.

Alternative 3 – POETs, involves the design and installation of POET systems specific to each household as well as associated O&M for 30 years. While these systems are routinely implemented, and materials to construct the treatment systems are readily available, they will also require routine monitoring and maintenance to ensure adequate treatment. As with bottled water, POETS are considered a temporary treatment of contaminated groundwater and treatment, monitoring and maintenance would continue for 30 years, until a permanent water source is provided or until groundwater attains drinking water quality.

Alternative 4 – water line, involves the design and construction of a municipal water line extension into and throughout the targeted neighborhoods to provide alternate drinking water (municipal source) to all households. This alternative is easily implementable as utilizes standard engineering and construction services which have been implemented previously at the Site. Design and construction of the water line extension would require coordination with the local water purveyor (Pennichuck Corporation). Water line design and installation is a straightforward civil engineering project. The engineering expertise to complete the design is available locally. Similarly, the pipe, connections, and equipment needed for construction are widely available. There are numerous local construction companies that are capable and experienced in water line construction. Shallow bedrock is likely present in several locations along the proposed alignment of the water line extension. While this will complicate the design and installation of the water line, possibly requiring blasting or ripping of the bedrock, this type of work is routinely performed and the services, equipment, and materials needed to remove the bedrock are available locally. The extension of the water line offers a permanent provision of alternate water but will require cooperation from and residential access to connect the water line to the household and the residents will be required to pay for the water supply used in their household once connected.

g. Costs

There is no cost associated with Alternative 1 – No Action. Present-worth cost estimates are $2,800,000 for Alternative 2- Bottled Water, $8,000,000 for Alternative 3- POET Systems and $6,800,000 for Alternative 4 – extension of a water line, respectively. Costs are presented in Appendix B, Table 4 of this IROD.

2. Modifying Criteria

a. State Acceptance

The State of New Hampshire, through its lead agency, Department of Environmental Services, has expressed its support for EPA's preferred alternative presented in the Proposed Plan (June 2025), and concurs with the selected remedy outlined in this IROD below (see Appendix A of this IROD for the State concurrence letter).

b. Community Acceptance

EPA's community engagement efforts at the Site have included informational fact sheets, the publication of a Proposed Plan in June 2025; a public informational meeting held on July 10, 2025; and a public hearing held on July 29, 2025. A transcript was created for this hearing and has been included in the Responsiveness Summary located in Part 3: The Responsiveness Summary of this ROD. The EPA invited the public to review the Proposed Plan and the Administrative Record as well as the opportunity to submit comments on-line at regulations.gov (Docket ID No. EPA–R01–SFUND–2025–0117). In addition to the oral comments received at the hearing, written (emailed) comments were also received by the EPA.

Comments from impacted residents were highly supportive of the water line extension to their neighborhoods. Some question why the waterline was not installed in the neighborhood during previous waterline extensions or during redevelopment of the Site. Residents have questioned current and future health issues to their long-term use of groundwater as drinking water as many residents have lived within the neighborhood for over 30 years or grew up in the neighborhood as children. Some of the residents have asked that their water supply wells be allowed to remain in use for irrigation purposes and not decommissioned and one supported inclusion of fire suppression measures be added to the design for the water line within the neighborhoods.

United States Senators and Congressional members from the NH Delegation expressed their concern for PFAS in groundwater used as drinking water and ask that EPA ensure residents will have a safe supply of water through connection to the municipal system, while investigations and remediation of Site contaminants continue.

Londonderry Town officials provided a response requesting that fire suppression measures be included in the design of the water line extension consistent with Town requirements, that storm water management during construction be included and expressed a desire for minimal impacts to the community during construction.

Representatives from the Response Parties expressed agreement for extension of the water line into the neighborhoods to mitigate ingestion of groundwater as drinking water, however the Responsible Parties, while agreeing that the 1,4-dioxane is attributed to the Site do not agree that the PFAS is attributed to the Site. Primarily, comments received expressed concern over the indication of the Site as the source of PFAS as well as the potential migration pathways presented by the EPA from the Site into the neighborhood as part of the Site CSM. Comments received were lengthy and re-iterated on-going commentary between the EPA and the Responsible Parties. Comments were received on the site history related to the trucking and disposal language used in the Proposed Plan and provided in supporting documents.

The Proposed Plan specifically requested public comment on proposed temporary impacts to wetland and floodplain resources, though limited impacts were noted. The Town discussed details of that determination of the floodplain within the Site and the on-going work in those areas. No negative comments were received concerning these specific issues. A summary of the comments and EPA's responses to these comments are included in Part 3: The Responsiveness Summary of this IROD.

L. THE SELECTED REMEDY

1. Summary of the Rationale for the Selected Remedy

The selected interim remedial action is Alternative 4, Municipal Water Line Extension. This alternative includes the following general components:

- Extension of an existing municipal water line that currently runs within and nearby the Site into the target neighborhoods to provide a permanent alternative water source for each resident that is currently relying on groundwater as their drinking water source. The target neighborhoods include residences located along Ross Drive, Tokanel Drive, and Gail Road (the "Ross/Tokanel neighborhood"), residences located along Gilcreast Avenue, and residences along Albany Avenue, Boston Avenue and Charleston Avenue (the Boston/Charleston/Albany neighborhood") not previously connected to the water line by the EPA in 2016 or in earlier installations and connections within that neighborhood.

- Disconnection of private water supply wells to reduce stresses on the bedrock aquifer and to prevent future exposure of the contaminated groundwater, or modification of the water supply well for future long-term groundwater monitoring activities at the Site as may be proposed to and agreed to by the resident.

- Continued performance of activities under previous decision documents, including long-term monitoring of groundwater to assess the progress and effectiveness of remedial actions and periodic reviews, at a minimum of every 5 years, to assess the protectiveness of the Site remedy.

The estimated total present value of this alternative, including design, construction, and connection of households to the water line, is $6,800,000. Once connected, each resident will be required to pay for their water usage per agreements with the local municipal water purveyor (Pennichuck Corporation).

Of all the alternatives, the selected interim remedy achieves the best overall balance among the nine criteria used to evaluate the various alternatives presented in the FFS Report. The selected interim remedial action meets the RAO's established for the interim remedy. EPA and NHDES have had substantive discussions regarding the Site, the on-going cleanup, and this interim action to mitigate risk from ingestion of groundwater used as drinking water in the target neighborhoods. EPA has received input from NHDES, the NH Senate and Congressional Delegation, Londonderry Town Officials, impacted residents and the Responsible Parties for extension of the nearby water line to provide alternative water. The interim remedial action is based on historical and current information presented in this IROD and in supporting documentation, addresses one media and one exposure per EPA guidance for interim actions, and is not inconsistent with a final remedial action expected for the Site.

This cleanup approach provides the highest level of protection and long-term effectiveness, as it mitigates exposure to groundwater used as drinking, and for other household uses, by providing a permanent water source. This selected interim remedial action requires no long-term operation and maintenance or monitoring, meets substantive requirements of all action-specific and location- specific ARARs, has no significant implementability issues, as engineering and construction services and a local water purveyor is available, and an existing water line is nearby. The selected interim remedial action will mitigate risk related to ingestion of groundwater used as drinking water in a reasonable time frame, with minimal community and flood plain impacts and will reduce stresses on the aquifer, thus will reduce plume mobility and volume although it will not satisfy CERCLA's statutory preference for treatment. The selected remedy is also cost-effective at mitigating use of groundwater as drinking water where the existing groundwater source is considered to present an unacceptable risk and is not inconsistent with the expected final remedial action for the Site.

2. Description of Remedial Components

A detailed description of the components of the selected remedy, including media-specific and remedy-wide elements, is provided below. The final selected remedy for the Site is consistent with EPA's preferred alternative outlined in the June 2025 Proposed Plan.

Section 121(e) of CERCLA and the NCP only require on-site Superfund actions to comply with substantive standards of other laws, and therefore federal, state and local permits are not required. As required, off-site activities will comply with all substantive and administrative applicable laws and regulations.

The selected remedy consists of the following components:

- Extension of an existing municipal water line that currently runs within and nearby the Site into the target neighborhoods to provide a permanent alternative water source for each resident that is currently relying on groundwater as their drinking water source. The target neighborhoods include residences located along Ross Drive, Tokanel Drive, and Gail Road (the "Ross/Tokanel neighborhood"), residences located along Gilcreast Avenue, and residences along Albany Avenue, Boston Avenue and Charleston Avenue (the Boston/Charleston/Albany neighborhood") not previously connected to the water line by the EPA in 2016 or in earlier installations and connections within that neighborhood.

- Disconnection of private water supply wells to reduce stresses on the bedrock aquifer and to prevent future exposure of the contaminated groundwater, or modification of the water supply well for future long-term groundwater monitoring activities at the Site as may be proposed to and agreed to by the resident.

- Continued performance of activities under previous decision documents, including long-term monitoring of groundwater to assess the progress and effectiveness of remedial actions and periodic reviews, at a minimum of every 5 years, to assess the protectiveness of the Site remedy.

The extension of the existing municipal water line that currently runs within the Site, along Gilcreast Road and within portions of the Boston/Charleston/Albany neighborhood into the target neighborhoods will provide a permanent alternate water source for residents that are currently relying on groundwater as their drinking water source. Use of a water line would reduce or remove the continuous pumping from residential wells and reduce or minimize continued migration of contaminated groundwater from the Site by reducing the hydraulic stresses on the bedrock aquifer.

For cost purposes, an estimated 89 homes within the target neighborhoods would be connected to municipal water under this alternative. Following connection to the municipal water line, private water supply wells would be disconnected and removed from service to prevent future exposure to the contaminated groundwater or modified and used for future long term monitoring activities at the Site with the approval of the homeowner.

The connection of receptors in the target neighborhoods to the waterline would be expected to facilitate achieving the RAOs including mitigation of exposure to groundwater and minimizing stresses on the aquifer, which over time may reduce the overall plume extent by minimizing contaminant migration at the Site. The expectation would be that the existing water line on Gilcreast Road would be extended into the Ross/Tokanel neighborhood and into the Boston/Albany/Charleston neighborhood, and that all households within these target neighborhoods would be connected to the municipal water line. The total estimated length of the water line extension is 8,300 linear feet. Design and installation of the water line extension would need to be coordinated with the local water purveyor (Pennichuck East). The proposed

layout of the water line extension is shown on Figure 14. Water line installation would consist of road opening and trenching to a depth below the frost line (approximately 4-5 ft); installation, connection, and testing of the new water pipe; backfill; and road restoration. Blasting of bedrock or other means for removal of bedrock may be required in portions of the Ross/Tokanel neighborhood to attain the proper installation depth for the water line. For costing purposes, it has been estimated that 30% of the construction along Ross Drive and the end of Tokanel Drive (~2,500 linear feet) would be impeded by bedrock and require blasting or other means for removal of bedrock (see Figure 14 for the locations requiring bedrock removal).

Design and construction of the water line would require an upfront capital investment and specialized engineering, and once installed would be largely maintenance-free. Once the water line is extended into the neighborhoods, each residence would require a unique plan for connection to the waterline. That plan would include interior as well as exterior plumbing considerations, and landscape impacts and restoration, and a general cost per house for this effort has been incorporated into the cost estimate, although each resident will require a unique plan and associated cost.

Upon completion of the water line extension, including waterline construction and curb stops, connection to all residences, and removal of the residential wells from service or modification to a groundwater monitoring well, there would be immediate and long-term risk mitigation to human health. There would be minimal long-term O&M costs related to the water line, and the on-going long-term monitoring, remedial investigations and the monitoring program under the GMP would address residential well conversion to a groundwater monitoring well as required or warranted to meet the objectives of those programs. Consistent with EPA policy, following the connections and property restoration, the on-going costs (payments) for the water provided to each household would be the responsibility of each resident.

While a long-term monitoring of Site groundwater to confirm protectiveness of the interim remedy would not be required, as this is a permanent alternative water supply, there is anticipation that some residents may not connect to the water line and continue to rely on their water supply wells. This would then require use of long-term monitoring for those residents who are not connected to the water line. Long-term monitoring of groundwater at the Site would continue, as a component of the initial remedy, as amended. Institutional controls in the form of a town ordinance or deed notices or restrictions would be implemented as part of the final remedial action for the Site following the completion of the remedial investigations and selection of a final remedial action to manage the use of groundwater.

To the extent required by law, EPA is required to review the Site at least once every five years if any hazardous substances, pollutants or contaminants remain at the Site to assure that the remedial action continues to protect human health and the environment. CERCLA Five-Year Reviews, which are currently being performed every 5 years for the existing remedy, will continue and will include assessment of the protectiveness of the selected interim remedy. Data collected as part of on-going long-term monitoring efforts would be used to support the Five-Year Review. No additional costs are included for either the long-term monitoring at the Site or for Five-Year Reviews because they are already being performed.

The selected remedy may change somewhat as a result of the remedial design and construction processes. Changes to the remedy described in this Record of Decision will be documented in a technical memorandum in the Administrative Record for the Site, an Explanation of Significant Differences or a Record of Decision Amendment, as appropriate.

3. Summary of the Estimated Remedy Costs

The estimated total present value cost of the selected remedy is $6.8 million. The cost estimate was calculated using an inflation rate of 2.8% and a discount rate used for calculating total present worth costs of 4.5% based on current financial market conditions.

The cost information is based on the best available information regarding the anticipated scope of the selected remedy. Changes in the cost elements may occur as a result of new information and data collected during the engineering design, construction, or monitoring of the remedial alternative. Major changes may be documented in the form of a memorandum in the Administrative Record file, an ESD, or a ROD amendment. This is an order-of-magnitude engineering cost estimate that is expected to be within +50 to -30 percent of the actual project cost.

4. Expected Outcomes of the Selected Remedy

EPA expects the selected interim remedial action to satisfy statutory requirements of CERCLA Section 121(b). EPA expects that the outcome of the selected interim remedy is that groundwater, used as drinking water, will no longer present an unacceptable risk from ingestion and will achieve the Site-specific objectives in a reasonable timeframe. The selected interim remedy would prevent exposure to Site-related contaminants of concern by providing a permanent alternative water source (water line) to properties currently relying on groundwater as their drinking water source and whose households are located within target neighborhoods with documented contamination. The selected interim action complies with federal and state environmental regulations that are ARARs and is cost-effective.

This interim remedial action will reduce the mobility, and volume of contaminated groundwater through removal of stresses on the aquifer caused by water supply pumping and utilizes a permanent solution to provide alternative water. Treatment is not a principal element of the proposed action due to the limited scope of the interim remedy. This interim action, while not addressing groundwater directly, will be considered a part of and not be inconsistent with a final groundwater remedy that may be required.

It is anticipated that the selected remedy will also provide socio-economic, and community revitalization impacts such as increased property values and resale opportunities.

M. STATUTORY DETERMINATIONS

The remedial action selected for implementation at the Site is consistent with CERCLA and, to the extent practicable, the NCP.

The selected Interim Remedial Action is protective of human health and the environment, complies with federal and state requirements that are applicable or relevant and appropriate to the remedial action (unless justified by a waiver), is cost-effective, and utilizes permanent solutions and alternative treatment (or resource recovery) technologies to the maximum extent practicable.

Because the Interim Remedial Action does not constitute the final remedial action for the Site, the statutory preference for remedial actions that employ treatment that reduces toxicity, mobility, or volume as a principal element, while not addressed by this selected Interim Remedial Action, will be addressed by a final decision document. Further, past response actions taken at the Site, as required by the 1986 ROD, met the statutory preference for treatment.

Because this interim action remedy will continue to result in Site contaminants remaining on-site above levels that allow for unlimited use and unrestricted exposure (and groundwater restrictions are necessary), reviews, which are currently conducted every five years at the Site, will continue to ensure that the remedy provides adequate protection of human health and the environment.

EPA has determined that, under federal regulations at 44 C.F.R. Part 9, implementing requirements under Executive Order 11988 (Floodplain Management), there is no practicable alternative to temporary activities that may affect or result in the occupancy and modification of wetlands or the 100- and 500-year floodplain. Through its analysis of alternatives, EPA has determined that this interim action, and the majority of the Site and areas of groundwater impacted by contaminants of concern, are not within the current Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map for the Town of Londonderry 100- or 500-year floodplains. Parts of the neighborhoods nearest Beaver Brook and its associated wetlands are located within the FEMA 100- and 500-year floodplain, however EPA has determined that the interim remedy will not have an impact on wetlands or floodplain areas, and utilization of best management practices and any mitigation measures will be taken, if required. Through its Proposed Plan, EPA solicited comments concerning its determination that the interim remedy is (1) unlikely to affect wetlands, and EPA will use, as necessary best management practices to minimize any harmful impacts to wetland resources; and (2) protective of floodplain resources.

1. The Selected Remedy is Protective of Human Health and the Environment

This interim remedy will adequately protect human health and the environment by eliminating, reducing or controlling exposure to human receptors through provision of an alternative source of water. More specifically extension of the nearby water line will provide the highest level of protection to human health as it would remove exposure to ingestion of groundwater used as

drinking water and provide for a permanent alternative water source which requires no long-term monitoring or maintenance at the Site to remain protective.

The selected interim remedy will reduce exposure levels to groundwater used as drinking water which has been determined to pose an unacceptable risk to receptors. Carcinogenic and non-carcinogenic risks related to exposure via ingestion of groundwater used as drinking water is outlined in Table 6 and 7 for the purposes of this CERCLA remediation. Implementation of the selected remedy will not pose any unacceptable short-term risks or cause any cross-media impacts. Because this is an interim remedial action which addresses only the risks related to ingestion of groundwater as drinking water at the Site, the expectation is that a final remedy for the Site will address Site contaminants in groundwater and other media which may present unacceptable risks to human health and the environment. As such, groundwater remediation and/or the attainment of cleanup standards in groundwater is not a component of this interim action.

2. The Selected Remedy Complies With ARARs

The selected interim remedy will comply with all federal and any more stringent state ARARs identified for the Site, and which are applicable, relevant or appropriate to this interim action. The selected remedy will also incorporate procedures and processes identified by policies, advisories, criteria and guidance documents (i.e., TBCs) relevant to this interim action. A list of ARARs/TBCs for the selected remedy are included in Appendix D of this IROD. A discussion of the more significant ARAR issues, including specific ARARs determinations embodied by this IROD, is included below.

a. Floodplain Impacts

Section 404 of the Clean Water Act requires a determination, when circumstances necessitate, that there is no practicable alternative to taking federal actions in waters of the United States, including wetlands, and that EPA's selected alternative is the least environmentally damaging practicable alternative. Should there be no alternative that can avoid taking an action, the federal actions should minimize the destruction, loss, or degradation of these resources and preserve and enhance their natural and beneficial values.

Federal regulations at 44 C.F.R. Part 9, implementing requirements under Executive Order 11988 (Floodplain Management), requires EPA to make a determination that there is no practicable alternative to activities that affect or result in the occupancy and modification of the 100- and 500-year floodplain.

Through its analysis of alternatives, EPA has determined that the selected interim remedial action, as well as the majority of the Site and areas of groundwater impacted by COCs related to this interim action are not within the current Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map for the Town of Londonderry 100–500-year floodplains. Parts of the neighborhood nearest Beaver Brook and its associated wetlands are located within the FEMA 100-500 year floodplain, however EPA has determined that the interim remedial action will not

have an impact on the wetlands and best management practices will be used during remedial work phases to minimize and temporary impacts to floodplains or areas that may border floodplains, and any mitigation will be taken, if required.

As defined by Section 404(b) of the Clean Water Act and regulations at 40 C.F.R. Parts 230, 231, 231, and 33 C.F.R. Parts 320-323, EPA has determined, with issuance of this IROD, that the selected interim remedy is the least environmentally damaging practicable alternative for protecting wetland and flood plain resources.

In compliance with relevant and appropriate Wetland Protection and Floodplain Management regulations (44 C.F.R. Part 9), EPA solicited public comment through the Proposed Plan on the proposed cleanup's impacts on wetland resources and floodplains and received no negative comments (see Part 3 of this IROD).

3. The Selected Remedy is Cost-Effective

In EPA's judgment, the selected remedy is cost-effective because the remedy's costs are proportional to its overall effectiveness (see 40 CFR 300.430(f)(1)(ii)(D)). This determination was made by evaluating the overall effectiveness of those alternatives that satisfied the threshold criteria (i.e., protective of human health and the environment and comply with all federal and any more stringent state ARARs, or as appropriate, waive ARARs). Overall effectiveness was evaluated by assessing three of the five balancing criteria—long-term effectiveness and permanence; reduction in toxicity, mobility, and volume through treatment; and short-term effectiveness—in combination. The overall effectiveness of each alternative then was compared to the alternative's costs to determine cost-effectiveness. The relationship of the overall permanence and effectiveness of this remedial alternative was determined to be proportional to its costs and hence represents a reasonable value for the money to be spent.

4. The Selected Remedy Utilizes Permanent Solutions and Alternative Treatment or Resource Recovery Technologies to the Maximum Extent Practicable

Once the Agency identified those alternatives that attain or, as appropriate, waive ARARs and that are protective of human health and the environment, EPA identified which alternative utilizes permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable. This determination was made by deciding which one of the identified alternatives provides the best balance of trade-offs among alternatives in terms of: 1) long-term effectiveness and permanence; 2) reduction of toxicity, mobility or volume through treatment; 3) short-term effectiveness; 4) implementability; and 5) cost. The balancing test emphasized long-term effectiveness and permanence and the reduction of toxicity, mobility and volume through treatment; and considered the preference for treatment as a principal element, the bias against off-site land disposal of untreated waste, and community and state acceptance. The selected interim remedy provides the best balance of trade-offs among the alternatives.

There would be no reduction of the toxicity, mobility or volume through treatment because this selected remedial action does not include treatment of the contaminated groundwater. Decommissioning of former water supply wells is expected to reduce the volume and mobility of Site COCs through removal of stresses on the bedrock aquifer. Because this interim remedial action does not constitute the final remedial action for the Site, the statutory preference for remedial actions that employ treatment that reduces toxicity, mobility, or volume as a principal element, while not addressed by this selected interim remedial action, will be addressed by a final decision document. Past response actions taken at the Site, as required by the 1986 ROD, met the statutory preference for treatment.

5. Five-Year Reviews will continue as required

Because the on-going remedy results in hazardous substances, pollutants or contaminants remaining on-site above levels that allow for unlimited use and unrestricted exposure, reviews will continue to be conducted, as required by law, every five years to ensure that the remedy, and this interim remedy continues to provide adequate protection of human health and the environment. Five-year reviews will continue as long as waste remains at the Site and unlimited use is restricted, and as long as contaminated media remain above cleanup levels.

N. DOCUMENTATION OF NO SIGNIFICANT CHANGES

EPA issued a proposed plan, to extend and connect the existing water line to all households within target neighborhoods, to the public for review and comment on July 10, 2025. The proposed plan described the alternatives considered and EPA's preferred alternative. EPA reviewed all written, emailed and verbal comments submitted during the public comment period which began on July 11, 2025, and ended on August 26, 2025. Based on a review of the comments, EPA determined that no significant changes to the remedy, as originally identified in the proposed plan, were necessary.

O. STATE ROLE

The New Hampshire Department of Environmental Services has reviewed the various alternatives and has indicated its support for the selected interim remedy. The State has also reviewed the Remedial Investigation Summary Memorandum, Risk Evaluation and Focused Feasibility Study to determine if the selected remedy is in compliance with applicable or relevant and appropriate State environmental and facility siting laws and regulations. The NHDES concurs with the selected remedy for the Site. A copy of the declaration of concurrence is attached as Appendix A.

PART 3: THE RESPONSIVENESS SUMMARY

PUBLIC COMMENTS AND EPA RESPONSES

Part 3: The Responsiveness Summary

Public Comments and EPA Responses

On July 10, 2025, EPA published a notice of availability of the Proposed Plan in the Londonderry Times newspaper and made the Proposed Plan available to the public on-line at www.epa.gov/superfund/tinkham, and on the Town's website at https://www.londonderrynh.gov/617/Tinkham-Garage-Superfund-Site. Access to the internet is available at the EPA's Records Center, 5 Post Office Square, Boston, MA and at the Leach Library, 276 Mammoth Road, Londonderry, NH 03053. The Proposed Plan gave notice of a determination that there is no practicable alternative to temporary activities that affect or result in the occupancy and modification of wetlands or the 100- and 500-year floodplain but the preferred alternative is unlikely to affect wetlands or floodplain areas, that best management practices and any mitigation measures will be taken if required, and that a determination was made by EPA that the preferred alternative offers the best practicable alternative.

Also on July 10, 2025, EPA held an informational meeting to discuss the results of the Remedial Investigation Summary Memorandum, the alternatives presented in the Focused Feasibility Study, and to present the Agency's Proposed Plan. The meeting was advertised to a broader community audience than those that had already been involved with or impacted by contamination at the Site. At this meeting, representatives from EPA, NHDES, and our oversight contractor, Weston Solutions, Inc., answered questions from the public. A copy of the EPA presentation and video recording of the meeting was made available to the public on the Town's webpage at: https://www.londonderrynh.gov/617/Tinkham-Garage-Superfund-Site.

A reminder Post card was mailed to residents prior to the meeting: https://semspub.epa.gov/work/01/693982.pdf

On July 11, 2025, EPA made the Proposed Plan and the administrative record available for public review online at http://www.epa.gov/superfund/tinkham and for review and comment online at https://www.regulations.gov/docket/EPA-R01-SFUND-2025-0117.

From July 11, 2025, to August 12, 2025, the Agency held a 30-day public comment period to accept public comment on the alternatives presented in the Focused Feasibility Study and EPA's preferred alternative presented in the Proposed Plan. An extension to the public comment period was requested by the Cannons' Site Group and, as a result, it was extended to August 26, 2025.

The extension of the Public Comment period was published online: https://semspub.epa.gov/work/01/694794.pdf

On July 29, 2025, EPA held a public hearing and briefly presented the Proposed Plan before the formal public hearing was opened to accept oral comments from the community. Oral comments were received from several residents and the oversight contractor for the Cannon Site Group (CSG). A transcript of the public hearing is included with this Responsiveness Summary.

During the comment period from July 11, 2025, through August 26, 2025, EPA received written comment from the NH Congressional Delegation, The Town of Londonderry, numerous residents from the impacted neighborhood, and two comment submissions from two separate responsible parties, which EPA has summarized and responded to below. The full text of the written comments received has been included in the Interim ROD Administrative Record.

VERBAL COMMENTS RECEIVED AT THE JULY 11, 2025, PUBLIC HEARING

Four Residents provided oral comments which are summarized as follows:

- Resident provided appreciation for EPA's plan and would have liked to see more residents at the public hearing.
- Resident asked for confirmation that the comments being provided on regulations.gov were being seen by the EPA.
- Resident asked about comment process, spoke with EPA after the meeting and provided a written comment instead.
- Resident expressed a comment related to the commentary provided by Haley and Aldrich on behalf of the CSG.

EPA response: EPA appreciates that residents attended the public hearing and provided comment. Similarly, the public informational meeting was well attended by residents and a lengthy question and answer session was held at that time. EPA informed residents that comments were being received on regulations.gov. We appreciate that residents stayed at the hearing past 7 pm to provide comment.

Ian Phillips, Haley & Aldrich:

A written statement was read by Mr. Ian Phillips from Haley & Aldrich (H&A), contractor to the Cannon Site Group who are undertaking the cleanup at the Site. Mr. Phillips provided comment orally at the public hearing and noted that a submission in writing would also be provided by the CSG. Below is a summary of the statement read at the hearing.

Mr. Phillips provided oral statements addressing the following topics summarized as follows:

- the proposed water line.

- the site history.

- the CSG's position regarding the sources of PFAS in the neighborhoods.

- pumping induced migration; and

- the need for further investigations at the Site in addition to the implementation of the water line.

Spoken Comment on the proposed water line - Mr. Phillips stated that the Cannon Sites Group supports the installation of the water line to the residents of Ross and Tokanel drives impacted by exceedances of site related constituents, and that the water line is the appropriate remedy to protect the health of the residents impacted by site-related contamination.

EPA Response: Thank you for supporting the use of a water line as the preferred technology option to mitigate risks related to ingestion. The EPA's Proposed Plan presented the extension of a nearby water to residents within the Ross and Tokanel as well as the Boston/Charleston neighborhood.

Spoken comment on the Site History - Mr. Phillips provided a summary of their understanding of the disposal of hazardous substance for companies who contracted with the Cannon's Engineering Corporation, who then contracted with Mr. John Tinkham for the transport of wastes. The oral statement notes that "according to the records, in general Mr. Tinkham would pick up the waste and drive them to Plymouth and Bridgewater" prior to then washing the tank truck and disposing of the wash residuals at on his property at the garage.

EPA Response: The EPA agrees that in the Site's history, industries contracted with the Cannon Engineering Corporation for the disposal of hazardous substances. However, the presentation of the site history provided is not complete and thus not fully accurate. The site history, including the transportation of hazardous substances, the nature of wastes, the means by which and the locations at the Site where waste was known, found, or is suspected to have been released was summarized in supporting documentation and incorporated into the Site Conceptual Site Model (CSM). As this is an interim remedial action related specifically to the mitigation of exposure to downgradient receptors, this information is one component of the Site CSM which supports the risk evaluation and basis for the action.

Spoken Comment on source of PFAS: Mr. Phillips indicated that the CSG has provided "lines of evidence" that PFAS measured in the household water supply wells were not coming from the Tinkham Garage and that the EPA did not meet with and discuss those findings.

EPA Response: The EPA has focused investigations on the presence of 1,4-dioxane and PFAS at the Site and its potential migration into the nearby neighborhoods since 2018. Work performed by the CSG has included installation of monitoring wells, collection of extensive data on impacts to water supply wells and assessments on the potential migration pathways within and from the Site and the potential impact to downgradient receptors who rely on groundwater as their drinking water source. The CSG has provided bottled water to residents whose well water have exceeded drinking water standards in these neighborhoods, having previously connected five residents to the waterline in Boston and Charleston and one resident along Mercury. The collective history of Site releases, impacts, investigations, Site work and discussions relative to the somewhat diverging positions related to PFAS has been considered in support of the CSM for the Site as presented in the RI Summary Memorandum (Weston, 2024). Similar statements made by H&A have been previously addressed by the EPA, and through the on-going work performed at the Site to develop the Site CSM. A shorten summary of actions taken and discussions are as follows:

In 2014, H&A provided data which indicated significant 1,4-dioxane contamination within bedrock fractures at the Site within and proximate to source areas. The EPA, in its 2016 ESD for waterline connections to five impacted households in Boston and Charleton Avenues, issued a requirement for the performance of remedial investigations to assess residual site contamination and potential migration pathways to assess the extent of potential impacts to receptors.

As provided in the RI Summary Memorandum, H&A in their 2017 Annual Report to NHDES, provided a CSM which noted that, VOCs in source areas solubilize to groundwater and migrate horizontally to the east, southeast and south with a vertical gradient downward into bedrock. It also noted impacts to overburden groundwater east, southeast and south from the source area that migrates and discharges to the wetlands and stream beds. Impacted groundwater entered bedrock fractures within, and downgradient from the Tinkham Garage Source area and flowed in fractures striking northeast/southwest. Aquifer tests completed in the former condominium water supply well (LGSW) located west of the Tinkham Garage, indicated that wells located along strike fractures were hydraulically connected; however, H&A alleged that wells located perpendicular to the strike were unaffected. This led H&A to conclude, as they had written in their annual reports for many years prior, that the Ross Drive residential area is hydrologically isolated from the Site contaminants in the overburden and bedrock aquifer. EPA disagreed with this Site CSM as presented by H&A.

In April 2018, EPA met with the CSG and presented a critical evaluation of H&A's CSM specifically related to source areas, pathways, receptors and the adequacy of the monitoring well network. The EPA presented that source areas were poorly defined, large critical areas downgradient of the Tinkham Garage source area were devoid of characterization, potential bedrock pathways were not being evaluated, migration pathways into the Ross and Tokanel neighborhood toward the southwest discharge area were not included in the CSM, lineaments were not evaluated, and that pumping induced pathways were playing an integral role in contaminant migration. The EPA presentation also noted that based on the available data and the initial round of sampling for 1,4-dioxane using all on-site wells available in 2016, 1,4-dioxane from the source area was likely migrating into the Ross and Tokanel neighborhood and potential migration existed toward the Boston and Charleston neighborhood. This, in part, supported the basis for sampling and analysis of residential water supply wells which were initiated in the neighborhood in late 2018.

In October 2019, EPA requested further residential sampling, and an assessment of the data collected after four consecutive quarters. In April 2020, H&A provided that the distribution of 1,4-dioxane from the source area along with the high confidence transmissive fractures which orient toward the 1,4-dioxane- now confirmed impacted area of Ross and Tokanel- support a conclusion that the Site may be the source of 1,4-dioxane. (H&A, April 2020)

Similarly, over time, EPA, NHDES and the Agency's oversight contractor, Weston Solutions, has continued to provide critical evaluation and responses to the CSG regarding the Site CSM development and on the incorporation of PFAS as a site contaminant into the Site model. Discussions on top of bedrock, migration pathways, and on data collected have occurred routinely. Similarly, there is and has been routinely scheduled meetings with the CSG's supervisory project management representatives. The EPA, NHDES and our oversight contractor Weston Solutions has provided routine commentary on the documents provided by the CSG and presented and provided CSM critical component evaluations including work required for the assessment on the migration pathways for groundwater within and from the Site, the evaluation of transducer data provided by H&A, and observations related to surface water flow within and from the Site to the neighborhood. Responses from the CSG or H&A were not provided on

comments provided on those topics for many years and the annual reports continued to report on the data collected, and express CSM conclusions which were, in part, not considered complete or not supported by the EPA, NHDES or Weston Solutions.

As a result, and on September 9, 2021, EPA's Chief of the Region 1 Remediation Branch issued a statement to the CSG specific to their conclusions based on "multiple lines of evidence" and as presented by H&A in their annual reports, that PFAS concentrations measured in residential wells with the Ross/Tokanel and Boston/Charleston neighborhoods are not attributable to releases at the Tinkham Garage Site and that bottled water was being provided "out of an abundance of caution". In that letter, EPA addressed those statements noting that EPA and NHDES have provided our interpretations of Site hydrology, contaminant fate, transport, migration, and potential exposure pathways which continue to be assessed through ongoing remedial investigations. EPA stated they were deeply concerned about the current findings at the site, including the migration of site contaminants into nearby residential areas and impacts on residential water supply wells. EPA noted that the CSG was providing alternative water as a requirement of the monitoring program being performed under the State issued GMP where contaminant concentrations (specifically 1,4-dioxane and PFAS) have been found in excess of the State's Ambient Groundwater Quality Standards (AGQS) in water supply wells. That letter also informed the CSG that the investigations are expected to result in a revised groundwater remedy to minimize unacceptable risks to human health and the environment related to the presence of and/or impacts from past releases and uncontrolled migration.

The remainder of the commentary on the source of PFAS in residential water supply wells was included in a written comment package and the EPA response is provided in response to the written comments.

Spoken Comment on the need for further investigations: Mr. Phillips stated that the installation of the waterline will expedite completion of the remaining investigations.

EPA Response: EPA agrees that the installation of the water line and mitigation of current exposure to receptors will allow future investigations to focus on the Site and source areas and to establish whether there may be residual contamination and unacceptable risk related to exposures to human health and the environment within the Site as well as to assess whether the current groundwater remedy (MNA) can or will be protective of human health and attain cleanup standards.

WRITTEN COMMENTS RECEIVED DURING THE PUBLIC COMMENT PERIOD

1. New Hampshire Congressional Delegation

A letter was received to the EPA Region 1 Regional Administrator from the NH Congressional Delegation of Senator Jeanne Shaheen, Senator Maggie Hassan and Congressman Chris Pappas requesting the EPA take full action at the Tinkham Garage Site to ensure that residents will be able to access a safe supply of drinking water by connecting households to the municipal water system. The letter expresses deep concern for PFAS exposure for Londonderry residents, related to health issues which may be attributable to contaminants such as PFAS. The delegation

supports a safe and reliable access to drinking water for residents while on-going remediation of the Site continues.

EPA Response: Thank you for the letter supporting EPA's preferred alternative to extend the existing municipal waterline into the target neighborhoods. We are committed to providing a permanent, safe and reliable drinking water and working with residents as EPA oversees the implementation of the waterline while on-going investigations at the Site continue to assess the need for additional measures to ensure protection of human health and the environment.

2. Town of Londonderry, New Hampshire

A written comment was provided by Shaun Mulholland, Town Manager for the Town of Londonderry stating the Town appreciates the opportunity to comment on the Proposed Plan and that the Town supports the prompt elimination of ingestion exposure through connection of affected and at-risk properties to a public water supply while the comprehensive groundwater remedy proceeds. The Town provided comments on, and/or requests for clarification of the work to be performed which are addressed below.

EPA Response: EPA appreciates the Towns comments and support for the Proposed Plan as well as the cooperation and support we have received from the Town during these on-going investigations at the Site.

1) Water main design must explicitly include fire protection capability

Based on EPA and NHDES discussions with Pennichuck Corporation, the water line extension project will include fire protection in accordance with Env-Dw 404. The cost estimate provided in the Proposed Plan, which was in part provided by Pennichuck, included fire protection (these costs were not called out as a separate cost to the water line extension). EPA will coordinate closely with the Town of Londonderry (including the Fire Department) and Pennichuck during the design and construction process to ensure that the system meets all state and local requirements. It is our understanding that Pennichuck will take ownership of all system infrastructure (including fire hydrants) and will be responsible for the ongoing operation & maintenance of the system and that Pennichuck charges an annual fee to municipalities based on the number of hydrants in the town to help cover maintenance costs.

2) Construction dewatering: permits, treatment, monitoring, and discharge

The need for dewatering during construction of the water line will be evaluated during project design based on a geotechnical study. If it is determined that dewatering will be required in some areas, a dewatering plan will be developed that specifies how the dewatering will be implemented (well points, managed within the excavation, etc.), documents the anticipated contaminant concentrations in the water, identifies appropriate treatment methods, and identifies the discharge method and location. If dewatering is needed, sampling will be performed to document treatment system effectiveness. Under CERCLA, work complies with the substantive portions of permits, as needed.

3) Air Monitoring and off-hours mitigation for airborne contaminants

The need for air monitoring during construction of the water line will be evaluated during project design. In general, subsurface soils beneath roadways within the neighborhoods are not likely to contain high concentrations of Site contaminants based on the primary mode of contaminant transport from the Tinkham Garage source area and through the neighborhood. The primary contaminants of concern in the groundwater within the neighborhoods are PFAS and 1,4-dioxane, neither of which is particularly volatile. Therefore, nuisance dust is likely to be the primary airborne concern. Best management practices including soil wetting will be used to control nuisance dust during construction and if warranted, monitoring will be performed.

4) Floodplain determination and Beaver Brook protection

The preliminary floodplain determination performed during the Focused Feasibility Study and discussed in the Proposed Plan will be confirmed during the design process and updated with the latest mapping information. This analysis will be shared with the Town to gain a consensus on the determination. The design will also include a Stormwater Pollution Prevention Plan that will specify soil erosion and sediment controls to be implemented during the construction. The Town will have an opportunity to review these plans.

To date, no surface water samples have been collected downstream of the large wetland area located east of Reed Street. Additional investigations to assess surface water contamination will be a component of the continuing Site investigations.

5) Groundwater east of Beaver Brook and long-term monitoring

The current Conceptual Site Model is that groundwater migrates from the Site towards from the South and discharges into Beaver Brook and/or the associated wetlands toward the southwest. At this time, we do not believe that contaminants from the Tinkham Garage Site have migrated beyond (east of) Beaver Brook. However, EPA understands that once the water line is constructed and residential wells in the Ross/Tokanel neighborhood cease pumping, groundwater migration patterns could change, and thereby alter the distribution of contaminants. Additional investigations are planned as part of the ongoing Remedial Investigation, and this aspect of the Conceptual Site Model will be considered.

6) Juniper Ridge (Gilcreast Road) and future receptors

EPA is aware of the ongoing Juniper Ridge development at 35 Gilcreast Road. It is not anticipated that the interim action (water line extension) will have any impact on that development other than ensuring that the water mains will have sufficient capacity to serve both projects. As Pennichuck will be designing the water line extension, they will ensure that this is the case.

7) Implementation details that will matter locally

EPA understands that the water line construction will be disruptive to the local residents for a short time. However, EPA believes that the benefit of obtaining a permanent and reliable source of drinking water outweighs the short-term inconvenience of the construction. Connections to the new water line will be negotiated with each individual homeowner and will include selecting the alignment, irrigation/well abandonment options, and restoration of their property to pre-existing

conditions. Efforts will be made to minimize disruption to existing landscaping and driveways/walkways to the extent possible. Each homeowner will be provided with a point of contact for issues during this construction and for future issues. EPA anticipates working closely with the Town during construction regarding traffic control, off-hours work, equipment staging and snow removal (if done in winter). EPA will maintain appropriate and effective communications with the Town and the residents during the implementation of the work.

Comments from Residents

Several comments were submitted by residents. Comments received, in general, were in support of the waterline extension. The first comment received was anonymous and alerted the EPA to technical issues related to opening the Proposed Plan within the Regulations.gov website. We appreciate the comment, and EPA promptly addressed this issue. A summary of the remaining comments received and EPA and NHDES responses are provided below:

Resident Comment 1: Comment received included support for the provision of public water to the neighborhood and suggestion that the waterline could have been provided without the investigations performed in the neighborhood. The resident inquired whether their water supply well could be kept for lawn irrigation as Pennichuck frequently limits lawn watering and has flow issues during drought. This resident indicated that keeping the costs for the residents for the connection to zero would be important to get connections to every house.

EPA Response: Thank you for the comment and support for the waterline extension. The Superfund process requires that EPA provide a basis for taking action and the investigations and collection of data support the conceptual site model and risk evaluation and form the basis for taking this action. The pumping of wells can draw contamination toward a well and the cessation of that pumping can reduce contaminant mobility and help lower concentrations in wells. This response is being conducted under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, otherwise referred to as Superfund). Where groundwater used as drinking water is contaminated and deemed to present a risk to receptors, a remedy calling for a waterline extension provides a safe alternative water source. The original private wells are typically decommissioned, or sealed, to manage the use of the contaminated groundwater and ensure that the new municipal supply is used. The removal of a pumping well is expected to reduce contaminant mobility in the bedrock aquifer. The well decommissioning supports the attainment of the remedial action objectives for the Site cleanup which includes protection of residents relying on groundwater as drinking water and reducing or minimizing the migration of contaminants from the Site and through the neighborhood. Typically, well decommissioning may be required through institutional controls which are legal and administrative restrictions placed on a property, and which manage the use of groundwater until cleanup levels are attained. In some cases, a local ordinance or a property deed restriction can be used to either prohibit the use of contaminated groundwater or notify of contaminated groundwater. At this Site, a groundwater management zone exists which establishes a boundary within which groundwater is contaminated, and management of the use of groundwater is overseen by the NHDES utilizing deed notices. As a key part of a CERCLA remedial action, institutional controls must be monitored to ensure compliance. The EPA conducts regular five-year reviews at Superfund sites

to evaluate the protectiveness of the remedy, including any well use restrictions which may be in place.

The current interim action for this waterline did not extend the Site groundwater management zone into the neighborhood **at this time**, related to PFAS, as additional groundwater investigations are continuing which will address how, and where groundwater cleanup or restoration may be required and if the groundwater management zone requires extension to include the neighborhood. While EPA may be able to allow former wells to operate for non-potable uses such as irrigation, the collective continued pumping of wells in the neighborhood for irrigation would negate the objective of reducing stresses and migration of contaminants into and across the Site. Further, continued pumping could expand the extent of the contamination and may make it less feasible to either contain or restore groundwater at the Site. As groundwater investigations continue to determine the extent of contamination and assess remedial actions which may be needed to achieve cleanup at the Site, EPA would request that residential wells not continue to be utilized for irrigation (and especially as we continue to evaluate groundwater migration at the Site and assess restoration) and prefer that these wells be decommissioned when connected to the waterline unless it is requested that these wells remain for continued monitoring of groundwater conditions at the Site.

EPA may, if needed or warranted, seek a Town Ordinance related to the use of groundwater at the Site, as was included as an option in the 1986 remedy decision, as amended.

Decommissioning of water supply wells includes the removal of pumps, internal pipes, etc from the well, disinfection of the well and sealing of the well with bentonite clay or grout so that the well does not act as a conduit for contamination, removal of the well casing and restoration of the location of the well.

Resident Comment 2: Comments received from this resident thanked the EPA for all the work to select the extension of the waterline into the neighborhoods but expressed frustration related to the timely provision of nearby waterline extensions to new developments. This resident feels the Proposed Plan makes sense and that the individual phase to develop each household connection plan will take time. The resident believes the responsible parties should be held accountable for all of the costs associated with the extension of and connection of the waterline to each household, including removal of any current water treatment systems and property restoration.

EPA Response: Thank you for your comment and the patience needed to allow the EPA to navigate the Superfund process to this interim remedy decision. The costs for the extension of the water line and the household connections will not be incurred by the residents. As noted, individual plans will need to be developed with each household, and the disposition of current water treatment systems will be addressed at that time.

Resident Comment 3: This resident commented that they had previously lived in the neighborhood and felt upset that the waterline came 40 years after the Site was first identified as a problem and that a waterline extension should have occurred at the same time as the Nevins development at the Site. The comment included a cancer diagnosis which leaves concerns from past exposure in the neighborhood and notes the many lives which have been affected. The

commentor agrees with the provision of alternative water and removal of the use of wells in the neighborhood.

EPA Response: Thank you for your comment and we are sorry to hear of your diagnosis. The EPA moved forward on this interim remedy to extend the waterline after assessing emerging contaminants at the Site. 1,4-dioxane was first analyzed for in drinking water in the neighborhood in 2009 and no detections were noted at that time. The detections for 1,4-dioxane and PFAS in the neighborhood were not noted until sampling was performed in 2018; the Cannon Site Group has provided bottled water to residents whose water supply wells exceed drinking water standards since then.

Resident Comment 4: This commentor has lived in the neighborhood since 1976, raising a family and relying on well water, believing it was safe. Their well was found to be impacted by MtBE contamination, and a water treatment system was installed and now they have PFOA, PFOS and 1,4-dioxane in their well water. The commentor asked why, if the Site was first identified in the late 1970's, was the Nevins, households near Saint-Gobain and other recent developments provided with town water, feels the neighborhood was forgotten and wants an explanation.

