Select Board Meeting

Monday, December 5th, 2022, 6:45 p.m.
Nowak Room, Town Offices
10 Front Street, Exeter NH 03833

Meeting in the Nowak Room at the Town Office Building. For virtual access, see instructions below.

Watch this meeting on Channel 22, or EXTV Facebook https://www.facebook.com/ExeterTV, or YouTube https://www.youtube.com/c/ExeterTV98 .

To access the meeting via Zoom, click this link: https://exeternh.zoom.us/j/87858557435

To access the meeting via telephone, call +1 646 558 8656 and enter Webinar ID 878 5855 7435

Please join the meeting with your full name if you want to speak.

Use the "Raise Hand" button to alert the Chair you wish to speak. On the phone, press *9.

More access instruction found here: https://www.exeternh.gov/townmanager/virtual-town-meetings

Contact us at extvg@exeternh.gov or 603-418-6425 with any technical issues.

1. Call Meeting to Order
2. Non-Public Session
3. Bid Opening – Water/Sewer Chemicals
4. Public Comment
5. Proclamations/Recognitions
    a. Proclamations/Recognitions
6. Approval of Minutes
    a. Regular Meeting: November 14th, 2022
    b. Regular Meeting: November 21st, 2022
7. Appointments
8. Discussion/Action Items
    a. Public Hearing: Swasey Parkway Cy Pres and Deviation Petition
    b. Budget Recommendations – Bob Kelly, Chairman BRC
    c. Grant Acceptance: Exeter Reservoir Dam Feasibility Study
    d. Town Ordinance Second Reading: Sewer Use Regulations
    e. Boards & Committees Policies & Procedures
9. Regular Business
    a. Tax Abatements, Veterans Credits & Exemptions
    b. Permits & Approvals
    c. Town Manager's Report
    d. Select Board Committee Reports
    e. Correspondence
10. Review Board Calendar
11. Non-Public Session

12. Adjournment

Niko Papakonstantis, Chair
Select Board

Posted: 12/2/22 Town Office, Town Website

Persons may request an accommodation for a disabling condition in order to attend this meeting. It is asked that such requests be made with 72 hours notice.

AGENDA SUBJECT TO CHANGE

Bid Opening – Water/Sewer Chemicals

Russ

PROJECT MANUAL

SPECIFICATIONS

"CHEMICAL PURCHASE FOR THE TOWN OF EXETER, NH, 2023"

FOR USE BY THE WATER DIVISION

Russell Dean
Town Manager

Prepared by:

Exeter Public Works Department
13 Newfields Road
Exeter, NH 03833

TABLE OF CONTENTS

INVITATION FOR PROPOSAL

The Town of Exeter invites interested suppliers to submit proposals for supplying and delivering chemicals for use at locations in the Town of Exeter. Chemicals will be used for the treatment of water and be in complete conformance with the attached Scope of Work.

All prices submitted shall be delivered unit prices for each chemical product.

Proposals shall establish a firm delivered unit price to the Town of Exeter from January 1, 2023 through December 31, 2023. Any attempts to increase the established delivered unit prices or implement any extra charges will not be accepted.

The Town reserves the right to reject any and all proposals not conforming to the specifications, or deemed not in the best interest of the Town. The Public Works Director, Water & Sewer Manager, Water Treatment Operations Supervisor, Water & Sewer Assistant Manager, and Town Manager will evaluate proposals. Availability and quality of service shall be a consideration in selection of one or more suppliers.

The successful supplier must submit proof of liability and workers compensation insurance within ten (10) days of the "Notice of Selection" as a chosen supplier, and prior to release of a purchase order.

Proposals will be sealed and clearly marked, "Proposal – Chemical Purchase for The Town of Exeter, New Hampshire, 2023", and shall be submitted no later than 4:00 p.m., Monday, December 5th, 2022 to the Office of the Town Manager, 10 Front Street, Exeter, NH 03833.

SCOPE OF WORK

The successful vender(s) shall provide **all** labor, supervision, materials, equipment and other incidentals required to provide and deliver the specified chemicals to the locations specified in strict accordance with the attached project manual with specifications and the unit prices established and in compliance with all applicable rules, regulations and laws.

DIVISION I: GENERAL REQUIREMENTS

1.0 Marking: Each shipment shall be identified as to product, grade, assay, net weight, name of manufacturer and brand name.

1.1 Removal of Unsatisfactory Materials:
If the material (chemical) does not meet the requirements of the appropriate AWWA Standard, or is not satisfactory to the Water & Sewer Manager, or a representative, the vendor shall remove the material from the premises at the purchaser's request and replace it with a like amount of satisfactory material, or a price adjustment may be agreed upon between the purchaser and the vendor.

1.2 Potable Water Chemicals:
The chemicals shall contain no substances in quantities capable of producing deleterious or injurious effects upon the health of those consuming the water to which the chemical has been added, or causing water so treated to fail to meet the requirements of the USEPA Primary Drinking Water Regulations.

1.3 Venders and chemicals shall comply with all applicable rules and regulations of the State of New Hampshire and all other authorities having jurisdiction.

1.4 Deliveries will be within a reasonable time, relative to the placement of an order.

1.5 Delivery times shall be coordinated with the Water & Sewer Manager, or a representative, at the time of placing an order.

1.6 The Surface Water Treatment Plant is located at 109 Portsmouth Avenue, Exeter, NH, 03833. The Groundwater Treatment Plant is located at 48 Lary Lane, Exeter, NH 03833.

DIVISION II: PAYMENT

Bills may be submitted to the Town of Exeter, Public Works Department, 13 Newfields Road, Exeter, NH, 03833, upon satisfactory delivery. All billing shall include the purchase order number submitted at the time of order. Payment request will be submitted to "Account's Payable" immediately and will be "Net, 30 days".

