

STATUS REPORT ON THE OCCURRENCE OF PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) CONTAMINATION IN NEW HAMPSHIRE

This report has been developed to satisfy the requirements of the Laws of New Hampshire

January Session of 2018, Chapter 306:2 (HB 1766)

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LIST OF COMMON ACRONYMS

AGQS – Ambient Groundwater Quality Standard
EPA – United States Environmental Protection Agency
NHDES – New Hampshire Department of Environmental Services
PFAS – Per- and polyfluoroalkyl substances
PFOA – Perfluorooctanoic Acid
PFOS – Perfluorooctanesulfonic Acid
PFHxS - Perfluorohexane Sulfonic Acid
PFNA - Perfluorononanoic Acid
PWS – Public Water System

1. Introduction

The New Hampshire Department of Environmental Services (NHDES) is engaged in an ongoing investigation into per- and polyfluoroalkyl substances (PFAS) in New Hampshire drinking water. New Hampshire and several other northeast states are dealing with several sites where there have been widespread PFAS impacts on drinking water supplies. In recognition of public concern regarding the issue of water quality in the Seacoast area and at areas of environmental interest across the state relative to PFAS, the Laws of New Hampshire, January Session of 2018 Chapter 306:2 (House Bill 1766) requires NHDES to report to the general court regarding bedrock testing and PFAS contamination in the Seacoast area and at other landfills and hazardous waste sites. This status report reflects an update to NHDES' December 2019 report, and has been developed to satisfy the twice yearly reporting requirements established in Chapter 306:2 (House Bill 1766).

Per- and polyfluoroalkyl substances or PFAS are a family of nearly 5,000 man-made chemicals, some of which have been more widely used and studied than others¹. PFAS have been widely used since the 1940s in commercial, industrial, and household products and applications, including production of water resistant materials, fire suppression foams, non-stick cookware, stain removers, etc. PFAS are used for their properties to resist heat, oil, grease and water. Once released to the environment, PFAS are persistent and do not biodegrade or breakdown.

In 2019, NHDES adopted rules that establish health-based Maximum Contaminant Levels (MCLs) referred to herein as "health based standards", and Ambient Groundwater Quality Standards (AGQS) for four per- and polyfluoroalkyl substances (PFAS) that include: 12 ppt for perfluorooctanoic acid (PFOA), 15 ppt for perfluorooctane sulfonic acid (PFOS), 18 ppt for perfluorohexane sulfonic acid (PFHxS), and 11 ppt for perfluorononanoic acid (PFNA). MCLs are drinking water quality standards that non-transient public water systems (water systems serving the same 25 people more than 6 months per year) must comply with. An AGQS is the standard used to require site investigations and remedial action at and around contamination sites. AGQS are also used to identify where the provision of alternative drinking water is required when contamination sites have contaminated private and/or public water supply wells.

The effective date upon which the rules became enforceable standards was September 30, 2019. However, effective December 31, 2019, the Merrimack County Superior Court issued a preliminary injunction barring enforcement of these rules due to the alleged failure of NHDES to appropriately consider the costs and benefits of the rules. Accordingly, there are currently no enforceable drinking water MCLs for the four chemicals. The former AGQS rule of 70 ppt for PFOA, PFOS, or combined concentrations of the two chemicals, as adopted by NHDES in 2016, remains in effect, while the 2019 rules are enjoined. Please note that these rules do not require testing by owners of private water wells. NHDES does recommend for health reasons that private wells meet the health based standards.

This status report provides a brief summary of PFAS information available to date at the Coakley Landfill and former Pease Air Force Base superfund sites, both of which are located in the seacoast area of New Hampshire. This information includes a description of recent investigations at the Coakley site, and efforts to treat groundwater and drinking water at the Pease site. The report also presents PFAS data for public drinking water supplies, and groundwater data compiled from known PFAS sites statewide.

NHDES notes that its PFAS data are contained in several different databases, which impacts the ease with which PFAS information can be queried. Data provided in this status report is current for most NHDES

¹ <https://www.fda.gov/food/chemicals/and-polyfluoroalkyl-substances-pfas>

programs through March 2020. Since new data are continuously provided to NHDES, readers may wish to access more up-to-date information using the following resources:

- Data viewer summarizing up to date PFOA and PFOS sampling results at <https://www4.des.state.nh.us/nh-pfas-investigation/> (under “Maps and Data”);
- Data tables representing up-to-date water sampling results provided by public water systems in New Hampshire at https://www4.des.state.nh.us/nh-pfas-investigation/?page_id=826; and
- An online, searchable database referred to as “OneStop” comprised of environmental information and data compiled by select NHDES programs. OneStop does not provide access to all existing PFAS NHDES data, however, it is considered to be a valuable resource. The database can be found at <http://www4.des.state.nh.us/DESONestop/BasicSearch.aspx>.