EPA Response: Thank you for your comment, and your patience during this process which has impacted your home and family. EPA offers an explanation as follows:

The initial complaint was in a shallow bedrock supply well, near a drainage stream within the neighborhood and the initial actions taken by Mr. Tinkham included changes to disposal of wash waters and addressing residual materials in the fields behind the garage and re-routing the stream such that it would drain across what is now the lower portion of the Nevins to an area closer to the condominium area. EPA initial investigations focused on finding the sources of contamination within the Site responsible for contamination found in the condominium water supply well and in water supply wells along Mercury and McAllister. EPA and NHDES took action to extend a waterline in 1983 for these impacted wells and in 1986 selected a remedy to address contaminated soils in the leach fields, a soil pile and in the fields proximate to the garage and to extract groundwater for off-site treatment within the bedrock and shallow groundwater within the area of soil treatment. This was done to obtain cleanup objectives to reduce contaminant concentrations within the Site to drinking water standards and to reduce VOCs in soils. These actions were also conducted to minimize future migration of these contaminants to the South, into the Ross Drive neighborhood. During this time period, and through the early 2000's, NHDES sampled water supply wells in the neighborhood. NHDES identified the MtBE in your well and offered the treatment system. The VOCs within the Site continue to be found primarily within and proximate to the source areas. In 2008, the Cannon Site Group began analyzing for 1,4-dioxane which was detected in Site groundwater. In 2009, at the request of EPA, Haley & Aldrich, the Cannon Site Group contractor, analyzed well water at nine households along Ross Drive for 1,4-dioxane. No detections were reported. These nine households were the same households sampled by the NHDES in previous monitoring events and included this commentors well. As a result, H&A concluded that no further samples from water supply wells were warranted in the neighborhood. Further investigations were performed

within the Site to monitor groundwater and assess 1,4-dioxane concentrations in fractures within the bedrock aquifer, within three monitoring wells, in 2014.

Following the finding of impacted wells by NHDES in 2014 along Boston and Charleston Avenues, EPA required waterline connections of those households and additional investigations at the Site to complete an assessment of the extent of and potential migration pathways for 1,4-dioxane toward receptors. In 2018, sampling of the Ross and Tokanel neighborhood noted impacts in this commentors well, as well as other households for 1,4-dioxane as well as PFAS. Bottled water was offered by the Cannon Site Group to households which exceeded drinking water standards for 1,4-dioxane. There were no drinking water standards for PFAS at the time. The initial assessment of PFAS in drinking water compared the data to a health advisory set at 70 µg/L. The State then set drinking water standards for four PFAS. Bottled water was provided to households which exceeded the state standards for PFAS. As toxicological information about PFAS developed, subsequent data comparisons were then compared to regional screening levels for tap water and finally to the much lower screening levels issued by EPA in November 2024. EPA also issued federal drinking water standards for PFAS in April 2024 and designated PFOA and PFOS as hazardous substances (this designation allows cleanup under Superfund). During this time period additional households were considered impacted through on-going monitoring and because the standards used to compare the well data concentrations to also continued to decrease. The EPA and NHDES have provided oversight of the activities at the Site to assess these contaminants, to document potential migration pathways and impacts and have selected a waterline extension as an interim action to mitigate exposures, while the remainder of site investigations continues.

The Nevins required a waterline for development because EPA, in 1986, had designated groundwater within the Site to be unacceptable for drinking. Use of a waterline was therefore a required component of the construction. Similarly, the recent nearby developments utilize municipal water as a requirement for development as determined by the Town.

Impacts from the now former Saint-Gobain facility has been heavily monitored for as releases from the facility led to the impact of water supply wells over a very large area. EPA's understanding is that Saint-Gobain, under a Consent Decree, provides measures to address drinking water impacts within a boundary designated by impacts greater than the 70 µg/L Health Advisory available at that time. The households beyond that boundary are being addressed through collective State and Town actions and the initial required action utilizing point of entry treatment systems was recently replaced with the extension of a waterline for those households.

Resident Comment 6: This commentor has lived on Tokanel Drive for 28 years, and expressed concerns related to the Pennichuck intake of water from the Merrimack River and potential impacts from Saint-Gobain and numerous wastewater facilities on the river. The commentor is concerned for themselves and their family and wants to know if Londonderry is getting out of the frying pan and into the fire by relying on water from Pennichuck given those concerns. Further, the commentor asked if any funding from the Biden Infrastructure Bill provided to NH has been allocated to address these residential impacts. The commentor attended the July 10, 2025, information meeting and understood that the residents are not responsible for the $ 6.8 million

dollar cost associated with the waterline extension but heard there was a contribution requirement from residents. The commentor would like to see a study of the stormwater management during construction.

EPA Response: Thank you for your comment and for attending the informational meeting. NHDES's Drinking Water and Groundwater Bureau, which oversees public water systems was consulted for this response. The Pennichuck water system that would supply water to the Ross/Tokanel and Boston/Charleston neighborhoods is the "Londonderry Core" system (Public Water System ID #1391010). Pennichuck procures water from Manchester Water Works (MWW; Public Water System ID #1471010) to supply the Londonderry Core system. MWW obtains its water from Lake Massabesic and the Merrimack River. According to the most recent Annual Water Quality Report (Reporting Year 2024 presented by MMW, raw water from these surface water bodies is treated at local plants by various technologies to satisfy stringent state and federal drinking water regulations prior to distribution. The treated water from both plants is tested for various substances on a sampling schedule overseen by the NHDES-Drinking Water and Groundwater Bureau. Chemical monitoring generally occurs on an annual basis – but more frequently (quarterly) for chemicals recently detected in water samples. Testing results for reporting year 2024 found detectable levels of PFOA in samples collected from the Lake Massabesic Water Treatment Plant (5.59-6.51 parts per trillion or ppt) and the Merrimack River Treatment Plant (1.42-1.94 ppt). These levels are less than the current maximum allowed level (12 ppt) for public water systems. MMW will be required to meet a reduced maximum allowed level of 4 ppt by 2029 as established by the USEPA. Additional information pertaining to MMW/Londonderry Core system water quality and monitoring on the Pennichuck-My Water System and NHDES One stop websites. A relevant NHDES Fact Sheet on A Comparison of Public Water Service to Private Water Wells highlights some of the advantages that connection to a public water supply could offer in the long run.

Funding from the Biden Infrastructure Bill is not included in this action. Costs for Superfund cleanups are addressed through the EPA, liable parties or through enforcement actions, as needed. The $6.8 million dollar estimated costs for the extension of and connection of the waterline at each household will be addressed under Superfund. EPA cannot provide funding for costs of household water usage, nor can we require the Cannons Site Group to pay for the water used by each household. Residents will be responsible for their metered usage of water and will do so through an account with Pennichuck.

A storm water management plan will be included in the design and address the management of storm water during implementation of the action. EPA will host a public meeting to present and discuss the design.

Resident Comment 7: This commentor believes they have a better understanding of impacts to private wells and are appreciative of the work EPA has performed to detect, educate and communicate on this matter.

The commentor provided several concerns as to the implementation and construction of the water line and resident rights during this process. Responses to those concerns are noted below.

EPA Response: Thank you for the comments and we appreciate receiving support from residents.

Below is a summary of the comments received from the homeowners:

1. Concerns about rights as property owners and the impact to property from running a waterline in our neighborhood. Concern for how a property will be protected during this process. The blasting could cause issues with our foundation, as well as damage to a yard and driveway during installation of the water line. Concerns were noted that residents will have to fight to get repair and wonder what their recourse are if issues surface in this process.

   EPA Response: Waterline installations are a routine and frequent occurrence in most southern NH towns, including Londonderry. All aspects of the installation work would be communicated with the Town and the residents. The remedial design and the workplans will address site management during the installation and will detail the required protections. If blasting is determined to be needed for the installation, rather than another approach, a foundation survey can be done both prior to and after the work. The foundation survey would assess conditions prior to the work and any issues would be addressed upon that survey completion. EPA requires restoration of properties (but not improvement/betterment) as part of the work. EPA knows that communication with parties performing the work and those affected by the work is vital to address work requirements, expectations and assurances.

2. Concern is noted for the timeliness and comprehensive nature of communications, and how communications will be managed throughout the next steps of this process. Comment requested process should the responsible parties refuse to pay for the water line.

EPA Response: There will be comprehensive communication of any action. EPA has a designated community involvement coordinator for the Site who will manage and/or support communication of the work with residents. Notices of the waterline design will be given. The performing parties, EPA, and the State will communicate the plan for the extension, timeline, management, etc to the residents. A public meeting to discuss the design would happen before construction begins. As each household requires its own connection plan, additional meetings with and communications directly with the homeowner will be required to provide the connection and perform any property restoration.

3. The commentor asks whether it is their decision as homeowners to extend the new water line to the neighborhood and do residents have the right to decline the hookup to their house.

EPA Response: The proposal is to extend the existing nearby waterline into the neighborhoods, and provide curb stop connections at each property. The EPA proposed this plan and accepted comment on the plan, which has been supported by the NHDES, NH Congressional Delegation, the responsible parties, the Town and residents who have offered comment. Permission from each homeowner is required to connect each house to the curb stop for the provision of

municipal water. Should a homeowner decline the connection or otherwise not provide access, there will be another letter to the homeowner confirming their decline. As required by the State of NH, groundwater that is determined to exceed drinking water standards may be placed within a groundwater management zone. Deed notices are placed on each property within a groundwater management zone, notifying that the groundwater in the neighborhood contains contaminants which exceed acceptable drinking water standards. The resident may continue to receive sampling in the future as to the quality of their drinking water well should they decide not to connect.

4. Should a resident decline the hookup to their house and there is damage to their existing water supply well during the waterline extension work in the neighborhood, what are their rights toward fixing the well.

EPA Response: The design of the waterline will consider and address potential impacts to the neighborhood. In addition, repair/restoration are major components of the work which would include restoration of impacted wells, should those impacts be from the work being performed. Contractors also have to have liability insurance to perform the work required. Typically, surveys can be performed during work, however a homeowner must agree to performance of those surveys, such as well sampling, in order for them to be effective.

5. As a homeowner, will we have any legal say in how the connection is made to our house (both externally and internally)?

EPA Response: The municipal contractor will extend and construct the waterline and provide curb stops at each property. Another contractor would work with the resident to develop a household specific plan for the connection of the house to the curb stop including the path and actions, as well as any property restorations that may be required. As each property is different, these are household/property specific plans and as such each homeowner will be included in that discussion and implementation. This includes the outside/external path connecting the curb stop to the house and the internal plumbing required to connect the system into your household.

6. Will there be a contract delineating roles, rights and responsibilities for everyone involved in the extension project, including the work in the neighborhood and on each property (both internally and externally).

EPA Response: The EPA, NHDES and the PRPs perform work under a Consent Decree which outlines our roles and responsibilities. There will be a plan for the design of the work, workplans which assess how the work will be implemented and managed, and reporting of the work as performed. These plans are reviewed by EPA and the NHDES for comment/approval. The resident will have an access agreement with the performing party for the work. The access agreement which the homeowner will need to sign for any work to be done on their property, constitutes both an accepted property connection plan and permission for the performance of the work.

Resident Comment about future work: A resident asked about potential soil contamination at the Site, in the Nevins and in the new developments and if testing was or will be performed and whether construction negatively impacts groundwater.

EPA Response: Soils within the Site were sampled and cleanup actions were taken for soils contaminated with VOCs greater than 1 part per million to reduce exposure to these contaminants and limit leaching into groundwater. Soils were tested by the developer in the new developments near the Site and addressed accordingly, if required. In general, construction can have an impact on groundwater. Construction can affect infiltration and run-off, and stormwater management actions can channel precipitation to discharge areas. Large areas of pavement can reduce infiltration of precipitation which could limit contaminant mobility from soils into the groundwater.

Resident Comments received noting Health Issues: Several residents provided comments concerning their and/or their families health issues related to exposure to contaminants in water supply wells. One commentor asked about early puberty and one discussed concern from living within the neighborhood since 1978, and has concerns related to Site exposure and medical issues diagnosed within their family.

Responses to these comments have been provided by the New Hampshire State toxicologist and the Agency for Toxic Substances and Disease Registry (ATSDR) as follows:

For individual health concerns, it is recommended that people consult with their healthcare provider. Healthcare providers can offer personalized advice based on an individual's unique health history and current condition. They can also recommend medical testing, provide appropriate treatment, and monitor any potential health effects related to environmental exposures. While healthcare providers are best equipped to respond to individual concerns, the following information is provided to help address site-specific concerns.

At this Site, PFAS, 1,4-dioxane, and trichloroethylene (TCE) are among the main contaminants of concern. Of the three, only PFAS has evidence showing possible impacts to the timing of puberty onset in children. Some studies have found that PFAS exposure may cause delays in children's development, including delays to when puberty begins, while other studies have shown no association between exposure and the onset of puberty. Evidence from both human and animal studies have shown that PFAS can interfere with hormones that control growth and development, causing delays. There is very little research or evidence on how 1,4-dioxane can affect children's development, but there are a limited number of animal studies that show that it can slow the growth of developing fetuses in rodents. And although TCE has been linked to developmental defects, especially heart defects in babies, there has been no strong evidence that exposure to TCE impacts the timing of puberty in children. Overall, there is currently no clear evidence that these chemicals cause an early onset of puberty in children.

While healthcare providers are best equipped to respond to individual concerns as noted above, the following information is provided to help address site-specific concerns related to PFAS, 1,4-dioxane, and trichloroethylene (TCE). **This information is not intended to diagnose health conditions and cannot determine the specific causes of health issues within a household.** It

provides general information about these contaminants and what is currently known about their potential health effects based on research in other areas.

For prostate effects, some studies have found associations between PFAS exposure and biomarkers for prostate damage, which can lead to enlarged prostate. Some studies suggest a potential link between PFAS exposure and increased prostate cancer risk in vulnerable populations, such as individuals with high exposure levels and a family history of prostate cancer. However, for the general population, the links between PFAS exposure and prostate cancer are not as strong. There is currently no evidence linking 1,4-dioxane or TCE exposure to prostate effects in humans.

For heart effects, direct evidence linking PFAS, 1,4-dioxane, and TCE to atrial fibrillation is limited. Studies have investigated potential links between PFAS exposure and cardiovascular disease and have found some associations with increased cholesterol and high blood pressure. Research also shows that inhalation exposure to TCE in pregnancy can increase the risk for congenital heart defects in children. Oral exposure to TCE from drinking water has also been found to be associated with an increased risk of congenital heart defects in children whose parents were exposed prior to conception and during early pregnancy. Acute inhalation exposure to extremely high levels of TCE can cause specific types of cardiac arrythmias. However, at the levels of exposure observed at the site, this outcome would not be expected to occur. No studies were located that have studied associations between PFAS, 1,4-dioxane, and TCE exposures and atrial fibrillation to evaluate this specific potential health outcome.

For thyroid effects, current research suggests that PFAS exposure may contribute to thyroid disease. This is based on human studies suggesting that PFAS exposures may have the potential to cause changes in thyroid hormone levels, along with animal studies showing damage to the thyroid gland. There is currently no evidence linking 1,4-dioxane or TCE to thyroid toxicity in humans. Studies in animals showed no damage to the thyroid gland in rodents exposed to 1,4-dioxane or TCE.

Sarcoidosis is a complex immune-mediated disease that can be triggered by environmental exposures. However, no studies have investigated links between PFAS, 1,4-dioxane, or TCE exposures and sarcoidosis. PFAS exposure has been linked to potential adverse effects on the immune system, but sarcoidosis was not evaluated as a specific health endpoint in these studies.

The Agency for Toxic Substances and Disease Registry (ATSDR) can be petitioned to investigate specific environmental health concerns in a community. If the petition is accepted, ATSDR would conduct public health activities to learn more about the issue and the concerns. Those public health activities could offer guidance to community members, organizations and agencies on measures to mitigate potential health risks and safeguard public health. They could also serve to enhance the understanding of possible conditions under which health effects may arise. However, it is important to clarify that such assessments or activities cannot establish a definitive causal relationship between specific health concerns and environmental contamination associated with the site.

First Set of Comments from a Responsible Party:

Robert Lucic of Sheehan Phinney, representing the Tinkham's Site Settling Group and Tinkham parties to the Partial Consent Decree, provided commentary in an email to the EPA. In the letter, Mr. Lucic provided commentary and raised several questions on the Proposed Plan and supporting documentation related to the Site history and Site-related contamination in residential water supply wells resulting from the migration of contaminants from the Site and leading to the selection of a water line extension as the preferred alternative to mitigate risk for residents. The Responsible Party's representative made several comments which EPA has summarized as the following statements on the topics contained in the letter:

- the Site history language, which is noted, is not as significant as the reporting makes it appear and was not a fleet of trucks but a singular truck which was used to transport septic and liquid industrial wastes to disposal sites;
- Tinkham Garage was not a disposal Site;
- disagreement on characterization of trenches extending southward behind the garage;
- lack of history and analysis linking PFAS with operations of the Tinkham Garage;
- PFAS levels in drinking water wells are comparable to other wells in Londonderry;
- contradictory evidence for 1,4-dioxane to be site related to a 2015 letter previously submitted on migration in bedrock; and
- request that the plan and supporting documentation be revised to reflect the uncertainty as to the source of contamination.

EPA Response: Thank you for the letter. The Remedial Investigation Summary Memorandum included an overview of the Site history and a summary of former investigations and actions. The intent, with respect to the history of disposal, was to show the mechanism by which hazardous substances came to be located at the Site and how and where they may have been released at the Site. We disagree that the Site history in this respect is not significant, as the Conceptual Site Model is built upon this knowledge.

Thank you for providing additional information on the trucking operations for Tinkham Enterprises. In our review, past documents have referred to truckers, drivers, trucks, all in the plural. The information, as EPA understands it, is that there were "trucks" serviced at the garage and used for hauling, and the contents were released at the Site. Regardless of whether there were one or more trucks, Mr. John Tinkham was a transporter of CEC wastes, where such wastes contained hazardous substances and were disposed of at the Gilson Road and Tinkham Garage Sites. EPA, as part of settlement negotiations, identified hundreds of industries related to the generation of and transport of wastes to and/or from the CEC and to the Gilson Road and thus also to the Tinkham Garage Site. Potential responsible parties are identified under CERCLA as generators of waste, transporters of waste, as well as owners of properties where waste is disposed. We have considered your request and to the extent we can provide additional clarification of how wastes came to the Site, use of Mr. Tinkham's truck, or truck(s), his operation and servicing of truck(s) including the disposal of residual content within the Site, the servicing of and washing of truck contents between hauling of septic and industrial wastes, and

where and how such wastes were then released at the Site, we have attempted to do so in the IROD. The Site received the disposal of hazardous substances through his business, through his contracting with the CEC, and through his trucking and servicing operations.

The aerial photos from the mid-late 1970's through the 1980's include commentary either inferring or otherwise stating that there are numerous trenches at the Site, some with standing dark water such as those in the field behind the garage and other areas both east and west of the garage which have noted activities. The photographs are used to correlate with the Site history and provide knowledge of where wastes may have been released, and where Site activities occurred. Review of these photos allows for a better understanding of potential source areas and migration patterns and allows for focused investigations, especially for larger sites or sites with evolving uses and operational period.

The summary provided in the RI Summary Memorandum is not a PRP search for the Site. There is basic knowledge available that many industries, of the kind and type that were designated as generators of wastes which may have been disposed of at the Tinkham Garage, likely utilized PFAS in their processes. As is often the case at disposal sites, industrial wastes may become combined prior to, or as part of disposal, or as a component of migration after disposal. The sources referred to in the CSM are general areas where disposal has been noted, found, or suspected. PFAS was in groundwater at the highest levels found within the known source area east of the garage where high levels of VOCs were previously addressed related to disposal to the ground surface from tank washing, etc. The historic initial complaints and findings support releases behind and to the east of the garage of septic and oil wastes, migration south and overland flows into wetland and surface water drainage features, as well as releases within the extensive condominium complex serviced by Mr. Tinkham. These were consistent and likely to have occurred via disposal of larger volumes from the tanker(s), migration into nearby streams, and overland flow and migration into the overburden and bedrock as is evidenced by the data collected within the bedrock aquifer. The CSM documents the release, potential migration pathways and findings of Site contaminants in household water supply wells. The CSM documents migration patterns from the Site in surface water and in the overburden and bedrock aquifers suggesting that the Site is a likely source of PFAS and 1,4-dioxane found in the water supply wells in the neighborhood.

PFOA found in Ross Drive wells proximate to the drainage feature which runs past the Tinkham Garage Source Area into and through the neighborhood are elevated. The Tinkham Garage Site is large, 375 acres, with a large tributary to Beaver Brook passing through the condominium area and numerous drainage passages within the site and into the neighborhoods. Our understanding is that many of the residents in the neighborhood have also replaced their original shallow water supply wells with deeper wells, with the deeper wells being the ones currently monitored. The CSM provided numerous potential migration pathways and patterns of contaminant transport.

The initial RI documented highly elevated concentrations of VOCs, including 111-TCA, which is a solvent commonly associated with 1,4-dioxane contamination. On-going remedial investigations have documented high levels of 1,4-dioxane which remain in discrete fractures within bedrock located in and proximate to known source areas and along migration pathways.

Site documentation has concluded that the 1,4-dioxane from the Tinkham Garage source area was likely pulled toward LGSW during its operation and continues to be migrating uncontrolled in bedrock within the Site in a southerly direction from the Tinkham Garage source area. H&A, on behalf of the CSG, provided EPA a report in 2020 which supports a conclusion that 1,4-dioxane found in the water supply wells in the neighborhood is along bedrock migration features and that the migration of this contaminant is likely from the Site. The EPA CSM is comprehensive for the potential migration pathways from the Site into the neighborhoods, and into numerous water supply wells in the southern portion of the neighborhood consistent with the predominant groundwater flow direction as well as potential other pathways, and is based on hydrologic and geologic analysis at the Site, and captures the historical, current and future potential impacts to receptors related to uncontrolled migration from the Site.

A completed exposure pathway has been documented for residents living near the Site for ingestion of contaminated groundwater that has been, or potentially may continue to be, impacted by contaminants released at the Site via uncontrolled migration of groundwater, transport via surface drainage, and/or from stresses placed on the bedrock aquifer related to continuous pumping of water supply wells. The risk assessment is supported by the Site CSM and forms the basis for taking this interim action.

Second Set of Comments from a Responsible Party:

The Cannons Sites Group (CSG) provided a 390-page submittal on the EPA's Proposed Plan to provide residents whose water supply wells are currently impacted and may be potentially impacted in the future with an extension of and connection to the nearby waterline, thus providing a permanent and reliable source of water to the residents. The package received as commentary to the Proposed Plan included a 2-page cover letter from the CSG representing Attorney, a 23-page submission from their contractor at the Site, Haley & Aldrich (H&A) and the remaining 365 pages received in the package included reference material from existing documentation from the Site files. H&A references, among other material, EPA guidance documents, excerpts from historical reports, on-going remedial investigation work being undertaken at the Site, and submissions to the State of New Hampshire related to their Annual Report requirement under the NH Groundwater Management Plan.

The representing Attorney, on behalf of the Cannons Sites Group, provided commentary in a cover letter to the technical component contained in the H&A package. The comments assert and accept that while data collected supports a public water supply to residences impacted by Site-related contamination, the universe of such residences is limited to those in what is referred to in the H&A Comments as the southern segment of Ross/Tokanel and for households specifically impacted by 1,4-dioxane. The comments infer that the development of the Proposed Plan does not consider background PFAS within greater Londonderry, and that PFAS in the neighborhood is not Site-related per H&A's conclusions. However, the CSG supports the use of a waterline for mitigation of risks to the residents impacted by 1,4-dioxane and asserts that EPA should address waterline connections for PFAS through "other programs or regulatory authorities."

The cover letter reiterates conclusions and comments provided by H&A which are addressed below and/or in other areas of this Responsiveness Summary. Comments within the cover letter, on behalf of the CSG, suggest that there is no substantial evidence supporting EPA's

determination that residences in either the northern segment of Ross/Tokanel or the Albany/Boston/Charleston neighborhood (as both are defined in the Comments) have been impacted by Site-related contamination.

EPA Response**:** EPA clarifies that the CSG commentary is partly based on the H&A assumption that only 1,4-dioxane has migrated in groundwater from the Site into and across the southern end of the neighborhood. The CSG comments do not address detections in locations within the central and northern portion of the neighborhood, which are consistent with geologic and hydrologic features as noted in the CSM in the RI Summary Memorandum. Further commentary from H&A "concludes" that PFAS, which is found in the majority of water supply wells in the neighborhood, including in wells impacted by the migration of Site-related 1,4-dioxane, is not Site-related, did not migrate from the PFAS detected in Site source areas or via surface water transport, but may be sourced from background PFAS, upgradient sources not defined, residential septic systems, and/or from the Derry POTW.

EPA agrees with the comment provided that the residential neighborhoods, specifically the Ross and Tokanel neighborhood, have been impacted by the migration of Site-related contaminants.

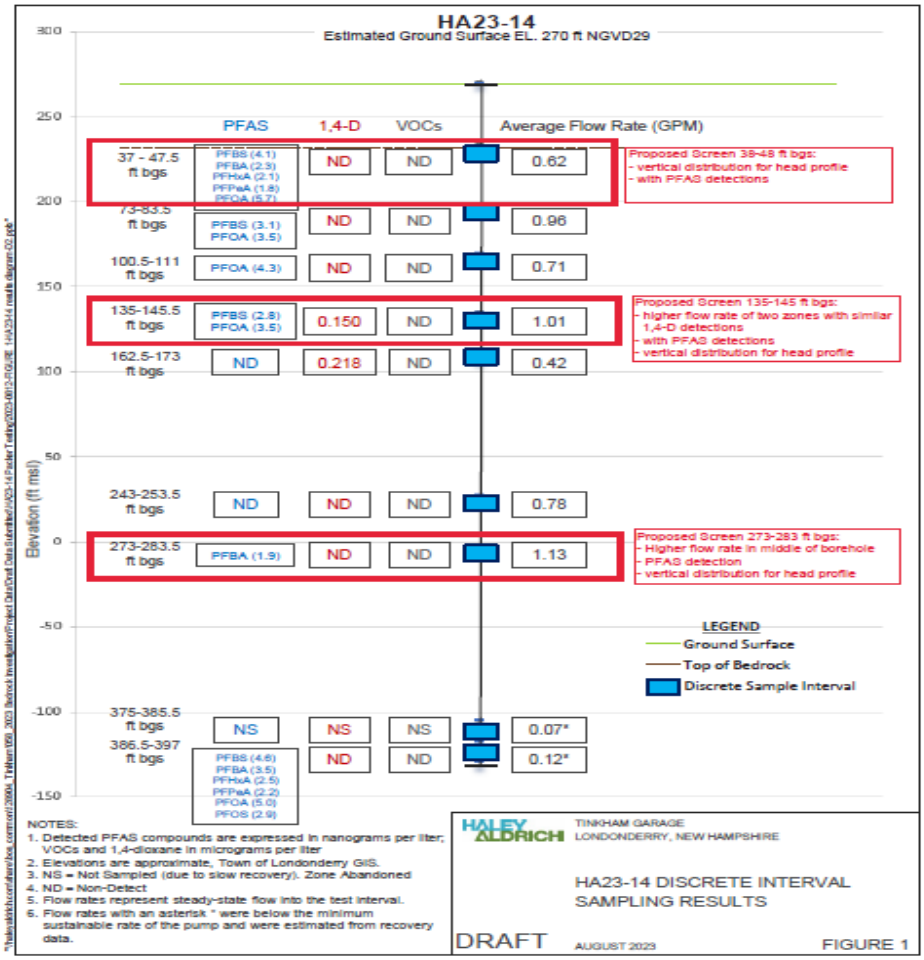
EPA has specifically rejected the designation of the Ross and Tokanel neighborhood as having a southern and northern segment receptor distinction, as implied by the commentary. EPA, in a September 25, 2020, letter to Mr. James Cambell, the CSG designated Project Manager at that time, and in response to a workplan on focused remedial investigations within the Ross and Tokanel residential area, noted that EPA does not accept the designation of the Ross and Tokanel Drive neighborhoods as having a southern and northern segment. Despite the EPA's statements, H&A has reiterated this concept that attempts to assert, based on the concentration and location of the data collected, which is primarily water supply well data for 1,4-dioxane, that there are designated wells/areas within the neighborhood impacted by Site migration and wells/areas not impacted or potentially impacted by Site migration. H&A applies this migration and separation only to 1,4-dioxane, despite detections of PFAS found in source areas within the Site and in wells across the neighborhood. H&A also continues to address supply wells with exceedances of the NHDES AGQS for 1,4-dioxane and disregards impacts based on data collected within the neighborhood where 1,4-dioxane is also detected, but below the AGQS. The segment designation also disregards the finding of PFAS in wells with 1,4-dioxane and hydrological migration into and within the neighborhood. EPA noted in 2020, that water supply well data provides useful information on groundwater quality and migration, however, the data does not provide ancillary data required for hydrogeologic characterization. EPA (via Weston Solutions) has addressed this topic in numerous responses to comment letters during these on-going investigations.

EPA (via Weston Solutions) has provided comments to H&A that there are multiple lines of evidence supporting the conclusion that contamination in residential wells within the neighborhood, including households located at the northern end of Ross and Tokanel Drives, may be related to the Tinkham Garage Site. These lines of evidence include contaminant type/concentration and the presence of identified fracture pathway(s) in deep bedrock that potentially connect areas with the Tinkham Garage source area. Weston has provided comment specifically in regard to their presentation of a "line of evidence" that PFAS detections outside of the designated GMZ are not related to the Tinkham Garage Site, incorrect assumptions such as 1,4-dioxane and PFAS must be co-located for attributing provenance of contamination, the

attribution of PFAS to residential septic systems, and the radar plot report provided on PFAS detected at 8 Charleston Avenue.

Distribution of contaminants in fractured bedrock monitoring wells often do not follow a consistent pattern as would be expected in a porous media system and the commentary on decreasing plume concentrations or presentation does not address the release history or the complex fractured nature of bedrock migration at the Site. Further, complex pumping patterns in a densely populated neighborhood such as Ross/Tokanel would be expected to result in temporal variations. Inconsistent concentration trends across the neighborhood do not eliminate the possibility that the PFAS observed in the residential wells is Site-related but does speak to the complex nature of contaminant migration within and from the Site which continue to be investigated through on-going remedial investigations.

PFAS and 1,4-dioxane are noted within the bedrock aquifer within the Site. For example, at the household water supply well at 10 Ross Drive, low levels of 1,4-dioxane have been consistently reported since monitoring began in 2018 ranging from 0.160 to 0.211 µg/L. This supply well, an open borehole, has also reported detections of PFOA and other PFAS. Groundwater monitoring well, HA23-14, was installed by H&A along an identified potential lineament feature at this property and where H&A performed packer testing on nine different screened intervals from 37 to 397 feet below grade surface (bgs). Packer testing is performed to both assess fractures within the well for contaminant concentrations and groundwater flow rates within select discrete intervals for consideration of final screened intervals from which monitoring will continue. In the HA23-14 packer test results, inserted below for visual reference, there are detections of low levels of 1,4-dioxane in screened intervals from 135-173 feet below ground surface.



As shown on the figure above, there were numerous screened intervals at this location which also reported PFAS at concentrations higher than the averaged open borehole concentrations reported for this residential well with the most PFAS detections noted at the deepest interval (386.5-397 ft bgs). While only one interval with low levels of 1,4-dioxane was proposed for long term monitoring (due to having a more robust flow rate), the remainder of the screened intervals selected for continued monitoring had adequate flow rates and PFAS detections. Packer testing results highlight the importance of discrete fracture analysis as a component of CSM development. As such, and as commented on previously by the NHDES, a CSM review of site related contaminants, site migration and potential migration within the neighborhood should consider the packer test results collected by H&A.

Packer testing results from discrete fracture zone sampling at 12 Boston and 18 Charleston Avenue were similarly provided by H&A. H&A detected VOCs, including TCE, a Site contaminant of concern, in each fractured sampled at 12 Boston Avenue where concentrations exceeded MCLs in five of the seven packer intervals and concentrations increased with depth. 1,4-Dioxane was also documented in the well in exceedance of 0.32 µg/L. These concentrations were noted prior to connection to the waterline required by the 2016 ESD but not detected or detected at significantly lower concentrations following connection to the waterline and cessation of this pumping well. Low levels of PFOA have also been reported at this well.

At 18 Charleston Avenue, H&A reported that 1,1-Dichloroethane was detected in three discrete fracture zones at concentrations ranging from 0.94 µg/L to 1.8 µg/L, consistent with residential well sampling results of the open well between January 2015 and September 2016; cis-1,2-Dichloroethene was detected in the 54.5 to 75.5 feet bgs discrete-fracture zone at a concentration of 0.73 µg/L. These VOCs are known daughter products of chlorinated solvents including TCE. In the open water well sample, 1,4-dioxane was reported at 0.5 µg/L however 1,4-dioxane was detected in the four discrete packer sampling intervals at concentrations ranging from 4.9 µg/L to 11 µg/L. The maximum concentrations of 1,1-Dichloroethane (1.8 µg/L) and 1,4-dioxane (11 µg/L) were also detected in the deepest interval (87-97 feet; El. 167.32 to 157.32) near the bottom of the well. H&A also reported total coliform as positive in the well. Similar to 12 Boston, the last detection for 1,4-dioxane within this well was prior to connection to the waterline. In June 2018, H&A also reported PFOA and PFOS within this well at concentrations which exceed the 2024 Federal drinking water standards.

EPA has not challenged the potential for residential septic systems to potentially have contributed to groundwater impacts within the neighborhood. EPA disagrees with the position taken by H&A on behalf of the CSG, which is that ***none*** of the PFAS within and across the neighborhoods is or can be Site-related. The operations of Mr. Tinkham including his use of tanker(s) for hauling both septic and hazardous wastes and his history of operations and disposal of such wastes within the Site in numerous locations and to ground surface were presented in the CSM in the RI Summary Memorandum and discussed by EPA and the CSG representatives over the course of these investigations. In addition, where these Site-related wastes migrated, uncontrolled, south and south east into the subsurface and bedrock as well as into a large wetland and nearby streams which also flow into the neighborhoods was presented in the CSM in the RI Summary Memorandum and discussed by EPA and the CSG representatives over the course of these investigations. The impact of those actions taken at the Site and impact to water supply wells and surface water, consistent with investigated migration patterns, leads to a realistic conclusion that these contaminants are likely Site-related.

Investigations since the 2016 ESD, have focused on potential receptor impacts from the Site into the nearby neighborhoods. H&A continues to dismiss the Agencies critical evaluation and commentary on migration and potential contaminant transport. EPA and NHDES/Weston have both previously addressed the on-going submission by H&A of their 2019 PFAS analysis for 8 Charleston and provided comment. EPA Office of research and Development (ORD) experts on PFAS also recently reviewed the submission related to the assertion that the Derry POTW may likely be responsible for the PFAS at 8 Charleston Avenue. Their evaluation determined that the Derry POTW is not likely the source of PFAS at this location. We have included that letter in the Administrative Records for this IROD.

Lastly, the commentary states that the development of and selection of the Proposed Plan by the Agency may be deemed arbitrary and capricious. EPA disagrees with this assessment. The comments provided on behalf of the CSG acknowledge that EPA, for this interim remedial action, determined that active treatment was not feasible to effectively mitigate risks to human health in the short term. Moreover, the CSG agrees with the use of a waterline to address risks related to ingestion but claims that addressing risk posed by contaminants that are not site-related

is not consistent with CERCLA. The CSG implies incorrectly that PFAS within the neighborhood is not or cannot be Site-related. This assertion is not consistent with the Site history of transport, disposal, and routine operations of Mr. Tinkham using trenches, swales, leach fields, and fields to dispose of both septic and hazardous wastes at the Tinkham Garage Site or the documented migration pathways of contaminants from source areas into the neighborhood. The further simplification that *only* 1,4-dioxane in Site groundwater, which is also known to be impacted by PFAS and other contaminants, migrated into the neighborhood is also not supportable. Neither is the claim that the PFAS found in water supply wells in the neighborhood, and specifically those which also impacted 1,4-dioxane and which the CSG agrees is migrating from the Site, is not or cannot be Site-related. PFAS pathways into the neighborhood were documented in the Site CSM.

The comment noting that there is a background concentration for PFAS in Londonderry is implied and incorrect. As discussed elsewhere in this response, H&A utilized a study of randomized household water supply well data, collected across the town and as commissioned by the Town in 2019, as a general assessment and not as a background investigation. Further H&A utilized this Town study to assess background exposure concentrations in Town groundwater which they indicate may be elevated compared to the EPA's Site exposure calculations. As such, the commentary asserts EPA would be arbitrary and capricious to not consider PFAS as an area-wide contaminant in groundwater in the selection of remedial actions.

This interim remedial action addresses the mitigation of unacceptable risk to down gradient receptors and a final action which will address remaining risk which may be present at the Site is expected at the completion of the remedial investigations. EPA is not addressing the cleanup of groundwater in this action or setting cleanup levels in groundwater. EPA, in the 1986 ROD, determined that groundwater within the Site posed a risk to future users of groundwater, groundwater. This groundwater has not attained cleanup levels at the Site and high levels of 1,4-dioxane and PFAS has since been noted in Site groundwaters. This IROD determines that groundwater currently being used as drinking water within neighborhood along downgradient migration pathways from the Site, poses a current and future potential risk to receptors relying on that groundwater for drinking water. The basis of the remedy selected in 1986 and the objectives for the cleanup expanded upon the need to reduce concentrations within the Site to minimize migration to these neighborhoods because of their use of groundwater as drinking water. This interim remedial action documents the EPA's decision to extend a nearby water line at the Site, as EPA has required twice before, to effectively and permanently mitigate exposure to groundwater impacted by Site contaminants. Comments provided on behalf of the CSG indicate support for the use of a waterline to mitigate such risks to residents. The CSG also agreed, under the 1988 Decree, to clean up hazardous substances at the Site and to protect human health from the migration of contaminants into the nearby neighborhood.

The decision to address an unacceptable risk related to ingestion of groundwater, following years of planning investigations specifically addressing this concern, is neither arbitrary nor capricious. The investigations at the Site since the 2016 ESD have focused on 1,4-dioxane and PFAS contamination and the potential migration of Site contaminants into the neighborhoods. The 1986 RAOs for the Site required that groundwater contamination within the 375 acres Site attain drinking water standards and that migration toward the Ross Drive neighborhood be minimized.

Based on the data collected by the CSG, groundwater has not attained drinking water standards across the Site and, 1,4-dioxane was documented across the Site and in the garage source area at concentrations up to 1.5 parts per million. Migration in the overburden from the source area and the primary groundwater migration pathway in bedrock trends south, southeast, into the residential neighborhood of Ross and Tokanel. H&A concluded that 1,4-dioxane is migrating from the Site into the neighborhood and is found in water supply wells in the neighborhood. Despite finding elevated concentrations in water supply wells, specifically the elevated concentrations at 22 Ross Drive at over 800 ng/L PFOA, H&A provides no explanation for such concentrations but continues to provide "lines of evidence" for why they do not believe the Site is the likely source of PFAS. The RI Summary Memorandum outlines the history, actions, investigations and development of the CSM which supports releases at the Site, migration patterns and the areas of continuing uncontrolled migration. The CSM expands upon the impact within the neighborhood as well as contaminant distribution, based on the data collected by H&A during these investigations, or as required under the GMP by NHDES.

The EPA recently completed a dispute resolution, on behalf of the CSG, where again it was claimed arbitrary and capricious related to EPA's request for additional Site investigations. The Administrative Record for that Dispute addresses the CSG's agreement for remediation of the Site to protect human health including from uncontrolled migration into the Ross neighborhood. The 1986 ROD performance standards establish a commitment for the CSG to determine the overall risk associated with all detectable compounds in the groundwater, including emerging contaminants such as 1,4-dioxane and PFAS. Performance standards have not been attained in groundwater at the Site, significant data gaps are noted in the characterization of the Site and recently identified emerging contaminants call into question the protectiveness of the remedy.

The continuing cleanup process examines the risk for the purpose of determining whether the cleanup work satisfies the cleanup objectives and "to assure that water quality is adequately protective of the public health and welfare and the environment." (1986 ROD at 12). Based on data collected by the on-going investigations and the Site conceptual site model, EPA believes that the neighborhood of Ross and Tokanel, which directly borders the entire lengthy southern boundary of the Site and the Boston and Charleston neighborhood where pumping along a known and significant feature, is believed to factor into the transport of Site related contaminants, are potential receptors to the uncontrolled groundwater migration of Site contaminants. The Site groundwater model is directly supported by data collected from the Site. Based on the increasing impacts seen within the neighborhoods, the CSG has been aware of the expected need for, and has noted their willingness for, provisions of an alternative water source to residents both in provision of temporary bottled water and in support of a waterline.

Neither the EPA nor the State of New Hampshire have an established background concentration for PFAS in groundwater. EPA's risk assessment is appropriate for the ingestion of groundwater currently used as drinking water and where H&A's data collection under the State GMP has indicated expanding impacts and increasing concentration trends within the neighborhood. The RAO's developed for this interim remedial action are appropriate and protect residents using contaminated groundwater as drinking water and address a reduction in mobility by reducing stresses on the bedrock aquifer through the decommission of water supply wells.

The H&A portion of the commentary raised several questions stemming from the Proposed Plan's factual statements about the conceptual site model and Site-related contamination being

documented in residential wells downgradient of the Site, leading to EPA's decision that an interim remedial action is required to mitigate unacceptable risks to human health in residents who rely on groundwater as their drinking water source.

The H&A portion of the comment letter included three main topics which have been summarized below:

Contaminant Sources

Contaminant Concentrations Upgradient of the Site: H&A asserts that routine monitoring of upgradient wells and private water supply wells demonstrate that PFOA is migrating onto the Site from unknown sources. H&A details specific well locations in reference to this conclusion.

EPA Response: The 2019 GMP expanded the GMZ, based on monitoring well data collected through 2018 along existing property boundaries, to include areas of 1,4-dioxane impacted groundwater within the Mercury/McAllister and Ross/Tokanel neighborhoods. At this time, the GMZ has not been expanded to include PFAS impacted groundwater. H&A's reference to the assessment of wells installed as part of the investigations at the Site and which continue to be monitored to assess contamination at the Site, indicates that a designation of upgradient, as it relates to PFAS impacts from the Site, may be pre-liminary and the discussion of the extent of PFAS impacts in groundwater should be included as part of the on-going investigations on groundwater at the Site.

This interim remedial action addresses exposure in groundwater used as drinking water and assessed risk based on the constituents detected in tapwater. The risk evaluation was supported by the Site CSM and forms the basis for taking this action.

Background concentrations within Londonderry: H&A comments that PFAS, and particularly PFOA is a prevalent constituent within groundwater in the Town of Londonderry. H&A references a 2019 Town survey of 32 water supply wells for PFAS, to formulate a background concentration of PFOA in the Town, noting they did not include the heavily impacted areas of the Town where PFAS is attributed to Saint-Gobain. H&A calculated a five-year average for households within the Ross/Tokanel and Boston/Charleston neighborhoods. EPA notes that those averages did not include data from the most significantly impacted residential well on Ross Drive, noting this was because those results were deemed too variable and would greatly impact the neighborhood average. H&A concludes, based on those calculations, that the PFOA concentrations in the Ross/Tokanel and Albany/Boston/Charleston neighborhoods are indistinguishable from or lower than background conditions throughout Londonderry.

EPA Response: EPA guidance recommends consideration of background data when available to aid risk managers in decision making and specifically in the setting of cleanup standards. EPA does not have Site-specific background data available for PFAS in groundwater. Further, there are no established background concentrations for PFAS compounds in groundwater in the State of New Hampshire. The 2019 survey referenced in the comment is not appropriate to be used as a background evaluation for the Site, as background studies to be used in risk management decisions under CERCLA must be conducted under EPA oversight using approved methods and in accordance with EPA guidance.

H&A submitted this assessment of PFAS background within an Annual Water Quality Monitoring Report. The background evaluation was neither requested nor required by the EPA. Neither EPA nor NHDES were provided with a Scope of Work that described the objective, data to be used, methods, or approach. As such, EPA did not review and approve such reports under the terms of the Consent Decree.

Contaminant Conditions Upgradient of the Site: H&A references PFAS concentrations in several monitoring and water supply wells generally located along the northern boundary of the Site and suggests that those concentrations confirm that PFAS is entering the Site from upgradient sources.

EPA Response: The presence of a compound in upgradient groundwater, or water supply wells proximate to the Site, which are not investigated as part of this Site, does not preclude the requirement to mitigate impacts to human health in downgradient areas when that compound(s) likely have also been released at the Site.

Contaminants related to Septic Systems: H&A provided comment relating to studies on PFAS and septic systems.

EPA Response: It is widely acknowledged that residential wastewater and associated biosolids contain PFAS from consumer products and EPA acknowledged this to H&A in comments on the Annual Water Quality Monitoring Reports. In our review, neither study referenced in the commentary, directly assessed the impact of PFAS, found in those septic systems, on the local groundwater.

Following a presentation of her study at a NEWMOA webinar on December 11, 2024, Dr. Jennifer Harfmann of the NHDES Drinking Water and Groundwater Bureau noted during the question-and-answer period that groundwater monitoring wells downgradient of the leach fields associated with the septic systems tested during her study, did not detect PFAS. It should be noted that the septic systems included in her study served *multiple* homes and so would have expected to have a greater PFAS load than a single household system, of the kind found in the Ross/Tokanel and Boston/Charleston neighborhoods. If in those studies, PFAS was not observed in groundwater near the septic system suggests that PFAS may be largely sequestered in the biosolids that are retained in the septic tank. Follow-on studies are in progress and should provide more conclusive results.

The EPA has provided a CSM related to the releases of hazardous substances and septic wastes at the Site, the potential migration pathways, impacts to receptors and the unacceptable risk from ingestion of groundwater by those receptors. This is the basis for the interim action requiring a waterline extension to provide a permanent source of water.