DIVISION III: PROCEDURES, METHODS AND MATERIALS

1.0 Sodium Hypochlorite – 15%

Sodium Hypochlorite solution (NaOCL) for *use at the Surface Water Treatment Plant, Groundwater Treatment Plant.*

Specifications:

- Contain not more than 15% insoluble matter.
- Excess alkalinity % by weight, as NaOH: 0.9-1.8
- When expressed in milligrams/liter of available:
  Chlorine (CL2): 150 (minimum)
  Available chlorine by weight: 12.7% minimum
  Copper (Cu): less than 1 mg/L
  Nickel (Ni): less than 1 mg/L
  Cobalt (Co): less than 1 mg/L
  Manganese (Mn): less than 1 mg/L
  Iron (Fe): less than 1 mg/L
  Aluminum (Al): less than 1 mg/L
  Calcium (Ca): less than 30 mg/L
  Magnesium (Mg): less than 30 mg/L
  Sodium chloride: 12.0% maximum
  Sodium chlorate: % by weight: not established

1.1 Delivery will normally be Monday – Friday between the hours of (0700-1400), with volumes ranging from 1,000 to 1,200 gallons for the Surface Water Treatment Plant & Groundwater Treatment Plant. **Estimated bid period quantities needed: 15,000 gallons for the Surface Water Treatment & Groundwater Treatment Plants. Loads may be split or combined with both plants to get deliveries.**

1.2 The supplier shall certify that the product furnished, Sodium Hypo-chlorite, complies with applicable requirements of American Water Works Association (AWWA B300), and the supplier shall comply with the applicable standards.

1.3 See Division I, section 1.3 above.

2.0 Activated Carbon

Activated Carbon for use at the Surface Water Treatment Plant.

Specifications:

- Iodine No.: 500 minimum
- Modified phenol value: 30 maximum MPV (3.5 g/L).
- Odor adsorption capacity: taste and odor reduction not less than 70%
- Moisture % as packed: 8 % maximum
- Apparent density, mg/L 0.2-0.75 mg/L
- Particle size distribution
  % thru 100 mesh: 99 minimum
  % thru 200 mesh: 95 minimum
  % thru 325 mesh: 90 minimum
  Tannin value: 200 ppm (carbon required to reduce 20-ppm tannin to 2 ppm)
- Comparable to Hydro Darco B products

2.1 Deliveries to the Surface Water Treatment Plant will normally be between the hours of (0700-1400) in 40-50 lb bags on about 50 bag pallets.
Estimated delivery size is 1 pallet weighing 2,000 lbs each (2,000 lbs per delivery).
Estimated bid period quantity: 4,000 lbs.
The supplier will provide a lift gate and jack.

2.2 The supplier shall certify that the activated carbon complies with all applicable requirements of American Water Works Association (AWWA B600), and the supplier shall comply with the applicable standards.

3.0 Potassium Permanganate

Free flowing Potassium Permanganate ($KMNO_4$) for use at the Surface Water Treatment Plant

Specifications:

- KMNO4 content: not less than 95% by weight.
- *The free flowing grade shall not form lumps that cannot be broken up easily with minimal pressure and shall pass through a 5/c standard sieve, Series No. 200 and no more than 20 percent by weight may be retained on a US Standard No. 40 sieve.*
- Contents to be:
  Potassium Permanganate ($KMNO_4$): 95% minimum
  Manganese Dioxide (MNO_2): 0.75% maximum
  Sulfate (SO_4) 0.20% maximum
  Cadmium (Cd) 100 mg/Kg maximum
  Chromium (Cr) 500 mg/Kg maximum
  Chlorine (Cl_2) 0.10% maximum
  Ammonia (NO_3): 0.05% maximum
  Arsenic (As): 1 ppm maximum

Moisture: 0.50% maximum

- **Product should be free flowing material (comparable to Cairox)**

3.1 Delivery will normally be between the hours of (0700-1400) in 55 lb. drums to the Surface Water Treatment Plant.
Estimated delivery size is 36 barrels (1,980 lbs)
Estimated bid period quantity: 72 barrels totaling 3,960 lbs.
The supplier will provide a lift gate and jack.

3.2 The supplier shall certify that the product furnished, potassium permanganate, complies with applicable requirements of American Water Works Association (AWWA B603), and the supplier shall comply with the applicable standards.

4.0 Sodium Hydroxide (NaOH) 25%

Sodium Hydroxide (NaOH) – 25% "caustic soda" *for use at the Surface Water Treatment Plant & Groundwater Treatment Plant*

Specifications

- Liquid sodium hydroxide, diluted to 25% by supplier.
- The anhydrous caustic soda, before dilution, shall contain a minimum of:
  74.4% alkalinity as Na_2O
  96% sodium hydroxide as NaOH
  not more than 2% carbonate as Na_2CO_3
- Contents to be:
  Sodium hydroxide (NaOH): 24% by wt.
  Sodium Oxide (Na_2O): 18.6% by wt.
  Sodium Carbonate (Na_2CO_3): 0.08% maximum
  Sodium Chloride (NaCl): 6% maximum
  Sodium Sulfate (Na_2SO_4): 1% maximum
  Sodium Chlorate (Na_2CO_3): 1% maximum
  Iron (Fe): 0.0004 % maximum

4.1 Delivery will normally be between the hours of (0700-1400) in 1,000 – 3,000 gallons minimum truckloads delivered to the Surface Water Treatment & Groundwater Treatment Plants. The Groundwater Plant has a smaller chemical storage, so that plant needs the smaller deliveries.
Estimated bid period quantity: 13,000 gallons

4.2 The supplier shall certify that the product, sodium hydroxide, complies with all applicable American Water Works Association (AWWA B501) and the supplier shall comply with the applicable standards.

DIVISION IV: WARRANTIES

The chemicals supplied shall be warranted to be in complete compliance with the specifications and completely satisfactory for their intended use. Unsatisfactory items will be replaced, at no cost, or satisfactory adjustment made.

DIVISION V: ATTORNEY'S FEES AND COST

The contractor agrees to indemnify the Town from any and all liability, loss or damage, including but not limited to bodily injury, illness, death or property damage which the supplier becomes legally obligated to pay, including reasonable attorney's fees, investigative and discovery cost, and court cost, as a result of claims, demands, costs or judgments against the Town, arising out of this agreement, caused by, or arising out of, the negligence, fault, breach of warranty, products liability or strict liability of the contractor, and/or third parties, whether such negligence, fault, breach of warranty, products liability, or strict liability is sole, joint or several.