This status report is required to be updated every six months and provided to the legislature. NHDES anticipates updates to the report will be available June 1 and December 1 of each year.

2. Coakley Landfill Superfund Site

The Coakley Landfill Superfund Site (Coakley) is a closed 27-acre former municipal/industrial solid waste disposal facility located in North Hampton. The landfill operated from 1972 to 1982 and received incinerator ash from the Portsmouth Refuse-to-Energy Facility through 1985. The site was listed on the National Priorities List (Superfund) in 1983 and construction of selected remedies was completed in 1999. Sampling for the emerging contaminants 1,4-dioxane and PFAS in 2009 and 2016, respectively, confirmed their presence and prompted extensive follow-on investigations. Currently, the Coakley Landfill Group (CLG), a consortium of the parties responsible for the contamination, is conducting an investigation that will further develop the conceptual site model, refining the source, fate, and transport of these emerging contaminants.

The following provides an update regarding ongoing activities in part related to the investigation of PFAS at Coakley. For additional site-specific information please visit NHDES’ OneStop database at: <http://www4.des.state.nh.us/DESONestop/BasicSearch.aspx> or EPA’s website at: <https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0101107>. The NHDES Site ID associated with the Coakley Landfill is NHDES#198712001.

- On March 23, 2020, the CLG submitted a proposal to revise the site-wide sampling program. The agencies largely denied the majority of the proposed changes in a March 27 email response, due to the brief time since changes in the sampling program were granted in August 2019 and the limited ability to assess data trends since these changes were implemented.
- The CLG submitted an interim report related to the ongoing bedrock investigation on November 25, 2019, following two granted extension periods that were requested by CLG related to delays in analytical data acquisition. EPA had directed CLG to develop this interim report to provide an updated conceptual site model for the deep bedrock based on the investigations conducted and data collected to date and to provide recommendations for any remaining tasks necessary to complete the bedrock investigation. EPA and NHDES have reviewed the report and issued comments to the CLG on February 6, 2020.

- On November 22, 2019, EPA sent agency comments to the CLG in response to a stormwater investigation report that was submitted on September 24, 2019, and provided the results of wet-weather sampling of surface and underdrain discharge locations from the landfill cap conducted in fall 2018 and spring 2019. The sampling results showed a significant loading of PFAS compounds in stormwater runoff from the cap, as well as PFAS compounds within the cap soil cover materials. The CLG submitted a response to the comments on January 22, 2020, which included a work plan for additional investigative and sampling activity, which was under review by EPA and NHDES at the close of this reporting period.
- NHDES submitted a letter to the NH Legislature on November 1 with updates and progress made toward addressing provisions of House Bill 494 relative to PFAS contamination in surface water near the Coakley Landfill. On December 30, 2019, the CLG submitted a letter to NHDES providing information concerning work to be performed to evaluate potential remedial options that may be implemented to address the requirements of HB 494. Specifically, the letter addressed how the proposed work would support the implementation of a remedy to reduce contaminant concentrations in Berrys Brook.
- The CLG conducted a semi-annual sampling round in fall 2019, including the sampling of more than 20 private wells and resampling of newly installed deep bedrock wells to the north and west of the landfill. Validated data, consistent with past results, has been provided to private property owners by the CLG and their consultant. Another semi-annual sampling round will be conducted in spring 2020. Private well sampling options will remain flexible in light of the Covid-19 pandemic, by offering private well sampling where it can be accomplished under applicable safety guidelines.
- The agencies provided a written site update via email distribution on January 29, 2020.

For further details on submittals and agency responses, please see hyperlinks provided in the table below.