Consistent with CERCLA's objective, EPA will focus on holding accountable those parties that have played a significant role in releasing or exacerbating the spread of PFAS into the environment and to protect communities from high-risk, high-concentration PFOA and PFOS exposures. EPA's CERCLA enforcement discretion policies help the Agency focus on sites that pose the most risk and PRPs who have contributed significantly to contamination.

Shallow soil sampling to evaluate potential surface water migration: H&A reiterated one proposed action to the on-going investigations of residential impacts within the Ross/Tokanel neighborhood.

EPA's Response: H&A's comment has been previously addressed by the EPA in a February 17, 2023, letter to Mr. Michael Skinner, the CSG designated Project Manager for this Site. That response noted that the sampling of sediment/soils as proposed by H&A was not approved as a component of the Work. Data confirms PFAS concentrations are present at elevated concentrations within water supply wells in the neighborhood, many of which are in proximity to the numerous surface drainage features which drain from the Site. This suggests, that in addition to migration via bedrock groundwater, transport via these surface drainage features may have been a secondary source of PFAS from the Site into the neighborhood. The Work Plan requested installation of two shallow overburden groundwater wells to assess migration of PFAS into and within the highly fractured shallow bedrock. EPA did not request soil data collection and was not attempting to assess potential leaching of PFAS from the sediment and shallow soils along Tokanel Drive into groundwater in the neighborhood and therefore collection of soil boring data was not approved for inclusion for the workplan. EPA reiterated this response again in a September 21, 2023, letter to Mr. Skinner.

Lack of discernable plumes of PFOA and PFOS: H&A's commentary infers that the EPA has not demonstrated concise formed plumes of PFOA and PFOS migrating from the Tinkham Garage and Condominium source areas, and that the distribution of PFAS is more reflective of separate sources such as septic systems in the neighborhood as opposed to the Tinkham Garage area.

EPA Response**:** The detection of PFAS in groundwater since the initiation of sampling for this compound class in 2018 has been documented at the Site, and as sampling has expanded following detections within and proximate to known source areas, beyond formerly accepted boundary locations defining the extent of contamination at the Site and in areas downgradient in the neighborhoods. The compounds PFOA and PFOS are the predominant PFAS detected in groundwater and comprise the majority of exceedances of the EPA MCLs in groundwater and drinking water at the Site. Two other PFAS, PFHxS and PFNA, are also frequently detected but based on the use of wells currently available at the Site, generally exceed their respective MCLs only within the former Tinkham Garage and Woodland Village Condos source areas.

The highest concentrations of PFOA and PFOS in groundwater through fall 2023 are from well NAI-K2, with reported concentrations of 323 ng/L and 758 ng/L (December 2020), respectively. PFOA has exceeded the MCL of 4 ng/L at 20 of 26 sampled locations within the Tinkham Garage source area and PFOS has exceeded the MCL of 4 ng/L at 17 of the 26 locations. PFHxS has exceeded the MCL of 10 ng/L at 15 of 26 sampled locations while PFNA has exceeded the MCL of 10 ng/L at 3 of the 26 locations. The PFNA MCL exceedances correspond to source area wells where PFOS and/or PFOA concentrations are highest at the site (DVE-3, DVE-7, and NAI-K2).

PFAS were not able to be sampled at overburden well FW 11, further downgradient and within the field south of the garage, where over 9,000 µg/L total VOCs were noted in 1983, as it has not been replaced following its accidental removal during temporary road construction into the Site. FW11D however, at a screened depth of 55 feet below grade, reports 1,4-dioxane as high as 590 µg/L, PFOA at 63 ng/L, and PFOS at 14 ng/L along with other detections of PFAS. In the screened depth of 70 feet below grade, numerous VOCs exceed their respective MCL, 1,4-dioxane is detected at a high of 1,170 µg/L and PFOA and PFOS detected at highs of 68.8 ng/L and 18 ng/L respectively. Similarly at 90 feet, VOCs exceed their respective MCL, 1,4-dioxane

is noted at a high of 1,500 µg/L, and PFOA and PFOS are noted at 67.1 ng/L and 20 ng/L, along with other PFAS detected. The same pattern was noted for FW11D screened at 173 feet below grade, and the interval screened at 300 feet below grade has limited detections of 1,4-dioxane and no detections of PFAS. The collective depth of screened interval sampling at this location is advantageous in assessing the concentration of contaminants which has migrated and infiltrated into the shallow overburden and into the bedrock aquifer and where contaminant concentrations remain elevated nearly 45 years after the initial releases were noted and likely acting as a continuing source of contamination in groundwater further downgradient.

H&A's commentary that the EPA did not present a concise plume for PFAS is noted. EPA utilized the data collected by H&A at the Site to offer a visual profile of known PFAS detections. Significant data gaps in Site characterization have been discussed with the CSG, which, as the RI progresses, will address the lateral and vertical extent of PFAS contamination. H&A, in their Annual Reports also note their inability to provide isoconcentration contours for PFAS based on the available data and that the focus of the remaining investigations at the Site will address PFAS and Site data gaps.

Misrepresentation of data and Lack of Source Area investigations: H&A commented that EPA's figures, misrepresented actual conditions at the Site and that source area investigations were not completed, included or otherwise assessed in this IROD.

EPA Response: It is the CSG's responsibility under the Consent Decree to undertake remedial investigations required at the Site and these remedial investigations are not complete. EPA prioritizes mitigation of current exposures, especially those where exposure is the ingestion of contaminated drinking water. EPA determined that information which is currently available at the Site supported issuance of this interim remedial action.

EPA and NHDES have noted significant data gaps in the understanding of the characterization of the Site including residual contamination, delineation of source areas and areas of likely migration which have not yet been investigated. Inadequate monitoring performed at the Site for many years under reported the extent of the 1,4-dioxane impact in groundwater at the Site as well as potential migration into the neighborhoods. MNA, the current remedy for groundwater, has not controlled migration within or from the Site and contaminants remain above drinking water standards in groundwater within the Site. The remedial action is require that groundwater be restored to drinking water standards however the current data indicates that concentrations of 1,4-dioxane and PFAS in groundwater may not be amenable to the current MNA remedy, and that residual contamination may be acting as a long-term source to groundwater and as such, additional restoration measures may need to be evaluated. Investigations will need better define current site conditions and potential risks at the Site from exposure to soil, sediment, surface water, vapor intrusion and groundwater. While unacceptable risk related to ingestion of groundwater in the downgradient neighborhoods are addressed through this interim action, a final ROD will be expected to address groundwater contamination at the Site, as well as unacceptable risks related to remaining potential exposure at the Site, as warranted.

Topic: Site Hydrogeology/Fate and Transport of Site Contaminants.

Commentary Topics from H&A are noted, summarized and responses have been provided as follows:

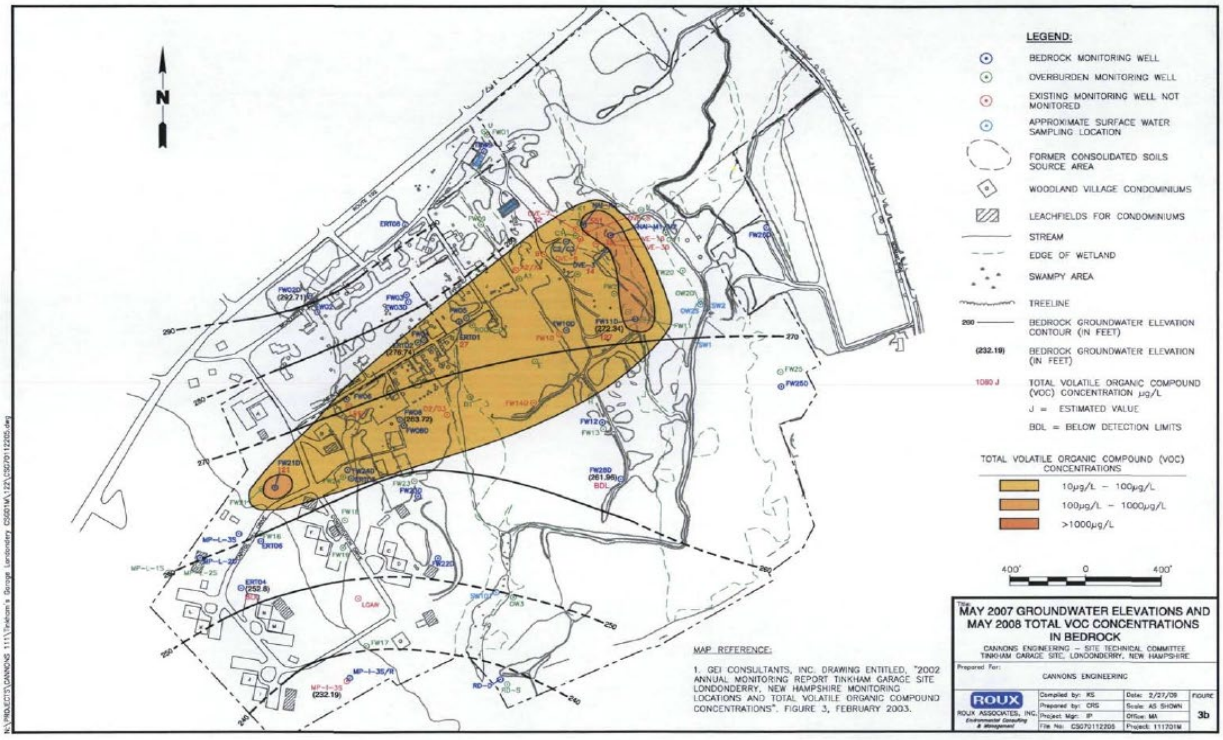
Regional Hydrogeology

The CSG (the "Group", as referred to within the comment package) implies or otherwise repeats a familiar statement that that groundwater flow at the Site is well understood and is based on over 40 years of testing and monitoring.

EPA Response: EPA and NHDES do not agree with the statement. The investigations taken at the Site on groundwater have spanned a significant time period since the initial complaint in 1978. The RI Summary Memorandum highlights the historical site activities. In that memorandum, EPA included the H&A CSM as presented in the Annual Reports. However, both the EPA and the NHDES have provided H&A with commentary as noted in the memorandum, which disagrees with H&A's preliminary conclusions, limitation of potential receptors and that PFAS found in residential areas was unrelated to the Site. In their Five-Year Reviews since 2009, EPA has continued to note, increasing concentrations, concern for a vapor intrusion pathway, and the inadequate monitoring well network at the Site to fully characterize the vertical and horizontal extent of the groundwater contamination and including the antiquated construction of the open boreholes which can average concentrations through dilution. Because of concerns noted in the Five-Year Review, H&A sampled nine wells in the neighborhood in 2009 for 1,4-dioxane and no detections were reported.

The comment does not address however, that up until 2017, the Group continued to conclude that contamination from the Tinkham Garage Source Area could not migrate into the Ross/Tokanel neighborhood[1]. Rather, the Group indicated that contamination from the Tinkham Garage Source Area migrated southwest, through the Condo Area and discharged to a tributary and a large wetland associated with Beaver Brook. See Figure below from H&A (formerly Roux Associates):

[1] 2017 Annual Water Quality Monitoring Report, Conceptual Site Model section states: "*The Ross Drive residential area is hydrologically isolated from the Site contaminants in overburden and bedrock groundwater. This residential area is located approximately 600 feet south of the interpreted discharge stream boundary (greater than 2,000 feet south of former source area*)."



In 2018, at the request of the EPA, and following a presentation to the Group that groundwater migrates south/southeast, and there were concerns for1,4-dioxane migration into the neighborhood with the expected groundwater flow paths, did the Group sample water supply wells on Ross Drive in late 2018. Based on additional sampling, H&A, then concluded that 1,4-dioxane from the Site was likely migrating in a southerly direction into the neighborhood and was found in water supply wells.[2] At EPA's direction based on these findings, the Group performed a more thorough investigation of bedrock groundwater at the Tinkham Garage Source Area, in areas downgradient and in the Ross/Tokanel neighborhood between 2020 and 2023. New information from these studies allowed bedrock groundwater contours to be drawn parallel to Ross Drive[3], which indicate that groundwater from the Tinkham Garage Source Area can flow toward all portions of the Ross/Tokanel neighborhood.

The Group also misstates EPA's interpretation of groundwater flow. EPA's interpretation of current groundwater flow patterns is based on groundwater elevation measurements collected by the Group, and the groundwater contour maps presented in the Remedial Investigation Summary Memorandum closely match those presented by the Group in the 2024 Annual Water Quality Monitoring Report. In fact, the Group's interpretation of groundwater flow in the northern portion of Ross/Tokanel is more to the east than EPA's interpretation (this difference is due largely to the variation in measured water levels between November 2023 and November 2024). Because of a lack of bedrock monitoring wells between the Tinkham Garage Source Area and the central portion of the Ross/Tokanel neighborhood, groundwater flow in this area is open to

[2] 2019 Annual Water Quality Monitoring Report, Conceptual Site Model section acknowledges that 1,4-dioxane contamination in the southern portion of Ross/Tokanel migrated from the Tinkham Garage Source Area via bedrock fractures.

[3] 2024 Annual Water Quality Monitoring Report, Figures 7 and 8.

interpretation. The Group appears to choose to draw the contours which show more southerly flow, while EPA believes groundwater flow may be more easterly. Additional bedrock monitoring wells are needed in this area to resolve this disagreement.

The Group's reference to an EPA assertion that there is groundwater flow in multiple directions spanning a 180-degree arc is presumably based on the Groundwater Conceptual Site Model figure in the Remedial Investigation Summary Memorandum (Figure 18A, which is also Figure 2 from the Proposed Plan). This is a *conceptual* figure that is intended to depict potential groundwater migration pathways in both overburden and bedrock that may have existed at various points in time. It is NOT intended to solely represent current conditions. Pumping from various water supply wells that historically operated (specifically the Condo Supply Wells and residential wells in the Boston/Charleston neighborhood) are no longer in operation, so those pumping-induced pathways are no longer active (in the case of the Condo Supply Wells) or are significantly reduced (in the case of the Albany/Boston/Charleston neighborhood). During the early 1980's there were two Derry water supply wells also operating south of Tokanel Drive and proximate to Beaver Brook. As a result, current groundwater contour maps would not be expected to reflect those historical conditions.

The Group's statement that: "*under current conditions, groundwater flows parallel to the southerly hydraulic gradient*" ignores the eastward flow component in the vicinity of HA23-11, HA23-14, 2 Tokanel, and 1 Tokanel as shown on their own groundwater contour maps.[4] With the exception of the 270 ft contour, those maps show a clear hydraulic gradient from the Tinkham Garage Source Area to the northern portion of the Ross/Tokanel neighborhood. As stated above, EPA disagrees with the Group's interpretation of the 270 ft contour and additional bedrock monitoring wells are needed in this area to resolve this issue.

The Group's second line of evidence presented involves the distribution of 1,4-dioxane in the Ross/Tokanel neighborhood. The Group concludes that because 1,4-dioxane only exceeds regulatory standards in the open borehole residential water supply wells within the southern portion of the neighborhood, that that is the only pathway from the Tinkham Garage Source Area. However, that argument ignores two key points:

- 1,4-dioxane has also been intermittently detected in a number of homes in the northern portion of Ross/Tokanel, although at concentrations below the regulatory standards, and
- The fate and transport characteristics of 1,4-dioxane are not the same as PFAS. Releases at the Site were not documented at the time of release and based on the current data there appears to be differences in the distribution of these compounds observed in the Tinkham Garage Source Area, however further investigations on the source area are warranted.

The fact that 1,4-dioxane is detected in residential wells in the northern portion of Ross/Tokanel aligns with the groundwater contours and confirms this pathway exists, just as the detection of 1,4-dioxane in the southern portion of the neighborhood confirms that pathway exits. The lower/intermittent concentrations observed in the northern portion suggest that groundwater pathway is likely less robust and may even be intermittent/seasonal.

Pumping-Induced Flow

[4] 2024 Annual Water Quality Monitoring Report, Figures 7 and 8.

The Group highlights the differences between the pumping tests performed on LGSW and LGAW and residential pumping and uses this to conclude that residential pumping-induced flow is insignificant. This comparison is flawed. The pumping tests were performed using a single point (well) for a short period (days) and operated at a constant, high flow rate (20-60 gpm). Bedrock aquifer response to a short duration, high volume pumping test would be rapid development of a deep cone of depression oriented parallel to fracture strike, which is exactly what was observed in the 1980s when those tests were performed. Pumping-induced contaminant migration resulting from diffuse/intermittent pumping at a relatively low-rate characteristic of a residential neighborhood would be much different. An obvious, well-defined cone of depression would not be expected to form. Contaminant migration would occur intermittently, over time, as recharge and pumping rates vary in response to seasonal and year-to-year changes in precipitation.

- High-Resolution Water Level Monitoring

The Group references high-resolution groundwater data collected using data loggers installed in selected monitoring wells during investigations to conclude that pumping-induced contaminant migration is not occurring at the Site. EPA performed an extensive review of this groundwater elevation data and provided a detailed report to the Group on 5 May 2023. The Group has never responded, discussed, or commented on this report.

The Group identified only one (obvious) hydraulic response from a residential well in the data set. EPA conducted a much more detailed analysis of the data and identified a number of hydraulic responses to investigation activities (drilling, well development, etc.). Hydraulic reactions to known short-term stresses (like drilling and well development) are easier to identify in the data set than residential pumping. These hydraulic reactions confirm that fractures are hydraulically connected, allowing for the possibility of contaminant migration along those same fractures. The Group discounts this fact, stating that EPA incorrectly equates potential hydraulic connections with contaminant migration pathways. EPA understands this difference. The Group incorrectly believes that contaminant migration is contingent upon a constant, well defined hydraulic gradient and fails to understand the subtleties of long-term intermittent contaminant migration resulting from decades of diffuse residential pumping under varying seasonal and year-to-year recharge conditions.

- Water Levels Measured During the LGSW and LGAW Pumping Tests

The Group concludes that because measurable drawdown was not observed in monitoring well FW26D during the 1980s pumping tests, pumping-induced flow cannot extend to the northeast.[5] However, monitoring well FW26D is located to the north of the projected cone of depression from the LGSW pumping test, and is 900 feet further from the pumping well. So, it is not surprising that drawdown was not observed in that monitoring well.

- Southernly Migration of 1,4-Dioxane

As discussed above, the Group's conclusion that the presence of the well-defined 1,4-dioxane plume in the southern portion of the Ross/Tokanel neighborhood precludes any other migration pathways is incorrect. Hydraulic gradients and groundwater quality (1,4-dioxane detections)

[5] The actual comment provided by the Group states: "EPA's speculation that pumping-induced flow extends farther to the northwest to the Albany/Boston/Charleston neighborhood." That neighborhood is located to the northeast of the Tinkham Garage Source Area. It is assumed that this is a typographical error.

clearly show a contaminant migration pathway from the Tinkham Garage Source Area to the northern portion of the Ross/Tokanel neighborhood, albeit less robust than the southern pathway.

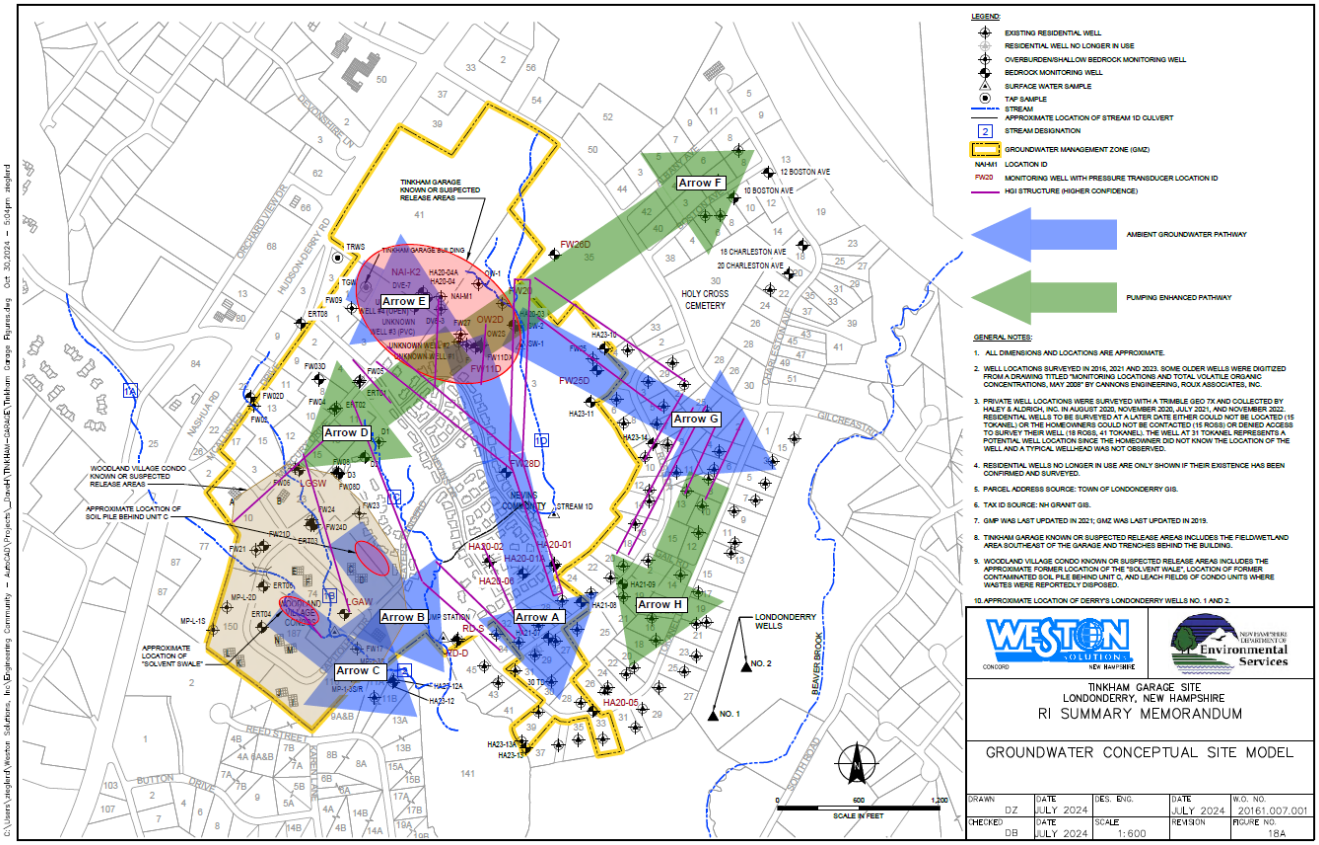
EPA has already refuted the Group's claims regarding the water quality testing of homes on Albany/Boston/Charleston Avenues and the speculation that the Derry Wastewater Treatment Plant is the source of PFAS there[6]. The December 2024 document from the Group that provided multiple lines of evidence demonstrating that the Tinkham Garage Superfund Site is not the source of PFAS detected in the Albany Avenue neighborhood is a resubmittal of arguments presented in previous Annual Water Quality Monitoring Reports dating back to 2020. EPA has already refuted those lines of evidence as noted above (see footnote #6).

EPA-Speculated Flow Directions

This comment expands on their earlier statement that EPA has misinterpreted groundwater flow at the Site, again referring to an EPA assertion that there is groundwater flow in multiple directions spanning a 180-degree arc based on the Groundwater Conceptual Site Model figure in the Proposed Plan (Figure 2) and in the Remedial Investigation Summary Memorandum (Figure 18A). As stated previously, this is a *conceptual* figure that is intended to depict potential groundwater migration pathways in both overburden and bedrock that may have existed at various points in time. It is NOT intended to solely represent current conditions.

EPA agrees with the Group's statements pertaining to Arrows "A" through "D". Arrow "E" was intended to illustrate *groundwater flow* through the Tinkham Garage Source Area and not to imply that PFAS contamination is moving into that area from upgradient. See Figure Below (H&A Attachment 16) for reference:

[6] Letter from Weston Solutions, Inc. to the New Hampshire Department of Environmental Services dated 10 June 2022 that provided comments on the 2021 Annual Water Quality Monitoring Report. This letter was provided to the Group by NHDES on 20 June 2022.



Arrow "F", depicting potential pumping-induced groundwater flow would be a historical pathway that was more robust when additional residential wells were operational in the Albany/Boston/Charleston neighborhood (before the Group connected homes in that area in 2016) and possibly while the Condo Area supply wells were pumping.

EPA's evidence for the existence of the pathway associated with Arrow "G" has already been discussed above. Contrary to the Group's statement, 1,4-dioxane was detected in the packer sample from monitoring well HA23-14 as noted in an earlier response to comment. As was observed after several other monitoring wells were completed in open boreholes and then sampled (FW11D and FW11DX, for example), 1,4-dioxane detections in newly installed wells often increase over time. he detection of 1,4-dioxane in packer samples at two separate intervals in HA23-14 confirms the presence of this compound at that location. Future monitoring results are expected to confirm this.

Arrow "H" is intended to show that once groundwater from the Tinkham Garage Source Area reaches the Ross/Tokanel neighborhood via Arrow "G", it will then tend to migrate southward, along the numerous fracture pathways inferred by the Group's surface geophysical investigation, eventually discharging into the Beaver Brook wetland complex as postulated by the Group. Again, that figure is a schematic depiction of general groundwater flow patterns to aid the layperson in understanding how groundwater may move through the Site. It is not intended to map specific individual flow paths. The location and orientation of Arrows "G" and "H" are complimentary, not contradictory and show a potential secondary pathway from the Tinkham

Garage Source Area to the Beaver Brook wetland based on the results of the Group's own investigations (surface geophysical investigation) and data (2024 bedrock groundwater contour maps).

Pathways Between Tinkham Garage Source Area and Neighborhoods

- Pathway from the Tinkham Garage Source Area to southern segment of Ross/Tokanel

EPA has always maintained that this pathway existed, dating back to the original investigations at the Site in the 1980s.[7] In contrast, the Group has steadfastly denied that contamination from the Tinkham Garage Source Area could reach the Ross/Tokanel neighborhood (see Footnote #1) until EPA presented their critical CSM evaluation and data was collected to indicate otherwise in 2018. The Group appears to now use the southern 1,4-dioxane plume component as an example to refute the existence of other potential pathways postulated by EPA. That fact that PFAS and 1,4-dioxane are not collocated and maintain consistent ratios within the southern Ross/Tokanel plume is not surprising, as described extensively in NHDES's comments on the 2021 Annual Water Quality Monitoring Report (see Footnote #6). PFAS and 1,4-dioxane are different classes of compounds that have different fate and transport characteristics, meaning that they will behave differently in groundwater as they travel over long distances, Further, the distribution of PFAS and 1,4-dioxane in the Tinkham Garage Source Area is quite different, likely as a direct result of the variability in the wastes disposed by John Tinkham and his method/location of dumping. It is not consistent with available science for these compounds to require that 1,4-dioxane and PFAS be collocated to document they came from the Tinkham Garage Source Area.

- Pathway from the Tinkham Garage Source Area to northern segment of Ross/Tokanel

EPA's evidence for a pathway from the Tinkham Garage Source Area to the northern portion of Ross/Tokanel is based on data collected and presented by the Group.

  - The surface geophysics investigation identified a large anomaly extending from the vicinity of HA20-03 in the Tinkham Garage Source Area to the northern portion of Ross/Tokanel[8].
  - The 2024 Annual Water Quality Monitoring Report provides bedrock groundwater maps (Figures 7 and 8) that show eastward flow into the northern portion of Ross/Tokanel. As noted above, EPA disagrees with the Group's interpretation of the 270 ft contour on these maps. A minor adjustment to that contour allows for a clear hydraulic gradient from the Source Area to the neighborhood.
  - The periodic detection of 1,4-dioxane in the homes noted by the Group in their comments, as well as in the packer samples from HA23-14 and in FW25D all align, showing a pathway from the Source Area to the northern portion of the neighborhood.
  - EPA acknowledges that this may not be as robust or consistent of a pathway for 1,4-dioxane as is the southern pathway, but it is a pathway nonetheless.

[7] Field Investigation Report prepared by NUS Corporation for EPA and dated 7 March 1984, Section 5.4 Contaminant Fate states that

[8] Hager GeoScience, Inc., Geophysical Investigation Report, 28 June 2019: Section 5.0 Discussion: "*Plate 6 also shows that interpreted NW-SE oriented fractures, parallel to the EPA lineament and Lineament #2, intersect the aforementioned NE-SW fracture sets, thereby possibly providing fracture connectivity to Lineament #13 near Ross Drive*."

- Pathway from the Tinkham Garage Source Area to Albany/Boston/Charleston

EPA has previously refuted the arguments presented by the Group relating to the Albany/Boston/Charleston neighborhood in the extensive comment letter issued by NHDES in response to the 2021 Annual Water Quality Monitoring Report (see Footnote #6).

  - While the Albany/Boston/Charleston neighborhood is currently cross-gradient from the Tinkham Garage Site, it is possible that historical pumping in the neighborhood could have, at least intermittently, pulled contamination along the bedrock strike and into the neighborhood. It is likely that connection of homes in this area in 2016 in response to 1,4-dioxane and VOC detections has lessened this potential and may have mitigated this pathway (as evidenced by the declining concentrations in the monitoring wells in this area). Once pumping ceased, concentrations declined, verifying the pumping-induced migration theory. Current contamination in this neighborhood is likely residual, relating to historical pumping. Connection of the remaining homes in this neighborhood to municipal water will further reduce potential contaminant migration into the area.
  - As discussed previously, the only monitoring point measured during the pumping test west of Stream 1D was FW26D, and this well is not located along strike from the FW11 area. Historical data was used to depict the 1,4-dioxane plume to illustrate historical conditions. EPA acknowledges that connection of homes to the water line in 2016 has lessened the pumping stress from this area and resulted in declining contaminant concentrations. Connecting the remaining homes, which continue to report elevated concentrations of PFAS, will further reduce this pumping stress. The Group's statement that seven years of sampling has been completed since the cessation of pumping without the detection of VOCs or 1,4-dioxane confirms that those compounds were drawn into the neighborhood by pumping (pumping-induced transport), as EPA has postulated.
  - As discussed above, collocation of contaminants is not a requirement or basis to determine the source. The variability in the fate and transport characteristics of the different contaminants (chlorinated VOCs, 1,4-dioxane, PFAS) combined with the variability of the wastes hauled by Tinkham Enterprises and the numerous dumping locations means that contaminants are unlikely to be collocated, and/or observed in specific ratios.
  - Because PFAS contamination is widespread in Londonderry from a number of sources does not preclude the fact that PFAS from the Tinkham Garage contributed to the concentrations observed in the Albany/Boston/Charleston neighborhood.
  - The plume map for PFOA presented in Figure 4 of the Proposed Plan is limited by a lack of bedrock monitoring wells in the area between the Tinkham Garage Source Area and the Albany/Boston/Charleston neighborhood. As noted previously, monitoring well FW26D appears to be located north of the axis of anisotropy possibly connecting the neighborhood to the Source Area.
  - The Group's radar plot evaluation of PFAS in the Albany/Boston/Charleston neighborhood was critiqued in the NHDES comments on the 2021 Annual Water Quality Monitoring Report (see Footnote #6) which focused on the limited number of Site monitoring wells that were presented. A more robust evaluation of radar plots for

Site monitoring wells shows similarities between Site PFAS patterns and those observed in the Albany/Boston/Charleston neighborhood.

Topic: Assessment of Risk to Receptors

In their comment package, Haley &Aldrich, on behalf of the Cannon Engineering Group provided commentary which the EPA has condensed into topics, comments and responses related to their commentary of the assessment of risk to receptor. Specifically, H&A provided commentary summarized as follows:

1) The derivation of the Exposure Point Concentration (EPC) for receptor exposure to contaminants via ingestion of groundwater used as drinking water was not based on, or otherwise consistent with the EPA 2014 guidance for deriving EPC for private water supply wells.
2) That based on EPA guidance, background concentrations of constituents are required to be considered in risk management decisions for Site and that their general assessment of data collected during a 2019 survey of the Towns private water supply wells (not performed as part of the Tinkham Garage site investigations) indicates elevated background concentrations for PFAS and that this should be considered and discussed in the risk evaluation.
3) That the EPCs derived in the risk memorandum likely exaggerates the risks posed by PFOA and PFOS because not all private wells exceed the EPC for those constituents and
4) That EPA misstates the risks from 1,4-dioxane through the combing of risks in the derivation of cancer and non-cancer risks posed to human health.

EPA Response to Comment 1: The risk evaluation performed in support of this interim action assessed one exposure scenario: the exposure for residents consuming groundwater specifically from their water supply wells. Estimates of the incremental lifetime cancer risk (ILCR) and non-cancer hazard index (HI) were calculated using Exposure Point Concentrations (EPCs) for PFAS and 1,4-dioxane, which were derived based on values representing the 95% upper confidence limit of the arithmetic mean (95% UCL) “among all groundwater samples collected between 2014 and 2023 from all private water supply wells at 80 residences.”

The EPA guidance “Determining Groundwater Exposure Point Concentrations, Supplemental Guidance” (EPA, 2014) was referenced for the derivation of the Groundwater EPCs. However, the disclaimer in the 2014 directive also states that EPA decision-makers retain the discretion to adopt or approve approaches on a case-by-case basis that may differ from this guidance document, where appropriate, as long as the administrative record supporting its decision provides an adequate basis and reasoned explanation for doing so. The 2014 OSWER Directive on Determining Groundwater EPCs generally recommends that data for private wells be evaluated on an individual basis. However, for the Tinkham Garage site, an approach to combine the extensive volume of residential data from all individual residential wells was used in order to calculate the 95% UCLs for 1,4-dioxane and the selected PFAS compounds for this risk evaluation. It is noted in the risk evaluation that the approach of evaluating an exposure scenario by combining residential well data may increase uncertainty; however, this method was

determined to be a reasonable approach for this risk evaluation for residential receptors in this Site-specific scenario.

As documented in the RI Summary Memorandum, contaminant migration in fractured bedrock is driven by both the hydraulic gradient and the orientation of the fractures. The residential wells in this data set are comparable in that they are all located within the bedrock aquifer and hydraulically downgradient of the Tinkham garage Site or along predominant fracture orientation which has been mapped at the Site. Therefore, it was determined that the approach used for the risk evaluation of combining the groundwater data for the private wells was acceptable to estimate potential risk. Additionally, patterns for the migration of contaminants have been noted for Site contaminants, including 1,4-dioxane and PFAS, which have raised concerns about the uncontrolled migration of site contaminants, the continued use of private wells and the further pulling of Site contamination toward residences.

EPA Response to Comment 2:

EPA guidance recommends consideration of background data when available to aid risk managers in decision making; however, EPA does not have Site-specific background data available for PFAS in groundwater. Further, there are no established background concentrations for PFAS compounds in groundwater in the State of New Hampshire. The 2019 survey referenced by the comment is not appropriate to be used as background for the Site as background studies must be conducted under EPA oversight according to EPA guidance and approved methods to be considered in risk management decisions.

EPA Response to Comment 3:

As described in the risk evaluation, Exposure Point Concentrations (EPCs) for PFAS and 1,4-dioxane were derived based on concentrations representing the 95% upper confidence limit of the arithmetic mean (95% UCL) “among all groundwater samples collected between 2014 and 2023 from all private water supply wells at 80 residences”. The EPA 2014 guidance was referenced for the derivation of the Groundwater EPCs (EPA, 2014). However, the disclaimer in the 2014 directive also states that EPA decision-makers retain the discretion to adopt or approve approaches on a case-by-case basis that may differ from this guidance document, where appropriate, as long as the administrative record supporting its decision provides an adequate basis and reasoned explanation for doing so. The Site-specific approach of combining groundwater data for the private wells was determined to be appropriate to estimate potential risk because the residential wells are all located within the bedrock aquifer and located hydraulically downgradient of the Tinkham Garage Site or along predominant fracture orientation which has been mapped at the Site. Since the Site-specific approach for the risk evaluation uses a groundwater EPC based on the combination of private well data, it is not appropriate to compare individual wells to the EPC to determine risk.

EPA Response to Comment 4:

EPA has determined that there are current and future potential threats to human health at the Site from ingestion of groundwater used as drinking water. Based on the results of the risk evaluation, PFOA and PFOS were selected as contaminants of concern (COCs) as they are the

risk drivers for cancer risk and also result in a non-cancer hazard above the target limit of 1 for developmental effects. Additionally, though 1,4-dioxane is not a risk driver for the residential well data, it is a Site COC due to evidence in the CSM supporting patterns of migration from Site-related sources. Further, 1,4-dioxane was previously identified as a COC in Site groundwater as documented in the 2016 ESD.

The results of the risk evaluation indicate that *total* cancer risk from PFAS and 1,4-dioxane exceeds the EPA cancer risk range of 10^{-4} to 10^{-6} for groundwater EPCs representing the 95% UCLs. The cancer risk is primarily driven by PFOA. Additionally, total non-cancer hazard, known as the hazard index (HI), exceeds the target limit of 1 and therefore is then broken down by target effect. The breakdown by target effect indicates that the non-cancer hazard for developmental effects exceeds the target limit of 1 due to PFOA and PFOS.

PFAS and 1,4-dioxane are present in groundwater within the Boston/Charleston/Albany, Gilcreast Road, and Ross/Tokanel neighborhoods. The majority of all households sampled had detectable levels of PFAS (specifically PFOA and PFOS) in their drinking water, and H&A has supported the conclusion that 1,4-dioxane is migrating from the Site and impacting water supply wells.

Risk calculations were also performed using maximum and minimum groundwater concentrations of PFAS and 1,4-dioxane for comparison purposes. The risk results for the minimum concentrations of PFAS and 1,4-dioxane identified total cancer risk exceeding the EPA target risk range and non-cancer hazard for developmental effects exceeding the target limit of 1 due to PFOA. These results indicate that even using lower concentrations identified at the Site results in risks exceeding EPA criteria.

TRANSCRIPT OF PUBLIC HEARING

https://sems.epa.gov/work/1759183481112/01-694712.pdf

APPENDICES

Appendix A

New Hampshire Department of Environmental Services Letter of Concurrence

The State of New Hampshire
DEPARTMENT OF ENVIRONMENTAL SERVICES

Robert R. Scott, Commissioner

EMAIL ONLY

September 26, 2025

Bryan Olson, Director
Superfund and Emergency Management Division
USEPA - New England, Region I
5 Post Office Sq., Suite 100
Boston, MA 02109-3912

RE: **Declaration of Concurrence**
Record of Decision, Interim Action

Tinkham Garage Superfund Site
Londonderry, New Hampshire – NHDES Site #199004008, Project #1880

Dear Director Olson:

The New Hampshire Department of Environmental Services (NHDES) has reviewed the 2025 Record of Decision for an Interim Action (IROD) at the Tinkham Garage Superfund Site in Londonderry, New Hampshire (the Site). The United States Environmental Protection Agency (EPA) prepared the IROD in accordance with the provisions of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (CERCLA, commonly referred to as "Superfund"), 42 U.S.C. § 9601 et seq., and, to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), as amended, 40 C.F.R. Part 300.

The IROD sets forth an interim remedial action to mitigate risk from exposure to contaminated groundwater used as a drinking water source in target neighborhoods, as described in the June 2025 Proposed Plan and following consideration of public comments. This interim action does not address the cleanup or restoration of groundwater or other potentially contaminated media; a final remedial action for the entire Site will be selected in a future decision document.

Rationale for the Interim Action

EPA has determined that current and potential future risks to human health are present at the Site due to ingestion of groundwater used as drinking water that has been impacted or could become impacted by contaminants historically released at the Site. Contaminants of concern in groundwater and tap water include 1,4-dioxane and per- and polyfluoroalkyl substances (PFAS), specifically perfluorooctanoic acid (PFOA) and perfluorooctanesulfonate (PFOS).

Contaminants released at the Site were transported via surface water runoff during precipitation events and/or infiltrated the ground surface, migrating into subsurface soils and the underlying bedrock, and contaminating groundwater in both the overburden and bedrock beneath the Site. Groundwater at the Site generally flows south, southeast, and southwest through residential neighborhoods and toward Beaver Brook. Pumping from local supply wells also influences bedrock groundwater flow and contaminant migration. The bedrock groundwater plume may continue to expand due to natural flow and/or ongoing pumping stresses from nearby residential areas.

SEMS Doc ID 695918

PFAS and 1,4-dioxane are present in bedrock groundwater within certain neighborhoods at the Site. These include residences along Ross Drive, Tokanel Drive, and Gail Road (the "Ross/Tokanel neighborhood"), and along Albany Avenue, Boston Avenue, Charleston Avenue, and Gilcreast Road (the "Boston/Charleston/Albany neighborhood"). Most households sampled had detectable levels of PFAS in their drinking water. Residents in these neighborhoods rely on individual, private supply wells that draw from the bedrock aquifer as their source of potable water.

EPA's risk evaluation concluded that concentrations of PFAS and 1,4-dioxane in bedrock groundwater within the target neighborhoods pose unacceptable risks for both cancer and non-cancer health outcomes for residential receptors. Therefore, an interim remedial action is necessary to address the ongoing ingestion of contaminated groundwater. Mitigating exposure to PFAS and 1,4-dioxane through ingestion will eliminate or significantly reduce health risks to residents living near the Site.

Components of the Interim Action

The interim action includes measures to protect human health from exposure to contaminated groundwater used as a drinking water source, while a final remedy to address the source(s) of contamination from the Site is being developed. Key components of the selected action include:

- **Extension of the existing municipal water line** into target neighborhoods and connection of homes impacted or potentially impacted by Site-related contaminants. This action will provide a permanent alternative water source for residents currently relying on groundwater as their source of potable water. Target areas include residences in the Boston/Charleston/Albany neighborhood and the Ross/Tokanel neighborhood that are not already connected to the municipal water system.
- **Disconnection of private water supply wells** to prevent future exposure to contaminated groundwater or modification of wells for long-term groundwater monitoring, as may be proposed to and agreed upon by the resident. This action will also reduce the volume and mobility of contaminants by decreasing pumping stresses in the bedrock aquifer.
- **Continued implementation of activities under previous decision documents**, including long-term groundwater monitoring to assess the progress and effectiveness of remedial actions, and periodic reviews—at least every five years—to assess the protectiveness of the Site remedy.

The estimated cost of the selected remedy is $6.8 million. It is anticipated that the design, water line extension, and connection of homes may take approximately 2 to 3 years to complete.

State Concurrence

Upon review of the interim remedial action outlined in the IROD, NHDES has determined that the selected remedy best meets the intent of the New Hampshire Safe Alternate Water requirement (Env-Or 603.04), as it provides a permanent alternative water source to affected households. In contrast, other options considered—such as continued provision of bottled water or installation of point-of-entry treatment systems—constitute only temporary measures in this case.

Therefore, NHDES, acting on behalf of the State of New Hampshire, concurs with the interim remedial action described in the IROD.

NHDES remains committed to supporting reasonable and practical solutions to the complex challenges associated with contaminated site cleanups. As always, NHDES will provide, within its means, any assistance EPA may require to protect human health and the environment in a cost-effective manner.

Please contact me or the NHDES Site Project Manager, Rene Nahlik, at (603) 271-6778 or Rene.E.Nahlik@des.nh.gov, if you have questions or comments.

Sincerely yours,

Waste Management Division

Digitally signed by Waste Management Division
Date: 2025.09.26 12:17:53 -04'00'

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Appendix B

TABLES

Table 1

Summary of Comparative Analysis of Alternatives for the Tinkham Garage Superfund Site
Londonderry, New Hampshire

EVALUATION CRITERIA	ALT 1 – NO ACTION	ALT 2 – BOTTLED WATER	ALT 3 – POET SYSTEMS	ALT 4 – WATER LINE EXTENSION
Overall Protection of Human Health and the Environment	Will not provide any protection and would not mitigate risk to human health. No Action alone would not meet the threshold criterion of protectiveness.	Will partially mitigate risk to human health by providing an alternate source of drinking water. Will not prevent exposure to contaminants via other exposure pathways (e.g., incidental ingestion of contaminated groundwater) as households will continue to rely on groundwater for other household uses. Protectiveness may wane over time due to residents' fatigue with using bottled water. Bottled water is considered temporary until a permanent alternative water source is provided or groundwater is restored. Five-Year Reviews would be performed to verify protectiveness.	Will mitigate risk to human health by providing a source of clean water by treating groundwater as it enters the home. Concentrations in groundwater would be treated to below drinking water standards although some risk will remain if POET systems are not properly operated and maintained. Monitoring of the system will assess attainment of performance standards. Continued monitoring would allow for an assessment of groundwater concentrations over time and the continued need for treatment. Five-Year Reviews would be performed to verify protectiveness.	Will mitigate risk to human health from contaminated groundwater by providing an alternative source of water that is maintained and monitored by an independent water purveyor. Provides a permanent public water supply (which has mandated monitoring requirements for the water provider) to residents limiting all potential exposure to groundwater via household use. Five-Year Reviews would be performed to verify protectiveness.
Compliance with ARARs	There are no ARARs associated with this alternative.	Will comply with ARARs, as a temporary measure (e.g., while a final groundwater remedy is in progress). No chemical-specific ARARs are selected for this alternative because groundwater is not being restored for this interim remedy.	Will comply with ARARs. Monitoring would be performed to assess groundwater and treatment to ensure attainment of drinking water quality post treatment, which will have to comply with chemical-specific ARARs. Chemical-specific ARARs are not being selected for Site groundwater itself for this interim remedy.	Will comply with ARARs. This action is considered to provide a permanent alternative water supply. No chemical-specific ARARs are selected for this alternative because groundwater is not being restored for this interim remedy.
Long-Term Effectiveness and Permanence	The remedy will have no long-term effectiveness because it does nothing to mitigate documented risk to receptors from ingestion of contaminated groundwater.	Provision of bottled water to mitigate ingestion of contaminated groundwater is considered a short-term (temporary) remedy and has limited long-term effectiveness. Over time, reliance on bottled water may be an inconvenience to residents and the reliability of using the supplied water over time may be reduced. Because the provision of bottled water does not measurably minimize stresses on the aquifer, migration from the Site may continue to expand the plume and the timeframe for restoration.	POET systems can be a long-term remedy for risk mitigation if they are properly operated and maintained. However, they are considered to be a temporary alternative. Because use of POETS does not minimize stresses on the aquifer, continued migration from the Site may continue to expand the plume and the timeframe to restore groundwater. Routine monitoring must be performed to monitor system performance and the treatment media changed regularly. Failure to properly maintain the POET systems could result in unacceptable risk.	Connection of all homes to a municipal water line would permanently prevent contact with contaminated groundwater for all residents in the target neighborhoods. Long term O&M is provided by the water purveyor and funded though water fees, ensuring that it will be done. Use of a water line would remove stresses on the aquifer from continued pumping and minimize potential migration of contaminants in groundwater within and from the Site into the neighborhoods.
Reduction of Toxicity, Mobility, or Volume through Treatment	There would be no reduction of toxicity, mobility, or volume through treatment as this alternative does not treat contaminants in groundwater; groundwater restoration will be addressed in a future ROD.	There would be no reduction of toxicity, mobility or volume through treatment, as this alternative does not treat contaminants in groundwater; groundwater restoration will be addressed in a future ROD.	There would be a small reduction in toxicity, mobility, or volume of groundwater contaminants within the neighborhood as a result of water treated through the POET systems. Site groundwater restoration will be addressed in a future ROD.	There would be no reduction of toxicity, mobility, and volume through treatment, as this alternative does not treat contaminants in groundwater; groundwater will be addressed in a future ROD.