INSURANCE

Successful supplier shall provide proof of insurance, as shown, before any purchase order is issued, or chemical delivery is made.

1. Liability coverage: General Liability $500,000 combined single limit comprehensive form; broad form property damage, independent supplier insurance, product operator's insurance.
2. Vehicle insurance: $500,000 combined single limit, comprehensive form: hired/non-owned.
3. Workers compensation: Statutory limits; employer liability, $500,000

These certificates shall contain a provision that the insurance company will notify, by registered mail, the certificate holder and Town at least fifteen (15) days in advance of any cancellation or material change.

PROPOSAL

TO: Town Manager

FOR: Furnishing of chemicals, delivered to the Town of Exeter for the year 2023 in accordance with the attached project manual and specifications.

The undersigned, as bidder, declares that the only persons or parties interested in this proposal as principals are those, as named herein; that this proposal is made without collusion with any other person, firm or corporation; that he/she has carefully examined the delivery locations, and project manual and specifications, attached hereto; and he/she proposes and agrees, if this proposal is accepted, that he/she will contract with the owner, in the form of purchase orders, to provide all necessary labor, transportation, tools, incidental materials and materials (chemicals), as specified, and will deliver all chemicals bid on in the time specified, and that he will take payment for completed deliveries, when approved by the Town Manager, for the following unit prices.

Bid Item #1:

Sodium Hypochlorite solution-15% for Surface Water Treatment Plant and Groundwater Treatment Plant.

Unit Price, per gallon, delivered: $_____

Bid Item #2:

Activated Carbon, for Surface Water Treatment Plant.

Unit Price, per pound, delivered: $_____

Bid Item #3:

Potassium Permanganate – Free flowing, for the Surface Water Treatment Plant.

Unit Price, per pound, delivered: $_____

Bid Item #4:

Sodium Hydroxide – 25% for the Surface Water Treatment Plant and Groundwater Treatment Plant.

Unit Price, per gallon, delivered: $_____

Information regarding individual, firm, partnership or corporation submitting this bid

COMPANY SUBMITTING BID:_____

MAILING ADDRESS:_____

TELEPHONE NUMBER: (____)_____FAX #:_____

SIGNATURE:_____PRINT:_____

TITLE:_____FED ID # OR SS#_____

E-MAIL:_____ DATE:_____

NOTICE:

1. Person having proper legal authority shall sign bid in black ink.
2. Drum deposits shall not be included in bid items. Bidders shall provide deposit information upon request.
3. If you do not submit a bid but wish to remain on the Town of Exeter's "Bid List" provide your name and address above and check here:_____and return.

Company Bids for 2023 Delivery	Bid Item 1 per gallon, delivered	Bid Item 2 per pound, delivered	Bid Item 3 per pound, delivered	Bid Item 4 per gallon, delivered
	Sodium Hypochlorite, per gallon	Activated Carbon, per pound	Potassium Permanganate, per pound	Sodium Hydroxide, per gallon

Proclamations/Recognitions

Town of Exeter, New Hampshire
Proclamation

Exeter Chapter, National Society Daughters of the American Revolution 125th Anniversary

December 3, 2022

Whereas, Exeter Chapter, National Society Daughters of the American Revolution, one of approximately 3,000 Chapters in all 50 States, District of Columbia and Units Overseas commemorates 125 Years of Service; and

Whereas, The objectives of the National Society – Promoting Education, Historic Preservation and Patriotic Endeavor through the work of Committees functioning at the local, state and national levels; and

Whereas, The nineteen charter members established a firm foundation;

Resolved, That Exeter Chapter, NSDAR, celebrates its 125th Anniversary with reflection and anticipation of continuing service.

Now, therefore, I, Niko Papakonstantis, Select Board Chair of the Town of Exeter, do hereby proclaim December 3, 2022 as the 125th Anniversary of the Exeter Chapter, National Society Daughters of the American Revolution, a day of celebration and urge all citizens within the Town of Exeter, NH to congratulate Exeter Chapter on this 125th anniversary.

In witness whereof, I have hereunto set my hand and caused the Seal of the Town of Exeter to be affixed this 29th day of November of the year of our Lord Two Thousand and Twenty-Two.

Niko Papakonstantis,
Select Board Chair, Exeter, NH

TOWN OF EXETER FOUNDED 1638 NEW HAMPSHIRE

Minutes

Select Board Meeting
Monday November 14, 2022
6:50 PM
Nowak Room, Town Offices
Draft Minutes

Members present: Julie Gilman, Molly Cowan, Lovey Roundtree Oliff, Niko Papakonstantis, and Nancy Belanger. Town Manager Russ Dean and Assistant Town Manager Melissa Roy were also present at this meeting.

1. Call Meeting to Order

   The meeting was called to order by Mr. Papakonstantis at 6:50 PM. The Board went downstairs to the Wheelwright Room for an interview.

2. Board Interviews
   a. Alan Mangan for various committees

   The Board reconvened at 7:03 PM.

3. Board Remarks

   Mr. Papakonstantis discussed an incident where graffiti of a swastika was found in Swasey Parkway. The PD investigated and removed the symbol. Mr. Papakonstantis said he was sickened and upset by this news, because in Exeter we have zero tolerance for this despicable act of hatred and bigotry against race, religion, or sexual gender. Ms. Oliff said she was happy that a citizen in town reached out to the Board about the issue and that Chief Poulin responded very quickly. We want to act quickly to make people feel safe. Some people on social media said "it's just young people doing silly things," but if we as adults don't set the example of what is acceptable then those behaviors will continue.

   Mr. Papakonstantis said there was a large turnout for the election, over 8,500 folks. He thanked the volunteers, the Town Moderator and her staff, the Supervisors of the Checklist, and the residents who showed up to vote.

4. Public Comment
   a. Town Moderator Kate Miller gave an update on the recent election. This was the biggest turnout for a midterm election, both in Exeter and throughout the State. We were very busy with voters. Andie Kohler did a great job training and managing the ballot clerks. The Supervisors of the Checklist had 500+ new voters registering that day. Once we have Poll Pads, we shouldn't have long lines anymore. We will print out more ballots next time.