Documents added to EPA and/or NHDES websites between October 1, 2019 and March 31, 2020:

| Date | Document |
|-------------------|--|
| March 27, 2020 | EPA email response to CLG proposed site sampling revisions https://www4.des.state.nh.us/IISProxy/IISProxy.dll?ContentId=4834531 |
| March 23, 2020 | CLG Memo Proposing Groundwater Sampling Program Revisions https://www4.des.state.nh.us/IISProxy/IISProxy.dll?ContentId=4841624 |
| February 26, 2020 | CLG submittal of Spring 2019 Sampling Analytical Results https://www4.des.state.nh.us/IISProxy/IISProxy.dll?ContentId=4829838 |
| February 25, 2020 | NHDES-issued water sampling result letters https://www4.des.state.nh.us/IISProxy/IISProxy.dll?ContentId=4829459 |
| February 6, 2020 | EPA letter to CLG commenting on Deep Bedrock Investigation Interim Report https://www4.des.state.nh.us/IISProxy/IISProxy.dll?ContentId=4828626 |
| January 29, 2020 | EPA email update on the Coakley Landfill Site https://www4.des.state.nh.us/IISProxy/IISProxy.dll?ContentId=4828632 |
| January 22, 2020 | CLG submittal of Response to Comments on Stormwater Investigation Report including Surface Water Evaluation Scope of Work https://www4.des.state.nh.us/IISProxy/IISProxy.dll?ContentId=4839460 |
| December 30, 2019 | CLG letter to NHDES RE: Stormwater Investigation and NH House Bill 494 https://www4.des.state.nh.us/IISProxy/IISProxy.dll?ContentId=4822940 |
| December 10, 2019 | CLG Summary of May 2019 Agency Meeting https://www4.des.state.nh.us/IISProxy/IISProxy.dll?ContentId=4820766 |
| November 25, 2019 | CLG submittal of Deep Bedrock Investigation Interim Report https://www4.des.state.nh.us/IISProxy/IISProxy.dll?ContentId=4821262 |
| November 22, 2019 | Agency comments on the September 2019 Stormwater Investigation Report https://www4.des.state.nh.us/IISProxy/IISProxy.dll?ContentId=4819081 |
| November 18, 2019 | EPA correspondence granting second extension for Deep Bedrock Investigation Interim Report https://www4.des.state.nh.us/IISProxy/IISProxy.dll?ContentId=4818919 |
| November 13, 2019 | CLG second request for extension for Deep Bedrock Investigation Interim Report https://www4.des.state.nh.us/IISProxy/IISProxy.dll?ContentId=4820772 |
| November 1, 2019 | NHDES letter RE: HB 494 relative to Coakley Landfill https://www4.des.state.nh.us/IISProxy/IISProxy.dll?ContentId=4821692 |
| October 29, 2019 | EPA letter regarding September 2019 Draft Deep Bedrock Recon Well Interval Sampling https://www4.des.state.nh.us/IISProxy/IISProxy.dll?ContentId=4815502 |
| October 2, 2019 | EPA email granting first extension of Deep Bedrock Investigation Interim Report submittal https://www4.des.state.nh.us/IISProxy/IISProxy.dll?ContentId=4818093 |

3. Former Pease Air Force Base Superfund Site

The following provides an update regarding ongoing activities specific to the investigation and remediation of PFAS at the former Pease Air Force Base Superfund Site (Pease). NHDES notes that the Air Force maintains the official Administrative Record for Pease. Reports summarizing investigations and other site-specific documents are public record on the U.S. Air Force Civil Engineering Center (AFCEC) Administrative Record website <http://afcec.publicadmin-record.us.af.mil/Search.aspx>. Once there, select *BRAC>Pease>OU-9 PFC Operable Unit* then click “Search” to view the document listing.

- **Pease Tradeport Municipal Water Supply.** The City of Portsmouth has been operating a filtration system using granular activated carbon (GAC) on the two active Tradeport municipal supply wells (Smith and Harrison wells) since September 2016 to treat low-level PFAS. The Haven supply well, the most productive of the three wells on the Tradeport, was taken off-line immediately upon the discovery of

PFAS in samples collected in April 2014 (including PFOS and PFOA at concentrations above the then applicable EPA Provisional Health Advisory levels). Regular monitoring for the presence of PFAS is conducted on the four municipal water supply wells that actively draw groundwater from the Pease aquifer (Smith, Harrison, and two off-base wells, Portsmouth and Collins) and also on a network of sentry monitoring wells distributed throughout the southern portion of the Pease aquifer. The City's construction of a full-scale treatment plant at their Grafton Road site that will allow for operation and treatment of the Smith, Harrison and Haven wells is still underway with expected completion this spring. The City posts the water supply well monitoring results, the filter demonstration project monitoring results and other pertinent information on their website.