Table 1

Summary of Comparative Analysis of Alternatives for the Tinkham Garage Superfund Site
Londonderry, New Hampshire

EVALUATION CRITERIA	ALT 1 – NO ACTION	ALT 2 – BOTTLED WATER	ALT 3 – POET SYSTEMS	ALT 4 – WATER LINE EXTENSION
Short-Term Effectiveness	There are no short-term risks associated with this alternative, and it is not expected to be effective in the short-term. No action would be taken to address exposure as this alternative does not involve any site work.	Implementation of this alternative would provide good short-term effectiveness because it can be implemented very quickly and in fact is already being used at the Site. The s hort-term risks involve increased truck traffic in the neighborhoods for delivery of the bottled water.	This alternative presents limited short-term effectiveness because it will take a year or more to design and install the POET systems within these neighborhoods. Short-term risks related to installation of the systems include increased truck traffic associated with contractor installation and O&M of the POET systems.	This alternative would have limited short-term effectiveness because it will take a year or more to complete pre-design investigations, design, and construction of the water line extension with connections to households. No impacts are predicted after installation. Short-term risks related to installation of the water line include worker contact with contaminated soil and groundwater, increased truck traffic, construction equipment, and noise.
Implementability	No implementation required.	Provision of bottled water have been ongoing at the Site for several years. The services, expertise, and materials needed are locally available. As a result, this is considered a proven technology and there are no concerns with regard to implementation.	The expertise, services, and materials needed to design and install the POET systems is locally available and relies on off-the-shelf technology. Implementation of this alternative would require time because each home would require its own engineered system based on specific home plumbing system and preferences of the owner. There are no concerns with regard to implementation of this alternative.	The expertise, services, and materials needed to design and install the water line extension is locally available and relies on off-the-shelf technology. Implementation of this alternative would be complicated by the presence of shallow bedrock in some areas of the proposed alignment, but removal of bedrock is routinely performed and the equipment and expertise needed to do so is available locally. Some residents may be hesitant to connect to the water line due to the future cost of water service.
Cost	Capital Cost: $0 Annual O&M Cost: $0 O&M NPV: $0 **Rounded Total Present Value: $0**	Capital Cost: $0 Annual O&M Cost: $172,800 O&M NPV: $2,814,720 **Rounded Total Present Value: $2,800,000**	Capital Cost: $892,492 Annual O&M Cost: $436,850 O&M NPV: $7,115,801 **Rounded Total Present Value: $8,000,000**	Capital Cost: $6,832,000 Annual O&M Cost: $0 O&M NPV: $0 **Total Present Value: $6,800,000**

Notes:
ARAR = Applicable or Relevant and Appropriate Requirements
NHDES = New Hampshire Department of Environmental Services
PFAS = Per- and Polyfluoroalkyl Substances3
AGQS = Ambient Groundwater Quality Standards
TMV = Toxicity, mobility, and volume
O&M = Operation & maintenance
NPV = Net Present Value

Table 2
Estimated Costs for Alternative 4 - Waterline Extension

	Item	Quantity	Unit	Unit Price	Cost	Subtotals	Present Value
1	**Capital Cost**						
1.1	Pipeline Extension						
a	Engineering design	1	LS	$375,000	$375,000		
b	Permits and Fees	1	LS	$100,000	$100,000		
c	Pipeline construction through bedrock (30% of the pipeline length)	2500	LF	$590	$1,475,000		
d	Pipeline construction through overburden (70% of the length)	5800	LF	$380	$2,204,000		
e	Waterline connections to residences (average distance from water main to house = 200 ft. Price includes planning, survey, installation, plumbing modifications for meter connection, and landscape restoration)	89	EA	$23,500	$2,091,500		
f	Construction oversight	6	Month	$32,500	$195,000		
g	Contingency (15% of construction cost)	1	LS	$321,500	$321,500		
1.2	Institutional Controls						
	Legal and administrative fees associated with establishing a town ordinance that prevents the use contaminated groundwater for drinking water or other domestic purposes.	200	Hours	$350	$70,000		
	Pipeline Extension Total Capital Cost					**$6,832,000**	**$6,832,000**
2	***Operation & Maintenance Cost***						
a	There are no operations and maintenance costs for this alternative. Residents served by the public water supply will pay the fees for water service. Those fees will cover any maintenance of the pipeline that is necessary. No monitoring is necessary.					**$0**	**$0**
3	**Summary**						
a	Capital Cost for Waterline Extension					**$6,832,000**	**$6,832,000**
b	O&M for Alternative 4					**$0**	**$0**
4	**30 Year Net Present Worth Cost of Alternative 4 (rounded)**						**$6,800,000**

Notes

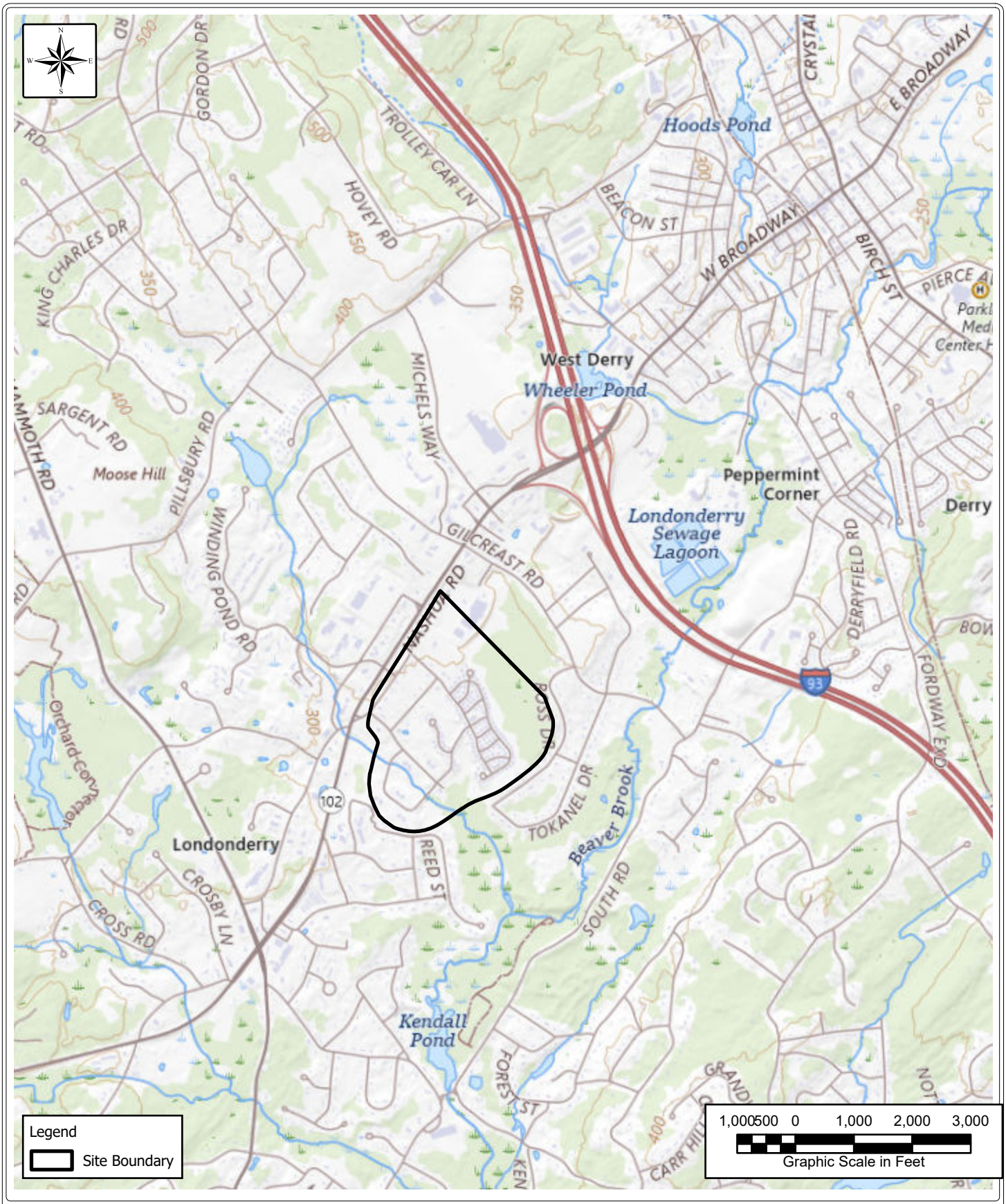
1. Present Value is calculated with a discount rate of 4.5%
2. Engineering design and construction costs are based on preliminary estimates from Pennichuck Water Works.

O&M - Operation and Maintenance

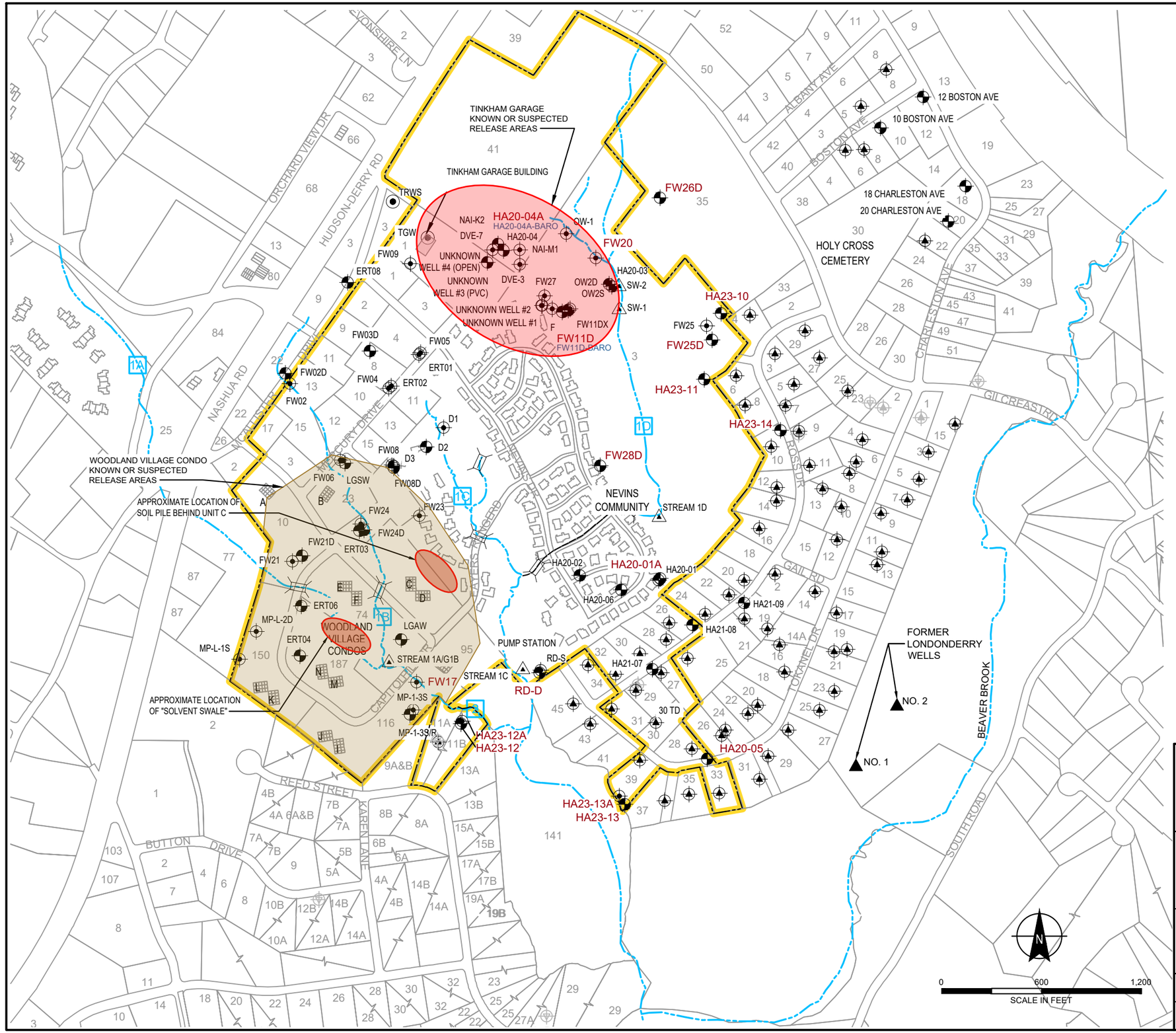
Appendix C

LIST OF FIGURES

Title



REPORT DATE: August 2024	PROJECT MANAGER: J. Soukup	TITLE: **PROJECT LOCUS** TINKHAM GARAGE SITE LONDONDERRY, NH		
SAVED DATE: August 2024	REVIEWER: W. Tifft			
PROJECT: Tinkham Garage	CLIENT NAME: NHDES			
WESTON SOLUTIONS	SPATIAL REFERENCE: NAD 1983 StatePlane New Hampshire FIPS 2800 Feet	SCALE: 1:27,307	DRAWING NO:	FIGURE NO: 1



LEGEND:

- EXISTING RESIDENTIAL WELL
- RESIDENTIAL WELL NO LONGER IN USE
- IRRIGATION WELL
- OVERBURDEN/SHALLOW BEDROCK MONITORING WELL
- BEDROCK MONITORING WELL
- SURFACE WATER SAMPLE
- TAP SAMPLE
- STREAM
- APPROXIMATE LOCATION OF STREAM 1D CULVERT
- 2 STREAM DESIGNATION
- GROUNDWATER MANAGEMENT ZONE (GMZ)
- NAI-M1 LOCATION ID
- FW20 MONITORING WELL WITH PRESSURE TRANSDUCER LOCATION ID
- BARO DISCRETE WELL TIER WITH BAROLOGGER LOCATION ID
- TINKHAM GARAGE SOURCE AREA
- WOODLAND CONDO POTENTIAL SOURCE AREA

GENERAL NOTES:

1. ALL DIMENSIONS AND LOCATIONS ARE APPROXIMATE.
2. WELL LOCATIONS SURVEYED IN 2016, 2021, AND 2023. SOME OLDER WELLS WERE DIGITIZED FROM A DRAWING TITLED "MONITORING LOCATIONS AND TOTAL VOLATILE ORGANIC CONCENTRATIONS, MAY 2008" BY CANNONS ENGINEERING, ROUX ASSOCIATES, INC.
3. PRIVATE WELL LOCATIONS WERE SURVEYED WITH A TRIMBLE GEO 7X AND COLLECTED BY HALEY & ALDRICH, INC. IN AUGUST 2020, NOVEMBER 2020, AND JULY 2021, AND NOVEMBER 2022. RESIDENTIAL WELLS TO BE SURVEYED AT A LATER DATE EITHER COULD NOT BE LOCATED (15 TOKANEL) OR THE HOMEOWNERS COULD NOT BE CONTACTED (15 ROSS) OR DENIED ACCESS TO SURVEY THEIR WELL (18 ROSS, 41 TOKANEL), THE WELL AT 31 TOKANEL REPRESENTS A POTENTIAL WELL LOCATION SINCE THE HOMEOWNER DID NOT KNOW THE LOCATION OF THE WELL AND A TYPICAL WELLHEAD WAS NOT OBSERVED.
4. RESIDENTIAL WELLS NO LONGER IN USE ARE ONLY SHOWN IF THEIR EXISTENCE HAS BEEN CONFIRMED AND SURVEYED.
5. PARCEL ADDRESS SOURCE: TOWN OF LONDONDERRY GIS.
6. TAX ID SOURCE: NH GRANIT GIS.
7. THE GMZ BOUNDARY SHOWN IS BASED ON GMP NO. GWP-199004008-L-005 ISSUED ON OCTOBER 4, 2024; IT IS ANTICIPATED THAT THE GMZ BOUNDARY WILL BE UPDATED AND FURTHER EXPANDED BY NHDES UPON EPA DESIGNATION OF PFAS AS A SITE CONTAMINANT OF CONCERN (COC).

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CONCORD NEW HAMPSHIRE

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

TINKHAM GARAGE SITE
LONDONDERRY, NEW HAMPSHIRE

FOCUSED FEASIBILITY STUDY

SITE PLAN

DRAWN	DATE	DES. ENG.	DATE	W.O. NO.
DZ	JUL 2024		JUL 2024	20161.007.001
CHECKED	DATE	SCALE	REVISION	FIGURE NO.
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LEGEND

GROUNDWATER MANAGEMENT ZONE BOUNDARY

Hillshade Image

High : 1906

Low : -1

N

0 400 800

SCALE IN FEET

WESTON SOLUTIONS
CONCORD NEW HAMPSHIRE

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

TINKHAM GARAGE SITE
LONDONDERRY, NEW HAMPSHIRE

FOCUSED FEASIBILITY STUDY

LIDAR IMAGE

DRAWN	DATE	DES. ENG.	DATE	W.O. NO.
DZ	JUL 2024		JUL 2024	20161.007.001
CHECKED	DATE	SCALE	REVISION	FIGURE NO.
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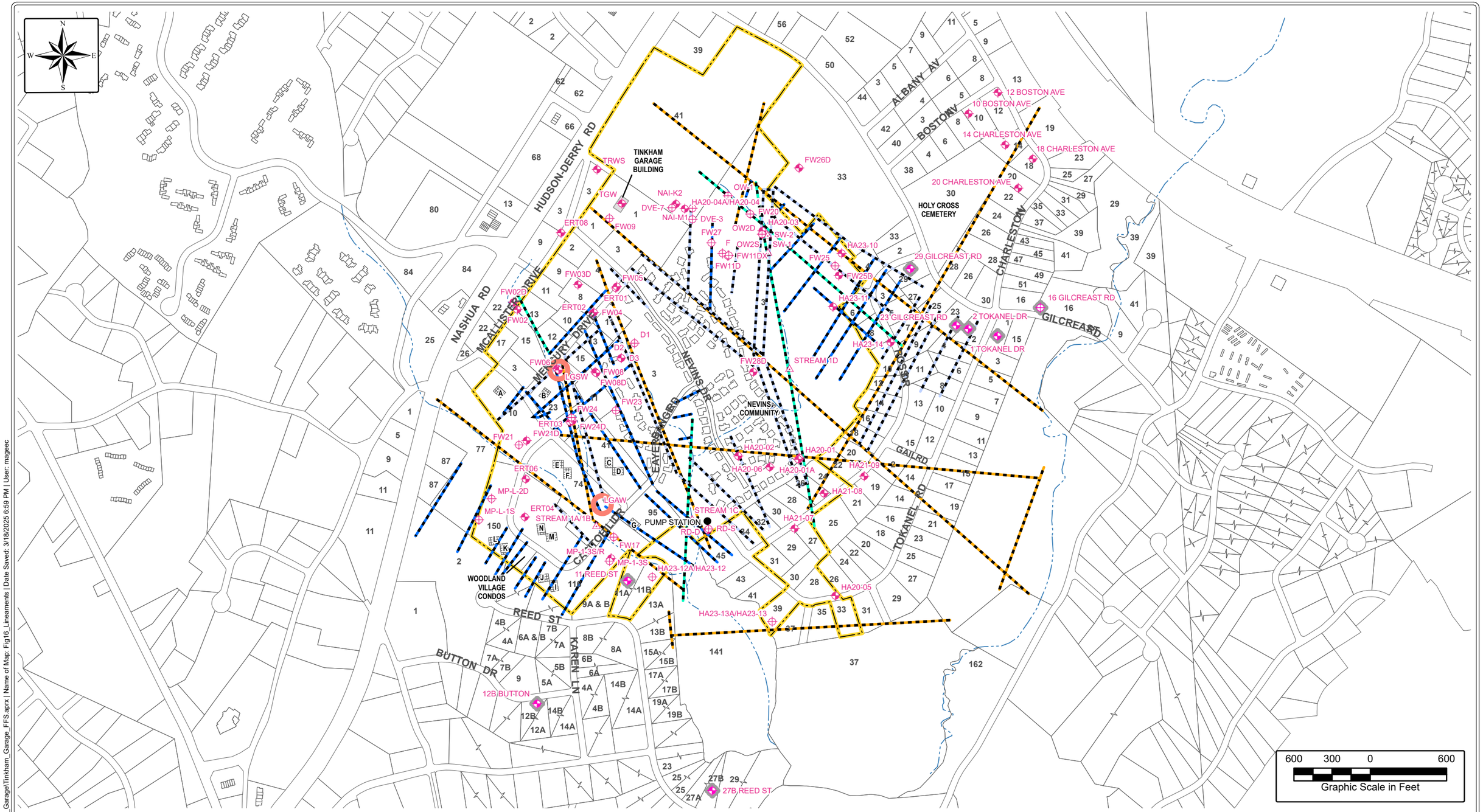

LEGEND

- STREAM
- HGI Structure (Higher Confidence)
- HGI Structure (Lower Confidence)
- EPA Lineament
- H&A Lineament
- GROUNDWATER MANAGEMENT ZONE
- FORMER WATER SUPPLY WELL
- BEDROCK MONITORING WELL
- OVERBURDEN MONITORING WELL
- SURFACE WATER
- FORMER BEDROCK SUPPLY WELL
- FORMER OVERBURDEN SUPPLY WELL
- PUMP

REPORT DATE: March 2025	PROJECT MANAGER: J. Soukup	DRAWING TITLE: **LINEAMENTS/STRUCTURES** TINKHAM GARAGE SITE LONDONDERRY, NH	
SAVED DATE: March 2025	REVIEWER: W. Tifft		
PROJECT: Tinkham Garage	CLIENT NAME: NHDES		
WESTON SOLUTIONS SM	SPATIAL REFERENCE: NAD 1983 StatePlane New Hampshire FIPS 2800 Feet	SCALE: 1:8,700	FIGURE NO: 4

Boston
Providence

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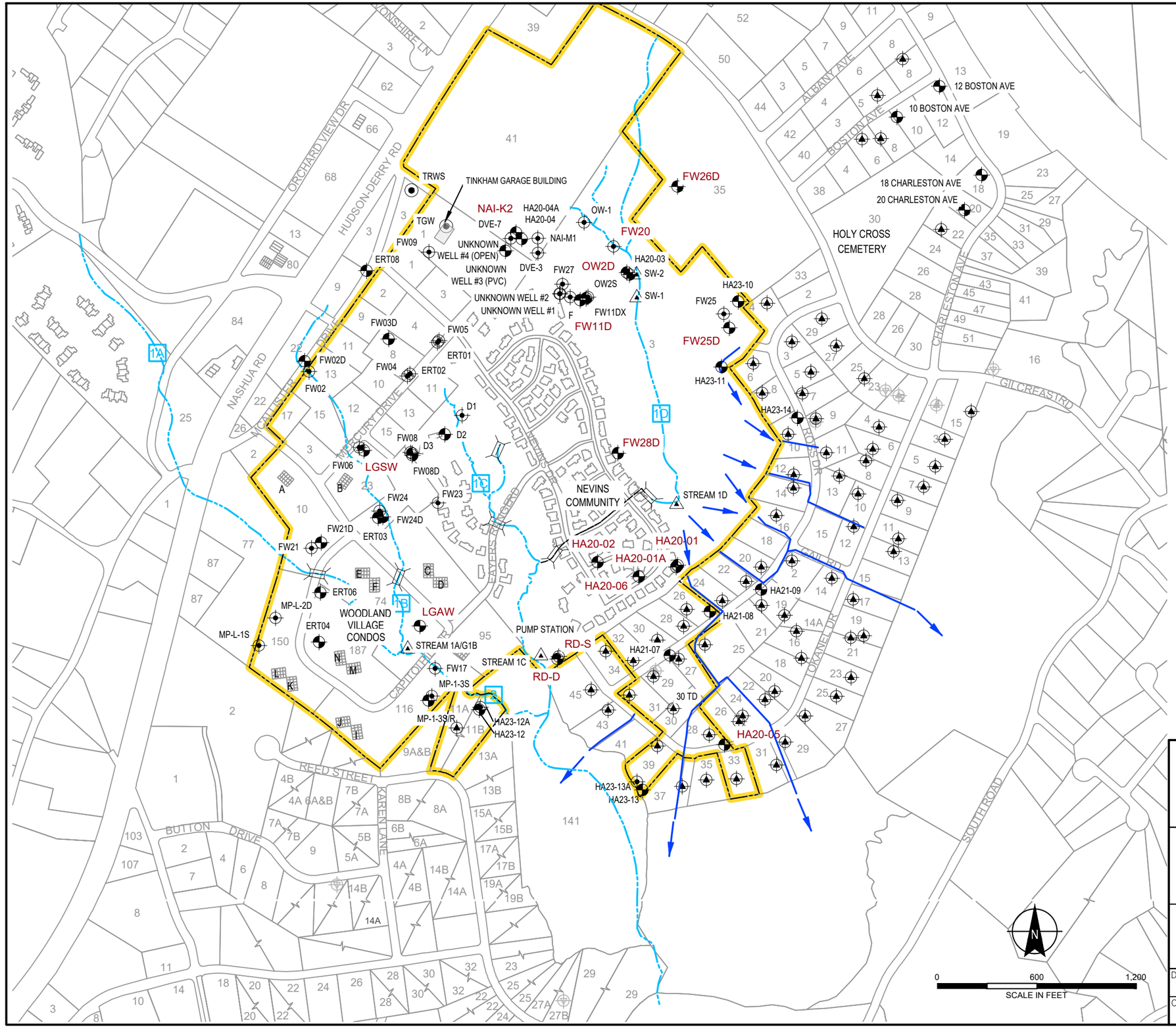

LEGEND:

- EXISTING RESIDENTIAL WELL
- RESIDENTIAL WELL NO LONGER IN USE
- OVERBURDEN/SHALLOW BEDROCK MONITORING WELL
- BEDROCK MONITORING WELL
- SURFACE WATER SAMPLE
- TAP SAMPLE
- STREAM
- APPROXIMATE LOCATION OF STREAM 1D CULVERT
- 2 — STREAM DESIGNATION
- GROUNDWATER MANAGEMENT ZONE (GMZ)
- NAI-M1 — LOCATION ID
- FW20 — MONITORING WELL WITH PRESSURE TRANSDUCER LOCATION ID
- SURFACE WATER FLOW PATH
- SURFACE WATER FLOW DIRECTION

GENERAL NOTES:

1. ALL DIMENSIONS AND LOCATIONS ARE APPROXIMATE.
2. WELL LOCATIONS SURVEYED IN 2016, 2021, AND 2023. SOME OLDER WELLS WERE DIGITIZED FROM A DRAWING TITLED "MONITORING LOCATIONS AND TOTAL VOLATILE ORGANIC CONCENTRATIONS, MAY 2008" BY CANNONS ENGINEERING, ROUX ASSOCIATES, INC.
3. PRIVATE WELL LOCATIONS WERE SURVEYED WITH A TRIMBLE GEO 7X AND COLLECTED BY HALEY & ALDRICH, INC. IN AUGUST 2020, NOVEMBER 2020, JULY 2021, AND NOVEMBER 2022. RESIDENTIAL WELLS TO BE SURVEYED AT A LATER DATE EITHER COULD NOT BE LOCATED (15 TOKANEL) OR THE HOMEOWNERS COULD NOT BE CONTACTED (15 ROSS) OR DENIED ACCESS TO SURVEY THEIR WELL (18 ROSS, 41 TOKANEL). THE WELL AT 31 TOKANEL REPRESENTS A POTENTIAL WELL LOCATION SINCE THE HOMEOWNER DID NOT KNOW THE LOCATION OF THE WELL AND A TYPICAL WELLHEAD WAS NOT OBSERVED.
4. RESIDENTIAL WELLS NO LONGER IN USE ARE ONLY SHOWN IF THEIR EXISTENCE HAS BEEN CONFIRMED AND SURVEYED.
5. PARCEL ADDRESS SOURCE: TOWN OF LONDONDERRY GIS.
6. TAX ID SOURCE: NH GRANIT GIS.
7. THE GMZ BOUNDARY SHOWN IS BASED ON GMP NO. GWP-199004008-L-005 ISSUED ON OCTOBER 4, 2024; IT IS ANTICIPATED THAT THE GMZ BOUNDARY WILL BE UPDATED AND FURTHER EXPANDED BY NHDES UPON EPA DESIGNATION OF PFAS AS A SITE CONTAMINANT OF CONCERN (COC).
8. SURFACE WATER PATHWAY OBSERVATIONS MADE BY WESTON IN JULY 2021

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NEW HAMPSHIRE DEPARTMENT OF Environmental Services

TINKHAM GARAGE SITE
LONDONDERRY, NEW HAMPSHIRE

FOCUSED FEASIBILITY STUDY

SURFACE WATER PATHWAYS

DRAWN	DATE	DES. ENG.	DATE	W.O. NO.
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CHECKED	DATE	SCALE	REVISION	FIGURE NO.
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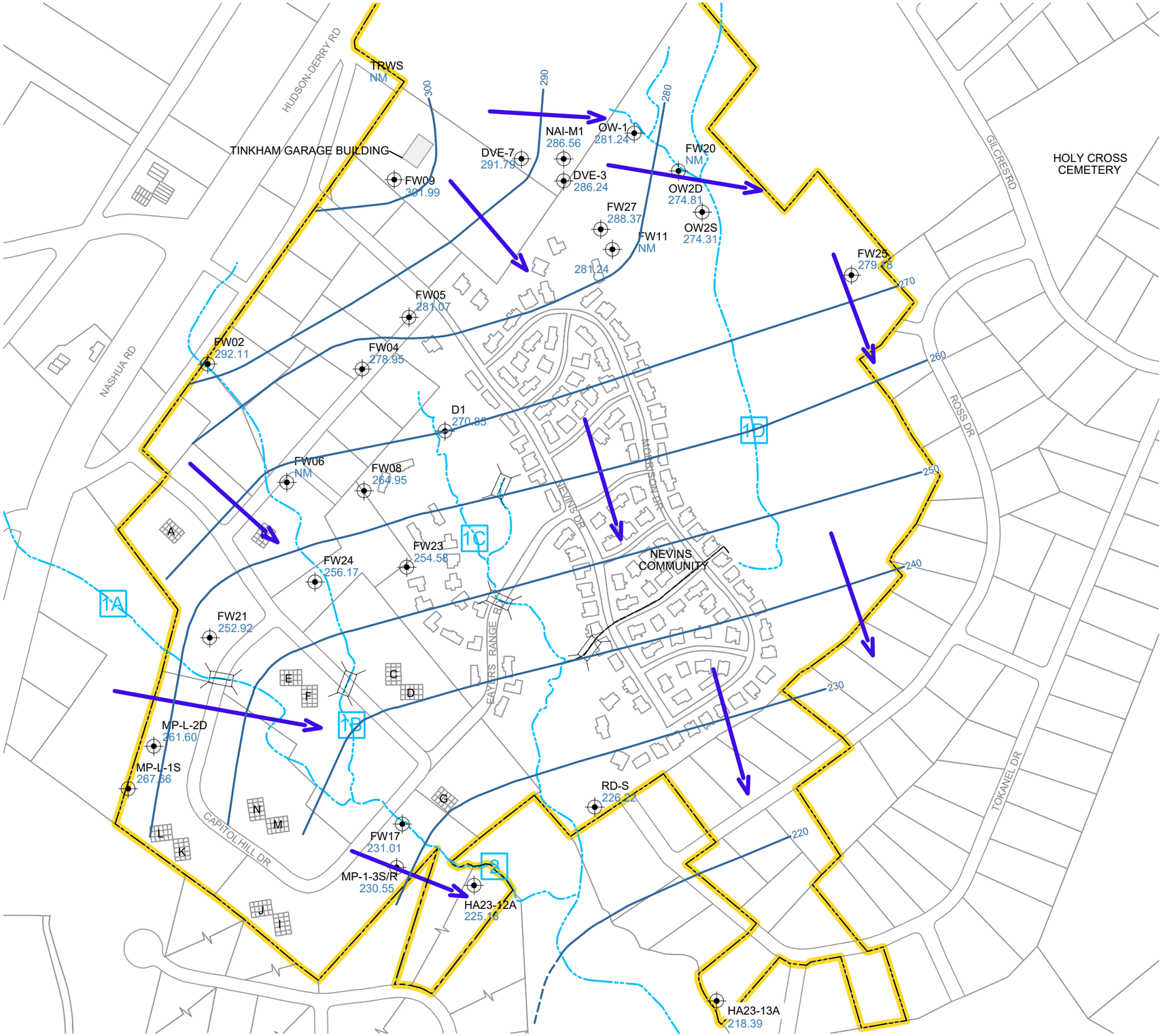

LEGEND

- OVERBURDEN/SHALLOW BEDROCK MONITORING WELL
- 276.47 GROUNDWATER ELEVATION (NOVEMBER 2021)
- APPROXIMATE OVERBURDEN GROUNDWATER ELEVATION CONTOUR, IN FEET, 10-FT INTERVAL (NOVEMBER 2021)
- INFERRED GROUNDWATER ELEVATION CONTOUR
- INTERPRETED GROUNDWATER FLOW DIRECTION
- 2 STREAM DESIGNATION
- STREAM
- APPROXIMATE LOCATION OF STREAM 1D CULVERT
- GROUNDWATER MANAGEMENT ZONE BOUNDARY

NOTES

1. ALL DIMENSIONS AND LOCATIONS ARE APPROXIMATE.
2. MONITORING WELL LOCATIONS SURVEYED IN 2016, 2021, AND 2023.
3. STREAM NAME DESIGNATIONS FROM HALEY & ALDRICH WORKPLAN FOR GROUNDWATER/SURFACE WATER INTERACTION, 1 JUNE 2018.
4. WATER LEVELS MEASURED IN NOVEMBER 2023.
5. NM = NOT MEASURED
6. CONTOURS ARE BASED ON LINEAR INTERPOLATION BETWEEN DATA POINTS BUT ALSO CONSIDER TOPOGRAPHY AND SURFACE WATER FEATURES.
7. MP-1-3S/R WAS NOT INCLUDED IN CONTOURS BECAUSE IT HAS NOT BEEN SURVEYED.
8. SHALLOW WATER LEVELS ARE MEASURED IN MONITORING WELLS THAT ARE SCREENED IN THE OVERBURDEN, SCREENED ACROSS THE OVERBURDEN AND SHALLOW BEDROCK OR SCREENED WITHIN THE TOP 30 FT OF BEDROCK.
9. PARCEL ADDRESS SOURCE: TOWN OF LONDONDERRY GIS

N

0 400 800

SCALE IN FEET

WESTON SOLUTIONS
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NEW HAMPSHIRE DEPARTMENT OF Environmental Services

TINKHAM GARAGE SITE
LONDONDERRY, NEW HAMPSHIRE

FOCUSED FEASIBILITY STUDY

WATER TABLE ELEVATION CONTOURS (NOVEMBER 2023)

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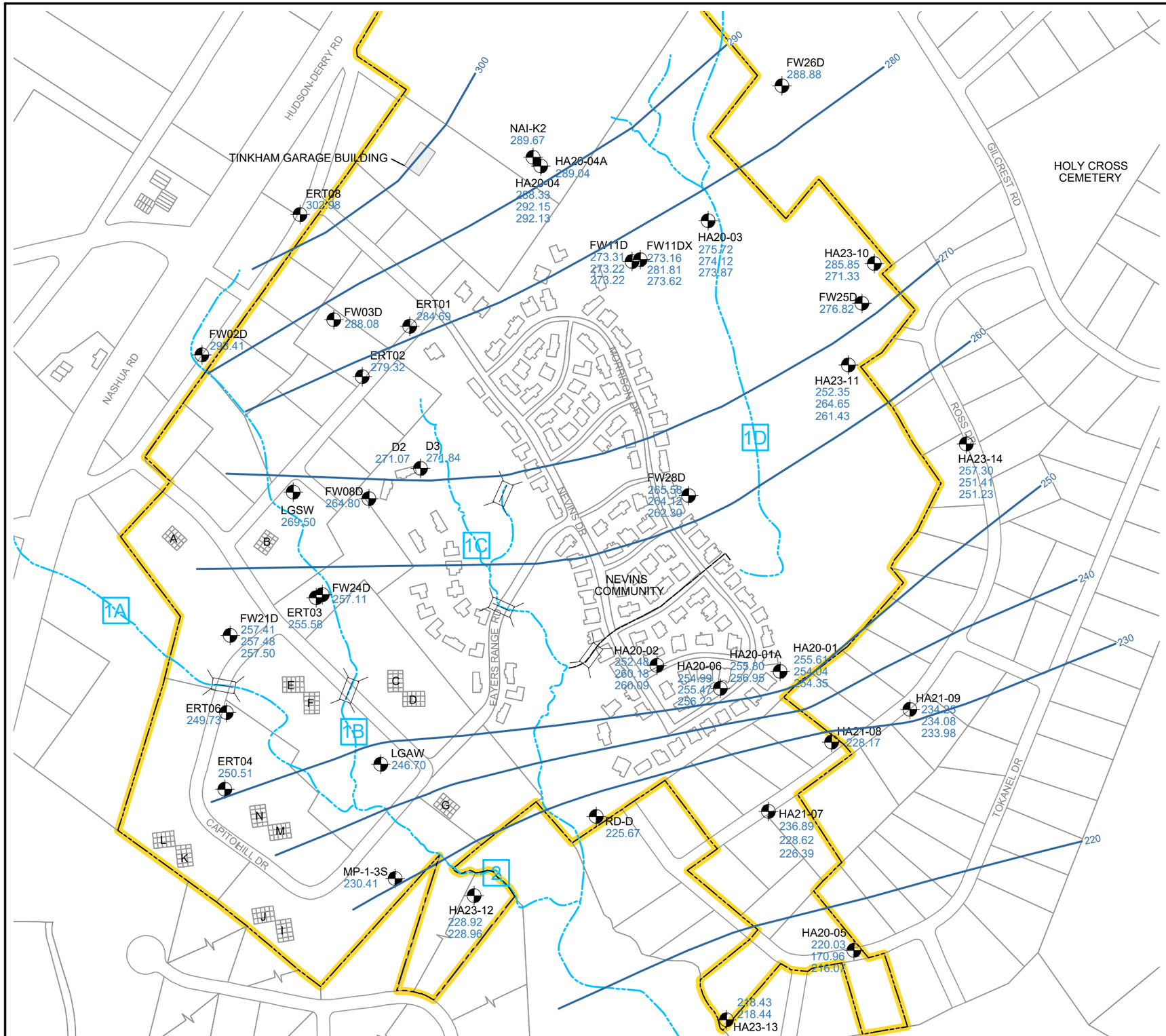

LEGEND

- BEDROCK MONITORING WELL
- 276.47 GROUNDWATER ELEVATION (MAY 2021)
- APPROXIMATE BEDROCK GROUNDWATER ELEVATION CONTOUR, IN FEET, 10-FT INTERVAL (NOVEMBER 2021)
- INFERRED GROUNDWATER ELEVATION CONTOUR
- 2 STREAM DESIGNATION
- STREAM
- APPROXIMATE LOCATION OF STREAM 1D CULVERT
- GROUNDWATER MANAGEMENT ZONE BOUNDARY

NOTES

1. ALL DIMENSIONS AND LOCATIONS ARE APPROXIMATE.
2. MONITORING WELL LOCATIONS SURVEYED IN 2016, 2021, AND 2023.
3. STREAM NAME DESIGNATIONS FROM HALEY & ALDRICH WORKPLAN FOR GROUNDWATER/SURFACE WATER INTERACTION, 1 JUNE 2018.
4. WATER LEVELS MEASURED INNOVEMBER 2023.
5. FOR MULTI-TIER WELLS, THE THREE GROUNDWATER ELEVATION VALUES CORRESPOND TO SHALLOW, INTERMEDIATE, AND DEEP BEDROCK.
6. CONTOURS ARE BASED ON LINEAR INTERPOLATION BETWEEN DATA POINTS.
7. PARCEL ADDRESS SOURCE: TOWN OF LONDONDERRY GIS

N

0 400 800

SCALE IN FEET

WESTON SOLUTIONS
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TINKHAM GARAGE SITE
LONDONDERRY, NEW HAMPSHIRE

FOCUSED FEASIBILITY STUDY

BEDROCK GROUNDWATER ELEVATION CONTOURS (NOVEMBER 2023)

DRAWN	DATE	DES. ENG.	DATE	W.O. NO.
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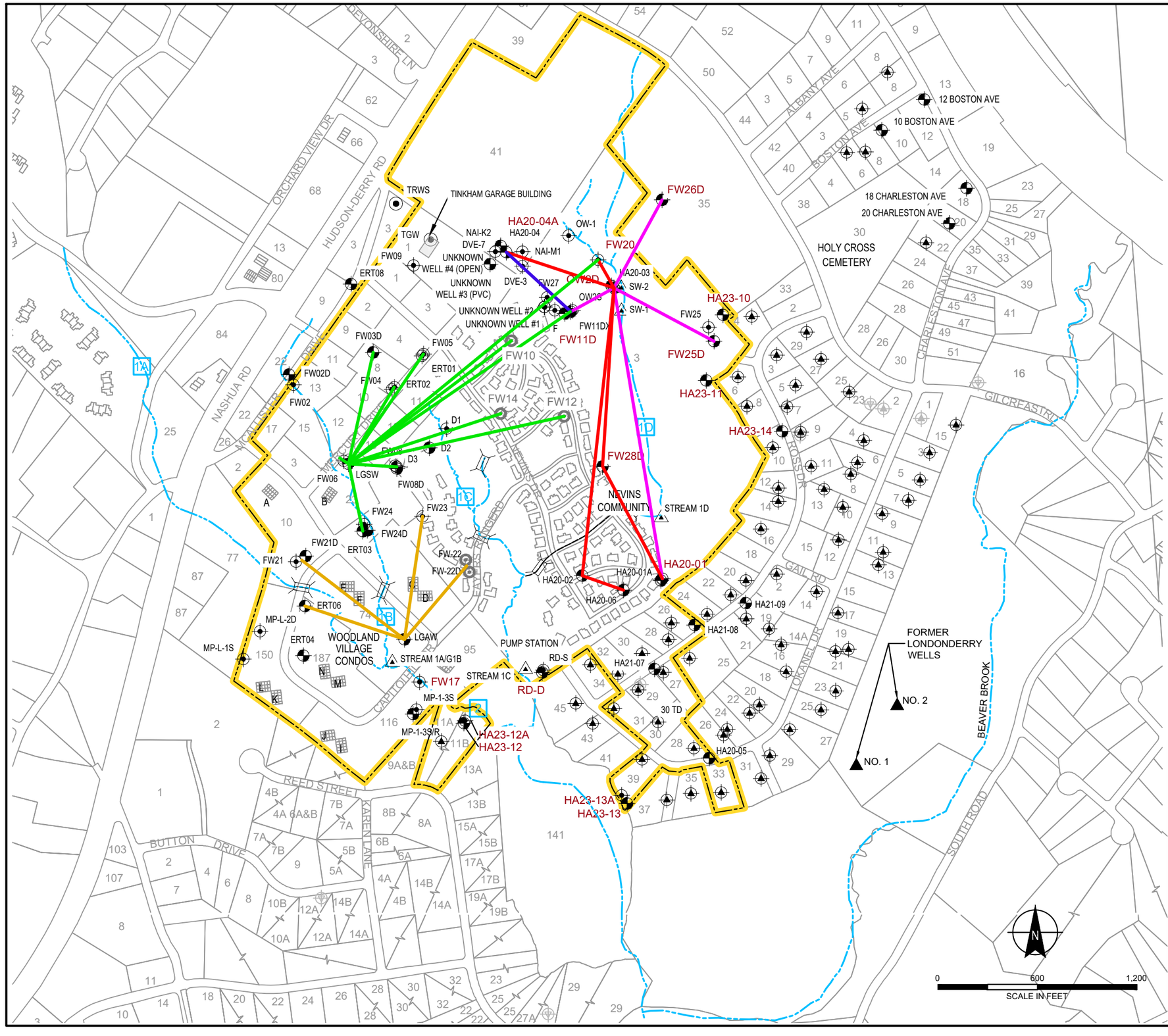

LEGEND:

- EXISTING RESIDENTIAL WELL
- RESIDENTIAL WELL NO LONGER IN USE
- OVERBURDEN/SHALLOW BEDROCK MONITORING WELL
- BEDROCK MONITORING WELL
- SURFACE WATER SAMPLE
- TAP SAMPLE
- ABANDONED/DECOMMISSIONED WELL
- STREAM
- APPROXIMATE LOCATION OF STREAM 1D CULVERT
- 2 STREAM DESIGNATION
- GROUNDWATER MANAGEMENT ZONE (GMZ)
- NAI-M1 LOCATION ID
- FW20 MONITORING WELL WITH PRESSURE TRANSDUCER LOCATION ID
- POTENTIAL CONNECTION - HIGHEST DEGREE OF CERTAINTY
- POTENTIAL CONNECTION - MODERATE DEGREE OF CERTAINTY
- POTENTIAL CONNECTION - LOWEST DEGREE OF CERTAINTY
- CONNECTION - DRAWDOWN DURING LGSW PUMP TEST
- CONNECTION - DRAWDOWN DURING LGAW PUMP TEST

GENERAL NOTES:

1. ALL DIMENSIONS AND LOCATIONS ARE APPROXIMATE.
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6. TAX ID SOURCE: NH GRANIT GIS.
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8. POTENTIAL CONNECTIONS BASED UPON EVALUATION OF TRANSDUCER DATA COLLECTED DURING BEDROCK INVESTIGATIONS.
9. LGSW CONNECTIONS BASED UPON MEASURED DRAWDOWN DURING THE LGSW PUMP TEST CONDUCTED BY NUS/FIT, AUGUST 1983.
10. LGAW CONNECTIONS BASED UPON MEASURED DRAWDOWN DURING THE LGAW PUMP TEST CONDUCTED BY CAMP DRESSER & MCKEE, MARCH 1986.
11. IN ADDITION TO HISTORIC PUMP TEST DATA, HYDRAULIC CONNECTIONS ARE BASED ON TRANSDUCER DATA COLLECTED DURING RECENT BEDROCK INVESTIGATIONS. ADDITIONAL HYDRAULIC CONNECTIONS LIKELY EXIST.