5. Proclamations/Recognitions
   a. Ms. Gilman read the proclamation for Shop Small Saturday:

Whereas, the municipality of the Town of Exeter celebrates our local small businesses and the contributions they make to our local economy and community; and,
Whereas, U.S. shoppers who shopped at independent retailers and restaurants on Small Business Saturday reported spending a record high total of an estimated $23.3 billion; and
Whereas, 79% of consumers understood the importance of supporting small businesses in their community on Small Business Saturday and 66% reported that the day makes them want to shop small all year long; and
Whereas, 58% of Small Business Saturday shoppers reported they shopped online with a small business on the day, an increase from 56% in 2020 and 43% in 2019; and
Whereas, The Town of Exeter supports our local businesses that create jobs, boost our local economy, and preserve our communities; and
Whereas, advocacy groups, as well as public and private organizations, across the Country have endorsed the Saturday after Thanksgiving as Small Business Saturday.
Now Therefore, We, the Select Board of the Town of Exeter, New Hampshire, recognize November 26, 2022 as Small Business Saturday and encourage residents of our community to support small businesses and merchants on Small Business Saturday and throughout the year.
Dated this 14th day of November, 2022.

6. Approval of Minutes
    a. Regular Meeting: October 24, 2022

MOTION: Ms. Belanger moved to approve the minutes of October 24, 2022 as presented. Ms. Cowan seconded. The motion passed 5-0.

7. Appointments
    a. There were no appointments made at this meeting.

8. Discussion/Action Items
    a. The Dollars and Sense of Development, a presentation by Urban3

Town Planner Dave Sharples introduced Joseph Minicozzi of Urban3, who gave a presentation on the revenues and costs of urban development. He said that small businesses employ more people, pay people more, and provide more taxes. They are more "potent" than larger businesses in taxes per acre. The relationship with Walmart is only 15-20 years in that space. Main Street is about community investment. NH is about 22% non-taxable land (parks, schools). The study focused on 15 NH Communities. In Exeter, the Hospital is valuable, but downtown is a higher value per acre. Exeter is 2% of the County but pays 4% of the County taxes. Downtown is 0.3% of the town's area and 3% of its value. There is 68% taxable area in Exeter and 32% non-taxable. On the cost side, the Public Works investment is about 26% of the budget. The roads

need rehab every 10 years or so and redoing every 60 years. A town can keep the roads in better condition and save money by repairing them more often. Some towns put money aside for future needs rather than taking bonds.

Ms. Oliff expressed interest in continuing the conversation offline. How do we send the message to taxpayers to give the town money that we can put aside for the future so as not to pay long-term bonds? Mr. Minnicozzi said this presentation is videotaped, and there are other talks of his available online. He can also set up a webinar.

Ms. Cowan said she's glad to see the Planning Board Chair and others in the room. We should incorporate this information into our Planning and Zoning ordinances. We could develop a roadmap towards being more affordable and profitable. Mr. Papakonstantis said we should discuss it further at the All-Boards meeting.

Ms. Gilman said the Heritage Commission did a study on mapping over time. We have buildings downtown that may not be used in the best way, with offices on the upper floors instead of housing.

Ms. Belanger said the presentation shows us how interconnected housing and budget are. This information will help us make better decisions.

Mr. Sharples said he found out about this project before Covid, but it was delayed. He started conversation about a town-wide effort on the zoning side, and we're almost to a point of bringing some land use regulations forward that incentivize development for density. He will do a presentation on December 8 with the Horsley Witten group on development that is fiscally and environmentally responsible. The zoning changes could be on the 2023 or 2024 warrant.

Ms. Belanger said she would like the Board to do a work session on this issue.

b. Letter of Support - Raynes Barn Repairs Grant

Natural Resources Planner Kristen Murphy said we raised $250,000 for Raynes Barn through grants, town meeting vote, and the Conservation Fund, but we were not successful in getting RFP responses, and inflation has dramatically increased costs. She found a contractor willing to work on the project and had him put together updated costs. We're $50,000 short from what we need. There's a T-Mobile Hometown Grant for small communities to revitalize or rebuild community facilities, which caps at $50,000. We have developed the grant proposal and need a letter of support from the Board.

MOTION: Ms. Belanger moved to authorize the Select Board to approve a letter of support for the repairs in the historic Raynes Farm Barn, Exeter NH Proposal to be included in the T-Mobile Hometown Grant application. Ms. Gilman seconded. The motion passed 5-0.

Sally Ward of 72 Park Street, a member of the Raynes Farm Stewardship Committee, said if we get this grant that will be wonderful, but if not we'll find something else.

Mr. Papakonstantis said if it doesn't work out they should come back. Ms. Murphy said the grant applications are due at the end of December, and we should know within 30-60 days. We do have a back-up plan if we don't get the grant.

c. Town Ordinance First Reading: Single Use Plastics

Natural Resources Planner Kristen Murphy and Sustainability Advisory Committee members Stacy Rogers and Chris Zigmont were present to give a presentation on the proposed ordinance change, which would ban certain single-use plastics from being distributed in town buildings or on town property.

MOTION: Ms. Belanger moved to open the public hearing on the single-use plastic ordinance proposal. Ms. Gilman seconded. The motion passed 5-0.

Ms. Rogers said that the Sustainability Advisory Committee is proposing to ban single-use plastics on town property. The Sustainability Committee has been working on this ordinance for a year and a half.

The impact of plastic pollution is permanent. Only 9% of all plastic has ever been recycled, and 88% of all plastic ever made still exists somewhere. 78 million tons of plastic packaging are produced every year. We put the equivalent of 1 garbage truck of plastic per minute into the ocean, which will double by 2030 if we don't reduce our consumption. Microplastics are ingested in water and other liquids. Microplastics are found in fish and seabirds, human blood and lungs. The long-term health effects of microplastics are unknown. 100 million marine animals die each year from plastic waste. Plastic will outweigh fish in the year 2050.

Mr. Zigmont of the Sustainability Committee said that recycling can't keep pace with the rate of plastic production. Exeter will spend $500,000 in 2023 to haul away our recycling, but only 5% is even eligible for recycling. Plastic can only be downcycled, meaning it loses quality with recycling. Reduction is the best solution. We have alternatives for these single-use plastics. We're not just looking to do a ban, we're looking to find solutions.