Pease Tradeport Water Information. NHDES notes the following links for additional updates

[PEASE TRADEPORT WATER SUPPLY UPDATE](http://files.cityofportsmouth.com/files/dpw/PeaseWaterSupplyUpdate4.22.2020.pdf)

<http://files.cityofportsmouth.com/files/dpw/PeaseWaterSupplyUpdate4.22.2020.pdf>

[PEASE COMPREHENSIVE PFC SAMPLING DATA](http://files.cityofportsmouth.com/files/ww/PeasePFAS92019.pdf)

<http://files.cityofportsmouth.com/files/ww/PeasePFAS92019.pdf>

[PEASE TRADEPORT WATER SYSTEM OVERVIEW](http://files.cityofportsmouth.com/publicworks/PeaseWaterSystemOperationsUpdate033115.pdf)

<http://files.cityofportsmouth.com/publicworks/PeaseWaterSystemOperationsUpdate033115.pdf>

- **Off-site Private Wells.** In June 2014 the Air Force began an inventory and sampling program for private off-site supply wells within 1-mile of Pease in the towns of Newington, Greenland and Portsmouth. To date, 40 residential drinking water wells have been sampled, five of which were documented to have PFOS/PFOA at concentrations near or above the 2016 AGQS. All five were initially supplied with bottled water; four were provided with point-of-entry treatment (POET) systems, one was taken out of use. Of the four wells provided with POE systems, a permanent solution was agreed upon between the Air Force and three property owners to connect to Portsmouth's municipal supply system that already services parts of Newington. Two of those wells were successfully connected to the municipal system in December 2019; the Air Force is still seeking resolution with the third owner. The owner of the fourth well opted to take over operation and maintenance of their POET system from the Air Force rather than connect to the municipal supply. Since 2014, long-term monitoring has occurred on a regular basis for all residential wells where the owners have elected to participate. The long-term monitoring plan is continually evaluated and modified, as appropriate, based on the results. All sampling results are provided to each individual well owner.

Following the effective date of the new PFAS AGQS values (i.e. September 30, 2019), NHDES sent notification letters to six additional private supply well owners whose historical water quality results document exceedances of one or more of the new more stringent PFAS standards. The letters were intended to ensure the residents were aware of the new standards and to provide them with updated information and resources relative to PFAS. The Air Force is awaiting authorization from the Department of Defense to conduct any response actions for those additional private well impacts.

- **Base-wide Hydrogeological Investigation.** Concurrent with initial response actions and completion of a CERCLA Preliminary Assessment for PFAS to identify areas where fluorinated Aqueous Film-Forming Foam (AFFF) was released, the source of the widespread PFAS at Pease, the Air Force conducted a base-wide PFAS site investigation (SI) to better understand the nature and extent of PFAS in soil and overburden and bedrock groundwater. The SI was completed in 2016. This information was used to develop a conceptual site model of PFAS contamination and to develop a groundwater remediation plan

called the Airfield Interim Mitigation System (AIMS). A supplemental PFAS investigation, designated as Expanded Site Inspection (ESI), was conducted in 2018 and 2019 to further refine the relationship between overburden and bedrock groundwater and surface waters, both base-wide and with particular focus in Newington, north of Site 8. The ESI also included PFAS characterization and an exposure assessment of other media (soil, sediment, surface water, and shellfish). Results of the ESI were shared with the public at the 2019 Pease Restoration Advisory Board (RAB) meetings. Key conclusions of the ESI include: additional investigation and risk assessment is warranted and will occur as part of the next CERCLA phase, a Remedial Investigation (RI); though PFAS were detected in shellfish collected from various locations, the detected concentrations did not exceed the Screening Levels (SLs) established for three PFAS by EPA. Because of the detection NHDES' Environmental Health Program conducted a site-specific evaluation of PFAS in shellfish and concluded that a shellfish consumption advisory for PFAS was not warranted.

The Final ESI report was published in March 2020, its posting on the AFCEC Administrative Record website is pending. The Air Force anticipated awarding a contract for the Pease PFAS RI in spring 2020.