WESTON SOLUTIONS
CONCORD NEW HAMPSHIRE

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

TINKHAM GARAGE SITE
LONDONDERRY, NEW HAMPSHIRE
FOCUSED FEASIBILITY STUDY

HYDRAULIC CONNECTIONS BASED ON TRANSDUCER MONITORING PROGRAM

DRAWN	DATE	DES. ENG.	DATE	W.O. NO.
DZ	JUL 2024		JUL 2024	20161.007.001
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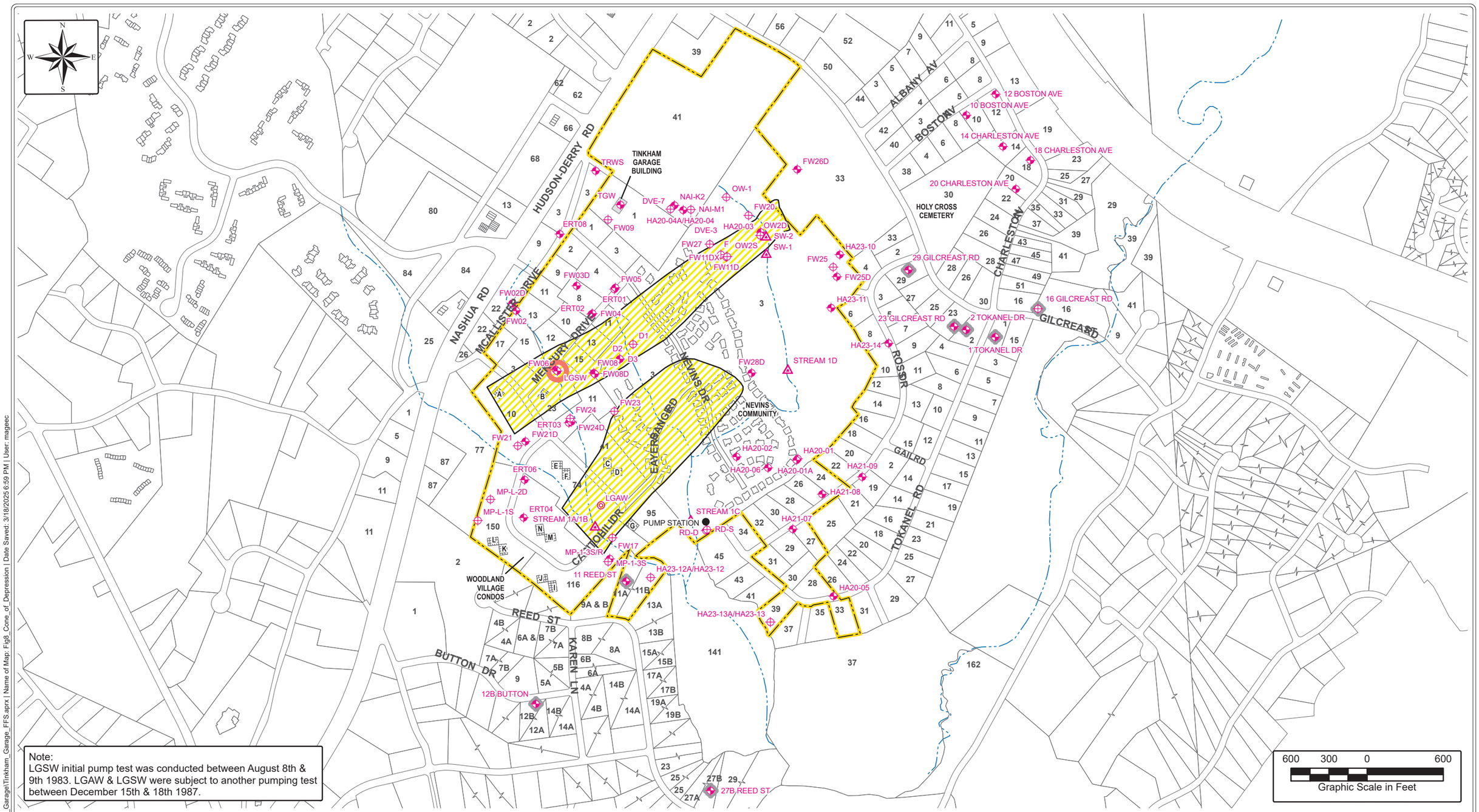


Note:
LGSW initial pump test was conducted between August 8th & 9th 1983. LGAW & LGSW were subject to another pumping test between December 15th & 18th 1987.

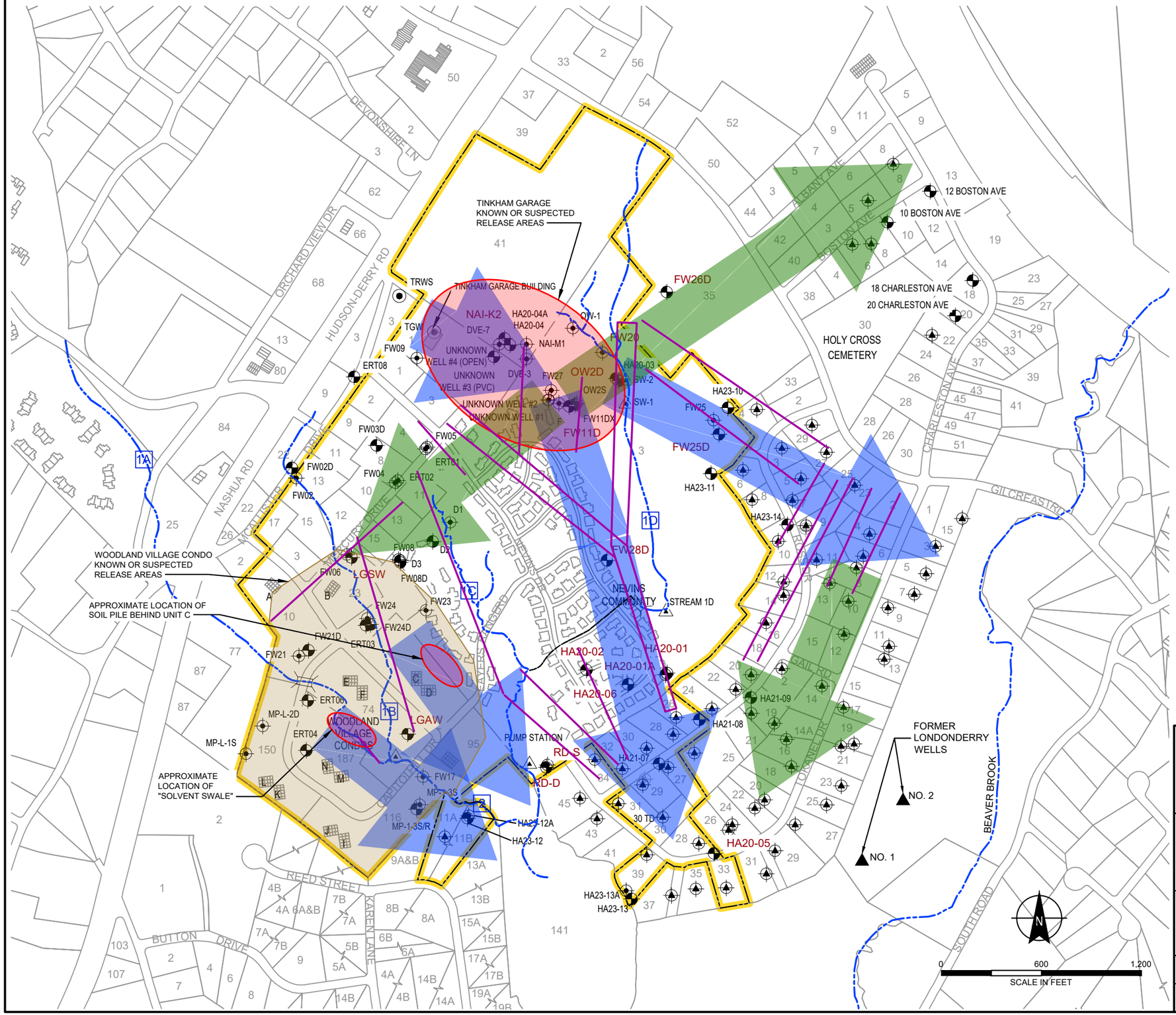
LEGEND

- BEDROCK MONITORING WELL
- BEDROCK EXTRACTION WELL
- OVERBURDEN MONITORING WELL
- SURFACE WATER
- FORMER BEDROCK SUPPLY WELL
- FORMER OVERBURDEN SUPPLY WELL
- PUMP
- DRAWDOWN ELIPSE
- FORMER WATER SUPPLY WELL
- STREAM
- GROUNDWATER MANAGEMENT ZONE

REPORT DATE: March 2025	PROJECT MANAGER: J. Soukup	DRAWING TITLE: **LGSW PUMP TEST CONE OF DEPRESSION (1983 AND 1987) AND LGAW PUMP TEST CONE OF DEPRESSION (1987)** TINKHAM GARAGE SITE LONDONDERRY, NH	
SAVED DATE: March 2025	REVIEWER: W. Tifft		
PROJECT: Tinkham Garage	CLIENT NAME: NHDES		
WESTON SOLUTIONS SM	SPATIAL REFERENCE: NAD 1983 StatePlane New Hampshire FIPS 2800 Feet	SCALE: 1:8,700	FIGURE NO: 8

Boston
Providence

Path: P:\Tinkhams_Garage\GIS\Pro\Tinkham_Garage\Tinkham_Garage_FFS.aprx | Name of Map: Fig8_Cone_of_Depression | Date Saved: 3/18/2025 6:59 PM | User: mageec



LEGEND:

- EXISTING RESIDENTIAL WELL
- RESIDENTIAL WELL NO LONGER IN USE
- OVERBURDEN/SHALLOW BEDROCK MONITORING WELL
- BEDROCK MONITORING WELL
- SURFACE WATER SAMPLE
- TAP SAMPLE
- STREAM
- APPROXIMATE LOCATION OF STREAM 1D CULVERT
- 2 STREAM DESIGNATION
- GROUNDWATER MANAGEMENT ZONE (GMZ)
- NAI-M1 LOCATION ID
- FW20 MONITORING WELL WITH PRESSURE TRANSDUCER LOCATION ID
- HGI STRUCTURE (HIGHER CONFIDENCE)
- AMBIENT GROUNDWATER PATHWAY
- PUMPING ENHANCED PATHWAY

GENERAL NOTES:

1. ALL DIMENSIONS AND LOCATIONS ARE APPROXIMATE.
2. WELL LOCATIONS SURVEYED IN 2016, 2021 AND 2023. SOME OLDER WELLS WERE DIGITIZED FROM A DRAWING TITLED "MONITORING LOCATIONS AND TOTAL VOLATILE ORGANIC CONCENTRATIONS, MAY 2008" BY CANNONS ENGINEERING, ROUX ASSOCIATES, INC.
3. PRIVATE WELL LOCATIONS WERE SURVEYED WITH A TRIMBLE GEO 7X AND COLLECTED BY HALEY & ALDRICH, INC. IN AUGUST 2020, NOVEMBER 2020, JULY 2021, AND NOVEMBER 2022. RESIDENTIAL WELLS TO BE SURVEYED AT A LATER DATE EITHER COULD NOT BE LOCATED (15 TOKANEL) OR THE HOMEOWNERS COULD NOT BE CONTACTED (15 ROSS) OR DENIED ACCESS TO SURVEY THEIR WELL (18 ROSS, 41 TOKANEL). THE WELL AT 31 TOKANEL REPRESENTS A POTENTIAL WELL LOCATION SINCE THE HOMEOWNER DID NOT KNOW THE LOCATION OF THE WELL AND A TYPICAL WELLHEAD WAS NOT OBSERVED.
4. RESIDENTIAL WELLS NO LONGER IN USE ARE ONLY SHOWN IF THEIR EXISTENCE HAS BEEN CONFIRMED AND SURVEYED.
5. PARCEL ADDRESS SOURCE: TOWN OF LONDONDERRY GIS.
6. TAX ID SOURCE: NH GRANIT GIS.
7. THE GMZ BOUNDARY SHOWN IS BASED ON GMP NO. GWP-199004008-L-005 ISSUED ON OCTOBER 4, 2024; IT IS ANTICIPATED THAT THE GMZ BOUNDARY WILL BE UPDATED AND FURTHER EXPANDED BY NHDES UPON EPA DESIGNATION OF PFAS AS A SITE CONTAMINANT OF CONCERN (COC).
8. TINKHAM GARAGE KNOWN OR SUSPECTED RELEASE AREAS INCLUDES THE FIELD/WETLAND AREA SOUTHEAST OF THE GARAGE AND TRENCHES BEHIND THE BUILDING.
9. WOODLAND VILLAGE CONDO KNOWN OR SUSPECTED RELEASE AREAS INCLUDES THE APPROXIMATE FORMER LOCATION OF THE "SOLVENT WALE", LOCATION OF FORMER CONTAMINATED SOIL PILE BEHIND UNIT C, AND LEACH FIELDS OF CONDO UNITS WHERE WASTES WERE REPORTEDLY DISPOSED.
10. APPROXIMATE LOCATION OF DERRY'S LONDONDERRY WELLS NO. 1 AND 2.

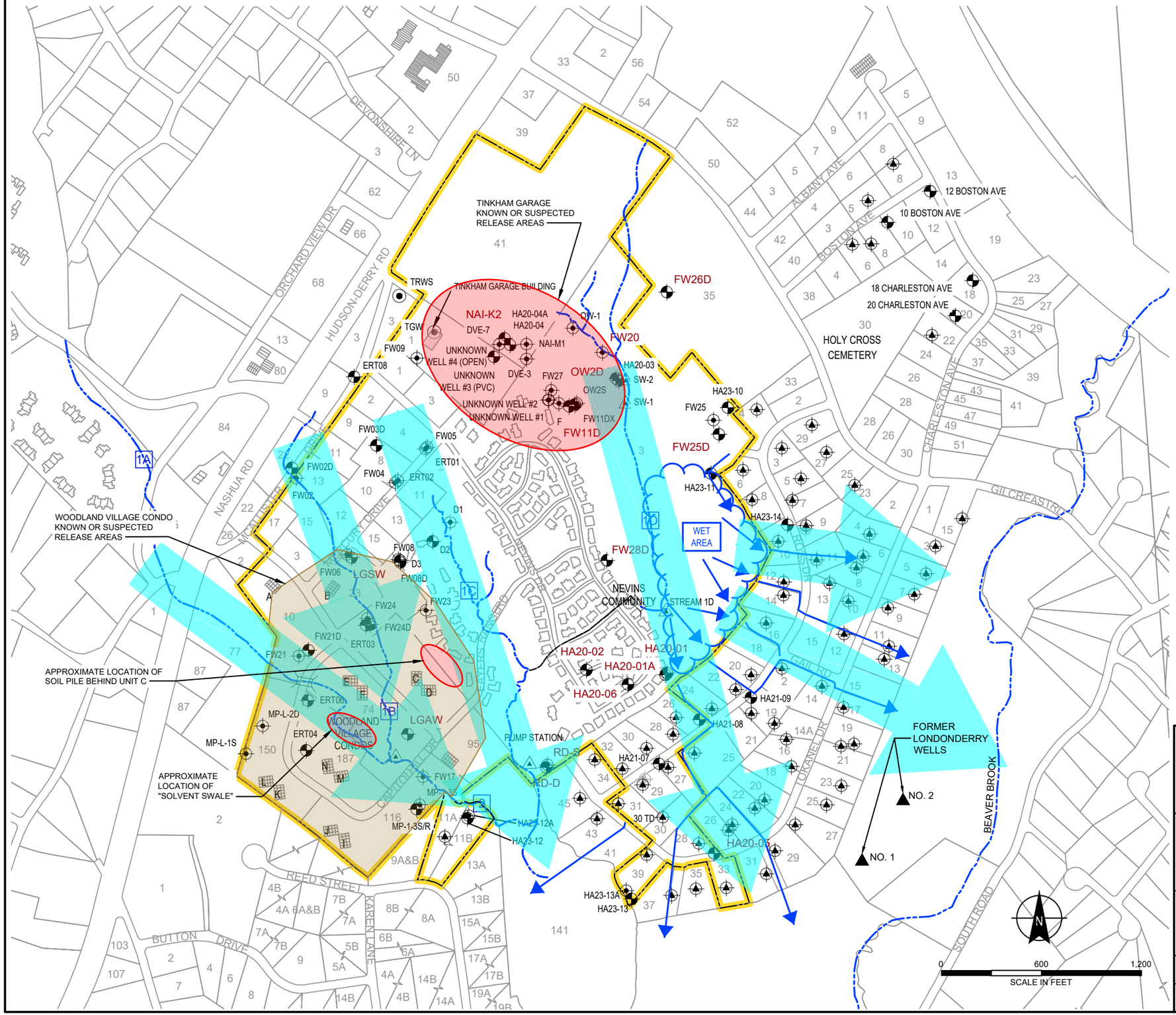
WESTON SOLUTIONS CONCORD NEW HAMPSHIRE

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

TINKHAM GARAGE SITE
LONDONDERRY, NEW HAMPSHIRE
FOCUSED FEASIBILITY STUDY

GROUNDWATER CONCEPTUAL SITE MODEL

DRAWN	DATE	DES. ENG.	DATE	W.O. NO.
DZ	JULY 2024		JULY 2024	20161.007.001
CHECKED	DATE	SCALE	REVISION	FIGURE NO.
DB	JULY 2024	1:600		9A



LEGEND:

- EXISTING RESIDENTIAL WELL
- RESIDENTIAL WELL NO LONGER IN USE
- OVERBURDEN/SHALLOW BEDROCK MONITORING WELL
- BEDROCK MONITORING WELL
- SURFACE WATER SAMPLE
- TAP SAMPLE
- STREAM
- APPROXIMATE LOCATION OF STREAM 1D CULVERT
- 2 — STREAM DESIGNATION
- GROUNDWATER MANAGEMENT ZONE (GMZ)
- NAI-M1 — LOCATION ID
- FW20 — MONITORING WELL WITH PRESSURE TRANSDUCER LOCATION ID
- SURFACE WATER FEATURE

SURFACE WATER FLOW DIRECTION

GENERAL NOTES:

1. ALL DIMENSIONS AND LOCATIONS ARE APPROXIMATE.
2. WELL LOCATIONS SURVEYED IN 2016, 2021 AND 2023. SOME OLDER WELLS WERE DIGITIZED FROM A DRAWING TITLED "MONITORING LOCATIONS AND TOTAL VOLATILE ORGANIC CONCENTRATIONS, MAY 2008" BY CANNONS ENGINEERING, ROUX ASSOCIATES, INC.
3. PRIVATE WELL LOCATIONS WERE SURVEYED WITH A TRIMBLE GEO 7X AND COLLECTED BY HALEY & ALDRICH, INC. IN AUGUST 2020, NOVEMBER 2020, JULY 2021, AND NOVEMBER 2022. RESIDENTIAL WELLS TO BE SURVEYED AT A LATER DATE EITHER COULD NOT BE LOCATED (15 TOKANEL) OR THE HOMEOWNERS COULD NOT BE CONTACTED (15 ROSS) OR DENIED ACCESS TO SURVEY THEIR WELL (18 ROSS, 41 TOKANEL). THE WELL AT 31 TOKANEL REPRESENTS A POTENTIAL WELL LOCATION SINCE THE HOMEOWNER DID NOT KNOW THE LOCATION OF THE WELL AND A TYPICAL WELLHEAD WAS NOT OBSERVED.
4. RESIDENTIAL WELLS NO LONGER IN USE ARE ONLY SHOWN IF THEIR EXISTENCE HAS BEEN CONFIRMED AND SURVEYED.
5. PARCEL ADDRESS SOURCE: TOWN OF LONDONDERRY GIS.
6. TAX ID SOURCE: NH GRANIT GIS.
7. THE GMZ BOUNDARY SHOWN IS BASED ON GMP NO. GWP-199004008-L-005 ISSUED ON OCTOBER 4, 2024; IT IS ANTICIPATED THAT THE GMZ BOUNDARY WILL BE UPDATED AND FURTHER EXPANDED BY NHDES UPON EPA DESIGNATION OF PFAS AS A SITE CONTAMINANT OF CONCERN (COC).
8. TINKHAM GARAGE KNOWN OR SUSPECTED RELEASE AREAS INCLUDES THE FIELD/WETLAND AREA SOUTHEAST OF THE GARAGE AND TRENCHES BEHIND THE BUILDING.
9. WOODLAND VILLAGE CONDO KNOWN OR SUSPECTED RELEASE AREAS INCLUDES THE APPROXIMATE FORMER LOCATION OF THE "SOLVENT WALE", LOCATION OF FORMER CONTAMINATED SOIL PILE BEHIND UNIT C, AND LEACH FIELDS OF CONDO UNITS WHERE WASTES WERE REPORTEDLY DISPOSED.
10. APPROXIMATE LOCATION OF DERRY'S LONDONDERRY WELLS NO. 1 AND 2.

WESTON SOLUTIONS
CONCORD NEW HAMPSHIRE

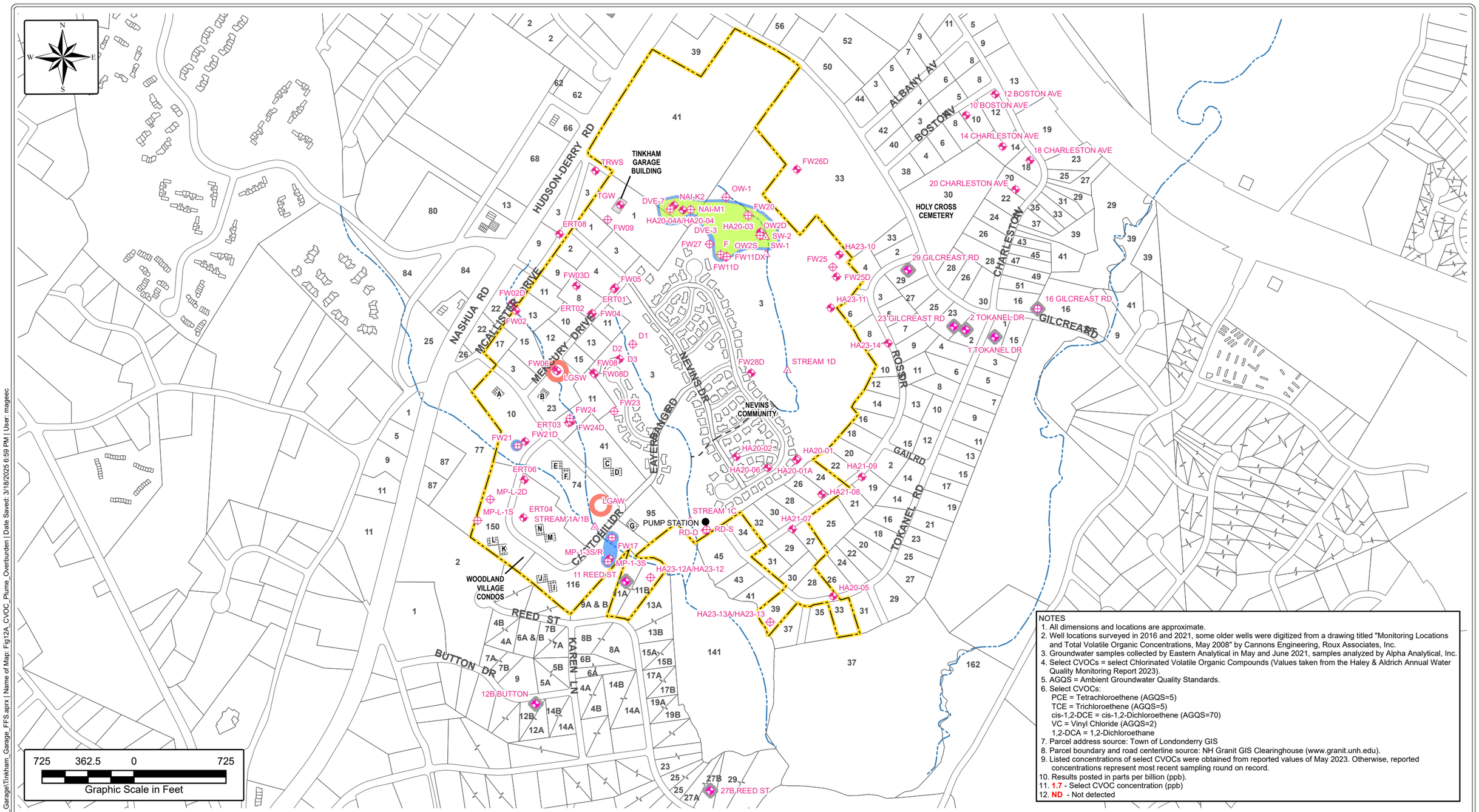
NEW HAMPSHIRE DEPARTMENT OF Environmental Services

TINKHAM GARAGE SITE
LONDONDERRY, NEW HAMPSHIRE

FOCUSED FEASIBILITY STUDY

SURFACE WATER CONCEPTUAL SITE MODEL

DRAWN	DATE	DES. ENG.	DATE	W.O. NO.
DZ	JULY 2024		JULY 2024	20161.007.001
CHECKED	DATE	SCALE	REVISION	FIGURE NO.
DB	JULY 2024	1:600		9B



NOTES
1. All dimensions and locations are approximate.
2. Well locations surveyed in 2016 and 2021, some older wells were digitized from a drawing titled "Monitoring Locations and Total Volatile Organic Concentrations, May 2008" by Cannons Engineering, Roux Associates, Inc.
3. Groundwater samples collected by Eastern Analytical in May and June 2021, samples analyzed by Alpha Analytical, Inc.
4. Select CVOCs = select Chlorinated Volatile Organic Compounds (Values taken from the Haley & Aldrich Annual Water Quality Monitoring Report 2023).
5. AGQS = Ambient Groundwater Quality Standards.
6. Select CVOCs:
   PCE = Tetrachloroethene (AGQS=5)
   TCE = Trichloroethene (AGQS=5)
   cis-1,2-DCE = cis-1,2-Dichloroethene (AGQS=70)
   VC = Vinyl Chloride (AGQS=2)
   1,2-DCA = 1,2-Dichloroethane
7. Parcel address source: Town of Londonderry GIS
8. Parcel boundary and road centerline source: NH Granit GIS Clearinghouse (www.granit.unh.edu).
9. Listed concentrations of select CVOCs were obtained from reported values of May 2023. Otherwise, reported concentrations represent most recent sampling round on record.
10. Results posted in parts per billion (ppb).
11. **1.7** - Select CVOC concentration (ppb)
12. **ND** - Not detected

LEGEND

- FORMER WATER SUPPLY WELL
- STREAM
- CULVERT
- GROUNDWATER MANAGEMENT ZONE
- SUM OF SELECT CVOCS > 0 - 10 PPB
- SUM OF SELECT CVOCS > 10 - 50 PPB
- SUM OF SELECT CVOCS >50 PPB
- BEDROCK MONITORING WELL
- OVERBURDEN MONITORING WELL
- SURFACE WATER
- FORMER BEDROCK SUPPLY WELL
- FORMER OVERBURDEN SUPPLY WELL
- PUMP

REPORT DATE: March 2025	PROJECT MANAGER: J. Soukup	DRAWING TITLE: **SUM OF SELECT CVOCS IN OVERBURDEN AND SHALLOW BEDROCK THROUGH NOVEMBER 2023** TINKHAM GARAGE SITE LONDONDERRY, NH	
SAVED DATE: March 2025	REVIEWER: W. Tifft		
PROJECT: Tinkham Garage	CLIENT NAME: NHDES		
WESTON SOLUTIONS	SPATIAL REFERENCE: NAD 1983 StatePlane New Hampshire FIPS 2800 Feet	SCALE: 1:8,700	FIGURE NO: 10A

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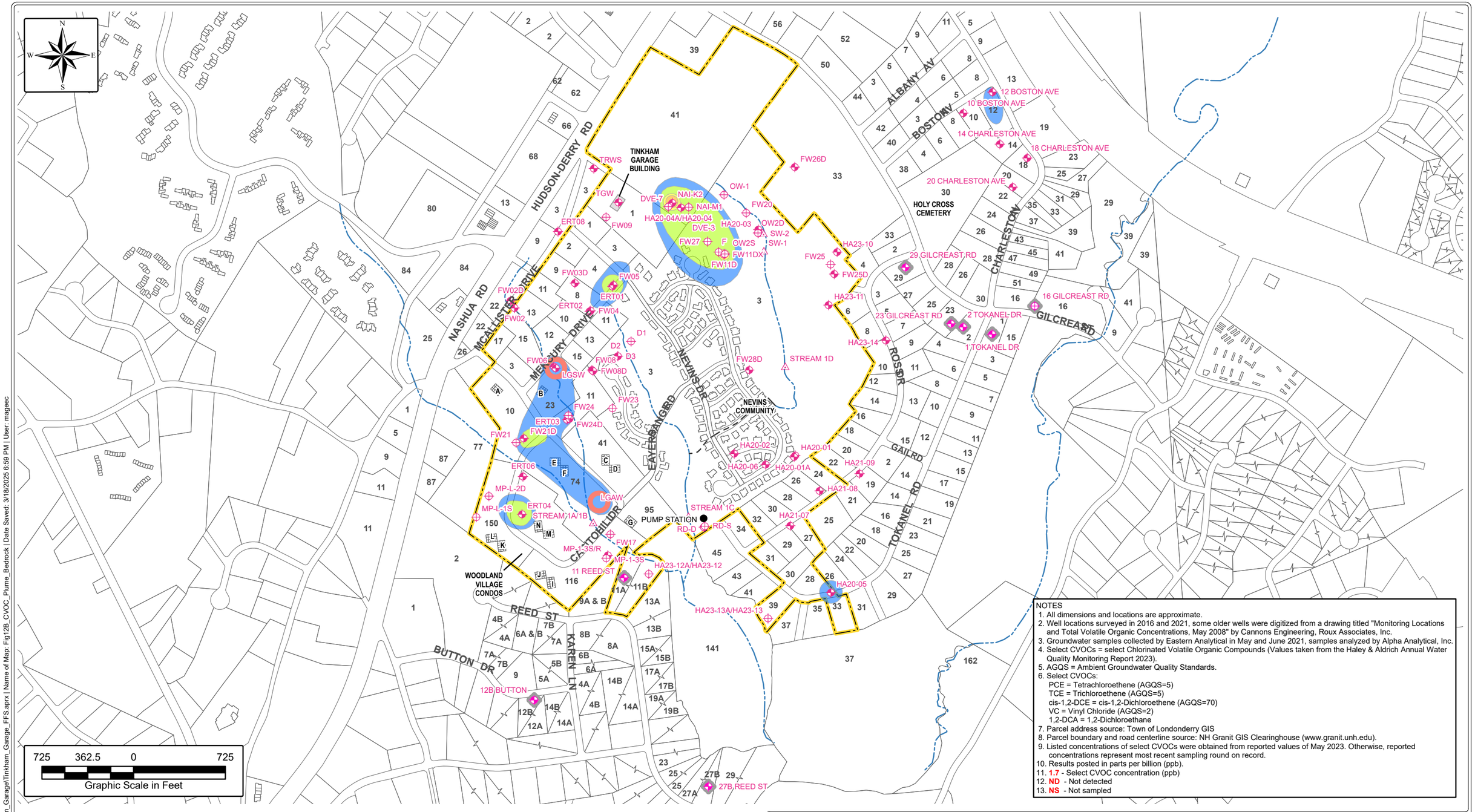


725 362.5 0 725

Graphic Scale in Feet

NOTES
1. All dimensions and locations are approximate.
2. Well locations surveyed in 2016 and 2021, some older wells were digitized from a drawing titled "Monitoring Locations and Total Volatile Organic Concentrations, May 2008" by Cannons Engineering, Roux Associates, Inc.
3. Groundwater samples collected by Eastern Analytical in May and June 2021, samples analyzed by Alpha Analytical, Inc.
4. Select CVOCs = select Chlorinated Volatile Organic Compounds (Values taken from the Haley & Aldrich Annual Water Quality Monitoring Report 2023).
5. AGQS = Ambient Groundwater Quality Standards.
6. Select CVOCs:
   PCE = Tetrachloroethene (AGQS=5)
   TCE = Trichloroethene (AGQS=5)
   cis-1,2-DCE = cis-1,2-Dichloroethene (AGQS=70)
   VC = Vinyl Chloride (AGQS=2)
   1,2-DCA = 1,2-Dichloroethane
7. Parcel address source: Town of Londonderry GIS
8. Parcel boundary and road centerline source: NH Granit GIS Clearinghouse (www.granit.unh.edu).
9. Listed concentrations of select CVOCs were obtained from reported values of May 2023. Otherwise, reported concentrations represent most recent sampling round on record.
10. Results posted in parts per billion (ppb).
11. 1.7 - Select CVOC concentration (ppb)
12. ND - Not detected
13. NS - Not sampled

LEGEND

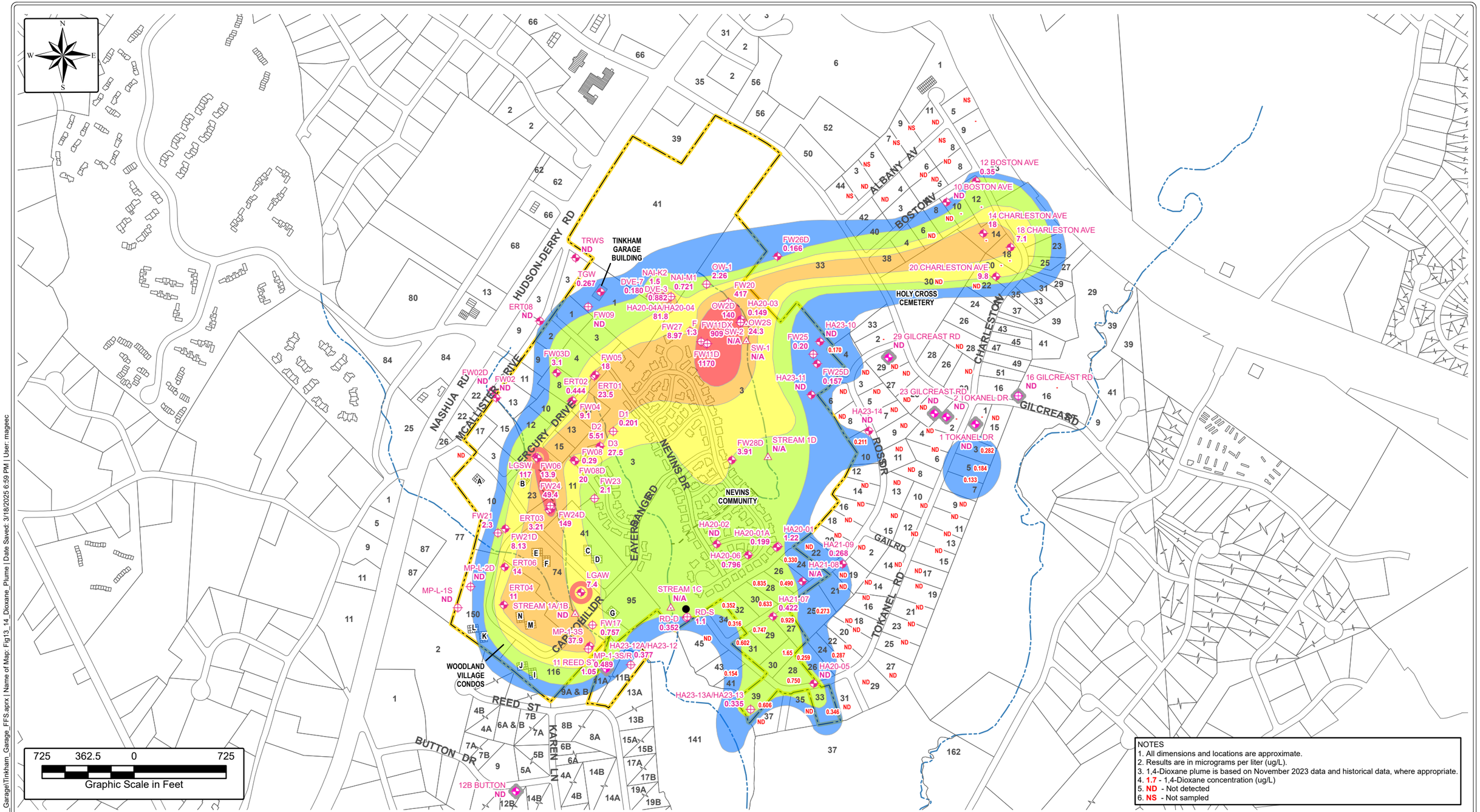
- FORMER WATER SUPPLY WELL
- STREAM
- CULVERT
- SUM OF SELECT CVOCS > 0 - 10 PPB
- SUM OF SELECT CVOCS > 10 - 50 PPB
- SUM OF SELECT CVOCS > 50 - 100 PPB
- SUM OF SELECT CVOCS >100 PPB
- GROUNDWATER MANAGEMENT ZONE
- BEDROCK MONITORING WELL
- OVERBURDEN MONITORING WELL
- SURFACE WATER
- FORMER BEDROCK SUPPLY WELL
- FORMER OVERBURDEN SUPPLY WELL
- PUMP

REPORT DATE: March 2025	PROJECT MANAGER: J. Soukup
SAVED DATE: March 2025	REVIEWER: W. Tifft
PROJECT: Tinkham Garage	CLIENT NAME: NHDES
SPATIAL REFERENCE: NAD 1983 StatePlane New Hampshire FIPS 2800 Feet	SCALE: 1:8,700
	FIGURE NO: 10B

DRAWING TITLE:

SUM OF SELECT CVOCS IN DEEP BEDROCK THROUGH NOVEMBER 2023

TINKHAM GARAGE SITE
LONDONDERRY, NH



NOTES
1. All dimensions and locations are approximate.
2. Results are in micrograms per liter (ug/L).
3. 1,4-Dioxane plume is based on November 2023 data and historical data, where appropriate.
4. 1.7 - 1,4-Dioxane concentration (ug/L)
5. ND - Not detected
6. NS - Not sampled

LEGEND

- BEDROCK MONITORING WELL
- OVERBURDEN MONITORING WELL
- SURFACE WATER
- FORMER BEDROCK SUPPLY WELL
- FORMER OVERBURDEN SUPPLY WELL
- PUMP
- FORMER WATER SUPPLY WELL
- STREAM
- CULVERT
- GROUNDWATER MANAGEMENT ZONE
- 1,4-DIOXANE CONCENTRATION >ND - 0.32 UG/L
- 1,4-DIOXANE CONCENTRATION > 0.32 - 3.0 UG/L
- 1,4-DIOXANE CONCENTRATION > 3.0 - 10 UG/L
- 1,4-DIOXANE CONCENTRATION > 10 - 50 UG/L
- 1,4-DIOXANE CONCENTRATION > 50 UG/L

REPORT DATE: March 2025	PROJECT MANAGER: J. Soukup	DRAWING TITLE: **MAXIMUM 1,4-DIOXANE CONCENTRATIONS 2015 THROUGH 2023** TINKHAM GARAGE SITE LONDONDERRY, NH	
SAVED DATE: March 2025	REVIEWER: W. Tifft		
PROJECT: Tinkham Garage	CLIENT NAME: NHDES		
WESTON SOLUTIONS	SPATIAL REFERENCE: NAD 1983 StatePlane New Hampshire FIPS 2800 Feet	SCALE: 1:8,700	FIGURE NO: 11

Boston
Providence

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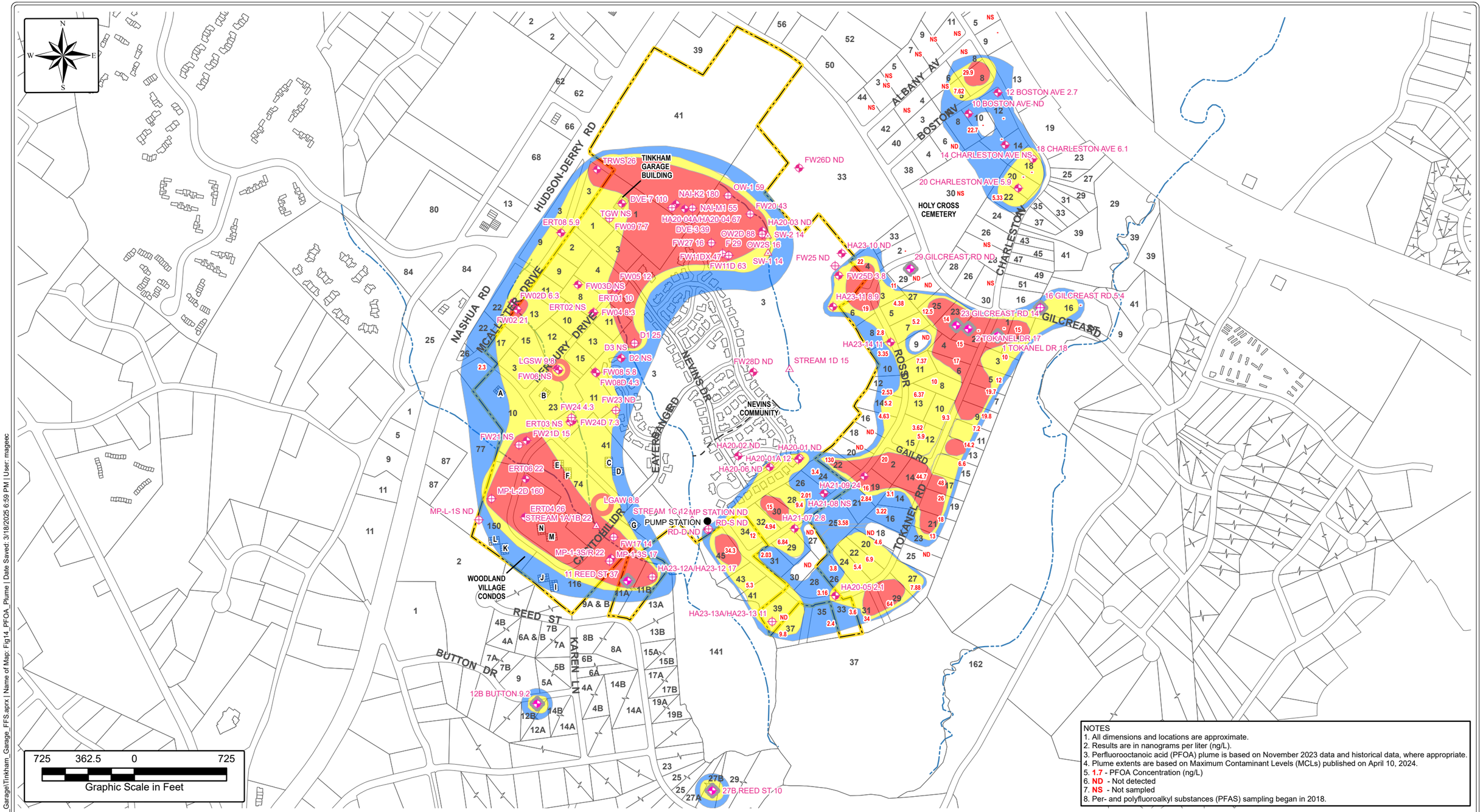

NOTES
1. All dimensions and locations are approximate.
2. Results are in nanograms per liter (ng/L).
3. Perfluorooctanoic acid (PFOA) plume is based on November 2023 data and historical data, where appropriate.
4. Plume extents are based on Maximum Contaminant Levels (MCLs) published on April 10, 2024.
5. **1.7** - PFOA Concentration (ng/L)
6. **ND** - Not detected
7. **NS** - Not sampled
8. Per- and polyfluoroalkyl substances (PFAS) sampling began in 2018.