Ms. Murphy said this is an opportunity for change. This committee is willing to step up as partners to help the community with the transition. This ordinance applies only to town property. It would not go on the warrant; it would be adopted by the Select Board after three public hearings. It's modeled after what's already been adopted by Portsmouth.

Ms. Murphy said we created surveys for staff and permittees for Town Hall, Swasey Parkway, etc. and met with individuals to hear their concerns, and made some modifications to the policy. The survey was sent to those who had 4+ town permits between 2019 and 2022. Their concerns were primarily water bottles and utensils. 56% said there would be no negative impact. We heard the feedback of allowing small amounts or having the town provide a recycling facility. Public Works is willing to provide recycling bins, if vendors will monitor what goes in there. There were concerns about Covid and food safety needs

from Seacoast Local, from their experience in having to follow these requirements in Portsmouth. Respondents also suggested that the town offer a drinking water source at town events.

We also surveyed town staff in 7 departments. 57% felt this policy would negatively impact their department, but some of that was misunderstanding of how the ordinance would be applied. This is more about distribution, ie the town purchasing something to give to others. Parks and Rec and Fire and Safety expressed the strongest concerns.

We made changes to allow for food safety, and added an exception for emergency responders and human service non-profits such as Meals on Wheels. We will continue to work with them on solutions. We eliminated the fine, because we want it to be more collaborative. The Sustainability Committee will work with Parks and Rec on a transition plan, especially for the concession stand at the swimming pool. We're also looking at the potential for a Swasey Parkway drinking water source.

Ms. Murphy read the ordinance:

DISTRIBUTION OF SINGLE-USE PLASTIC BAGS, FOOD SERVICE PRODUCTS, AND POLYSTYRENE FOOD CONTAINERS ON TOWN PROPERTY

24.00 PURPOSE:

The Town of Exeter recognizes that limiting the distribution and subsequent disposal of single-use plastics through reduction is necessary to protect human health, to preserve the natural environment, and to promote sustainable and ethical practices regarding material waste.

24.01 DEFINITIONS

For the purpose of this Section, the following definitions apply:

2401.01 Distribution: The act of selling, providing or supplying products for use by customers or intended recipients at a point of sale, gathering, event, or activity.

2401.02 Human Service Organization: An organization focused on providing services to people in order to help them stabilize their lives and find self-sufficiency through guidance, counseling, treatment, and/or the provision of basic needs

2401.03 Reusable Bag: a bag specifically designed for re-use, capable of being used one hundred and sixty (160) times and has stitched or woven handles. Reusable Bags include woven reusable plastic bags.

2401.04 Single-Use Compostable Food Service Products: a bag, bottle, food container, cup, utensil, straw or other similar food service product that is composed of one hundred percent (100%) Polylactic Acid (typically

derived from plant-based starch such as corn) and provided by a vendor to a customer for the purpose of transporting or consuming food.

2401.05 Single-Use Plastic Bag: a bag that is made predominantly of polyethylene plastic derived from petroleum and provided at the check stand, cash register, point of sale or other point of departure for the purpose of transporting food or other goods. Trash bags used for disposing of waste are excluded.

2401.06 Single-Use Plastic Food Service Products: a bottle, food container, cup, utensil, straw or other similar food service product that is made predominantly of polyethylene plastic derived from either petroleum or natural gas, and provided by a vendor to a customer for the purpose of transporting or consuming food.

2401.07 Single-Use Polystyrene Container: a container or cup composed of synthetic aromatic hydrocarbon polymers that is made from the monomer styrene (often called Styrofoam) and provided by a vendor to a customer for the purposes of transporting food.

24.02 DISTRIBUTION OF SINGLE USE PLASTICS ON TOWN PROPERTY

No person shall distribute a prohibited single use disposable item at any town facility, town property, town-managed or sponsored event, or activity authorized through special permits issued under the authority of the Town of Exeter Select Board unless otherwise allowed under EXCEPTIONS 24.03.
Prohibited Single Use Disposables:

1. *Single-Use Plastic Bags.*
2. *Single-Use Plastic Food Service Products.*
3. *Single-Use Polystyrene Containers.*

24.03 PRODUCT EXCEPTIONS:

1. *Reusable Bags*
2. *Single-Use Compostable Food Service Products*

3. *Packaging materials required for food safety reasons added at the site of the business or a processing facility. Examples: wrapping around meats, seafood, lettuce mix or other perishable products.*

4. *Products where alternatives to prohibited items do not exist, until an alternative is identified.*

24.04 ORGANIZATIONAL EXCEPTIONS:

1. All town departments/vendors may distribute their remaining inventory for 9 months following policy adoption
2. Items used by emergency responders or human service non-profit organizations.
3. Prohibited Single Use Containers brought by staff/customers themselves
4. Exeter Parks and Recreation Department will work with the Sustainability Committee to develop a transition plan.

24.05 PENALTIES AND REMEDIES

In addition to any other penalty or remedy permissible by law for violation of this ordinance, the following shall apply:

1. If the Town determines a violation of this ordinance has occurred, a written warning will be issued.
2. Upon a second or subsequent infraction of this ordinance, the Town interprets this as a direct violation of the vendor permit and cause for refusal to approve use permit.

Ms. Rogers read the FAQs from the presenation.

Mr. Zigmont discussed additional plans, such as developing vendor source lists and working with Parks and Rec to source alternatives like canned water.

Mr. Papakonstantis opened the discussion for public comment, but there was none.

MOTION: Ms. Belanger moved to close the public hearing. Ms. Gilman seconded. The motion passed 5-0.

Mr. Papakonstantis said this ordinance is a finely crafted final draft that went through many revisions. Consideration was given to all Department and public concerns.

Ms. Belanger said our process is sometimes slow, but this went through a good process with a good result. The Housing Advisory Committee did a walking tour and sent notices to people to bring reusable water bottles with them. We need to make sure there's a water source available for people. We want to make sure we're not jeopardizing Meals on Wheels. Mr. Zigmont said all human service elements are exempted, but our intention is to work with them to find solutions. We understand how vital their service is.