- **Airfield Interim Mitigation System (AIMS).** The AIMS objectives include: intercepting PFAS-impacted groundwater upgradient of the Haven Well through a network of groundwater extraction wells; treatment of the intercepted water in a centrally-located treatment plant using best available technology; reinjection of the treated groundwater back into the Pease aquifer to restore the aquifer, support the City's reactivation of the Haven Well and provide hydraulic protection of the southern Pease aquifer supply wells. Installation of the AIMS extraction and infiltration wells was completed in 2018. Construction of the AIMS treatment plant was completed and the Air Force started operation in April 2019. Since April 2019 the AIMS has treated more than 200 million gallons of groundwater.
- **Former Fire Training Area No. 2 (Site 8).** Concurrent with the base-wide PFAS Site Investigation, a separate investigation was conducted at the former fire training area where AFFF was known to have been used by the Air Force beginning in the early 1970s up through the late 1980s. Extensive investigations in the 1990s were conducted to address petroleum and solvent contamination. A remedy including a hydraulic containment system had been operated since 1995 and was demonstrated to have mitigated off-site migration of those contaminants. Based on the Site 8 PFAS investigation a design was developed to augment the hydraulic containment system to better mitigate PFAS migration. That system and its associated state-of-the-art PFAS treatment plant began operating in spring 2018. Since operation began, the Site 8 Interim Mitigation System has treated more than 28 million gallons of groundwater. System design and operations are regularly evaluated to optimize performance. Due to the unexpected presence of elevated iron concentrations in several of the Site 8 IMS extraction wells, the Air Force has completed construction of an iron mitigation treatment phase. The Air Force is currently proving out the iron removal by systematically expanding the extraction well network pumping.
- **Community Involvement.** Since discovery of PFAS in the municipal supply wells in May 2014 the community has been actively engaged and has participated in numerous public meetings hosted by NHDES and New Hampshire Department of Health and Human Services (NHDHHS). In addition, the following community groups have been developed for Pease PFAS-related issues:
 - **Restoration Advisory Board (RAB).** In 2015 NHDES requested the Air Force re-establish Pease's RAB, a stakeholder group that meets quarterly to discuss ongoing environmental restoration of Pease. The RAB provides community members an open forum to talk with the Air Force and regulatory

agencies about environmental restoration activities. The Pease RAB consists of local volunteer community members (including the NH Air National Guard) and appointed members representing the Air Force, regulatory agencies, the Pease Development Authority and the City of Portsmouth. RAB information can be accessed on the Air Force Civil Engineering Center website:

<https://www.afcec.af.mil/Home/BRAC/Pease.aspx>

- Community Assistance Panel (CAP): The initial forum that was created for community input on PFAS-related health concerns was the Community Advisory Board. To build on the community involvement started with the Board, the Agency for Toxic Substances and Disease Registry (ATSDR) formed the Pease CAP as a way for the community to participate directly in ATSDR’s health activities. CAP information can be accessed on the ATSDR website for Pease:

<https://www.atsdr.cdc.gov/pfas/Pease-CAP.html>

Information on the Pease Study made by ATSDR can be accessed on the ATSDR website for Pease:

<https://www.atsdr.cdc.gov/sites/pease/index.html>.

ATSDR’s Health Consultation on PFAS in the Pease Tradeport Public Water System can be accessed on the ATSDR website for Pease:

https://www.atsdr.cdc.gov/HAC/pha/pease/Pease_Air_Force_Base_HC-508.pdf

A copy of ATSDR’s draft Health Consultation on PFAS in the Private Residential Drinking Water Wells is available for public comment thru July 30, 2020 and can be accessed on the ATSDR website for Pease:

https://www.atsdr.cdc.gov/HAC/pha/pease/Pease_AFB_HC-PC_April_2020-508.pdf

4. Statewide Public Water Supplies

NHDES began a statewide initiative to test drinking water from all community water supplies for PFAS in 2016. Of the 1,880 sources of drinking water that supply public water systems in New Hampshire, as of March 2020, approximately 58% (1095 sources) have been sampled for PFAS with approximately 32% of wells having detections of PFOA, PFOS, PFHxS, and PFNA.

Information included on the attached Table 1 summarizes sampling results for PFOA, PFOS, PFHxS, and PFNA. NHDES notes that exceedances of the current health based standards for the four PFAS compounds occurred at 89 water supply wells which have or may require that the owners of these wells install treatment or take the wells out of service. Table 1 presents only one sample result for each source, representing the most recent concentration of PFOA, PFOS, PFHxS, and PFNA detected. Additional results for some of the water sources that are conducting periodic monitoring can be accessed at the link provided in Note 5 at the end of the table.

5. Statewide PFAS Data

The following summarizes PFAS information that NHDES has compiled to date from various sources at existing solid waste facilities, hazardous waste remediation sites, oil remediation sites, and groundwater

discharge sites. Please refer to the additional resources referenced in Section 1 above for up-to-date and/or additional site-specific information.