LEGEND

- FORMER WATER SUPPLY WELL
- BEDROCK MONITORING WELL
- OVERBURDEN MONITORING WELL
- SURFACE WATER
- FORMER BEDROCK SUPPLY WELL
- FORMER OVERBURDEN SUPPLY WELL
- PUMP
- STREAM
- CULVERT
- GROUNDWATER MANAGEMENT ZONE
- PFOA CONCENTRATION >12 NG/L
- PFOA CONCENTRATION >4 - 12 NG/L
- PFOA CONCENTRATION >ND - 4 NG/L
- TG_Community_Road_Extent

REPORT DATE: March 2025	PROJECT MANAGER: J. Soukup	DRAWING TITLE: **MAXIMUM PFOA CONCENTRATION THROUGH NOVEMBER 2023** TINKHAM GARAGE SITE LONDONDERRY, NH	
SAVED DATE: March 2025	REVIEWER: W. Tifft		
PROJECT: Tinkham Garage	CLIENT NAME: NHDES		
WESTON SOLUTIONS	SPATIAL REFERENCE: NAD 1983 StatePlane New Hampshire FIPS 2800 Feet	SCALE: 1:8,700	FIGURE NO: 12A

Boston
Providence

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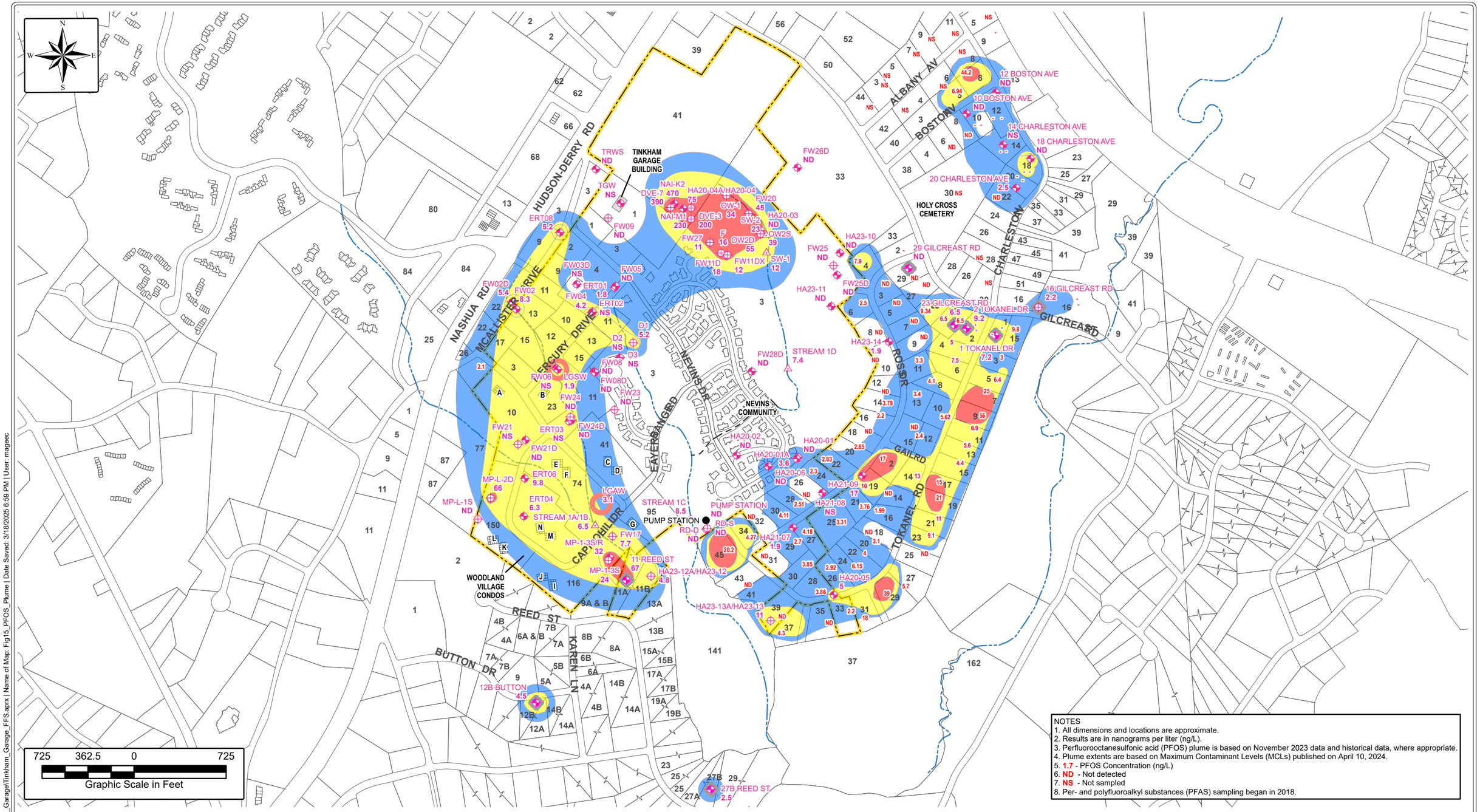

NOTES
1. All dimensions and locations are approximate.
2. Results are in nanograms per liter (ng/L).
3. Perfluorooctanesulfonic acid (PFOS) plume is based on November 2023 data and historical data, where appropriate.
4. Plume extents are based on Maximum Contaminant Levels (MCLs) published on April 10, 2024.
5. **1.7** - PFOS Concentration (ng/L)
6. **ND** - Not detected
7. **NS** - Not sampled
8. Per- and polyfluoroalkyl substances (PFAS) sampling began in 2018.

LEGEND

- FORMER WATER SUPPLY WELL
- BEDROCK MONITORING WELL
- OVERBURDEN MONITORING WELL
- SURFACE WATER
- FORMER BEDROCK SUPPLY WELL
- FORMER OVERBURDEN SUPPLY WELL
- PUMP
- STREAM
- CULVERT
- GROUNDWATER MANAGEMENT ZONE
- PFOS CONCENTRATION >15 NG/L
- PFOS CONCENTRATION >4 - 15 NG/L
- PFOS CONCENTRATION >ND - 4 NG/L

REPORT DATE: March 2025	PROJECT MANAGER: J. Soukup	DRAWING TITLE: **MAXIMUM PFOS CONCENTRATION THROUGH NOVEMBER 2023** TINKHAM GARAGE SITE LONDONDERRY, NH	
SAVED DATE: March 2025	REVIEWER: W. Tifft		
PROJECT: Tinkham Garage	CLIENT NAME: NHDES		
WESTON SOLUTIONS	SPATIAL REFERENCE: NAD 1983 StatePlane New Hampshire FIPS 2800 Feet	SCALE: 1:8,700	FIGURE NO: 12B

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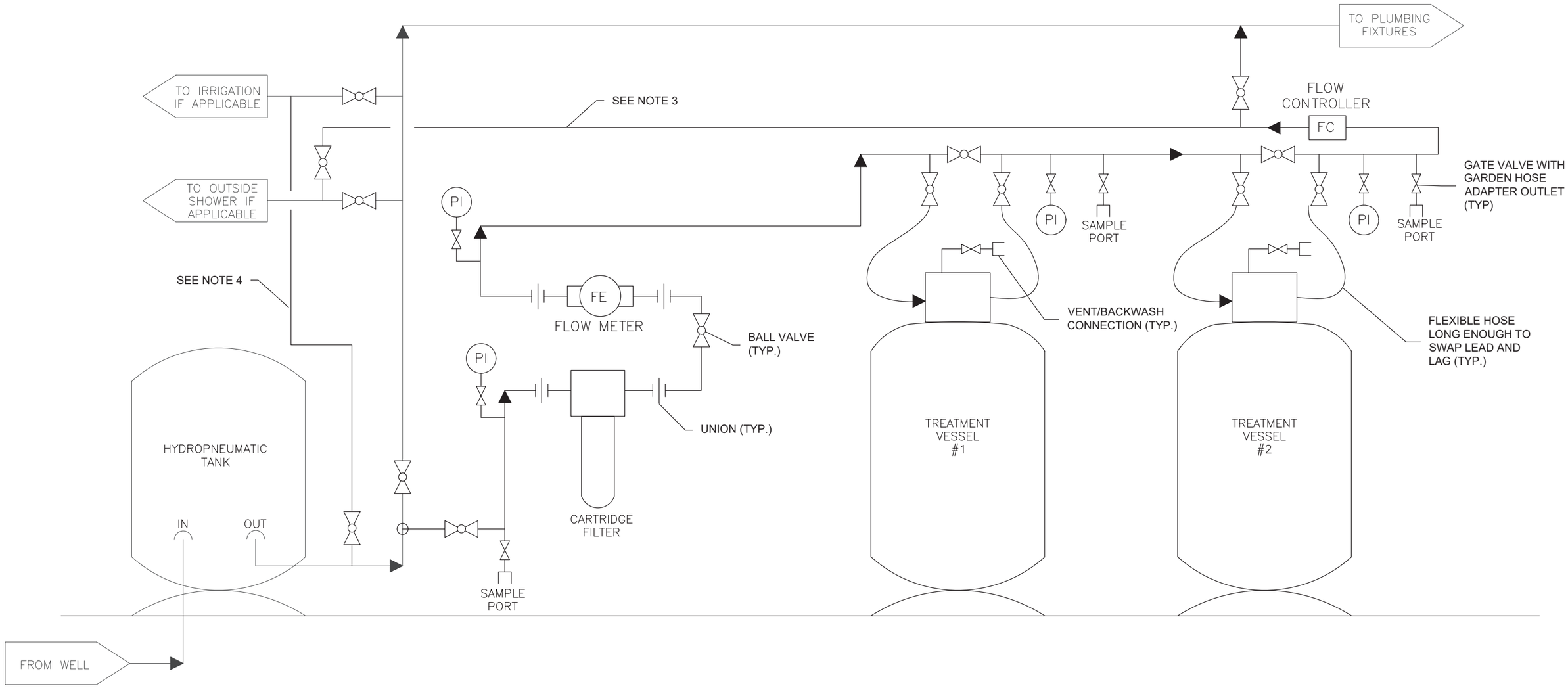


LEGEND

EXISTING

NEW

NOTES

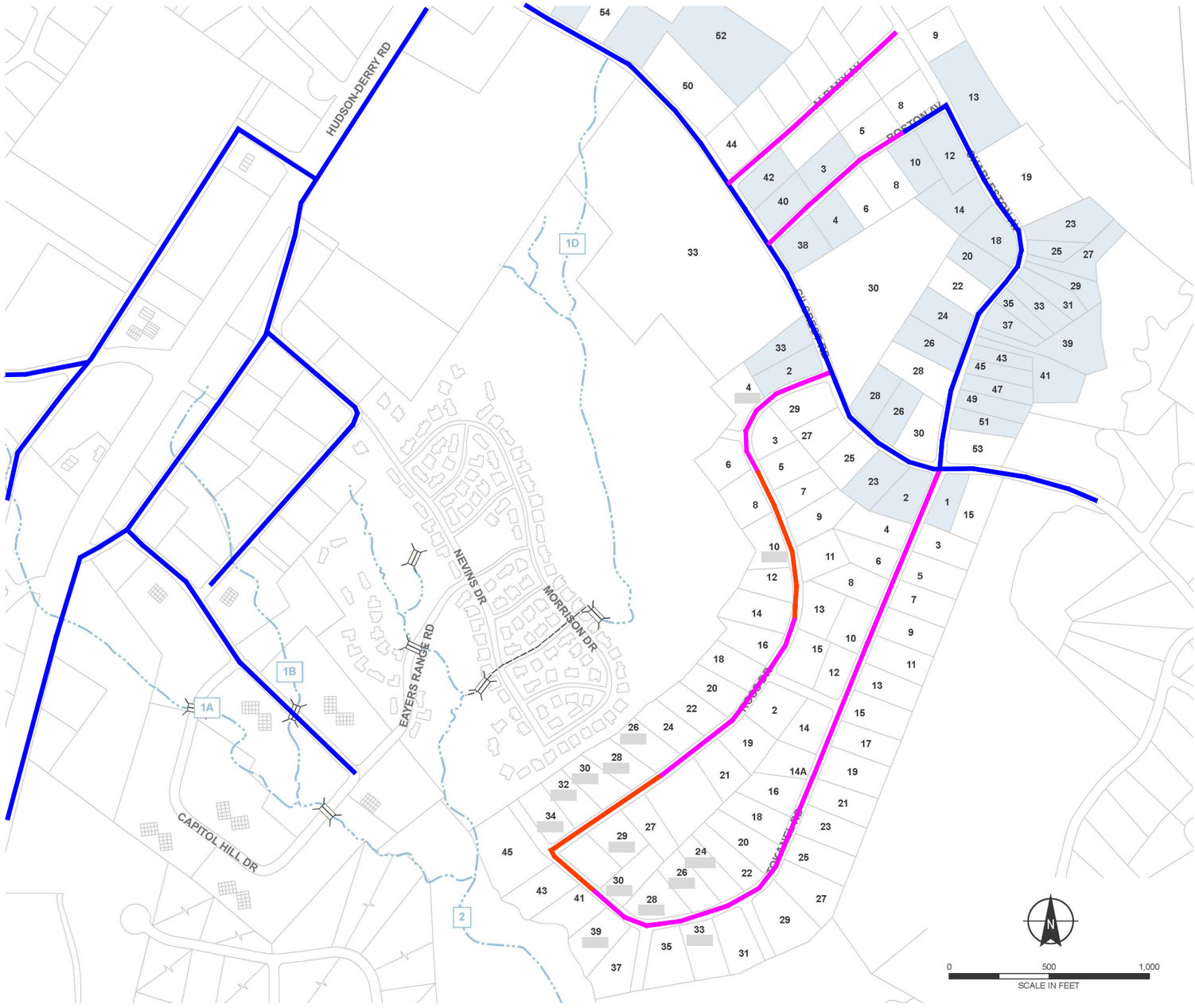
1. BASE POETS TO HAVE ONE CARTRIDGE FILTER,FLOW METER, FLOW REGULATOR AND TWO TREATMENT VESSELS.
2. EACH TREATMENT VESSEL TO HAVE BYPASS AND BACKWASHING HEAD TO ENABLE BACKWASHING.
3. IF OWNER HAS OUTSIDE SHOWER, THE SHOWER SHALL BE CONNECTED TO THE POETS EFFLUENT. A SEPARATE SERVICE MAY BE REQUIRED AS SHOWN.
4. IF OWNER DOES NOT WANT TO CONNECT IRRIGATION TO POETS EFFLUENT, A NEW SERVICE FEED MAY BE REQUIRED AS SHOWN.

CONCORD NEW HAMPSHIRE

TINKHAM GARAGE SITE
LONDONDERR Y , NEW HAMPSHIRE

TYPICAL POINT OF ENTRY TREATMENT SYSTEM (POETS) SCHEMATIC

DRAWN	DATE	DES. ENG.	DATE	W.O. NO.
DCH	JAN 2023			20139.007.002
CHECKED	DATE	SCALE	REVISION	FIGURE NO.
NW	JAN 2023	AS SHOWN		13



GRAPHIC SCALE

600 300 0 300 600

APPROXIMATE SCALE IN FEET

LEGEND

- EXISTING WATER LINE
- NEW WATER LINE
- NEW WATER LINE REQUIRING BEDROCK BLASTING

WESTON SOLUTIONS®

CONCORD NEW HAMPSHIRE

TINKHAM GARAGE SITE
LONDONDERR Y , NEW HAMPSHIRE

PROPOSED WATER LINE

DRAWN	DATE	DES. ENG.	DATE	W.O. NO.
DCH	JAN 2023			20139.007.002
CHECKED	DATE	SCALE	REVISION	FIGURE NO.
NW	JAN 2023	AS SHOWN		14

Appendix D

ARARs TABLES

Appendix D
Applicable or Relevant and Appropriate Requirements (ARARs)
Tinkham Garage Superfund Site - Interim Action

Requirement	Citation	Status	Requirement Synopsis	Action to be Taken to Comply
Chemical-Specific ARARs				
Federal Requirements				
Maximum Contaminant Levels (MCLs) promulgated under the Safe Drinking Water Act (42 U.S.C. § 300f *et seq*.); National Primary Drinking Water Regulations	40 C.F.R. 141.61	Relevant and Appropriate for Alternative 3	Establishes maximum contaminant levels (MCLs) for common organic and inorganic contaminants applicable to public drinking water supplies. These levels regulate the concentration of contaminants in public drinking water supplies.	POET Systems (Alternative 3) would be required to treat groundwater coming into a water supply well to meet these requirements for Site COCs prior to use as drinking water.
Safe Drinking Water Act (42 U.S.C. § 300f *et seq*.); National primary drinking water regulations	40 C.F.R. 141.53	Relevant and Appropriate for Alternative 3	Establishes maximum contaminant level goals (MCLGs) for public water supplies for disinfection byproducts. MCLGs are health goals for drinking water sources. These unenforceable health goals are available for a number of organic and inorganic compounds.	POET Systems (Alternative 3) would be required to treat groundwater coming into a water supply well to meet the MCLG for chloroform (0.07 mg/L) prior to use as drinking water.
EPA Risk Reference Dose (RfDs)	EPA Integrated Risk Information System (IRIS) https://www.epa.gov/iris/basic-information-about-integrated-risk-information-system	To Be Considered for Alternatives 2, 3 and 4	Dose levels developed by EPA to protect sensitive individuals over the course of a lifetime. RfDs reflect a daily exposure level likely to be without appreciable risk of adverse health effects.	Potential risks posed by chemicals in groundwater at the Site were evaluated in accordance with this guidance.

Appendix D
Applicable or Relevant and Appropriate Requirements (ARARs)
Tinkham Garage Superfund Site - Interim Action

Requirement	Citation	Status	Requirement Synopsis	Action to be Taken to Comply
EPA Carcinogenicity Slope Factor	EPA Integrated Risk Information System (IRIS) https://www.epa.gov/iris/basic-information-about-integrated-risk-information-system	To Be Considered for Alternatives 2, 3 and 4	Slope factors are developed by EPA from Health Effects Assessments and present the most up-to-date information on cancer risk potency. Slope factors are developed by EPA from Health Effects Assessments by the Carcinogenic Assessment Group.	Potential risks posed by chemicals in groundwater at the Site were evaluated in accordance with this guidance.
Health Advisories (EPA Office of Drinking Water)	2018 Edition of the Drinking Water Standards and Health Advisories Tables	To Be Considered for Alternative 3	Health Advisories are estimates of risk due to consumption of contaminated drinking water; they consider non-carcinogenic effects only. To be considered for contaminants in groundwater that may be used for drinking water where the standard is more conservative than either federal or state statutory or regulatory standards.	Health Advisories will be considered in the design of POET Systems for treatment of groundwater (Alternative 3) for each household.
State Requirements				
New Hampshire Groundwater Protection Act Ambient Groundwater Quality Standards	RSA 485-C:6 NH Admin. Code Env-Or 603.03 Table 600-1	Relevant and Appropriate for Alternative, 3	Establishes ambient groundwater quality standards (AGQSs) for regulated contaminants, which result from human operations or activities. NH AGQSs are derived to be protective for drinking water uses and are equivalent to MCLs for contaminants that have MCLs. AGQS are considered drinking water standards if a New Hampshire MCL standard has not been developed for a particular compound.	For Site COCs for which there are no federal or state MCLs or non-zero MCLGs and for which a more stringent risk-based federal standard has not been selected, POET Systems (Alternative 3) would be required to treat groundwater coming into a water supply well to meet the NH AGQS prior to use as drinking water.

Appendix D
Applicable or Relevant and Appropriate Requirements (ARARs)
Tinkham Garage Superfund Site - Interim Action

Requirement	Citation	Status	Requirement Synopsis	Action to be Taken to Comply
Action-Specific ARARs				
Federal Requirements				
USEPA Guidance Document for Providing Alternate Water ***Supplies***	EPA 540/G-87/006 OSWER Directive 9355.3-03 (February 1988) and its update for Providing Alternative Water Supply as part of Superfund Response Actions, OSWER Directive 9355.3-22 (September 2010)	To Be Considered for Alternatives 2, 3, and 4	Provides technical guidance on the evaluation and selection of alternate water supply remedies.	This guidance would be consulted when evaluating the need for and evaluation of options for alternative water supply at Superfund Sites.
Clean Air Act, Section 112(b)(1), National Emissions Standards for Hazardous Air Pollutants (NESHAPs)	42 USC 7412(b)(1) 40 CFR Part 61	Applicable for Alternative 4	Establish emissions standards for 189 hazardous air pollutants. Standards set for dust and other release sources.	Any monitoring of air emissions during remedial activities, including during excavation activities for installation of the water line extension and connection of homes to the water line, will be performed to assess compliance with the substantive requirements of these standards.

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Applicable or Relevant and Appropriate Requirements (ARARs)
Tinkham Garage Superfund Site - Interim Action

Requirement	Citation	Status	Requirement Synopsis	Action to be Taken to Comply
Clean Water Act Section 402, Discharge of Pollutants	33 USC 1342; 40 CFR 122, 136, 450	Relevant and Appropriate for Alternative 4	These regulations establish standards for the control and discharge of stormwater from construction projects that exceed one acre.	Any remedial action, including the construction of the waterline, that will result in discharge to surface waters or that will disturb more than one acre will meet the substantive parts of these discharge and stormwater standards.
Resource Conservation and Recovery Act (RCRA) Subtitle C; Hazardous Waste Identification and Listing Regulations; Generator and Handler Requirements	40 CFR Parts 261 and 262	Applicable for Alternative 3	These regulations establish standards used to identify, manage, and dispose of hazardous waste and for generators of hazardous waste, as defined by 40 C.F.R. § 261.3. New Hampshire has been delegated the authority to administer these RCRA standards through its state hazardous waste management regulations. These provisions have been adopted by the State.	Any wastes generated by remedial activity will be analyzed by appropriate test methods. If found to be hazardous wastes, then they will be managed in accordance with the substantive requirements of the State hazardous waste regulations. Wastes that may be generated include investigation derived waste from monitoring activities and contaminated treatment media produced during O&M of the POET systems...
Guide to Management of Investigation-Derived Waste	EPA OSWER Publication 9345.3-05 FS (Jan. 1992)	To Be Considered for Alternatives 2, 3, and 4	Management of Investigation-Derived Waste (IDW) must ensure protection of human health and the environment.	This guidance will be considered to ensure IDW will be managed in a manner to protect human health and the environment.

Appendix D
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Requirement	Citation	Status	Requirement Synopsis	Action to be Taken to Comply
State Requirements				
Safe Alternate Water	NH Admin. Code Env-Or 603.04	Relevant and Appropriate for Alternatives 2, 3 and 4	Mandates the provision of potable water to well owners impacted by contamination exceeding AGQSs. Responsible parties (RPs) must provide bottled water as an interim measure until one of the two long-term alternative water supplies is established: • Installing, testing, and maintaining a point-of-entry water treatment system at each affected structure; or, • Connecting each affected structure to a public water system. Connection to a public water system is required whenever practicable and consistent with applicable laws and rules.	The interim remedial action will comply with the substantive portions of these requirements until a final determination on Site groundwater is developed.
Identification and Listing of Hazardous Wastes	NH Admin Code Chapter Env-Hw 400	Applicable to Alternative 3	These standards list particular hazardous wastes and identify the maximum concentration of contaminants for which the waste would be a RCRA characteristic waste. The analytical test set out in Appendix II of 40 C.F.R. Part 261 is referred to as the Toxicity Characteristic Leaching Procedure (TCLP). The federal requirements 40 C.F.R. Part 261 are incorporated by reference.	Any wastes generated by remedial activities will be analyzed by appropriate test methods to determine if they are hazardous. If found to be hazardous waste, they will be managed in accordance with the substantive requirements of the State hazardous waste regulations. Wastes that may be generated include investigation derived waste from monitoring activities and contaminated treatment media produced during O&M of the POET systems.

Appendix D
Applicable or Relevant and Appropriate Requirements (ARARs)
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Requirement	Citation	Status	Requirement Synopsis	Action to be Taken to Comply
Requirements for Hazardous Waste Generators	NH Admin Code Chapter Env-Hw 500, including Part 507 Storage Requirements; Part 513 Emergency/ Remedial Actions	Applicable to Alternative 3	Requires a determination as to whether waste materials are hazardous and, if so, requirements for managing such materials on site prior to shipment off site. The federal requirements 40 C.F.R. Part 262 are incorporated by reference.	If any remedial activity generates hazardous wastes, then it will be managed in accordance with the substantive requirements of these regulations. Design of POET systems will comply with these requirements if the spent treatment media are determined to be hazardous.
New Hampshire Fugitive Dust Standards	RSA Ch. 125-C NH Admin Code Chapter Env-A 1002	Applicable to Alternative 4	Set requirements for the control of fugitive emissions and dust.	Compliance with these requirements will be required during excavation activities for installation of the water line extension and connection of homes to the water line.
New Hampshire Code of Administrative Rules We 600 Standards for Construction, Maintenance and Abandonment of Wells	RSA 482-B NH Admin. Code Chapter We 600	Applicable to Alternative 4	These rules provide standards for the construction, maintenance, and abandonment of water wells to ensure safety and environmental protection.	Decommissioning of former private water supply wells following construction of the waterline must comply with substantive portions of the decommissioning requirements.

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Applicable or Relevant and Appropriate Requirements (ARARs)
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Requirement	Citation	Status	Requirement Synopsis	Action to be Taken to Comply
New Hampshire Administrative Rules for Public Water System Classification and Design	NH Admin. Code Env-Dw 402 – 404	Applicable for Alternative 4	Establishes standards for the classification, siting, and design of public water systems to ensure safe and reliable drinking water. It includes specific parts addressing well siting requirements, hydrogeologic studies, and design standards for public water supply systems. The chapter also covers prohibitions on lead, and the adoption of referenced standards to maintain water quality and system integrity.	The design and installation of the water line extension and connection of homes to the water line will comply with the substantive requirements of these standards.
Location-Specific ARARs				
Federal Requirements				
Clean Water Act Section 404(b)(1) Guidelines for Specification of Disposal Sites for Dredged or Fill Requirements	33 USC 1344 40 CFR 230; 33 CFR 320-323	Applicable for Alternative 4	Outlines requirements for the discharge of dredged or fill materials into surface waters including wetlands. Such discharges are not allowed if there are practicable alternatives with less adverse impacts. If adverse impacts are unavoidable, action must be taken to restore or create alternative wetlands. EPA must determine which alternative is the least environmentally damaging practicable alternative to protect wetland and aquatic resources.	Jurisdictional waters may be present at the Site and within the nearby neighborhoods. Installation of wells, construction associated with the water line and household connections may be necessary in these areas. If avoidance of these areas is not feasible, appropriate actions will be taken to minimize or mitigate any project related impacts.

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Applicable or Relevant and Appropriate Requirements (ARARs)
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Requirement	Citation	Status	Requirement Synopsis	Action to be Taken to Comply
Floodplain Management and Protection of Wetlands	44 C.F.R. § 9	Relevant and Appropriate for Alternative 4	FEMA regulations that set forth the policy, procedure and responsibilities to implement and enforce Executive Order 11988 (Floodplain Management) and Executive Order 11990 (Protection of Wetlands). Prohibits activities that adversely affect a federally regulated wetland unless there is no practicable alternative, and the proposed action includes all practicable measures to minimize harm to wetlands that may result from such use. Requires the avoidance of impacts associated with the occupancy and modification of federally designated 100-year and 500-year floodplain and to avoid development within floodplain wherever there is a practicable alternative. An assessment of impacts to 500-year floodplain is required for critical actions. Requires public notice when proposing any action in or affecting floodplain or wetlands.	Portions of the proposed water line extension (within the neighborhoods) may be located within the 500-year floodplain of Beaver Brook. Given the current extent of residential development, it may be impracticable to avoid the siting for the waterline within the 500-year floodplain or relocate the water line; however, an assessment of impacts may be needed. Public comment will be solicited on the proposed impacts to federal floodplain and wetland resources.
Endangered Species Act	16 U.S.C. 1531-1544; 50 CFR 17.11 and 17.12; 50 CFR 402	Applicable for Alternative 4 if endangered species are identified	This statute requires that federal agencies avoid activities that jeopardize threatened or endangered species or adversely modify habitats essential to their survival. Mitigation measures should be considered if a listed species or habitat may be jeopardized.	An evaluation into endangered or threatened species in the project area will be performed during remedial design. If present, actions will be taken to avoid impacts to these species or their habitats.

Appendix D
Applicable or Relevant and Appropriate Requirements (ARARs)
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Requirement	Citation	Status	Requirement Synopsis	Action to be Taken to Comply
National Historic Preservation Act	54 USC 306101 et seq. 36 CFR Part 800	Applicable for Alternative 4, if such resources are identified	Pursuant to Sections 106 and 110(f) of the NHPA, CERCLA response actions are required to take into account the effects of the response activities on any historic property included or eligible for inclusion on the national Register of Historic Places.	If protected resources are identified in the area, measures to avoid, minimize and/or mitigate any adverse effects to protected resources will be implemented in consultation with federal and state historic preservation officials.
Preservation of Historical and Archeological Data and regulations	54 USC § 312501 *et seq.* 43 CFR Part 7	Applicable for Alternative 4, if such data are identified	Establishes procedures to provide for preservation of historical and archeological data which might be destroyed through alterations of terrain as a result of a federal construction project or a federally licensed activity program.	If during the remedial action it is determined that this remedial action may cause irreparable loss or destruction of significant scientific, prehistorical, historical, or archeological data, EPA will notify state, tribal, or federal authorities and comply with the substantive requirements in the statute and regulations.
Fish and Wildlife Coordination Act	16 U.S.C 661-666c 40 CFR Part 6	Applicable for Alternative 4	Requires consideration of the effects of a proposed action on wetlands and areas affecting streams (including floodplains), as well as other protected habitats. Any action that affects species/habitat requires consultation with US DOI, USFWS, and/or state agencies, as appropriate, to ensure that proposed action does not jeopardize the continued existence of the species or adversely modify or destroy critical habitat. Action must be taken to prevent, mitigate or compensate for project related damages or losses to fish and wildlife resources.	If this interim Remedy alters wildlife habitat, it will comply with this ARAR through appropriate consultation and implementation of measures to prevent, mitigate, or compensate for project related impacts to habitat and wildlife.

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Applicable or Relevant and Appropriate Requirements (ARARs)
Tinkham Garage Superfund Site - Interim Action

Requirement	Citation	Status	Requirement Synopsis	Action to be Taken to Comply
State Requirements				
Wetlands Protection,# Excavating and Dredging	RSA 482-A NH Admin. Code Env-Wt Parts 300-700	Relevant and Appropriate for Alternative 4, if remedial activities are conducted within RSA 482-A Fill and Dredge in Wetlands Act jurisdictional areas	Outlines the requirements necessary when conducting activities within New Hampshire wetlands jurisdictional areas.	Remedial activities including water line construction, well decommissioning activities, and other remedial activities in wetlands jurisdictional areas must comply with the substantive provisions of these wetlands protection requirements.
Alteration of Terrain Permits	RSA 485-A:17 NH Admin. Code Env-Wq 1500	Applicable for Alternative 4, if any remedial activities are in or on the border of a state surface water or would significantly alter the characteristics of the terrain	Establishes criteria for conducting any activity that involves dredging, excavation, mining, forest production transportation, or construction in or near state surface waters or which significantly alters terrain and impedes natural runoff or creates unnatural runoff activities.	If any remedial activities, including excavation and construction associated with the water line, borders the surface waters of a state or significantly alters the characteristics of the terrain in such a manner as to impede the natural runoff or create an unnatural runoff, activities will comply with the substantive requirements of these provisions.
Historic Preservation Act	NH RSA 227-C	Applicable for Alternative 4, if such data are identified	The Act regulates the archeological discovery, investigation, analysis, and disposition of human remains removed from unmarked burials in New Hampshire.	If unmarked human burials or human remains are identified, activities will comply with the substantive provisions of these requirements.

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Requirement	Citation	Status	Requirement Synopsis	Action to be Taken to Comply
New Hampshire Native Plant Protection Act	NH RSA 217-A NH Admin. Code Ncr 312	Applicable for Alternative 4, if protected species are present	Prohibits the taking, possession, selling, offer for sale, delivery, carrying, transport, or shipment of any protected species from public highways, public property, waters of the state or from property of another. Protected species are listed in Ncr 312.	Remedial activities should not jeopardize the continued existence of any protected plant species.
Endangered Species Conservation Act	NH RSA 212-A NH Admin. Code Chapter Fis 1000	Applicable for Alternative 4, if protected species are present	This chapter serves to protect species of wildlife that are threatened and endangered.	The New Hampshire Fish and Game Department should be consulted to determine if there are endangered or threatened species that exist at the site. Any recommendations from New Hampshire Fish and Game consistent with RSA 212-A should be implemented with respect to this remedial action alternative. Remedial activities should not jeopardize the continued existence of any protected species.

Appendix E

ACRONYMS AND ABBREVIATIONS

LIST OF ACRONYMS

1,1-DCA	1,1-dichloroethane
1,1-DCE	1,1-dichloroethene
1,1,1-TCA	1,1,1-trichloroethane
AGQS	ambient groundwater quality standards
ARAR	applicable or relevant and appropriate requirements
CD	consent decree
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
cDCE	cis-1,2-dichloroethene
COC	contaminants of concern
CEC	Cannon Engineering Corporation
CSG	Cannon's Site Group
CSM	Conceptual Site Model
EPA	United States Environmental Protection Agency
ESD	Explanation of Significant Differences
FFS	Focused Feasibility Study
ft	feet/foot
ft^3	cubic feet
GAC	granular activated carbon
GMP	groundwater management permit
GMZ	groundwater management zone
gpm	gallons per minute
HASP	Health and Safety Plan
H&A	Haley and Aldrich
HI	hazard index
IC	institutional controls
IROD	Interim Record of Decision
LCR	lifetime cancer risk
LTM	long-term monitoring
Memorandum	Remedial Investigation Summary Memorandum (2024)
MCL	maximum contaminant level
µg/L	micrograms per liter
mg/kg	milligrams per kilogram

LIST OF ACRONYMS (Continued)

mg/L	milligrams per liter
MNA	monitored natural attenuation
MOM	management of migration
MtBE	methyl tert-butyl ether
ng/l	nanograms per liter
NCP	National Oil and Hazardous Substance Pollution Contingency Plan
NH	New Hampshire
NHDES	New Hampshire Department of Environmental Services
NPDES	National Pollution Discharge Elimination System
N.H. Env	New Hampshire Code of Administrative Rules
NPV	net present value
O&M	operation and maintenance
P&T	pump and treat
PCE	tetrachloroethene
%	percent
PFAS	Per- and Polyfluorinated Alkyl substances
POET	Point of Entry Treatment System
ppb	parts per billion
ppm	parts per million
ppt	parts per trillion
PRG	preliminary remediation goals
PS	performance standards
RAO	remedial action objectives
RCRA	Resource Conservation and Recovery Act
RI	*Remedial Investigation*
ROD	*Record of Decision*
RSLs	regional screening levels
Site	Tinkham Garage Superfund Site
SLCR	screening level cancer risks
SLHI	screening level hazard indices
SLHQ	screening level hazard quotients
SLRA	screening level risk assessment

SP	settling parties

LIST OF ACRONYMS (Concluded)

SVE	soil vapor extraction
TCE	trichloroethene
TMV	toxicity, mobility, and volume
tDCE	trans-1,2-dichloroethene
U.S.C.	United States Code
VOC	volatile organic compound
Weston®	Weston Solutions, Inc.
WSPCC	New Hampshire Water Supply and Pollution Control Commission

Appendix F

Administrative Record Index and Guidance Documents

AR 67974, AR 67977, & AR 68042 **Tinkham Garage OU2 Record of Decision (ROD) Administrative Record** **Oct0ber 2025**

Document ID	Title	Document Date	Page Count	Resource Type	Program Information	Author	Addressee	Access Control	Region	URL
695918	INTERIM RECORD OF DECISION (ROD)	09/30/2025	160	RPT / Report	053-REMEDIAL/0531-Remedy Characterization/05.04-RECORD OF DECISION (ROD)	R01: (US EPA REGION 1)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/695918
695919	RESPONSIVENESS SUMMARY FOR INTERIM RECORD OF DECISION (ROD)	09/30/2025	40	RPT / Report	053-REMEDIAL/0531-Remedy Characterization/05.03-RESPONSIVENESS SUMMARIES	R01: (US EPA REGION 1)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/695919
695914	LETTER REGARDING DECLARATION OF CONCURRENCE WITH 2025 RECORD OF DECISION (ROD) FOR AN INTERIM ACTION	09/26/2025	3	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/05.04-RECORD OF DECISION (ROD)	R01: Wimsatt, Michael J (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	R01: Olson, Bryan (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/695914
100036553	PUBLIC COMMENT ON INTERIM RECORD OF DECISION (ROD) PROPOSED PLAN FOR TINKHAM GARAGE	08/26/2025	4	ROC/Recpord of Communication	053-REMEDIAL/0531-Remedy Characterization/05.03-RESPONSIVENESS SUMMARIES	R01: Mulhollard, Shawn (LONDONDERRY (NH) TOWN OF)	R01: (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/100036553
100036550	PUBLIC COMMENT ON INTERIM RECORD OF DECISION (ROD) PROPOSED PLAN FOR TINKHAM GARAGE	08/26/2025	391	ROC/Recpord of Communication	053-REMEDIAL/0531-Remedy Characterization/05.03-RESPONSIVENESS SUMMARIES	R01: Jaffe, Seth (FOLEY HOAG LLP), R01: (CANNONS SITES GROUP), R01: (HALEY & ALDRICH INC)	R01: (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/100036550
100036551	PUBLIC COMMENT ON INTERIM RECORD OF DECISION (ROD) PROPOSED PLAN FOR TINKHAM GARAGE	08/26/2025	1	ROC/Recpord of Communication	053-REMEDIAL/0531-Remedy Characterization/05.03-RESPONSIVENESS SUMMARIES	R01: Mansfield, Rick (LONDONDERRY (NH) RESIDENT)	R01: (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/100036551
694764	PUBLIC COMMENT ON INTERIM RECORD OF DECISION (ROD) PROPOSED PLAN FOR TINKHAM GARAGE	08/26/2025	3	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/05.03-RESPONSIVENESS SUMMARIES	R01: (TINKHAM GARAGE SETTLING PARTIES), R01: Lucic, Robert R (SHEEHAN PHINNEY)	R01: Sprague, Cheryl (US EPA RGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/694764
694763	PUBLIC COMMENT ON INTERIM RECORD OF DECISION (ROD) PROPOSED PLAN FOR TINKHAM GARAGE	08/25/2025	1	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/05.03-RESPONSIVENESS SUMMARIES	R01: Hassan, Margaret Wood (US SENATE), R01: Pappas, Chris (US CONGRESS), R01: Shaheen, Jeanne (US SENATE)	R01: Sanborn, Mark (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/694763
100036552	PUBLIC COMMENT ON INTERIM RECORD OF DECISION (ROD) PROPOSED PLAN FOR TINKHAM GARAGE	08/21/2025	2	ROC/Recpord of Communication	053-REMEDIAL/0531-Remedy Characterization/05.03-RESPONSIVENESS SUMMARIES	R01: Hindes, Tonya L (LONDONDERRY (NH) RESIDENT)	R01: (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/100036552
694769	REDACTED PUBLIC COMMENT ON INTERIM RECORD OF DECISION (ROD) PROPOSED PLAN FOR TINKHAM GARAGE	08/10/2025	2	EML / Email	053-REMEDIAL/0531-Remedy Characterization/05.03-RESPONSIVENESS SUMMARIES	R01: (LONDONDERRY (NH) RESIDENT)	R01: Sprague, Cheryl (US EPA RGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/694769
694768	PUBLIC COMMENT ON INTERIM RECORD OF DECISION (ROD) PROPOSED PLAN FOR TINKHAM GARAGE	08/10/2025	2	EML / Email	053-REMEDIAL/0531-Remedy Characterization/05.03-RESPONSIVENESS SUMMARIES	R01: (LONDONDERRY (NH) RESIDENT)	R01: Sprague, Cheryl (US EPA RGION 1)	PRVY / Controlled/General Privacy	01	N/A
694767	REDACTED PUBLIC COMMENT ON INTERIM RECORD OF DECISION (ROD) PROPOSED PLAN FOR TINKHAM GARAGE	08/08/2025	1	EML / Email	053-REMEDIAL/0531-Remedy Characterization/05.03-RESPONSIVENESS SUMMARIES	R01: (LONDONDERRY (NH) RESIDENT)	R01: Sprague, Cheryl (US EPA RGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/694767
694766	PUBLIC COMMENT ON INTERIM RECORD OF DECISION (ROD) PROPOSED PLAN FOR TINKHAM GARAGE	08/08/2025	1	EML / Email	053-REMEDIAL/0531-Remedy Characterization/05.03-RESPONSIVENESS SUMMARIES	R01: (LONDONDERRY (NH) RESIDENT)	R01: Sprague, Cheryl (US EPA RGION 1)	PRVY / Controlled/General Privacy	01	N/A
695913	REDACTED PUBLIC COMMENT ON INTERIM RECORD OF DECISION (ROD) PROPOSED PLAN FOR TINKHAM GARAGE	07/31/2025	1	EML / Email	053-REMEDIAL/0531-Remedy Characterization/05.03-RESPONSIVENESS SUMMARIES	R01: Domeny, Douglas W (LONDONDERRY (NH) RESIDENT)	R01: Sprague, Cheryl (US EPA RGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/695913
694765	PUBLIC COMMENT ON INTERIM RECORD OF DECISION (ROD) PROPOSED PLAN FOR TINKHAM GARAGE	07/31/2025	1	EML / Email	053-REMEDIAL/0531-Remedy Characterization/05.03-RESPONSIVENESS SUMMARIES	R01: Domeny, Douglas W (LONDONDERRY (NH) RESIDENT)	R01: Sprague, Cheryl (US EPA RGION 1)	PRVY / Controlled/General Privacy	01	N/A
100036547	PUBLIC COMMENT ON INTERIM RECORD OF DECISION (ROD) PROPOSED PLAN FOR TINKHAM GARAGE	07/30/2025	2	ROC/Recpord of Communication	053-REMEDIAL/0531-Remedy Characterization/05.03-RESPONSIVENESS SUMMARIES	R01: Nash, Denise (LONDONDERRY (NH) RESIDENT)	R01: (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/100036547
694712	TRANSCRIPT OF PUBLIC HEARING ON PROPOSED PLAN FOR ALTERNATIVE WATER SUPPLY	07/29/2025	55	MTG / Meeting Document	051-COMMUNITY INVOLVEMENT/0511-Community Involvement Activities/13.04-PUBLIC MEETINGS/HEARINGS	R01: Mcavoy, Elizabeth C (BOSTON COURT REPORTERS)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/694712
100036548	PUBLIC COMMENT ON INTERIM RECORD OF DECISION (ROD) PROPOSED PLAN FOR TINKHAM GARAGE	07/26/2025	1	ROC/Recpord of Communication	053-REMEDIAL/0531-Remedy Characterization/05.03-RESPONSIVENESS SUMMARIES	R01: Domeny, Douglas W (LONDONDERRY (NH) RESIDENT)	R01: (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/100036548
100036549	PUBLIC COMMENT ON INTERIM RECORD OF DECISION (ROD) PROPOSED PLAN FOR TINKHAM GARAGE	07/26/2025	1	ROC/Recpord of Communication	053-REMEDIAL/0531-Remedy Characterization/05.03-RESPONSIVENESS SUMMARIES	R01: Flint, Gordon (LONDONDERRY (NH) RESIDENT), R01: Flint, Carol (LONDONDERRY (NH) RSIDENT)	R01: (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/100036549
100036546	PUBLIC COMMENT ON INTERIM RECORD OF DECISION (ROD) PROPOSED PLAN FOR TINKHAM GARAGE	07/25/2025	1	ROC/Recpord of Communication	053-REMEDIAL/0531-Remedy Characterization/05.03-RESPONSIVENESS SUMMARIES	R01: Anonymous	R01: (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/100036546
694794	NEWS RELEASE: EPA ANNOUNCES A PROPOSED PLAN TO ADDRESS DRINKING WATER CONTAMINATION AT NEW HAMPSHIRE SUPERFUND SITE (UPDATED)	07/24/2025	1	PUB / Publication	051-COMMUNITY INVOLVEMENT/0511-Community Involvement Activities/13.03-NEWS CLIPPINGS/PRESS RELEASES	R01: (US EPA REGION 1)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/694794
693658	LETTER RESPONDING TO REQUEST FOR EXTENSION TO PUBLIC COMMENT PERIOD FOR THE PROPOSED PLAN	07/18/2025	1	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/05.01-CORRESPONDENCE (ROD)	R01: Sprague, Cheryl L (US EPA REGION 1)	R01: Majer, Todd (DE MAXIMIS INC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/693658
100036545	PUBLIC COMMENT ON INTERIM RECORD OF DECISION (ROD) PROPOSED PLAN FOR TINKHAM GARAGE	07/13/2025	1	ROC/Recpord of Communication	053-REMEDIAL/0531-Remedy Characterization/05.03-RESPONSIVENESS SUMMARIES	R01: Anonymous	R01: (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/100036545
693657	LETTER REQUESTING EXTENSION TO PUBLIC COMMENT PERIOD FOR THE PROPOSED PLAN	07/12/2025	1	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/05.01-CORRESPONDENCE (ROD)	R01: Majer, Todd (DE MAXIMIS INC), R01: (CANNONS SITES GROUP)	R01: Sprague, Cheryl L (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/693657