Ms. Gilman asked about cleaning recyclables at an event. Ms. Murphy said she doesn't have an answer for that. Ms. Gilman said we could put out

composting bins around town. Ms. Murphy said we do have a composting facility at the Transfer Station.

Ms. Cowan said we have to do something. Maybe this is big enough for now.

Mr. Zigmont asked Mr. Papakonstantis to explain why it's not a town-wide ordinance. Mr. Papakonstantis said the Select Board has the authority over town property. Town-wide is a zoning issue and would have to go on the warrant for town meeting. Ms. Murphy said the State needs to grant towns authority to regulate plastics, and they have not done that. This is the best we can do.

Mr. Papakonstantis said the second and third readings of this ordinance will be November 21 and December 5th.

d. Investment Policy Update

Finance Director Corey Stevens said regarding the town's investment policy, he worked with our bank and the Town Treasurer on different investment options for our excess funds. The provision that speaks to where we can invest our money is restrictive. He looked at the RSA that governs our investing, and it's more flexible. He proposes a language change to Section 3 of Investment Policy B, "Instruments of Investment," to allow us to take advantage of what the RSA allows. Now, we can only invest in banks chartered in NH, while the RSA allows us to start with a NH bank that sweeps money to other banks in the United States, provided it stays under $250,000. This is regarding RSA 41:29 para 4; there would be a new paragraph 5.

MOTION: Ms. Belanger moved to authorize an update to section 3B of the investment policy to allow for investment options under 41:29 para 5 as attached in our packet and explained to us by the Finance Director this evening. Ms. Gilman seconded. The motion passed 5-0.

e. CATV Fund Update

Mr. Stevens said the operating budget for EXTV ends up in a deficit each year. The franchise fee is going 50% to the Cable Access Fund and 50% to the General Fund. In 2021, the fund balance was $147,500. It will run out in 2025 if we don't change the allocation. We're moving the IT Coordinator position out of the fund. We also recommend bumping the allocation to CATV to 75%, which would require a warrant article.

Mr. Papakonstantis said Exeter TV is vital and we need to support it going forward. Committees need to be televised. It might be time for a warrant article.

f. Water/Sewer Rate Study Proposal

Mr. Dean said there is a need to update our Rate study. Underwood Engineers is proposing to create Water/Sewer rate models and predict necessary rate increases for the next five years. They will present different scenarios to the Board. It's $43,200 for the study: $21,600 from the Water Fund, and $21,600 from the Sewer Fund.

MOTION [not voted]: Ms. Belanger moved to authorize spending of $43,200 for the Town of Exeter Water and Sewer rate study as proposed: $32,000 for the water/sewer rate model update, $5,200 for misc charges, $2,000 for presentation to Select Board Allowance, and $4,000 for the System Asset Value Calculation Allowance. Ms. Cowan seconded. Ms. Gilman observed that the motion did not mention Underwood Engineers.

MOTION: Ms. Belanger moved to amend the previous motion to include that the Water/Sewer rate plan study is to be conducted by Underwood Engineers. Ms. Cowan seconded. The motion passed 5-0.

g. Schedule All Boards Meeting

Mr. Dean suggested holding the All Boards meeting after the first of the year, but not the same week as the budget and bond hearings. Mr. Papakonstantis suggested the week after the Feb 4 Deliberative Session. The location will either be Town Hall or the new community space at the Library. Ms. Belanger said the Library can't support media/projection. Mr. Papakonstantis said we should reach out to committee and board chairs and get feedback from members on a day and time.

9. Regular Business
   a. Tax Abatements, Veterans Credits and Exemptions
      i. There were no abatements or exemptions considered at this meeting.
   b. Permits & Approvals

Parks and Rec Director Greg Bisson presented an application for a one-day malt wine license for December 6, 6-9 PM, for the Exeter Scholarship Fundraiser. The event expects 50-75 attendees. TEAM submitted a one-day application, and they need this approved before they can get a State liquor license. The event was held in 2019 with great success

MOTION: Ms. Belanger moved to authorize the application from Arts and Industry Alliance/TEAM to permit beer and wine at the Exeter Scholarship Fundraiser Dec 6, 2022 at Town Hall 6-9 PM. Ms. Gilman seconded. The motion passed 5-0.

Mr. Bisson discussed a request for tree work around the tennis courts. We solicited several quotes, but the topography of the surrounding area requires specialized equipment, and only one company, Seacoast Tree Care, can do it. They said we want to wait until winter to do the work so as not to stress the trees. We also get a discount at that time, and there are fewer people around the Rec Park. It would be $6,615 from the Parks Improvement Fund. The Fund has $10,887.27. This is the Department's last expenditure for the year.

MOTION: Ms. Belanger moved to authorize the Parks and Rec Dept to expend $6,615 from the Parks Improvement Fund to contract with Seacoast Tree Care to trim trees around the lower tennis courts at the Recreation Park. Ms. Cowan seconded. The motion passed 5-0.

Mr. Papakonstantis said there's a memo from Public Works Director Jennifer Perry saying that drought conditions have improved to moderate drought. She recommends ending level 4 water use restrictions, and not instituting further restrictions.

MOTION: Ms. Belanger moved to end the level 4 outdoor water use restrictions that were instituted on July 21st, effective immediately, and not introduce any further restrictions at this time as recommended by the Public Works Director. Ms. Gilman seconded. The motion passed 5-0.

c. Town Manager's Report
   i. The Department of Labor visited the town on Nov 3, and we are subject to an audit. We're working with Public Works on safety issues. The town will get a report in the next few weeks. The last audit was in 2007.
   ii. He'll be at the NHMA conference this week, on Wednesday and Thursday.
   iii. Jennifer Perry had a retirement party, which he attended. We wish her the best.
   iv. The Planning Board meeting last Thursday had an issue with the video, but Pam McElroy and Bob Glowacky stepped in to help.
   v. The Public Safety open house is tomorrow from 4:30 to 6:30.
   vi. The tax rate will be set soon. He has a conference call tomorrow with DRA.
   vii. The Swasey Parkway filing went to Charitable Trust, and they recommended filing a deviation petition, which was done by town counsel.

d. Select Board Committee Reports
   i. Ms. Oliff had no report.
   ii. Ms. Cowan had no report.
   iii. Ms. Gilman said she took a rep from the NH Preservation Alliance through Town Hall regarding a grant for a historic building assessment survey to apply for the National Register. The Facilities Committee agreed that we need a Master Plan for Town Hall, and heard an update on the Public Safety center study status. At the Energy Committee, two students from EHS are now coming to meetings. That committee talked about the solar dashboard on the town website, which has been down for a long time. Revision energy will help us get it back up. The committee discussed upgrading the building code; the town is on the 2015 version. An update will be required in 2024.