5.1 Solid Waste Facilities

There are roughly 200 unlined/lined solid waste disposal facilities or synthetic lined wastewater treatment lagoons in New Hampshire for which the owner/operator is responsible for monitoring water quality. These sites have either a groundwater release detection permit (GDP) or groundwater management permit (GMP) that have been issued by NHDES, in accordance with applicable administrative rules. These permits prescribe programs for periodic groundwater quality monitoring and reporting, provide for groundwater remediation either through active measures or natural attenuation, specify performance standards for remedies, and describe procedures for performing site investigations and implementing remedial action plans.

NHDES has required groundwater sampling for PFAS at all of these sites. As of March 2020, 92% have sampled, and of those sites sampled, approximately 89% have PFAS detections and 63% have exceedances of the health based standards for PFOA, PFOS, PFHxS, and PFNA. A total of 43% of the sites sampled have exceedances of the current AGQS for PFOA and PFOS. Refer to Table 2 for a summary of maximum PFOA, PFOS, PFHxS, and PFNA concentrations at each of the sites where data has been compiled by NHDES.

5.2 Hazardous Waste Remediation Sites

Hazardous waste remediation sites include all sites where a hazardous substance or waste has been released, and which often have a long-term remediation and management component prescribed and regulated through an NHDES-issued groundwater management permit or remedial action plan. There are roughly 515 waste sites, including State-listed hazardous waste, Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and Brownfield sites, that have an open status and are currently regulated by NHDES, in accordance with its administrative rules.

As outlined in a letter to responsible parties, site owners, and/or permittees dated May 18, 2017, and clarified in a follow-up letter dated October 19, 2017, NHDES is requiring waste sites that meet certain criteria to complete an initial screening for the presence of PFAS per the provisions of the NH Code of Administrative Rules, Chapters Env-Or 600 and Env-Or 700, as applicable. As of March 2020, 42% have sampled and of those sites sampled, approximately 89% have detected PFAS and 63% have exceedances of the health based standards for PFOA, PFOS, PFHxS, and PFNA. A total of 49% of the sites sampled have exceedances of the current AGQS for PFOA and PFOS. Refer to Table 3 for a summary of maximum PFOA, PFOS, PFHxS, and PFNA concentrations at each of the sites where data has been compiled by NHDES.

5.3 Oil Remediation Sites

Oil remediation sites include all sites where long-term remediation and management of petroleum contamination occurs primarily through a NHDES-issued GMP or remedial action plan. There are roughly 1,500 active petroleum sites, including, but not limited to, leaking underground/above ground storage tank sites, motor vehicle salvage yards, and spills that have an open status and are currently regulated by NHDES in accordance with the administrative rules.

NHDES undertook an initiative in 2019 requesting a small initial subset of these petroleum sites to voluntarily complete an initial screening for the presence of PFAS. As of September 2019, less than 1% of all petroleum sites have sampled and reported data to NHDES for PFAS. Of the sites sampled, several have exceedances of the health based standards for PFOA, PFOS, PFHxS, and PFNA. NHDES notes however, that in all cases to date, it has been concluded that the source and release mechanism(s) have not been attributable to the petroleum discharge. PFAS exceedances in groundwater were observed in the general vicinity of areas where fire suppression foam was used and motor oil additives or other fluids were stored or discharged at motor vehicle salvage yards or unpermitted solid waste facilities. Refer to Table 4 for a summary of maximum PFOA, PFOS, PFHxS, and PFNA concentrations at each of the sites where data has been compiled by NHDES.

5.4 Groundwater Discharge Permit Sites (Wastewater Disposal to Groundwater)

NHDES regulates 92 facilities that dispose of wastewater to the ground through such practices as discharges to unlined lagoons, rapid infiltration basins, spray irrigation systems and very large leach fields. These sites are managed under a Groundwater Discharge Permit (GDP), which allows the discharge in accordance with administrative rules that protect against impact to other properties and drinking water supply wells. NHDES has required sampling for PFAS at all of these sites. To date, 85% have sampled and of those sites sampled, approximately 86% have detected PFAS and 44% have exceedances of the health based standards for PFOA, PFOS, PFHxS, and PFNA. A total of 14% of the sites sampled have exceedances of the current AGQS for PFOA and PFOS. Refer to Table 5 for a summary of maximum PFOA, PFOS, PFHxS, and PFNA concentrations at each of the sites where data has been compiled by NHDES.

APPENDICES

Appendix 1

House Bill 1766-FN- Final Version

The following document is an image of the final bill text of House Bill (HB) 1766-FN- Final Version. Please visit the following webpage for an HTML or PDF version of the final bill text:

http://gencourt.state.nh.us/bill_status/billText.aspx?sy=2018&id=1523&txtFormat=html

TABLES