693630	NEWS RELEASE: EPA ANNOUNCES A PROPOSED PLAN TO ADDRESS DRINKING WATER CONTAMINATION AT NEW HAMPSHIRE SUPERFUND SITE	07/11/2025	1	PUB / Publication	051-COMMUNITY INVOLVEMENT/0511-Community Involvement Activities/13.03-NEWS CLIPPINGS/PRESS RELEASES	R01: (US EPA REGION 1)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/693630
693642	NEWS ARTICLE: EPA RELEASES PLAN TO ADDRESS DRINKING WATER CONTAMINATION AT LONDONDERRY SUPERFUND SITE	07/11/2025	1	PUB / Publication	051-COMMUNITY INVOLVEMENT/0511-Community Involvement Activities/13.03-NEWS CLIPPINGS/PRESS RELEASES	R01: Feely, Paul (NEW HAMPSHIRE UNION LEADER)		COPY(Conrolled/Copyright)	01	https://www.unionleader.com/news/environment/epa-releases-plan-to-address-drinking-water-contamination-at-londonderry-superfund-site/article_8b10af0f-b786-46ec-a988-be6d45be9f63.html
100035451	PRESENTATION: PROPOSED PLAN FOR ALTERNATIVE WATER SUPPLY, PUBLIC MEETING	07/10/2025	30	MTG / Meeting Document	051-COMMUNITY INVOLVEMENT/0511-Community Involvement Activities/13.04-PUBLIC MEETINGS/HEARINGS	R01: (US EPA REGION 1)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/100035451
693616	PUBLIC NOTICE AS APPEARING IN LONDONDERRY TIMES: EPA SOLICITING PUBLIC COMMENTS ON A PROPOSED PLAN FOR AN INTERIM REMEDY AT THE TINKHAM GARAGE SUPERFUND SITE	07/10/2025	1	PUB / Publication	051-COMMUNITY INVOLVEMENT/0511-Community Involvement Activities/13.03-NEWS CLIPPINGS/PRESS RELEASES	R01: (US EPA REGION 1)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/693616
693982	POSTCARD ANNOUNCEMENT OF PUBLIC MEETING 07/10/2025, PUBLIC HEARING 07/29/2025, AND REQUEST FOR COMMENTS ON PROPOSED PLAN	07/02/2025	1	CORR / Correspondence	051-COMMUNITY INVOLVEMENT/0511-Community Involvement Activities/13.04-PUBLIC MEETINGS/HEARINGS	R01: (US EPA REGION 1)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/693982
691495	FOCUSED FEASIBILITY STUDY (FS) REPORT	06/06/2025	149	RPT / Report	053-REMEDIAL/0531-Remedy Characterization/04.06-FEASIBILITY STUDY REPORTS	R01: (WESTON SOLUTIONS INC)	R01: (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691495
695917	SCIENTIFIC, TECHNICAL, ENGINEERING AND MODELING SUPPORT 4 (STREAMS 4) DRAFT DELIVERABLE (06/04/2025 TRANSMITTAL LETTER ATTACHED)	06/03/2025	11	RPT / Report	053-REMEDIAL/0531-Remedy Characterization/04.04-INTERIM DELIVERABLES (FS)	R01: (EASTERN RESEARCH GROUP INC)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/695917
691496	PROPOSED PLAN	06/01/2025	32	PUB / Publication	053-REMEDIAL/0531-Remedy Characterization/04.09-PROPOSED PLANS FOR SELECTED REMEDIAL ACTION	R01: (US EPA REGION 1)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691496
693638	LETTERS TO RESIDENTS REGARDING WATER SUPPLY WELL SAMPLE COLLECTION	12/12/2024	13	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/03.02-SAMPLING & ANALYSIS DATA (RI)	R01; Bush, Dylan (WESTON SOLUTIONS INC)	R01: Castles, Stephen (LONDONDERRY (NH) RESIDENT), R01: Castles, Tiffany (LONDONDERRY (NH) RESIDENT), R01: Hamilton, David (LONDONDERRY (NH) RESIDENT), R01: Joseph, Keith (LONDONDERRY (NH) RESIDENT), R01: Lacortiglia, Mary (LONDONDERRY (NH) RESIDENT), R01: Maksky, Jerome (LONDONDERRY (NH) RESIDENT), R01: Poste, John (LONDONDERRY (NH) RESIDENT), R01: Thomas, Jessica (LONDONDERRY (NH) RESIDENT), Thomas, Scott (LONDONDERRY (NH) RESIDENT)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/693638
693637	EMAIL REGARDING BOTTLED WATER COST	12/17/2024	2	EML / Email	053-REMEDIAL/0531-Remedy Characterization/03.01-CORRESPONDENCE (RI)	R01; Bush, Dylan (WESTON SOLUTIONS INC)	R01: Sprague, Cheryl L (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/693637
691494	REMEDIAL INVESTIGATION (RI) SUMMARY MEMORANDUM	11/13/2024	428	RPT / Report	053-REMEDIAL/0531-Remedy Characterization/03.06-REMEDIAL INVESTIGATION REPORTS	R01: (WESTON SOLUTIONS INC)	R01: (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691494
693635	LABORATORY REPORT, PO NUMBER: 2950-28-2, JOB ID: 71596	10/28/2024	308	ADD / Analytical Data Document	053-REMEDIAL/0531-Remedy Characterization/03.02-SAMPLING & ANALYSIS DATA (RI)	R01: (ABSOLUTE RESOURCE ASSOCIATES)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/693635
693636	LABORATORY REPORT, PO NUMBER: 2950-28-2, JOB ID: 71597	10/28/2024	169	ADD / Analytical Data Document	053-REMEDIAL/0531-Remedy Characterization/03.02-SAMPLING & ANALYSIS DATA (RI)	R01: (ABSOLUTE RESOURCE ASSOCIATES)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/693636
691960	MEMO REGARDING SUPORT REQUEST FOR ESTABLISHMENT OF CONTAMINANTS OF CONCERN (COC) AND ASSESSMENT OF RISK EVALUATION, FOCUSED FEASIBILITY STUDY (FFS) / INTERIM RECORD OF DECISION (IROD) FOR MITGATION OF RISK RELATED TO INGESTION OF GROUNDWATER USED AS DRINKING WATER	10/25/2024	8	MEMO / Memorandum	053-REMEDIAL/0531-Remedy Characterization/04.01-CORRESPONDENCE (FS)	R01: Sprague, Cheryl L (US EPA REGION 1)	R01: Taylor, Melissa (US EPA REGION 1), R01: Carroll, Courtney (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691960
100031690	SIXTH FIVE-YEAR REVIEW REPORT	09/27/2024	115	RPT / Report	053-REMEDIAL/0534-Post Construction/08.03-LONG-TERM RESPONSE REPORTS, 055-SITE EVALUATION	R01: (US EPA REGION 1)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/100031690
693633	EMAIL REGARDING RESIDENTIAL SAMPLING STATUS UPDATE	09/26/2024	1	EML / Email	053-REMEDIAL/0531-Remedy Characterization/03.02-SAMPLING & ANALYSIS DATA (RI)	R01; Bush, Dylan (WESTON SOLUTIONS INC)	R01: Cunningham, Joseph (US EP REGION 1), r01: Fuller, Andrew (NH DEPT OF ENVIRONMENTAL SERVICES (NH DES)), R01: Nahlik, Rene (NH DEPT OF ENVIRONMENTAL SERVICES (NH DES)), R01: Shaheen, Aaron (US EPA REGION 1), R01: Soukup, James (WESTON SOLUTIONS INC), R01: Sprague, Cheryl L (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/693633
693634	RESIDENTIAL SAMPLING DATA SUMMARY	09/26/2024	1	ADD / Analytical Data Document	053-REMEDIAL/0531-Remedy Characterization/03.02-SAMPLING & ANALYSIS DATA (RI)	R01; (WESTON SOLUTIONS INC)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/693634

100031574	COMMUNITY INVOLVEMENT PLAN (CIP) - SEPTEMBER 2024	09/20/2024	22	WP / Work Plan	051-COMMUNITY INVOLVEMENT/0511-Community Involvement Activities/13.02-COMMUNITY RELATIONS PLANS	R01: (US EPA REGION 1)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/100031574
693632	LETTER TO RESIDENTS REGARDING RESIDENTIAL DRINKING WATER SAMPLING	09/17/2024	2	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/03.02-SAMPLING & ANALYSIS DATA (RI)	R01; Bush, Dylan (WESTON SOLUTIONS INC)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/693632
100030567	RESIDENT UPDATE LETTER FROM EPA AND NHDES REGARDING UPCOMING INTERIM RECORD OF DECISION (IROD)	06/24/2024	5	LTR / Letter	051-COMMUNITY INVOLVEMENT/0511-Community Involvement Activities/13.01-CORRESPONDENCE (COMMUNITY RELATIONS)	R01: Sprague, Cheryl L (US EPA REGION 1), R01: Fuller, Andrew (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/100030567
691435	APRIL 2024 PERIODIC SUMMARY REPORT, DERRY MUNICIPAL LANDFILL AND WASTEWATER TREATMENT FACILITY	06/03/2024	110	RPT / Report	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: (DERRY (NH) TOWN OF)	R01: (DERRY (NH) TOWN OF)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691435
691993	EMAIL REGARDING REQUEST FOR SAMPLING	05/15/2024	4	EML / Email	053-REMEDIAL/0531-Remedy Characterization/03.02-SAMPLING & ANALYSIS DATA (RI)	R01: Sprague, Cheryl L (US EPA REGION 1)	R01: Skinner, Michael J (MICHAEL J SKINNER CONSULTING LLC), R01: Majer, Todd (DE MAXIMIS INC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691993
100003753	PFAS Enforcement Discretion and Settlement Policy Under CERCLA	04/19/2024	11	MEMO / Memorandum				UCTL(Uncontrolled)	11	https://semspub.epa.gov/src/document/11/100003753
680259	FIGURE 1: SITE PLAN NOTING PFOA CONCENTRATIONS IN GROUNDWATER COMPARISON TO PROPOSED EPA MCL OF 4.0 PPT	03/01/2024	1	FIG / Figure/Map/ Drawing	053 - REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS (FS)	R01: (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES)), R01: (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES)) R01: (WESTON SOLUTIONS INC)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/680259
100027631	EPA FINAL RESPONSE TO WORKPLAN REQUIREMENTS IN RESIDENTIAL AREA	11/30/2023	2	LTR / Letter	053 - REMEDIAL/0531-Remedy Characterization/03.07-WORK PLANS & PROGRESS REPORTS (RI)	R01: Sprague, Cheryl L (US EPA REGION 1)	R01: Skinner, Michael J (MICHAEL J SKINNER CONSULTING LLC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/100027631
680253	LETTER REGARDING TECHNICAL RESPONSES TO 09/21/2023 COMMENTS ON 2023 WORK PLAN	11/03/2023	14	LTR / Letter	053-REMEDIAL/0533-Remedial Action/07.06-WORK PLANS & PROGRESS REPORTS (RA)	R01: Skinner, Michael J (MICHAEL J SKINNER CONSULTING LLC)	R01: Sprague, Cheryl L (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/680253
691974	LETTER REGARDING REVIEW OF GROUNDWATER MONITORING PROGRAM	11/01/2023	3	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/03.02-SAMPLING & ANALYSIS DATA (RI)	R01: Soukup, James (WESTON SOLUTIONS INC)	R01: Sprague, Cheryl L (US EPA REGION 1), R01: Fuller, Andrew (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691974
693602	EMAIL REGARDING FIELD UPDATE	10/06/2023	2	EML / Email	053-REMEDIAL/0531-Remedy Characterization/03.02-SAMPLING & ANALYSIS DATA (RI)	R01: Dykstra, Amy, B (HALEY & ALDRICH INC)	R01: Sprague, Cheryl L (US EPA REGION 1), R01: Majer, Todd (DE MAXIMIS INC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/693602
100027126	LETTER REGARDING 03/22/2023 WORK PLAN	09/21/2023	7	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/03.07-WORK PLANS & PROGRESS REPORTS (RI)	R01: Sprague, Cheryl L (US EPA REGION 1)	R01: Skinner, Michael J (MICHAEL J SKINNER CONSULTING LLC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/100027126
691955	FIGURE 1: HA23-14 DISCRETE INTERVAL SAMPLING RESULTS, DRAFT	08/01/2023	1	FIG / Figure/Map/ Drawing	053-REMEDIAL/0531-Remedy Characterization/03.02-SAMPLING & ANALYSIS DATA (RI)	R01: (HALEY & ALDRICH INC)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691955
691991	EMAIL REGARDING FIELD UPDATE AND HA23-12 PROPOSED SCREEN INTERVALS - RESPONSE AND REQUEST FOR A SURVEY IN VICINITY OF OTHER WELLS IN USE OR AVAILABLE (EMAIL HISTORY ATTACHED)	07/19/2023	3	EML / Email	053-REMEDIAL/0531-Remedy Characterization/03.02-SAMPLING & ANALYSIS DATA (RI)	R01: Sprague, Cheryl L (US EPA REGION 1)	R01: Dykstra, Amy, B (HALEY & ALDRICH INC), R01: Majer, Todd (DE MAXIMIS INC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691991
691992	EMAIL REGARDING HA23-13 GEOPHYSICS RESULTS, WELL LOG, AND SCREEN INTERVAL SELECTIONS (EMAIL HISTORY ATTACHED)	07/11/2023	5	EML / Email	053-REMEDIAL/0531-Remedy Characterization/03.02-SAMPLING & ANALYSIS DATA (RI)	R01: Sprague, Cheryl L (US EPA REGION 1)	R01: Brandon, William C (US EPA REGION 1), R01: Fuller, Andrew (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES)), R01: Soukup, James (WESTON SOLUTIONS INC), R01: Cunningham, Joseph J (US EPA REGION 1), R01: Turner, Chris (HALEY & ALDRICH INC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691992
691954	MAY 2023 PRIVATE WATER SUPPLY SAMPLING RESULTS IN THE VICINITY OF TINKHAM GARAGE SITE	06/30/2023	1949	ADD / Analytical Data Document	053-REMEDIAL/0531-Remedy Characterization/03.02-SAMPLING & ANALYSIS DATA (RI)	R01: (HALEY & ALDRICH INC)	R01: (CANNONS SITES GROUP)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691954
691452	OPERATING PROCEDURE: OP3012, LOW STRESS / LOW FLOW GROUNDWATER SAMPLE COLLECTION PROCEDURE	06/10/2023	22	PUB / Publication	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: (HALEY & ALDRICH INC)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691452
691973	LETTER REGARDING REVIEW OF TRANSDUCER DATA PACKAGES, REMEDIAL INVESTIGATIONS (RI)	05/05/2023	2	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/03.02-SAMPLING & ANALYSIS DATA (RI)	R01: Sprague, Cheryl L (US EPA REGION 1)	R01: Skinner, Michael J (MICHAEL J SKINNER CONSULTING LLC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691973
693603	LETTER REGARDING EVALUATION OF SITE MONITORING WELL HYDROGRAPHS	05/04/2023	42	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/03.02-SAMPLING & ANALYSIS DATA (RI)	R01: Soukup, James (WESTON SOLUTIONS INC)	R01: Fuller, Andrew (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/693603
680256	LETTER REGARDING THE REVISED BEDROCK INVESTIGATION WORK PLAN AND SUPPLEMENTAL REMEDIAL INVESTIGATION (SRI)	03/22/2023	4	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/03.07-WORK PLANS & PROGRESS REPORTS (RI)	R01: Jaffe, Seth D (FOLEY HOAG LLP), R01: (CANNONS SITES GROUP)	R01: Sherman, Ruthann (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/680256
680252	LETTER REGARDING REVISED BEDROCK INVESTIGATION WORK PLAN ADDENDUM (WORK PLAN ATTACHED)	03/22/2023	27	LTR / Letter	053 - REMEDIAL/0531-Remedy Characterization/03.07-WORK PLANS & PROGRESS REPORTS (RI)	R01: Skinner, Michael J (MICHAEL J SKINNER CONSULTING LLC)	R01: Sprague, Cheryl L (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/680252
680254	LETTER REGARDING CONDITIONAL APPROVAL OF 01/13/2023 WORK PLAN	02/17/2023	9	LTR / Letter	053-REMEDIAL/0533-Remedial Action/07.06-WORK PLANS & PROGRESS REPORTS (RA)	R01: Sprague, Cheryl L (US EPA REGION 1)	R01: Skinner, Michael J (MICHAEL J SKINNER CONSULTING LLC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/680254
691963	EMAIL REGARDING FIELD WALK	02/07/2023	2	EML / Email	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: Sprague, Cheryl L (US EPA REGION 1)	R01: Skinner, Michael J (MICHAEL J SKINNER CONSULTING LLC), R01: Majer, Todd D (DE MAXIMIS INC), R01: Dykstra, Amy, B (HALEY & ALDRICH INC), R01: Turner, Christopher M (HALEY & ALDRICH INC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691963
680269	ANNUAL WATER QUALITY MONITORING REPORT 2023	01/31/2023	3016	RPT / Report	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: (HALEY AND ALDRICH INC)	R01: (CANNONS SITES GROUP)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/680269

680269	ANNUAL WATER QUALITY MONITORING REPORT 2023	01/31/2023	3016	RPT / Report	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: (HALEY AND ALDRICH INC)	R01: (CANNONS SITES GROUP)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/680269
691952	ANNUAL WATER QUALITY MONITORING REPORT FOR 2022	01/31/2023	1100	RPT / Report	053-REMEDIAL/0531-Remedy Characterization/03.02-SAMPLING & ANALYSIS DATA (RI)	R01: (HALEY & ALDRICH INC)	R01: (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691952
680257	BEDROCK INVESTIGATION WORK PLAN ADDENDUM (TRANSMITTAL LETTER ATTACHED)	01/13/2023	40	WP / Work Plan	053-REMEDIAL/0531-Remedy Characterization/03.07-WORK PLANS & PROGRESS REPORTS (RI)	R01: (HALEY AND ALDRICH INC)	R01: (CANNONS SITES GROUP)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/680257
691969	LETTER RESPONDING TO EMAIL REQUESTING AN EXTENSION OF THE WORK PLAN SUBMISSION FOR ADDITIONAL INVESTIGATIONS	12/22/2022	3	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/03.07-WORK PLANS & PROGRESS REPORTS (RI)	R01: Sprague, Cheryl L (US EPA REGION 1)	R01: Skinner, Michael J (MICHAEL J SKINNER CONSULTING LLC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691969
694759	FACT SHEET: A COMPARISON OF PUBLIC WATER SERVICE TO PRIVATE WATER WELLS	12/01/2022	3	PUB / Publication	051-COMMUNITY INVOLVEMENT/0511-Community Involvement Activities/13.05-FACT SHEETS/INFORMATION UPDATES	R01: (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/694759
680255	LETTER REQUESTING ADDITIONAL WORK AS PART OF ON-GOING REMEDIAL INVESTIGATIONS (RI) WITHIN ROSS AND TOKANEL RESIDENTIAL AREA	11/17/2022	10	LTR / Letter	053 - REMEDIAL/0531-Remedy Characterization/03.01-CORRESPONDENCE (RI)	R01: Sprague, Cheryl L (US EPA REGION 1)	R01: Skinner, Michael J (MICHAEL J SKINNER CONSULTING LLC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/680255
691987	EMAIL REGARDING RESIDENTIAL AREA MODIFIED WORK (FIGURE ATTACHED)	11/10/2022	2	EML / Email	053-REMEDIAL/0531-Remedy Characterization/03.02-SAMPLING & ANALYSIS DATA (RI)	R01: Sprague, Cheryl L (US EPA REGION 1)	R01: Skinner, Michael J (MICHAEL J SKINNER CONSULTING LLC), R01: Majer, Todd (DE MAXIMIS INC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691987
680266	LETTER RESPONDING TO COMMENTS ON 2021 DRAFT REVISED GROUNDWATER MANAGEMENT PERMIT, NO. GWP-199004008-L-004	08/25/2022	1	LTR / Letter	056-SITE SUPPORT/0563-State/Tribal Involvement/09.01-CORRESPONDENCE (STATE COORDINATION)	R01: Skinner, Michael J (DE MAXIMIS INC)	R01: Fuller, Andrew (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/680266
691953	SPRING 2022 WATER QUALITY MONITORING DATA SUBMITTAL	07/11/2022	1070	RPT / Report	053-REMEDIAL/0531-Remedy Characterization/03.02-SAMPLING & ANALYSIS DATA (RI)	R01: (HALEY & ALDRICH INC)	R01: (CANNONS SITES GROUP)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691953
100021315	LETTER REGARDING REVIEW OF 2021 ANNUAL REPORT SUBMITTED 01/2022	06/30/2022	5	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/04.01-CORRESPONDENCE (FS)	R01: Sprague, Cheryl (US EPA REGION 1)	R01: Fuller, Andrew (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/100021315
662991	EPA COMMENTS ON ANNUAL WATER QUALITY MONITORING REPORT FOR 2021	06/30/2022	5	LTR / Letter	053-REMEDIAL/0534-Post Construction/08.04-LONG TERM RESPONSE MONITORING	R01: Sprague, Cheryl (US EPA REGION 1)	R01: Fuller, Andrew (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/662991
100021316	LETTER REGARDING COMMENTS ON ANNUAL WATER QUALITY MONITORING REPORT FOR 2021	06/20/2022	21	LTR / Letter	053-REMEDIAL/0534-Post Construction/08.04-LONG TERM RESPONSE MONITORING	R01: Fuller, Andrew (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	R01: Campbell, James R (CANNONS SITES GROUP)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/100021316
673165	UPDATED EVALUATION OF SITE MONITORING WELL HYDROGRAPHS	06/03/2022	16	MEMO / Memorandum	053-REMEDIAL/0531-Remedy Characterization/03.02-SAMPLING & ANALYSIS DATA (RI)	R01: Kastrinos, John, R (HALEY & ALDRICH INC), R01: Turner, Chris (HALEY & ALDRICH INC), R01: Wey, Jessica (HALEY & ALDRICH INC)	R01: Campbell, James (ENGINEERING MANAGEMENT INC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/673165
691961	LETTER REGARDING PACKER SAMPLING RESULTS AND RESAMPLING EMAIL OF 03/02/2022	03/10/2022	116	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: Turner, Christopher M (HALEY & ALDRICH INC)	R01: Sprague, Cheryl L (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691961
691988	EMAIL REGARDING PACKER SAMPLING RESULTS AND RESAMPLING (EMAIL HISTORY ATTACHED)	03/04/2022	5	EML / Email	053-REMEDIAL/0531-Remedy Characterization/03.02-SAMPLING & ANALYSIS DATA (RI)	R01: Campbell, James R (CANNONS SITES GROUP)	R01: Sprague, Cheryl L (US EPA REGION 1), R01: Fuller, Andrew (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691988
662990	ANNUAL WATER QUALITY MONITORING REPORT FOR 2021	01/31/2022	2501	RPT / Report	053-REMEDIAL/0534-Post Construction/08.04-LONG TERM RESPONSE MONITORING	R01: (HALEY & ALDRICH INC), R01: (CANNONS SITES GROUP)	R01: (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/662990
691983	LETTER REGARDING REVIEW OF SPRING 2021 WATER QUALITY MONITORING DATA SUBMITTAL (GROUNDWATER MANAGEMENT PERMIT ATTACHED)	12/21/2021	14	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/03.02-SAMPLING & ANALYSIS DATA (RI)	R01: Fuller, Andrew (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	R01: Campbell, James R (CANNONS SITES GROUP)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691983
673164	UPDATED EVALUATION OF SITE MONITORING WELL HYDROGRAPHS	11/05/2021	20	MEMO / Memorandum	053-REMEDIAL/0531-Remedy Characterization/03.02-SAMPLING & ANALYSIS DATA (RI)	R01: Kastrinos, John, R (HALEY & ALDRICH INC), R01: Turner, Chris (HALEY & ALDRICH INC)	R01: Campbell, James (ENGINEERING MANAGEMENT INC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/673164
100018683	LETTER ADDRESSING AND PROVIDING CLARIFICATION ON PREMATURE STATEMENTS REGARDING PFAS CONCENTRATIONS IN RESIDENTIAL WATER SUPPLY WELLS	09/07/2021	3	LTR / Letter	053 - REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS (FS)	R01: Cianciarulo, Robert, G. (US EPA REGION 1)	R01: Campbell, James (ENGINEERING MANAGEMENT INC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/100018683
691950	2021 QUARTER 2 PRIVATE WATER SUPPLY SAMPLING RESULTS IN THE VICINITY OF TINKHAM GARAGE SITE	07/16/2021	1748	ADD / Analytical Data Document	053-REMEDIAL/0531-Remedy Characterization/03.02-SAMPLING & ANALYSIS DATA (RI)	R01: (HALEY & ALDRICH INC)	R01: (CANNONS SITES GROUP)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691950
691951	SPRING 2021 WATER QUALITY MONITORING DATA SUBMITTAL	07/16/2021	580	ADD / Analytical Data Document	053-REMEDIAL/0531-Remedy Characterization/03.02-SAMPLING & ANALYSIS DATA (RI)	R01: (HALEY & ALDRICH INC)	R01: (CANNONS SITES GROUP)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691951
691994	EMAIL REGARDING MAY GROUNDWATER MONITORING PROGRAM (GMP) SAMPLING EVENT (EMAIL HISTORY ATTACHED)	05/26/2021	6	EML / Email	053-REMEDIAL/0531-Remedy Characterization/03.02-SAMPLING & ANALYSIS DATA (RI)	R01: Sprague, Cheryl L (US EPA REGION 1)	R01: Campbell, James (ENGINEERING MANAGEMENT INC), R01: Fuller, Andrew (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691994
693601	EMAIL REGARDING MAY GROUNDWATER MONITORING PROGRAM (GMP) SAMPLING EVENT	05/21/2021	2	EML / Email	053-REMEDIAL/0531-Remedy Characterization/03.02-SAMPLING & ANALYSIS DATA (RI)	R01: Campbell, James R (CANNONS SITES GROUP)	R01: Fuller, Andrew (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/693601
691970	EMAIL REGARDING REVIEW OF REVISED PROPOSED GROUNDWATER MONITORING PERMIT (GMP) (DRAFT GROUNDWATER MANAGMENT PERMIT ATTACHED)	04/19/2021	19	EML / Email	053-REMEDIAL/0531-Remedy Characterization/03.07-WORK PLANS & PROGRESS REPORTS (RI)	R01: Sprague, Cheryl L (US EPA REGION 1)	R01: Fuller, Andrew (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691970

673163	UPDATED EVALUATION OF SITE MONITORING WELL HYDROGRAPHS	03/31/2021	11	MEMO / Memorandum	053-REMEDIAL/0531-Remedy Characterization/03.02-SAMPLING & ANALYSIS DATA (RI)	R01: Kastrinos, John, R (HALEY & ALDRICH INC), R01: Turner, Chris (HALEY & ALDRICH INC)	R01: Campbell, James (ENGINEERING MANAGEMENT INC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/673163
100024336	EVALUATION OF SITE MONITORING WELL HYDROGRAPHS PRIOR TO AND DURING BEDROCK INVESTIGATION ACTIVITIES	01/19/2021	34	MEMO / Memorandum	053-REMEDIAL/0531-Remedy Characterization/03.02-SAMPLING & ANALYSIS DATA (RI)	R01: Kastrinos, John, R (HALEY & ALDRICH INC), R01: Turner, Chris (HALEY & ALDRICH INC)	R01: Campbell, James (ENGINEERING MANAGEMENT INC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/100024336
691948	FIGURE 1: RESIDENTIAL SITE PLAN	01/01/2021	1	FIG / Figure/Map/ Drawing	053-REMEDIAL/0531-Remedy Characterization/03.02-SAMPLING & ANALYSIS DATA (RI)	R01: (HALEY & ALDRICH INC)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691948
691949	ANNUAL WATER QUALITY MONITORING REPORT FOR 2020	01/01/2021	3116	RPT / Report	053-REMEDIAL/0531-Remedy Characterization/03.02-SAMPLING & ANALYSIS DATA (RI)	R01: (HALEY & ALDRICH INC)	R01: (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691949
691965	LETTER REGARDING FOCUSED REMEDIAL INVESTIGATIONS (RI) WITHIN ROSS AND TOKANEL RESIDENTIAL AREA	09/25/2020	6	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/03.07-WORK PLANS & PROGRESS REPORTS (RI)	R01: Sprague, Cheryl L (US EPA REGION 1)	R01: Campbell, James (ENGINEERING MANAGEMENT INC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691965
691964	LETTER RESPONDING TO 08/21/2020 DRAFT WORK PLAN FOR RESIDENTIAL RECEPTOR AREA BEDROCK INVESTIGATIONS	08/27/2020	5	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/03.07-WORK PLANS & PROGRESS REPORTS (RI)	R01: Sprague, Cheryl L (US EPA REGION 1)	R01: Campbell, James (ENGINEERING MANAGEMENT INC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691964
691968	LETTER RESPONDING TO DRAFT WORK PLAN FOR RESIDENTIAL RECEPTOR AREA BEDROCK INVESTIGATIONS	08/27/2020	5	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/03.07-WORK PLANS & PROGRESS REPORTS (RI)	R01: Sprague, Cheryl L (US EPA REGION 1)	R01: Campbell, James (ENGINEERING MANAGEMENT INC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691968
691966	EMAIL REGARDING SPRING 2022 GROUNDWATER MANAGMENT PROGRAM (GMP) DATA SUBMITTAL (EMAIL HISTORY ATTACHED)	07/19/2020	5	EML / Email	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: Sprague, Cheryl L (US EPA REGION 1)	R01: Fuller, Andrew (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691966
691449	LETTER REGARDING 04/17/2020 SUBMISSION BY HALEY AND ALDRICH (H&A)	07/01/2020	5	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: Sprague, Cheryl L (US EPA REGION 1)	R01: Campbell, James (ENGINEERING MANAGEMENT INC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691449
691962	EMAIL REGARDING PROPOSED JUNE GROUNDWATER MANAGEMENT PROGRAM (GMP) SAMPLING EVENT	06/15/2020	2	EML / Email	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: Campbell, James (ENGINEERING MANAGEMENT INC)	R01: Sprague, Cheryl L (US EPA REGION 1), R01: Fuller, Andrew (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES)), R01: Soukup, James (WESTON SOLUTIONS INC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691962
691967	LETTER RESPONDING TO GROUNDWATER - SURFACE WATER (GW-SW) INTERFACE INVESTIGATION INTERIM REPORT SUBMISSION AND REQUEST FOR COMPLETION OF WORK	05/15/2020	10	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/03.04-INTERIM DELIVERABLES (RI)	R01: Sprague, Cheryl L (US EPA REGION 1)	R01: Campbell, James (ENGINEERING MANAGEMENT INC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691967
691999	EMAIL REGARDING COVID-19 HEALTH AND SAFETY ISSUES	04/24/2020	1	EML / Email	053-REMEDIAL/0531-Remedy Characterization/03.04-INTERIM DELIVERABLES (RI)	R01: Campbell, James (ENGINEERING MANAGEMENT INC)	R01: Sprague, Cheryl L (US EPA REGION 1), R01: Fuller, Andrew (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES)), R01: Soukup, James (WESTON SOLUTIONS INC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691999
691476	PRIVATE WATER SUPPLY SAMPLING, GROUNDWATER MANAGEMENT PROGRAM (GMP) NO. GWP-199004008-L-004	04/16/2020	49	RPT / Report	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: (HALEY & ALDRICH INC)	R01: (CANNONS SITES GROUP)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691476
691437	LANDFILL DATA REPORT, WASTEWATER TREATMENT FACILITY (WWTF) SUMMARY REPORT AND PFAS SOURCE EVALUATION, DERRY MUNICIPAL LANDFILL AND WASTEWATER TREATMENT FACILITY	01/09/2020	137	RPT / Report	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: (DERRY (NH) TOWN OF)	R01: (DERRY (NH) TOWN OF)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691437
691459	PRIVATE DRINKING WATER WELL SAMPLING, PFAS SOURCE EVALUATION, DERRY MUNICIPAL LANDFILL AND WASTEWATER TREATMENT FACILITY	01/09/2020	144	ADD / Analytical Data Document	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: Fowler, Michael A (DERRY (NH) TOWN OF)	R01: (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691459
100012873	LETTER PROVIDING CLARIFICATION REGARDING SAMPLING FOR GROUNDWATER AND MONITORING RESIDENTIAL WATER SUPPLIES	01/07/2020	4	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: Sprague, Cheryl L (US EPA REGION 1)	R01: Jaffe, Seth D (FOLEY HOAG LLP), R01: Lucic, Robert R (SHEEHAN PHINNEY), R01: Campbell, James (ENGINEERING MANAGEMENT INC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/100012873
691975	FIGURE 17: CONCEPTUAL SITE MODEL	01/01/2020	1	FIG / Figure/Map/ Drawing	053-REMEDIAL/0531-Remedy Characterization/03.02-SAMPLING & ANALYSIS DATA (RI)	R01: (HALEY & ALDRICH INC)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691975
691446	LETTER REGARDING RESIDENTIAL SAMPLING, 03/27/2019 RESPONSE REQUEST FOR ADDITIONAL SAMPLING AT RESIDENTIAL PROPERTIES	10/25/2019	3	LTR / Letter	053-REMEDIAL/0534-Post Construction/08.04-LONG TERM RESPONSE MONITORING	R01: Sprague, Cheryl L (US EPA REGION 1)	R01: Jaffe, Seth D (FOLEY HOAG LLP), R01: Lucic, Robert R (SHEEHAN PHINNEY), R01: Campbell, James (ENGINEERING MANAGEMENT INC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691446
691434	REDACTED WATER SUPPLY WELL TESTING RESULTS, 5 BOSTON AVENUE	10/03/2019	519	ADD / Analytical Data Document	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: Phillips, Ian M (HALEY & ALDRICH INC)	R01: (LONDONDERRY (NH) - RESIDENT OF)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691434
691463	EMAIL TRANSMITTING AUGUST QUARTERLY RESIDENTIAL SAMPLING RESULTS	09/27/2019	525	ADD / Analytical Data Document	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: Campbell, Jim (ENGINEERING MANAGEMENT INC)	R01: Sprague, Cheryl L (US EPA REGION 1), R01: Brandon, William C (US EPA REGION 1), R01: Soukup, Jim (WESTON SOLUTIONS INC), R01: Fuller, Andrew (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691463
691468	AUGUST QUARTERLY RESIDENTIAL SAMPLING RESULTS	09/27/2019	5	ADD / Analytical Data Document	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: (HALEY & ALDRICH INC)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691468
691469	EMAIL TRANSMITTING AUGUST QUARTERLY RESIDENTIAL SAMPLING RESULTS	09/27/2019	1	EML / Email	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: Campbell, Jim (ENGINEERING MANAGEMENT INC)	R01: Sprague, Cheryl L (US EPA REGION 1), R01: Brandon, William C (US EPA REGION 1), R01: Soukup, Jim (WESTON SOLUTIONS INC), R01: Fuller, Andrew (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691469

691956	EMAIL REGARDING GROUNDWATER - SURFACE WATER (GW-SW) INTETRACTION LETTER REPORT, GROUNDWATER MANAGEMENT ZONE (GMZ) BOUNDARY VIOLATIONS FOR 1,4-DIOXANE	08/30/2019	2	EML / Email	053-REMEDIAL/0531-Remedy Characterization/03.02-SAMPLING & ANALYSIS DATA (RI)	R01: Sprague, Cheryl L (US EPA REGION 1)	R01: Fuller, Andrew (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691956
691426	GROUNDWATER / SURFACE WATER INTERACTION DATA REPORT	08/29/2019	427	RPT / Report	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: Phillips, Ian M (HALEY & ALDRICH INC), R01: Dykstra, Amy, B (HALEY & ALDRICH INC), R01: Jones, Christopher (HALEY & ALDRICH INC)	R01: Sprague, Cheryl L (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691426
691439	PFAS RESPONSE PLAN - DERRY MUNICIPAL LANDFILL AND WASTEWATER TREATMENT FACILITY	08/23/2019	16	WP / Work Plan	053-REMEDIAL/0531-Remedy Characterization/04.07-WORK PLANS & PROGRESS REPORTS (FS)	R01: (DERRY (NH) TOWN OF)	R01: (DERRY (NH) TOWN OF)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691439
691425	RECORDED DEED NOTIFICATIONS FOR GROUNDWATER MANAGMENT PERMIT, GWP-199004008_I-004 AND LIST OF PROPERTIES WITHIN THE GROUNDWATER MANAGEMENT ZONE	08/08/2019	26	MEMO / Memorandum	053-REMEDIAL/0534-Post Construction/08.07-INSTITUTIONAL CONTROLS	R01: Dykstra, Amy, B (HALEY & ALDRICH INC)	R01: Fuller, Andrew (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691425
691423	REPORT ON SPRING 2019 WATER QUALITY MONITORING DATA SUBMITTAL	08/01/2019	2830	ADD / Analytical Data Document	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: (HALEY & ALDRICH INC)	R01: (CANNONS SITES GROUP)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691423
691989	FIGURE 6: PFOA, PFOS, PFHXS, AND PFNA RESULTS OF GROUNDWATER MONITORING PERMIT (GMP) MONITORING LOCATIONS (MAY - JUNE 2019)	08/01/2019	1	FIG / Figure/Map/ Drawing	053-REMEDIAL/0531-Remedy Characterization/03.02-SAMPLING & ANALYSIS DATA (RI)	R01: (HALEY & ALDRICH INC)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691989
691422	REDACTED PRIVATE WATER SUPPLY SAMPLING RESULTS - IN THE VICINITY OF TINKHAM GARAGE SITE	07/29/2019	2463	ADD / Analytical Data Document	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: Dykstra, Amy, B (HALEY & ALDRICH INC)	R01: Fuller, Andrew (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691422
691433	REDACTED PRIVATE WATER SUPPLY SAMPLING RESULTS - IN THE VICINITY OF TINKHAM GARAGE SITE	07/19/2019	2463	ADD / Analytical Data Document	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: Dykstra, Amy, B (HALEY & ALDRICH INC)	R01: Fuller, Andrew (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691433
691421	ADDENDUM TO 2018 ANNUAL WATER QUALITY MONITORING REPORT	07/15/2019	721	RPT / Report	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: (HALEY & ALDRICH INC)	R01: (CANNONS SITES GROUP)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691421
691420	LETTER REGARDING PROPOSED BEDROCK GROUNDWATER INVESTIGATION LOCATIONS	07/12/2019	24	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: Kastrinos, John, R (HALEY & ALDRICH INC), R01: Phillips, Ian M (HALEY & ALDRICH INC)	R01: Sprague, Cheryl L (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691420
691462	PROPOSED BEDROCK MONITORING WELL LOCATIONS	07/01/2019	1	FIG / Figure/Map/ Drawing	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: (HALEY & ALDRICH INC)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691462
691976	FIGURE 1: CONCEPTUAL SITE MODEL	07/01/2019	1	FIG / Figure/Map/ Drawing	053-REMEDIAL/0531-Remedy Characterization/03.02-SAMPLING & ANALYSIS DATA (RI)	R01: (HALEY & ALDRICH INC)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691976
691946	GEOPHYSICAL INVESTIGATION	06/28/2019	82	RPT / Report	053-REMEDIAL/0531-Remedy Characterization/03.04-INTERIM DELIVERABLES (RI)	R01: (HAGER GEOSCIENCE INC)	R01: (HALEY & ALDRICH INC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691946
691418	DOCUMENTATRION OF NOTICE OF GROUNDWATER MANAGEMENT PERMIT	06/26/2019	26	MEMO / Memorandum	056-SITE SUPPORT/0563-State/Tribal Involvement/09.10-STATE TECHNICAL AND HISTORICAL RECORDS	R01: Dykstra, Amy, B (HALEY & ALDRICH INC)	R01: Fuller, Andrew (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691418
691419	GEOPHYSICAL INVESTIGATION	06/26/2019	29	RPT / Report	053-REMEDIAL/0531-Remedy Characterization/04.04-INTERIM DELIVERABLES (FS)	R01: (HAGER GEOSCIENCE INC)	R01: (HALEY & ALDRICH INC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691419
691995	MEMO REQUESTING AGO ASSISTANCE	06/20/2019	3	MEMO / Memorandum	056-SITE SUPPORT/0563-State/Tribal Involvement/09.01-CORRESPONDENCE (STATE COORDINATION)	R01: Wimsatt, Michael J (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	R01: Brooks, K Allen (NH DEPT OF JUSTICE)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691995
693600	PRELIMINARY NOTICE OF APPEAL AND OFFER TO ENTER INTO SETTLEMENT DISCUSSIONS	06/14/2019	20	FRM / Form	056-SITE SUPPORT/0563-State/Tribal Involvement/09.01-CORRESPONDENCE (STATE COORDINATION)	R01: Jaffe, Seth D (FOLEY HOAG LLP), R01: Campbell, James R (CANNONS SITES GROUP), R01: Severance, Ethan (FOLEY HOAG LLP)	R01: (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/693600
100011370	2019 GROUNDWATER MANAGEMENT PERMIT (TRANSMITTAL LETTER WITH COMMENTS ATTACHED)	05/17/2019	13	LGL / Legal Instrument	053-REMEDIAL/0534-Post Construction/08.07-INSTITUTIONAL CONTROLS	R01: (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	R01: (CANNONS SITE GROUP)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/100011370
691416	LETTER REGARDING GROUNDWATER / SURFACE WATER INTERACTION STATUS UPDATE	04/23/2019	90	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/04.01-CORRESPONDENCE (FS)	R01: Phillips, Ian M (HALEY & ALDRICH INC), R01: Dykstra, Amy, B (HALEY & ALDRICH INC), R01: Jones, Christopher (HALEY & ALDRICH INC)	R01: Sprague, Cheryl L (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691416
691415	REDACTED PRIVATE WATER SUPPLY SAMPLING RESULTS - TOKANEL DRIVE	04/19/2019	235	ADD / Analytical Data Document	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: Dykstra, Amy, B (HALEY & ALDRICH INC)	R01: Fuller, Andrew (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691415
691414	REDACTED ADJACENT RESIDENTIAL SAMPLING RESULTS - 2019 QUARTER 1	04/17/2019	177	ADD / Analytical Data Document	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: Dykstra, Amy, B (HALEY & ALDRICH INC)	R01: Fuller, Andrew (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691414
691413	LETTER REGARDING PFAS SIGNATURE AT 8 CHARLESTON AVENUE	04/04/2019	16	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/04.01-CORRESPONDENCE (FS)	R01: Phillips, Ian M (HALEY & ALDRICH INC), R01: Dykstra, Amy, B (HALEY & ALDRICH INC)	R01: Sprague, Cheryl L (US EPA REGION 1), R01: Fuller, Andrew (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691413
691458	LETTER REGARDING PFAS SIGNATURE AT 8 CHARLESTON AVENUE [NO NOTATION ON FIGURE 1]	04/04/2019	16	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: Phillips, Ian M (HALEY & ALDRICH INC), R01: Dykstra, Amy, B (HALEY & ALDRICH INC)	R01: Sprague, Cheryl L (US EPA REGION 1), R01: Fuller, Andrew (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691458
691448	LETTER REGARDING 02/07/2019 RESIDENTIAL SAMPLING RESULTS REPORT AND REQUEST FOR ADDITIONAL SAMPLING AT RESIDENTIAL PROPERTIES	03/27/2019	3	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: Sprague, Cheryl L (US EPA REGION 1)	R01: Jaffe, Seth D (FOLEY HOAG LLP), R01: Lucic, Robert R (SHEEHAN PHINNEY), R01: Campbell, James (ENGINEERING MANAGEMENT INC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691448

691412	ADDENDUM TO GROUNDWATER MANAGEMENT PERMIT RENEWAL APPLICATION	03/20/2019	6	LTR / Letter	056-SITE SUPPORT/0563-State/Tribal Involvement/09.10-STATE TECHNICAL AND HISTORICAL RECORDS	R01: Phillips, Ian M (HALEY & ALDRICH INC), R01: Dykstra, Amy, B (HALEY & ALDRICH INC)	R01: Fuller, Andrew (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691412
691411	REDACTED PRIVATE WATER SUPPLY SAMPLING RESULTS - ROSS AND TOKANEL DRIVE	02/12/2019	2877	ADD / Analytical Data Document	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: Dykstra, Amy, B (HALEY & ALDRICH INC)	R01: Richards, Kenneth (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691411
691480	REDACTED PRIVATE WATER SUPPLY SAMPLING RESULTS - ROSS AND TOKANEL DRIVE	02/12/2019	2877	ADD / Analytical Data Document	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: Dykstra, Amy, B (HALEY & ALDRICH INC)	R01: Fuller, Andrew (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691480
689172	LETTER REGARDING PRIVATE WATER SUPPLY SAMPLING - ROSS AND TOKANEL DRIVE	02/07/2019	2611	LTR / Letter	053-REMEDIAL/0533-Remedial Action/07.02-SAMPLING & ANALYSIS DATA (RA)	R01: Phillips, Ian M (HALEY & ALDRICH INC), R01: Dykstra, Amy, B (HALEY & ALDRICH INC)	R01: Sprague, Cheryl L (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689172
691410	REDACTED ADJACENT RESIDENTIAL SAMPLING RESULTS - 2018 QUARTER 4	02/07/2019	209	ADD / Analytical Data Document	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: Dykstra, Amy, B (HALEY & ALDRICH INC)	R01: Fuller, Andrew (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691410
691409	REPORT ON ANNUAL WATER QUALITY MONITORING REPORT FOR 2018	01/31/2019	646	RPT / Report	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: (HALEY & ALDRICH INC)	R01: (CANNONS SITES GROUP)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691409
627377	PROPOSED GROUNDWATER MANAGEMENT ZONE (GMZ) BOUNDARY REVSION	11/30/2018	113	LTR / Letter	053-REMEDIAL/0534-Post Construction/08.01-CORRESPONDENCE (POST REMEDIAL ACTION)	R01: Campbell, James (ENGINEERING MANAGEMENT INC)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/627377
691478	EMAIL REGARDING REVISED SURFACE WATER (SW) SAMPLING PLAN	11/15/2018	1	EML / Email	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: Campbell, Jim (ENGINEERING MANAGEMENT INC)	R01: Sprague, Cheryl L (US EPA REGION 1), R01: Brandon, William C (US EPA REGION 1), R01: Soukup, Jim (WESTON SOLUTIONS INC), R01: Richards, Kenneth (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691478
691479	LETTERS REQUESTING PROPERTY ACCESS FOR PROPOSED WATER QUALITY SAMPLING AND TESTING	11/12/2018	142	LTR / Letter	056-SITE SUPPORT/0561-Administrative Support/17.02-ACCESS RECORDS	R01: Phillips, Ian M (HALEY & ALDRICH INC)	R01: Thiel, Barbara (LONDONDERRY (NH) RESIDENT), R01: Keeling, Jane (LONDONDERRY (NH) RESIDENT), R01: Mattuci, Dean (LONDONDERRY (NH) RESIDENT), R01: Soares, Douglas A (LONDONDERRY (NH) RESIDENT), R01: Soares, Mary Jw (LONDONDERRY (NH) RESIDENT), R01: Cameron, David P (LONDONDERRY (NH) RESIDENT), R01: Cameron, Christine D (LONDONDERRY (NH) RESIDENT), R01: Barud, Wojciech (LONDONDERRY (NH) RESIDENT), R01: Barud, Halina J (LONDONDERRY (NH) RESIDENT), R01: Foose, Shannon L (LONDONDERRY (NH) RESIDENT), R01: Foose, Lisa A (LONDONDERRY (NH) RESIDENT), R01: Booze, William S (LONDONDERRY (NH) RESIDENT), R01: Booze, Brenda G (LONDONDERRY (NH) RESIDENT), R01: Thompson, Marlene (LONDONDERRY (NH) RESIDENT), R01: Rose, Lawrence A (LONDONDERRY (NH) RESIDENT), R01: Rose, Kim F (LONDONDERRY (NH) RESIDENT), R01: Soucy, Andrew J (LONDONDERRY (NH) RESIDENT), R01: Lindley-soucy, Mary Kim (LONDONDERRY (NH) RESIDENT), R01: Keeling, Harold R (LONDONDERRY (NH) RESIDENT), R01: Marcotte, Justin (LONDONDERRY (NH) RESIDENT), R01: Marcotte, Alison (LONDONDERRY (NH) RESIDENT), R01: Ward, James M Jr (LONDONDERRY (NH) RESIDENT), R01: Ward, Sandi L (LONDONDERRY (NH) RESIDENT), R01: Dolan, Francis X Iv (LONDONDERRY (NH) RESIDENT), R01: Hindes, Tonya L (LONDONDERRY	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691479
627376	PROPOSED GROUNDWATER MANAGEMENT ZONE AND GMP MONITORING WELLS - FIGURE 2	11/01/2018	1	FIG / Figure/Map/ Drawing	053-REMEDIAL/0534-Post Construction/08.07-INSTITUTIONAL CONTROLS	R01: (HALEY & ALDRICH INC)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/627376
691444	LETTER REGARDING COLLECTION OF SAMPLES FROM RSIDENTIAL DRINKING WATER SUPPLY WELLS AT HOMES ALONG ROSS AND TOKANEL DRIVES FOR FIVE-YEAR REVIEW	11/01/2018	2	LTR / Letter	053-REMEDIAL/0534-Post Construction/08.04-LONG TERM RESPONSE MONITORING	R01: Sprague, Cheryl L (US EPA REGION 1), R01: Richards, Kenneth (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	R01: (LONDONDERRY (NH) RESIDENT)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691444
691482	TOWN MEETING UPDATE	10/10/2018	1	MTG / Meeting Document	053-REMEDIAL/0531-Remedy Characterization/03.01-CORRESPONDENCE (RI)	R01: (LONDONDERRY (NH) TOWN OF)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691482
691408	WATER SUPPLY WELL TESTING RESULTS, 5 BOSTON AVENUE	10/09/2018	187	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: Phillips, Ian M (HALEY & ALDRICH INC)	R01: Lynch, Ed (LONDONDERRY (NH) RESIDENT), R01: Lynch, Karen (LONDONDERRY (NH) RESIDENT)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691408
691407	LETTER REGARDING REQUEST TO POSTPONE GROUNDWATER MANAGEMENT PLAN (GMP) RENEWAL APPLICATION	10/04/2018	2	WP / Work Plan	053-REMEDIAL/0531-Remedy Characterization/04.07-WORK PLANS & PROGRESS REPORTS (FS)	R01: Phillips, Ian M (HALEY & ALDRICH INC), R01: Dykstra, Amy, B (HALEY & ALDRICH INC)	R01: Richards, Kenneth (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691407
691406	PRIVATE WELL SAMPLE RESULTS - 08/30/2018, 2 MERCURY DRIVE	10/01/2018	60	ADD / Analytical Data Document	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: Phillips, Ian M (HALEY & ALDRICH INC)	R01: Simonelli, Tom (LONDONDERRY (NH) RESIDENT)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691406
691473	MAP: PFOA AND PFOS RESULTS (JUNE - SEPTEMBER 2018)	10/01/2018	1	FIG / Figure/Map/ Drawing	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: (HALEY & ALDRICH INC)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691473