   Mr. Papakonstantis said the Facilities Committee sent a letter to the Select Board regarding the Public Safety Complex. They recommend that the warrant article contain language about what will happen to the existing building on Court Street.

iv. Ms. Belanger attended the Planning Board, which reviewed a lot line adjustment on Hobart Street. The Communications Advisory Committee reviewed a draft of the social media policy and best practices; the next step is a meeting with the Town Manager. Re email blasts, all Depts are using different providers, and we should try to get them under one provider. We need to fund EXTV better. The Housing Advisory Committee had a debriefing on the Housing in Plain Sight walk. Dave Sharples presented on the Urban3 study. The committee discussed the Housing Needs Assessment update. The Planning Board had a compliance hearing for conditional approval, which was approved.

v. Mr. Papakonstantis said the Sustainability Advisory Committee talked about the plastics ordinance. He also attended Jennifer Perry's retirement luncheon.

e. Correspondence

i. A letter from Unitil to town and State officials about tree planting, which will be forwarded to the Tree Committee.

ii. A dues request from Rockingham Planning Commission for 2023.

iii. A letter from Vapotherm stating that the location at 100 Domain Drive will close effective 12/30/22.

iv. A DOT letter of sale regarding State-owned land in Exeter

v. An email from the NH Local Welfare Administration Association regarding funding updates.

vi. A notice from the Department of Energy on an Emergency Energy Assistance program.

vii. A resident letter regarding the Heritage Commission. Ms. Gilman said the commission members have not met to discuss the resident's concerns. The commission went through a process on creating a Neighborhood Heritage Area centering on Park Street. This would look like a Historic District but it's done by the residents. It's not attractive if you don't want to live in a Historic District. We voted to end the project but collect the documentation so another neighborhood could try this process. The creation of the District would have given people a source to hear what's happening in the neighborhood. She added that volunteers aren't perfect.

Ms. Belanger said there were some misinterpretations made by the resident. However, she agrees that if there are documents, they shouldn't be kept at someone's house. She added that the commission putting together a summary was just to capture the work done. Not all work sessions are recorded, but there's always due diligence.

10. Review Board Calendar

a. The next meetings are November 21, Dec 5, and Dec 19.

11. Non-Public Session

a. There was no non-public session at this time.

12. Adjournment

MOTION: Ms. Belanger moved to adjourn. Ms. Gilman seconded. The motion passed 5-0 and the meeting was adjourned at 10:01 PM.

Respectfully Submitted,
Joanna Bartell
Recording Secretary

Select Board Meeting
Monday November 21, 2022
7 PM
Nowak Room, Town Offices
Draft Minutes

Members present: Chair Niko Papakonstantis, Vice-Chair Molly Cowan, Clerk Julie Gilman, and Nancy Belanger were present at this meeting.

Members Absent: Lovey Roundtree Oliff

Town Manager Russ Dean and Assistant Town Manager Melissa Roy were also present at this meeting.

1. Call Meeting to Order
   The meeting was called to order by Mr. Papakonstantis at 7 PM.

2. Public Comment
   a. There was no public comment at this meeting.

3. Proclamations/Recognitions
   a. There were no proclamations/recognitions at this meeting.

4. Approval of Minutes
   a. Regular Meeting: November 14, 2022
      The minutes were not available for review and will be approved at the next meeting.

5. Appointments

MOTION: Ms. Gilman moved to appoint Alan Mangan to the Water/Sewer Advisory Committee, term to expire April 30, 2024. Ms. Belanger seconded. Ms. Belanger asked if this was a full member, and Mr. Papakonstantis said yes. The motion passed 4-0.

MOTION: Ms. Gilman moved to appoint Alan Mangan to Facilities Advisory Committee as a full member, term to expire April 30, 2025. Ms. Belanger seconded. The motion passe 4-0.

Mr. Papakonstantis welcomed EHS students Olivia Shore and Neila O'Brien as Student Co-Liasons to the Energy Committee.

6. Discussion/Action Items
   a. Town Ordinance Second Reading: Single Use Plastic Ban
      Natural Resources Planner Kristen Murphy and Sustainability Advisory Committee member Chris Zigmont were present for the hearing.

MOTION: Ms. Belanger moved to open the public hearing. Ms. Gilman seconded. The motion passed 4-0.

Mr. Papakonstantis mentioned that there were letters of support in the packet from residents Sarah DeWitt, Enna Grazier, and Betsy Ferguson.

Mr. Zigmont said it was a long road to get to mandatory seat belts; people had to accept the data, change their habits, and pay a little more. Now 375,000 lives have been saved with seat belts. Plastics have far greater, more permanent, and harmful consequences. More than 50% of all plastics produced have been produced since the year 2000. Microplastics are everywhere, including in our bodies. These are not fully recyclable; reducing is our only way out. This may be a little inconvenient and we may need to pay a little more, but soon not using single-use plastics will become a healthy habit. The SAC will offer guidance to support the transition. This will save ourselves and the next generation. It will not be easy, and there will be impacts, but Exeter residents are in support of sustainability initiatives.

Ms. Murphy gave an overview of the ordinance. This applies only to town-owned property and town permitted events. It's modeled after a policy adopted in Portsmouth in 2019. She surveyed town staff and permittees, and made some modifications.