691404	LETTER REGARDING PUBLIC WATER SERVICE	08/31/2018	74	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/04.01-CORRESPONDENCE (FS)	R01: Phillips, Ian M (HALEY & ALDRICH INC), R01: Dykstra, Amy, B (HALEY & ALDRICH INC)	R01: Sprague, Cheryl L (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691404
691405	REDACTED PRIVATE WELL SAMPLE RESULTS, 2 MERCURY DRIVE	08/29/2018	169	ADD / Analytical Data Document	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: Phillips, Ian M (HALEY & ALDRICH INC)	R01: Simonelli, Tom (LONDONDERRY (NH) RESIDENT)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691405
691443	LETTER REGARDING REVISED 08/16/2018 SURFACE GEOPHYSICS WORK PLAN	08/25/2018	3	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/04.07-WORK PLANS & PROGRESS REPORTS (FS)	R01: Sprague, Cheryl L (US EPA REGION 1)	R01: Campbell, James (ENGINEERING MANAGEMENT INC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691443
691442	LETTER REGARDING RESPONSE TO 08/17/2018 REVISE GROUNDWATER - SURFACE WATER (GW-SW) INTERFACE INVESTIGATION PROPOSAL	08/24/2018	2	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/04.01-CORRESPONDENCE (FS)	R01: Sprague, Cheryl L (US EPA REGION 1)	R01: Campbell, James (ENGINEERING MANAGEMENT INC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691442
691403	MEMO REGARDING GROUNDWATER - SURFACE WATER (GW-SW) INTERACTION PROPOSED NEXT STEPS	08/17/2018	17	MEMO / Memorandum	053-REMEDIAL/0531-Remedy Characterization/04.01-CORRESPONDENCE (FS)	R01: Phillips, Ian M (HALEY & ALDRICH INC), R01: Dykstra, Amy, B (HALEY & ALDRICH INC)	R01: Sprague, Cheryl L (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691403
691436	GROUNDWATER - SURFACE WATER (GW-SW) INTERACTION PROPOSED NEXT STEPS	08/17/2018	17	MEMO / Memorandum	053-REMEDIAL/0531-Remedy Characterization/04.01-CORRESPONDENCE (FS)	R01: Phillips, Ian, M (HALEY & ALDRICH INC), R01: Dykstra, Amy, B (HALEY & ALDRICH INC)	R01: Sprague, Cheryl L (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691436
691477	MAP: PROPOSED SURFACE GEOPHYSICS SURVEY LINES	08/16/2018	1	FIG / Figure/Map/ Drawing	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: (HALEY & ALDRICH INC)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691477
691431	FACT SHEET: NH PFAS INVESTIGATION	08/06/2018	3	PUB / Publication	051-COMMUNITY INVOLVEMENT/0511-Community Involvement Activities/13.05-FACT SHEETS/INFORMATION UPDATES	R01: (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691431
691990	EMAIL REGARDING PFAS AND VOC SAMPLING (EMAIL HISTORY ATTACHED)	07/31/2018	3	EML / Email	053-REMEDIAL/0531-Remedy Characterization/03.02-SAMPLING & ANALYSIS DATA (RI)	R01: Campbell, James R (CANNONS SITES GROUP)	R01: Sprague, Cheryl L (US EPA REGION 1), R01: Taylor, Melissa (US EPA REGION 1), R01: Brandon, William C (US EPA REGION 1), R01: Mongeon, Robin (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES)), R01: Richards, Kenneth (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES)), R01: Soukup, James (WESTON SOLUTIONS INC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691990
691402	WATER SUPPLY WELL TESTING RESULTS, 5 BOSTON AVENUE	07/25/2018	163	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: Phillips, Ian M (HALEY & ALDRICH INC)	R01: Lynch, Ed (LONDONDERRY (NH) RESIDENT), R01: Lynch, Karen (LONDONDERRY (NH) RESIDENT)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691402
691401	LETTER REGARDING HISTORICAL SUMMARY OF CONDO AREA INVESTIGATIONS	07/24/2018	27	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/04.01-CORRESPONDENCE (FS)	R01: Phillips, Ian M (HALEY & ALDRICH INC), R01: Dykstra, Amy, B (HALEY & ALDRICH INC)	R01: Sprague, Cheryl L (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691401
691464	EMAIL REGARDING RECOMMENDED PFAS CONFIRMATORY SAMPLES (EMAIL HISTORY AND SAMPLING DATA ATTACHED)	07/24/2018	14	EML / Email	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: Sprague, Cheryl L (US EPA REGION 1)	R01: Taylor, Melissa (US EPA REGION 1), R01: Brandon, William C (US EPA REGION 1), R01: Mongeon, Robin (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES)), R01: Soukup, Jim (WESTON SOLUTIONS INC), R01: Richards, Kenneth (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES)), R01: Campbell, Jim (ENGINEERING MANAGEMENT INC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691464
691475	MAP: PFOA AND PFOS RESULTS (JUNE 2018), SAMPLING ROUND 2	07/10/2018	5	FIG / Figure/Map/ Drawing	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: (HALEY & ALDRICH INC)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691475
691474	MAP: PFOA AND PFOS RESULTS (JUNE 2018)	07/01/2018	5	FIG / Figure/Map/ Drawing	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: (HALEY & ALDRICH INC)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691474
689170	LETTER REGARDING WORK PLAN FOR SUPPLEMENTAL RELEASE AREA INVESTIGATIONS, FORMER TRENCH AREA	06/26/2018	347	LTR / Letter	053-REMEDIAL/0533-Remedial Action/07.06-WORK PLANS & PROGRESS REPORTS (RA)	R01: Phillips, Ian M (HALEY & ALDRICH INC), R01: Alepidis, Kenneth N (HALEY & ALDRICH INC)	R01: Sprague, Cheryl L (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689170
689171	LETTER REGARDING WORK PLAN FOR SUPPLEMENTAL RELEASE AREA INVESTIGATIONS, FORMER VOLATILE ORGANIC CHEMICALS (VOC) TREATMENT AREA	06/26/2018	347	LTR / Letter	053-REMEDIAL/0533-Remedial Action/07.06-WORK PLANS & PROGRESS REPORTS (RA)	R01: Phillips, Ian M (HALEY & ALDRICH INC), R01: Alepidis, Kenneth N (HALEY & ALDRICH INC)	R01: Sprague, Cheryl L (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689171
691400	LETTER REGARDING BEDROCK MONITORING WELL FW11D RE-CONSTRUCTION	06/22/2018	4	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/04.01-CORRESPONDENCE (FS)	R01: Phillips, Ian M (HALEY & ALDRICH INC), R01: Dykstra, Amy, B (HALEY & ALDRICH INC)	R01: Sprague, Cheryl L (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691400
689199	EXPEDITED WORK PLAN FOR SURFACE GEOPHYSICS SURVEY	06/11/2018	17	WP / Work Plan	053-REMEDIAL/0531-Remedy Characterization/04.07-WORK PLANS & PROGRESS REPORTS (FS)	R01: Kastrinos, John, R (HALEY & ALDRICH INC), R01: Phillips, Ian M (HALEY & ALDRICH INC)	R01: Sprague, Cheryl L (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689199
691438	APRIL 2018 DATA SUBMITTAL, DERRY MUNICIPAL LANDFILL AND WASTEWATER TREATMENT FACILITY	06/11/2018	103	RPT / Report	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: (DERRY (NH) TOWN OF)	R01: (DERRY (NH) TOWN OF)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691438
689198	EXPEDITED WORK PLAN FOR GROUNDWATER / SURFACE WATER INTERACTION	06/01/2018	95	WP / Work Plan	053-REMEDIAL/0531-Remedy Characterization/04.07-WORK PLANS & PROGRESS REPORTS (FS)	R01: Kastrinos, John, R (HALEY & ALDRICH INC), R01: Phillips, Ian M (HALEY & ALDRICH INC)	R01: Sprague, Cheryl L (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689198
691453	LETTER REGARDING REQUEST FOR PFAS SAMPLING	05/30/2018	4	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: Sprague, Cheryl L (US EPA REGION 1)	R01: Campbell, James (ENGINEERING MANAGEMENT INC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691453
689169	REDACTED LETTER REGARDING EPA REQUEST FOR SAMPLING OF 41 TOKANEL WATER SUPPLY WELL	05/20/2018	2	LTR / Letter	053-REMEDIAL/0533-Remedial Action/07.01-CORRESPONDENCE (RA)	R01: Sprague, Cheryl L (US EPA REGION 1)	R01: (LONDONDERRY (NH) RESIDENT)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689169

689197	LETTER REGARDING PUBLIC WATER SERVICE	05/15/2018	4	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/04.01-CORRESPONDENCE (FS)	R01: Phillips, Ian M (HALEY & ALDRICH INC), R01: Dykstra, Amy, B (HALEY & ALDRICH INC)	R01: Sprague, Cheryl L (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689197
689196	WATER SUPPLY WELL TESTING RESULTS, 5 BOSTON AVENUE	04/27/2018	229	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: Phillips, Ian M (HALEY & ALDRICH INC)	R01: Lynch, Ed (LONDONDERRY (NH) RESIDENT), R01: Lynch, Karen (LONDONDERRY (NH) RESIDENT)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689196
691470	FW11D RE-CONSTRUCTION LETTER WORK PLAN	04/27/2018	3	WP / Work Plan	053-REMEDIAL/0531-Remedy Characterization/04.07-WORK PLANS & PROGRESS REPORTS (FS)	R01: Phillips, Ian M (HALEY & ALDRICH INC)	R01: Sprague, Cheryl L (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691470
689173	PRP GROUP PROPOSED INITIAL ACTIONS	04/20/2018	3	RPT / Report	053-REMEDIAL/0533-Remedial Action/07.01-CORRESPONDENCE (RA)	R01: (TINKHAM GARAGE SETTLING PARTIES)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689173
691430	SITE PLAN - PFAS SAMPLING REQUEST	04/19/2018	1	FIG / Figure/Map/ Drawing	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: (WESTON SOLUTIONS INC)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691430
689195	LETTER REGARDING PROPOSAL FOR PFAS SCREENING	04/18/2018	4	LTR / Letter	053-REMEDIAL/0533-Remedial Action/07.01-CORRESPONDENCE (RA)	R01: Phillips, Ian M (HALEY & ALDRICH INC)	R01: Sprague, Cheryl L (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689195
691472	LETTER REGARDING PROPOSAL FOR PFAS SCREENING	04/18/2018	4	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/04.01-CORRESPONDENCE (FS)	R01: Phillips, Ian M (HALEY & ALDRICH INC)	R01: Sprague, Cheryl L (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691472
691481	PRESENTATION: BEDROCK INVESTIGATION	04/03/2018	95	MTG / Meeting Document	053-REMEDIAL/0531-Remedy Characterization/03.01-CORRESPONDENCE (RI)	R01: (US EPA REGION 1)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691481
691447	LETTER REGARDING SUPPLEMENTAL REMEDIAL INVESTIGATION AND FEASIBILITY STUDY (RI/FS)	02/08/2018	34	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/04.01-CORRESPONDENCE (FS)	R01: Sprague, Cheryl L (US EPA REGION 1)	R01: Jaffe, Seth D (FOLEY HOAG LLP), R01: Lucic, Robert R (SHEEHAN PHINNEY), R01: Campbell, James (ENGINEERING MANAGEMENT INC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691447
689193	ANNUAL WATER QUALITY MONITORING REPORT FOR 2017	01/29/2018	308	RPT / Report	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: (HALEY & ALDRICH INC)	R01: (CANNONS SITES GROUP)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689193
689192	WATER SUPPLY WELL TESTING RESULTS, 5 BOSTON AVENUE	01/08/2018	217	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: Phillips, Ian M (HALEY & ALDRICH INC)	R01: Lynch, Ed (LONDONDERRY (NH) RESIDENT), R01: Lynch, Karen (LONDONDERRY (NH) RESIDENT)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689192
691445	TECHNICAL FACT SHEET - 1,4-DIOXANE	11/01/2017	9	PUB / Publication	056-SITE SUPPORT/0561-Administrative Support/17.07-REFERENCE DOCUMENTS	R01: (US ENVIRONMENTAL PROTECTION AGENCY)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691445
689191	WATER SUPPLY WELL TESTING RESULTS, 5 BOSTON AVENUE	10/26/2017	209	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: Phillips, Ian M (HALEY & ALDRICH INC)	R01: Lynch, Ed (LONDONDERRY (NH) RESIDENT), R01: Lynch, Karen (LONDONDERRY (NH) RESIDENT)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689191
689190	LETTER REGARDING BOSTON AVENUE / CHARLESTOWN AVENUE CROSS SECTIONS	09/28/2017	6	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: Kastrinos, John, R (HALEY & ALDRICH INC), R01: Phillips, Ian M (HALEY & ALDRICH INC)	R01: Sprague, Cheryl L (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689190
689188	LETTER REGARDING RESPONSE TO 09/01/2017 EPA LETTER REGARDING THE 08/29/2017 EXPEDITED VAPOR INTRUSION WORK PLAN	09/15/2017	9	WP / Work Plan	053-REMEDIAL/0531-Remedy Characterization/04.07-WORK PLANS & PROGRESS REPORTS (FS)	R01: Phillips, Ian M (HALEY & ALDRICH INC), R01: Dykstra, Amy, B (HALEY & ALDRICH INC)	R01: Sprague, Cheryl L (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689188
689189	LETTER REGARDING REQUEST TO POSTPONE GROUNDWATER MANAGEMENT PLAN (GMP) RENEWAL APPLICATION	09/15/2017	1	WP / Work Plan	053-REMEDIAL/0531-Remedy Characterization/04.07-WORK PLANS & PROGRESS REPORTS (FS)	R01: Phillips, Ian M (HALEY & ALDRICH INC), R01: Dykstra, Amy, B (HALEY & ALDRICH INC)	R01: Richards, Kenneth (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689189
689187	LETTER REGARDING EXPEDITED WORK PLAN FOR VAPOR INTRUSION (VI) INVESTIGATION AT WOODLAND VILLAGE CONDO BUILDING N	08/29/2017	6	WP / Work Plan	053-REMEDIAL/0531-Remedy Characterization/04.07-WORK PLANS & PROGRESS REPORTS (FS)	R01: Phillips, Ian M (HALEY & ALDRICH INC), R01: Dykstra, Amy, B (HALEY & ALDRICH INC)	R01: Sprague, Cheryl L (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689187
689186	SUPPLEMENTAL SPRING 2017 GROUNDWATER SAMPLING RESULTS	08/11/2017	88	ADD / Analytical Data Document	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: Dykstra, Amy, B (HALEY & ALDRICH INC)	R01: (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689186
689182	MONTHLY PROGRESS REPORT - JULY 2017	08/04/2017	2	RPT / Report	053-REMEDIAL/0531-Remedy Characterization/04.07-WORK PLANS & PROGRESS REPORTS (FS)	R01: (HALEY & ALDRICH INC)	R01: Sprague, Cheryl L (US EPA REGION 1), R01: Sherman, Ruthann (US EPA REGION 1), R01: Richards, Ken (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689182
689181	WATER SUPPLY WELL TESTING RESULTS, 5 BOSTON AVENUE	07/26/2017	218	RPT / Report	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: Phillips, Ian, M (HALEY & ALDRICH INC)	R01: Lynch, Ed (LONDONDERRY (NH) RESIDENT), R01: Lynch, Karen (LONDONDERRY (NH) RESIDENT)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689181
689180	DISCRETE FRACTURE SAMPLING, FORMER RESIDENTIAL DRINKING WATER WELL AT 18 CHARLESTOWN AVENUE	07/21/2017	79	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: Phillips, Ian, M (HALEY & ALDRICH INC), R01: Dykstra, Amy, B (HALEY & ALDRICH INC)	R01: Campbell, James R (CANNONS SITES GROUP)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689180
689179	MAY 2017 GROUNDWATER SAMPLING RESULTS (TRANSMITTAL MEMO ATTACHED)	07/14/2017	171	RPT / Report	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: (TESTAMERICA LABORATORIES INC), R01: (ALPHA ANALYTICAL)	R01: (HALEY & ALDRICH INC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689179
691465	MEMO REGARDING EXPEDITED WORK PLAN FOR SURFACE GEOPHYSICAL SURVEY	06/27/2017	5	MEMO / Memorandum	053-REMEDIAL/0531-Remedy Characterization/04.07-WORK PLANS & PROGRESS REPORTS (FS)	R01: Brandon, William C (US EPA REGION 1)	R01: Sprague, Cheryl L (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691465
599037	NH DEPT OF ENVIRONMENTAL SERVICES RESPONSE TO 2017 SUSPENSION REQUEST LETTER ON GROUNDWATER MONITORING REQUIREMENT	05/02/2017	1	LTR / Letter	053-REMEDIAL/0533-Remedial Action/07.01-CORRESPONDENCE (RA)	R01: Richards, Kenneth (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	R01: Phillips, Ian, M (HALEY & ALDRICH INC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/599037
599036	LETTER REQUESTING SUSPENSION OF GROUNDWATER MONITORING REQUIREMENT	04/27/2017	2	LTR / Letter	053-REMEDIAL/0533-Remedial Action/07.01-CORRESPONDENCE (RA)	R01: Phillips, Ian, M (HALEY & ALDRICH INC), R01: Dykstra, Amy, B (HALEY & ALDRICH INC)	R01: Richards, Kenneth (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/599036
689178	ANALYTICAL REPORT WATER SUPPLY WELL TESTING RESULTS, 5 BOSTON AVENUE (TRANSMITTAL LETTER ATTACHED)	04/06/2017	233	RPT / Report	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: (TESTAMERICA LABORATORIES INC)	R01: (HALEY & ALDRICH INC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689178

689177	BOREHOLE GEOPHYSICAL INVESTIGATION, 18 CHARLESTOWN AVE (TRANSMITTAL MEMO ATTACHED)	03/06/2017	42	RPT / Report	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: (HAGER GEOSCIENCE INC)	R01: (HALEY & ALDRICH INC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689177
691998	BOREHOLE GEOPHYSICAL INVESTIGATION, 18 CHARLESTON AVE	03/06/2017	42	RPT / Report	053-REMEDIAL/0531-Remedy Characterization/03.02-SAMPLING & ANALYSIS DATA (RI)	R01: (HAGER GEOSCIENCE INC)	R01: (HALEY & ALDRICH INC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691998
689176	REPORT ON ANNUAL WATER QUALITY MONITORING REPORT FOR 2016	01/31/2017	69	RPT / Report	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: (HALEY & ALDRICH INC)	R01: (CANNONS SITES GROUP)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689176
689175	ANALYTICAL REPORT WATER SUPPLY WELL TESTING RESULTS, 5 BOSTON AVENUE (TRANSMITTAL LETTER ATTACHED)	01/19/2017	359	RPT / Report	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: (TESTAMERICA LABORATORIES INC)	R01: (HALEY & ALDRICH INC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689175
689174	REPORT ON SUPPLEMENTAL REMEDIAL INVESTIGATION AND FEASIBILITY STUDY (RI/FS) WORK PLAN	12/01/2016	3933	RPT / Report	053-REMEDIAL/0531-Remedy Characterization/04.07-WORK PLANS & PROGRESS REPORTS (FS)	R01: (HALEY & ALDRICH INC)	R01: (CANNONS SITES GROUP)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689174
691441	SUPPLEMENTAL REMEDIAL INVESTIGATION AND FEASILBILITY STUDY (RI/FS) WORK PLAN	12/01/2016	3672	WP / Work Plan	053-REMEDIAL/0531-Remedy Characterization/04.07-WORK PLANS & PROGRESS REPORTS (FS)	R01: (HALEY & ALDRICH INC)	R01: (CANNONS SITES GROUP)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691441
691978	BOREHOLE GEOPHYSICAL INVESTIGATION, WELLS LGAW AND LGSW	11/28/2016	108	RPT / Report	053-REMEDIAL/0531-Remedy Characterization/03.04-INTERIM DELIVERABLES (RI)	R01: (HAGER GEOSCIENCE INC)	R01: (HALEY & ALDRICH INC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691978
588550	LETTER REGARDING IMPLEMENTATION OF ADDITIONAL WORK IN CONNECTION WITH DISCOVERY OF CERTAIN HAZARDOUS SUBSTANCES IN RESIDENTIAL WELLS AT CHARLESTON AND BOSTON AVENUES IN LONDONDERRY, NH	05/26/2016	3	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/03.01-CORRESPONDENCE (RI)	R01: Lucic, Robert R (SHEEHAN PHINNEY), R01: Jaffe, Seth, D (SHEEHAN PHINNEY)	R01: Sherman, Ruthann (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/588550
588549	LETTER REGARDING IMPLEMENTATION OF WORK UNDER EXPLANATION OF SIGNIFICANT DIFFERENCES (ESD)	05/18/2016	4	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/03.01-CORRESPONDENCE (RI)	R01: Walters, Michael, D (WALTERS ENVIRONMENTAL HEALTH CONSULTING SERVICES)	R01: Jasinski, Michael (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/588549
588545	EMAIL REGARDING COMPLETION OF THREE BEDROCK WELLS INITIATED IN 2014	04/22/2016	4	EML / Email	053-REMEDIAL/0531-Remedy Characterization/03.01-CORRESPONDENCE (RI)	R01: Sprague, Cheryl L (US EPA REGION 1)	R01: Phillips, Ian M (HALEY & ALDRICH INC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/588545
689194	LETTER REGARDING RESPONSE TO RECENT SAMPLE AT DRINKING WATER SUPPLY WELL AT 18 CHARLESTON AVENUE	01/26/2016	2	LTR / Letter	053-REMEDIAL/0533-Remedial Action/07.01-CORRESPONDENCE (RA)	R01: Sprague, Cheryl L (US EPA REGION 1)	R01: Phillips, Ian M (HALEY & ALDRICH INC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/689194
500018804	Transmittal Memorandum regarding Determining Groundwater Exposure Point Concentrations, Supplemental Guidance: Groundwater Exposure Point Concentrations OSWER Directive 9283.1-42	03/11/2014	2	LAWS / Laws/Regulations/Guidance	053 - REMEDIAL / 0531 - Remedy Characterization / A4.1 - Remedial Investigation/Feasibility Study	R11: Stalcup, Dana (NONE)		UCTL(Uncontrolled)	11	https://semspub.epa.gov/src/document/11/500018804
177112	Determining Groundwater Exposure Point Concentrations, Supplemental Guidance: Groundwater Exposure Point Concentrations, OSWER Directive 9283.1-42	02/01/2014	17	LAWS / Laws/Regulations/Guidance	053 - REMEDIAL / 0531 - Remedy Characterization / A4.1 - Remedial Investigation/Feasibility Study			UCTL(Uncontrolled)	11	https://semspub.epa.gov/src/document/11/177112
691483	FACT SHEET: PERFLUOROALKYLS - TOXFAQS	03/01/2013	2	PUB / Publication	056-SITE SUPPORT/0561-Administrative Support/17.07-REFERENCE DOCUMENTS	R01: (AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY (ATSDR))		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691483
595909	GROUNDWATER MANAGEMENT PERMIT NO GWP-199004008-L-003 (TRANSMITTAL LETTER ATTACHED)	12/28/2012	5	LAWS / Laws/Regulations/Guidance	053-REMEDIAL/0534-Post Construction/08.07-INSTITUTIONAL CONTROLS	R01: Baxter, Carl W (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	R01: Sanoff, Robert, S. (FOLEY, HOAG & ELIOT LLP), R01: (CANNONS SITES GROUP)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/595909
561898	PUBLIC HEALTH STATEMENT, 1,4-DIOXANE, CAS # 123-91-1	04/01/2012	9	PUB / Publication	051-COMMUNITY INVOLVEMENT/0511-Community Involvement Activities/13.05-FACT SHEETS/INFORMATION UPDATES	R01: (AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY (ATSDR))		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/561898
691467	FACT SHEET: 1,4-DIOXANE - TOXFAQS	04/01/2012	2	PUB / Publication	051-COMMUNITY INVOLVEMENT/0511-Community Involvement Activities/13.05-FACT SHEETS/INFORMATION UPDATES	R01: (AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY (ATSDR))		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691467
691440	DERRY SOURCE WATER PROTECTION PLAN	02/01/2012	41	WP / Work Plan	053-REMEDIAL/0531-Remedy Characterization/04.07-WORK PLANS & PROGRESS REPORTS (FS)	R01: (SOUTHERN NH PLANNING COMMISSION)	R01: (DERRY (NH) TOWN OF)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691440
691432	FACT SHEET: ENVIRONMENTAL FACT SHEET, TRICHLOROETHYLENE: HEALTH INFORMATION SUMMARY	01/01/2012	3	PUB / Publication	051-COMMUNITY INVOLVEMENT/0511-Community Involvement Activities/13.05-FACT SHEETS/INFORMATION UPDATES	R01: (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691432
546636	ENVIRONMENTAL FACT SHEET: 1,4-DIOXANE: HEALTH INFORMATION SUMMARY	01/01/2011	3	PUB / Publication	051-COMMUNITY INVOLVEMENT/0511-Community Involvement Activities/13.05-FACT SHEETS/INFORMATION UPDATES	R01: (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/546636
518797	LETTER REGARDING BEDROCK GROUNDWATER WORK (FOIA REQUEST AND 10/21/2010 LETTER REQUESTING ADDITIONAL TESTING ATTACHED) [MARGINALIA]	11/11/2010	7	LTR / Letter	052-ENFORCEMENT/0521-PRP Search/11.09-PRP-SPECIFIC DOCUMENTS	R01: Sanoff, Robert S (FOLEY HOAG LLP)	R01: Sherman, Ruthann (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/518797
610732	Memorandum concerning Update on Providing Alternative Water Supply as Part of Superfund Response Actions, OSWER Directive # 9355.3-22	09/24/2010	8	LAWS / Laws/Regulations/Guidance	058 - PROGRAM SUPPORT / 0583 - Regulatory Development / B8.4 - Directives and Policy Guidance Documents	R11: Tulis, Dana, S (Environmental Protection Agency), R11: Reeder, John (Environmental Protection Agency), R11: Woolford, James, E (Environmental Protection Agency)		UCTL(Uncontrolled)	11	https://semspub.epa.gov/src/document/11/610732
691466	LETTER REGARDING SUMMARY OF RESULTS - 1,4-DIOXANE IN PRIVATE WATER SUPPLY WELLS ON ROSS DRIVE	12/30/2009	26	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: Phillips, Ian (ROUX ASSOCIATES INC)	R01: Mah, Byron (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691466

518798	LETTER REGARDING BEDROCK GROUNDWATER TESTING FOR VOLATILE ORGANIC COMPOUNDS (VOC) [MARGINALIA]	11/03/2009	5	LTR / Letter	053-REMEDIAL/0533-Remedial Action/07.02-SAMPLING & ANALYSIS DATA (RA)	R01: Phillips, Ian (ROUX ASSOCIATES INC)	R01: Mah, Byron (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/518798
283188	GROUNDWATER MANAGEMENT PERMIT NO GWP-199004008-L-002 (11/27/2007 TRANSMITTAL ATTACHED)	11/27/2007	20	LAWS / Laws/Regulations/Guidance	053-REMEDIAL/0534-Post Construction/08.07-INSTITUTIONAL CONTROLS	R01: Baxter, Carl W (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	R01: Sanoff, Robert, S. (FOLEY, HOAG & ELIOT LLP), R01: (CANNONS SITES GROUP)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/283188
691979	LETTER REGARDING STANTECT COMMENT #10 - GROUNDWATER MANAGEMENT RIGHTS	07/13/2007	1	LTR / Letter	053-REMEDIAL/0534-Post Construction/08.07-INSTITUTIONAL CONTROLS	R01: Pease, Elmer A Ii (PD ASSOCIATES LLC)	R01: Thompson, Tim (LONDONDERRY (NH) TOWN OF)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691979
691982	LETTER REGARDING WATER SUPPLY WELL SAMPLE; 11 ROSS DRIVE	12/14/2006	2	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/03.02-SAMPLING & ANALYSIS DATA (RI)	R01: Gordon, David S (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	R01: Brown, David (LONDONDERRY (NH) RESIDENT), R01: Brown, David Mrs (LONDONDERRY (NH) RESIDENT)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691982
691980	LETTER REGARDING WATER SUPPLY WELL SAMPLE #A610329011 COLLECTED ON 10/10/2006; 30 ROSS DRIVE	12/11/2006	2	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/03.02-SAMPLING & ANALYSIS DATA (RI)	R01: Hoffman, Andrew J (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	R01: Flint, Mr (LONDONDERRY (NH) RESIDENT), R01: Flint, Mrs (LONDONDERRY (NH) RESIDENT)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691980
691981	LETTER REGARDING WATER SUPPLY WELL SAMPLE #A610329007 COLLECTED ON 10/10/2006; 14 ROSS DRIVE	12/11/2006	1	LTR / Letter	053-REMEDIAL/0531-Remedy Characterization/03.02-SAMPLING & ANALYSIS DATA (RI)	R01: Hoffman, Andrew J (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	R01: Devoe, Mr (LONDONDERRY (NH) RESIDENT), R01: Devoe, Mrs (LONDONDERRY (NH) RESIDENT)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691981
691984	MEMO TO OWNERS OF PROPERTY WITH DRINKING WATER WELLS REGARDING GROUNDWATER CONTAMINATION NOTIFICATION PROGRAM	12/08/2004	4	MEMO / Memorandum	056-SITE SUPPORT/0563-State/Tribal Involvement/09.01-CORRESPONDENCE (STATE COORDINATION)	R01: Reid, David (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691984
213048	REUSE ASSESSMENT	09/01/2004	14	RPT / Report	053-REMEDIAL/0532-Remedial Design/06.04-REMEDIAL DESIGN REPORTS	R01: (US EPA REGION 1)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/213048
691471	WELL COMPLETEION REPORT, SOUTH LONDONDERRY SEWER INTERCEPTOR - WATER WELL AND SYSTEM	05/11/2004	8	RPT / Report	053-REMEDIAL/0531-Remedy Characterization/04.07-WORK PLANS & PROGRESS REPORTS (FS)	R01: Cushing, Bart C (CUSHING & SONS)	R01: Bauer, Bruce A (CONTINENTAL PAVING INC)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691471
691417	OPERATING PROCEDURE: OP3012, LOW STRESS / LOW FLOW GROUNDWATER SAMPLE COLLECTION PROCEDURE	06/10/2003	22	RPT / Report	053-REMEDIAL/0531-Remedy Characterization/04.01-CORRESPONDENCE (FS)	R01: (HALEY & ALDRICH INC)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691417
457544	CONSENT AGREEMENT AND COVENENANT NOT TO SUE, DOCKET NO. 01-2003-0012	05/09/2003	24	LGL / Legal Instrument	052-ENFORCEMENT/0522-Negotiations/10.08-EPA CONSENT DECREES	R01: (US EPA REGION 1)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/457544
575018	COMFORT/STATUS LETTER - TAX MAP 7, LOTS 119 AND 120, 41-49 NASHUA ROAD, ROUTE 102 [MARGINALIA]	09/26/2001	3	LTR / Letter	052-ENFORCEMENT/0521-PRP Search/11.09-PRP-SPECIFIC DOCUMENTS	R01: Meaney, Patricia L (US EPA REGION 1)	R01: Simpson, Gary L (ALTMAN, KRITZER & LEVICK, PC), R01: (HOME DEPOT)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/575018
691450	LETTER REGARDING PROPOSED HOME DEPOT, 41 AND 49 NASHUA ROAD	02/14/2000	4	LTR / Letter	053-REMEDIAL/0534-Post Construction/08.01-CORRESPONDENCE (POST REMEDIAL ACTION)	R01: Crealese, Charles, D (GOLDBERG-ZOINO & ASSOCIATES INC), R01: Nichols, Nancy J (GZA GEOENVIRONMENTAL INC), R01: Israel, Martha J (GZA GEOENVIRONMENTAL INC)	R01: Dilorenzo, James M (US EPA REGION 1), R01: Lincoln, Paul C (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691450
691461	REVISED CONCEPT PLAN 'A' - PROPOSED HOME DEPOT	07/29/1999	2	FIG / Figure/Map/Drawing	053-REMEDIAL/0534-Post Construction/08.10-REDEVELOPMENT MAPS & PLANS	R01: (HAYNER/SWANSON INC)	R01: (GREENBERG FARROW ARCHITECTURE)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691461
691997	LETTER REGARDING REVIEW OF 3 MCALLISTER DRIVE: TANK CLOSURE REPORT, 12/18/1998	06/03/1999	1	LTR / Letter	056-SITE SUPPORT/0563-State/Tribal Involvement/09.01-CORRESPONDENCE (STATE COORDINATION)	R01: Berube, Charles (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	R01: Tinkham, Judy M (TINKHAM REALTY)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691997
175393	MEMO: SUPERFUND REFORMS: UPDATING REMEDY DECISIONS--OSWER 9200.0-22, EPA 540/F-96/026	09/27/1996	9	CORR / Correspondence	058 - PROGRAM SUPPORT / 0583 - Regulatory Development / B8.1 - Regulations, Standards & Guidelines			UCTL(Uncontrolled)	11	https://semspub.epa.gov/src/document/11/175393
444857	APPROVAL OF OPERABLE UNIT (OU) 1 REMEDIAL ACTION (RA) REPORT	06/27/1996	1	MEMO / Memorandum	053-REMEDIAL/0533-Remedial Action/07.01-CORRESPONDENCE (RA)	R01: Dilorenzo, James (US EPA REGION 1)	R01: Brill, Larry (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/444857
10803	REMEDIAL ACTION (RA) REPORT	03/15/1996	180	RPT / Report	053-REMEDIAL/0533-Remedial Action/07.05-REMEDIAL ACTION DOCUMENTS	R01: (TERRA VAC CORP)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/10803
273463	PRELIMINARY CLOSE OUT REPORT (PCOR), TINKHAM GARAGE, LONDONDERRY, NH	04/07/1995	9	RPT / Report	053-REMEDIAL/0534-Post Construction/08.03-LONG-TERM RESPONSE REPORTS	R01: (US EPA REGION 1)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/273463
11812	INSTALLATION OF THREE WETLANDS GROUND WATER OBSERVATION WELLS AND THE DRILLING OF A REPLACEMENT WELL AT THE LOCATION OF MP-I-3S	11/04/1994	9	LTR / Letter	053-REMEDIAL/0533-Remedial Action/07.02-SAMPLING & ANALYSIS DATA (RA)	R01: Mullin, Robert A (GEI CONSULTANTS INC)	R01: Dilorenzo, James (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/11812
10862	SOIL CONSOLIDATION COMPLETION REPORT	09/14/1994	39	RPT / Report	053-REMEDIAL/0533-Remedial Action/07.05-REMEDIAL ACTION DOCUMENTS	R01: (TERRA VAC CORP)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/10862
691947	FACT SHEET: SUPERFUND AT WORK, SUPERFUND TACKLES OPERATION THAT SPAWNED FOUR WASTE SITES	06/01/1994	8	PUB / Publication	051-COMMUNITY INVOLVEMENT/0511-Community Involvement Activities/13.05-FACT SHEETS/INFORMATION UPDATES	R01: (US EPA REGION 1)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691947
11818	OVERSIGHT SAMPLING AND ANALYSIS PLAN (SAP), SOURCE CONTROL REMEDIAL ACTION (RA), DRAFT	03/01/1994	103	WP / Work Plan	053-REMEDIAL/0533-Remedial Action/07.02-SAMPLING & ANALYSIS DATA (RA)	R01: (NUS/TETRA TECH INC), R01: (BADGER ENGINEERS INC)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/11818
10814	WORKPLAN FOR THE SOURCE CONTROL REMEDIAL ACTION (RA)	02/07/1994	52	WP / Work Plan	053-REMEDIAL/0533-Remedial Action/07.06-WORK PLANS & PROGRESS REPORTS (RA)	R01: (TERRA VAC CORP)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/10814
10852	APPENDIX A, PROJECT OPERATIONS PLAN, (POP) VOLUME 1 OF 3, SITE MANAGEMENT PLAN	02/07/1994	21	WP / Work Plan	053-REMEDIAL/0533-Remedial Action/07.06-WORK PLANS & PROGRESS REPORTS (RA)	R01: (TERRA VAC CORP)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/10852
10853	APPENDIX A, PROJECT OPERATIONS PLAN (POP), VOLUME 2 OF 3, HEALTH AND SAFETY PLAN (HSP)	02/07/1994	221	WP / Work Plan	053-REMEDIAL/0533-Remedial Action/07.06-WORK PLANS & PROGRESS REPORTS (RA)	R01: (TERRA VAC CORP)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/10853
10854	APPENDIX A, PROJECT OPERATIONS PLAN (POP), VOLUME 3 OF 3, SAMPLING AND ANALYSIS PLAN (SAP)	02/07/1994	86	WP / Work Plan	053-REMEDIAL/0533-Remedial Action/07.06-WORK PLANS & PROGRESS REPORTS (RA)	R01: (TERRA VAC CORP)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/10854
10855	APPENDIX B, REMEDIAL DESIGN (RD) REPORT	02/07/1994	56	RPT / Report	053-REMEDIAL/0533-Remedial Action/07.06-WORK PLANS & PROGRESS REPORTS (RA)	R01: (TERRA VAC CORP)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/10855

10861	EVALUATION REPORT FOR THE ADDITIONAL FIELD STUDIES, VOLUME 1 OF 3, RESULTS OF AQUIFER PUMP TEST	08/26/1992	76	RPT / Report	053-REMEDIAL/0533-Remedial Action/07.05-REMEDIAL ACTION DOCUMENTS	R01: (TERRA VAC CORP)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/10861
10712	WATER QUALITY MONITORING RESULTS FOR SAMPLES COLLECTED DURING THE TREATMENT OF THE EXTRACTED GROUNDWATER	07/22/1992	24	ADD / Analytical Data Document	053-REMEDIAL/0532-Remedial Design/06.02-SAMPLING & ANALYSIS DATA (RD)	R01: Giustra, Dennis P (TERRA VAC CORP), R01: Ciriello, James S (TERRA VAC CORP)	R01: Minicucci, Robert P (NH DEPT OF ENVIRONMENTAL SERVICES (NHDES))	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/10712
10863	WORKPLAN FOR ADDITIONAL FIELD STUDIES	04/21/1992	122	WP / Work Plan	053-REMEDIAL/0533-Remedial Action/07.06-WORK PLANS & PROGRESS REPORTS (RA)	R01: (TERRA VAC CORP)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/10863
11814	PRELIMINARY ANALYSES OF INFILTRATION SYSTEM ALTERNATIVES	04/13/1992	13	MEMO / Memorandum	053-REMEDIAL/0533-Remedial Action/07.02-SAMPLING & ANALYSIS DATA (RA)	R01: Mullin, Robert A (GEI CONSULTANTS INC)	R01: Leber, Diane M (CIBA GEIGY CORPORATION)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/11814
11925	SITE MANAGEMENT PLAN, VOLUME 1 OF PROJECT OPERATIONS PLAN (POP) APPENDIX A	04/13/1992	21	RPT / Report	056-SITE SUPPORT/0561-Administrative Support/17.06-SITE MANAGEMENT PLANS & REVIEWS	R01: (TERRA VAC CORP)	R01: (CANNONS SITES GROUP)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/11915
11805	RESULTS OF THE GROUND WATER SAMPLING EFFORT PERFORMED BETWEEN 02/13/1992 AND 02/14/1992	03/20/1992	103	MEMO / Memorandum	053-REMEDIAL/0533-Remedial Action/07.02-SAMPLING & ANALYSIS DATA (RA)	R01: (GEI CONSULTANTS INC)	R01: Leber, Diane M (CIBA GEIGY CORPORATION)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/11805
148177	Guide to Developing Superfund No Action, Interim Action, and Contingency Remedy RODs, Publication 9335.3-02FS-3	04/01/1991	6	PUB / Publication	058 - PROGRAM SUPPORT / 0587 - Public Affairs / B7.2 - Public Information & Outreach			UCTL(Uncontrolled)	11	https://semspub.epa.gov/src/document/11/148177
148178	Guide to Addressing Pre-ROD and Post-ROD Changes, Publication 9355.3-02FS-4	04/01/1991	6	PUB / Publication	058 - PROGRAM SUPPORT / 0587 - Public Affairs / B7.2 - Public Information & Outreach			UCTL(Uncontrolled)	11	https://semspub.epa.gov/src/document/11/148178
259600	FACT SHEET: CANNONS ENGINEERING SUPERFUND CASE SETTLEMENT	08/03/1988	14	PUB / Publication	051-COMMUNITY INVOLVEMENT/0511-Community Involvement Activities/13.05-FACT SHEETS/INFORMATION UPDATES	R01: (US EPA REGION 1)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/259600
101143	OSWER Directive 9355.3-03; Guidance Document for Providing Alternate Water Supplies; Compendium 4001	02/01/1988	71	LAWS / Laws/Regulations/Guidance	058 - PROGRAM SUPPORT / 0583 - Regulatory Development / B8.1 - Regulations, Standards & Guidelines, 58 - PROGRAM SUPPORT / 0583 - Regulatory Development / B8.4 - Directives and Policy Guidance Documents			UCTL(Uncontrolled)	11	https://semspub.epa.gov/src/document/11/101143
691451	BORING LOGS	11/23/1987	28	FRM / Form	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: (NEW ENGLAND BORING CONTRACTORS OF CT INC)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691451
25851	EPIC BOOK: SITE ANALYSIS	01/01/1987	19	PHT / Photograph	056-SITE SUPPORT/0561-Administrative Support/17.04-NON-PRINT MATERIALS	R01: (US EPA - ENVIRONMENTAL PHOTOGRAPHIC INTERPRETATION CTR (EPIC))	R01: (US EPA REGION 1)	UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/25851
691427	TOPOGRAPHICAL MAP OF LONDONDERRY, NH	01/01/1953	1	FIG / Figure/Map/Drawing	056-SITE SUPPORT/0561-Administrative Support/17.04-NON-PRINT MATERIALS	R01: (US GEOLOGICAL SURVEY)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691427
466274	FACT SHEET: PUBLIC HEALTH AND ENVIRONMENTAL CONCERNS - TINKHAM GARAGE SUPERFUND SITE	Undated	2	PUB / Publication	051-COMMUNITY INVOLVEMENT/0511-Community Involvement Activities/13.05-FACT SHEETS/INFORMATION UPDATES	R01: (US DEPT OF HEALTH AND HUMAN SERVICES - AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY (ATSDR))		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/466274
691460	MAP: PROPOSED SURFACE GEOPHYSICS PROFILING	Undated	1	FIG / Figure/Map/Drawing	053-REMEDIAL/0531-Remedy Characterization/04.02-SAMPLING & ANALYSIS DATA (FS)	R01: (HALEY & ALDRICH INC)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691460
691957	PHOTOGRAPH: FOAMY WATER IN STREAM, FW11DX	Undated	1	PHT / Photograph	053-REMEDIAL/0531-Remedy Characterization/03.02-SAMPLING & ANALYSIS DATA (RI)	R01: (US EPA REGION 1)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691957
691958	PHOTOGRAPH: ZONE 8A PURGE WATER FOAM, FW11DX	Undated	1	PHT / Photograph	053-REMEDIAL/0531-Remedy Characterization/03.02-SAMPLING & ANALYSIS DATA (RI)	R01: (US EPA REGION 1)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691958
691959	PHOTOGRAPH: ROADWAY DAM LOOKING SOUTH, FW11DX	Undated	1	PHT / Photograph	053-REMEDIAL/0531-Remedy Characterization/03.02-SAMPLING & ANALYSIS DATA (RI)	R01: (US EPA REGION 1)		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691959
691996	AERIAL PHOTOGRAPH, SOLVENT SWALE	Undated	1	PHT / Photograph	056-SITE SUPPORT/0561-Administrative Support/17.04-NON-PRINT MATERIALS	R01: (ENVIRONMENTAL PHOTOGRAPHIC INTERPRETATION CENTER (EPIC))		UCTL(Uncontrolled)	01	https://semspub.epa.gov/src/document/01/691996