Ms. Murphy read the ordinance, leaving out the definitions with the permission of the Board:

DISTRIBUTION OF SINGLE-USE PLASTIC BAGS, FOOD SERVICE PRODUCTS, AND POLYSTYRENE FOOD CONTAINERS ON TOWN PROPERTY

24.00 PURPOSE:

The Town of Exeter recognizes that limiting the distribution and subsequent disposal of single-use plastics through reduction is necessary to protect human health, to preserve the natural environment, and to promote sustainable and ethical practices regarding material waste.

24.02 DISTRIBUTION OF SINGLE USE PLASTICS ON TOWN PROPERTY

No person shall distribute a prohibited single use disposable item at any town facility, town property, town-managed or sponsored event, or activity authorized through special permits issued under the authority of the Town of Exeter Select Board unless otherwise allowed under EXCEPTIONS 24.03.
Prohibited Single Use Disposables:

1. *Single-Use Plastic Bags.*
2. *Single-Use Plastic Food Service Products.*
3. *Single-Use Polystyrene Containers.*

24.03 PRODUCT EXCEPTIONS:

1. *Reusable Bags*
2. *Single-Use Compostable Food Service Products*

3. Packaging materials required for food safety reasons added at the site of the business or a processing facility. Examples: wrapping around meats, seafood, lettuce mix or other perishable products.

4. Products where alternatives to prohibited items do not exist, until an alternative is identified.

24.04 ORGANIZATIONAL EXCEPTIONS:

1. All town departments/vendors may distribute their remaining inventory for 9 months following policy adoption
2. Items used by emergency responders or human service non-profit organizations.
3. Prohibited Single Use Containers brought by staff/customers themselves
4. Exeter Parks and Recreation Department will work with the Sustainability Committee to develop a transition plan.

24.05 PENALTIES AND REMEDIES

In addition to any other penalty or remedy permissible by law for violation of this ordinance, the following shall apply:

1. If the Town determines a violation of this ordinance has occurred, a written warning will be issued.
2. Upon a second or subsequent infraction of this ordinance, the Town interprets this as a direct violation of the vendor permit and cause for refusal to approve use permit.

Ms. Murphy said the SAC will be a support entity for individuals transferring through this process. They are making a source list for alternative products. For water bottles, they are exploring a partnership with a local brewing company to offer canned water, and seeking price points for reusable water bottles. The Swasey Parkway Trustees are supportive of extending the existing water spigot down towards the bandstand for a source of water. The 2022 Beer and Chili Fest had multiple composting facilities and a dramatic amount of SUPs were avoided.

Mr. Papakonstantis opened the discussion for public comment.

Scott Ruffner of 11 Hall Place said this is not an issue for TEAM. We've always wanted to have water stations and not use single-use water bottles. He talked to the vendors TEAM works with and heard feedback on price point issues and certain types of food that require the packaging. The education piece and collaborative piece will help with all of that. He wants to ensure the ordinance doesn't scare anyone off before we can collaborate. Some vendors use OBA, whose packaging is eco-friendly. Memories Ice Cream has tried some products that haven't worked. The biggest pushback may be the cost of bottled water and

the impact on fundraising. We need to change the culture and find alternatives. Mobile vending at Townhouse Common needs to be integrated as well. Town Hall needs a water station.

Enna Grazier of Warren Ave, the owner of Enna's Chocolate, said this is a wonderful opportunity for collaboration. She surveyed her customers on single-use compostable products, and found that 80% go to landfills. Compostables are not the end-all. Reusables are the end goal. The town could encourage reusable cups through the budgeting process. In the survey, some respondents expressed concern about styrofoam, but she's sorry to hear it's even still in use.

Mr. Ruffner said the Arts & Culture Commission will be a logical collaborator in facilitating work with affected organizations.

Ms. Gilman asked Mr. Ruffner if vendors have a business model for providing reusable bottles for events. Mr. Ruffner said he thinks that's a good idea. It could be promoted as part of the event.

Ms. Grazier said aluminum water bottles are 100% recyclable and most aluminum is already recycled. They can also be reused, unlike a tab-top aluminum can.

MOTION: Ms. Belanger moved to close the public hearing. Ms. Cowan seconded. The motion passed 4-0.

Mr. Dean said he had a meeting last Friday with Ms. Murphy and Mr. Bisson and there were questions raised about how Parks and Rec would follow this ordinance. Last year they sold 1,500 bottles of water and 800 bottles of Gatorade, and eliminating that income stream would put a dent in their operation. Does the ordinance impact Parks and Rec?

Ms. Murphy said language as it stands is intentionally vague: *Exeter Parks and Recreation Department will work with the Sustainability Committee to develop a transition plan.* There's no timeline. Mr. Bisson has installed a water station at the Rec Park, can find reusable utensils, and can get rid of straws. Water bottles and Gatorade are the big issue. We're looking for solutions. Locally, we can buy Proudsource [canned] water at 60 cents a unit, so it's more expensive. We don't have the answers, so the language is vague.

Mr. Papakonstantis asked if we can get a more precise cost difference between a single-use bottle and cans. We need to pause on a few things, including the pool and summer camp. These programs are catering to all demographics in town, including those families whose resources are limited. We don't want a child to hydrate and not eat. Portsmouth revised their ordinance not to ban but to encourage, particularly because of Parks and Rec.

Ms. Murphy said Mr. Bisson shared a document from Jan 2022 from Portsmouth affirming the policy. It had new language about encouraging best practices, but still referenced a ban, so it was confusing. She reached out to the Health Officer in Portsmouth, who was talking about enforcement, so it seems to still be enforced. Mr. Bisson heard that their Parks and Rec is exempt. Proudsource is $5 for an 8 pack at Shaws or 63 cents per unit. Right now water bottles are 12 cents a unit and sold for $1. They could sell at $1.50 to make up

the difference. She looked into reusable water bottles and found that Ali Baba sells at 80 cents a unit, which could sell for $2.50, but they don't want water to be more expensive than sodas.

Ms. Gilman said regarding Gatorade, do they have the storage capacity for large coolers so they could sell it by the cup? Ms. Murphy said there's a question of what health codes they need to follow. Gatorade also comes in packets you can add to water bottles, so we could explore that.

Ms. Belanger asked how we anticipate enforcing #2 [single-use plastic at town permitted events]. Is someone supposed to be on site? There needs to be an educational aspect to this. People support sustainability, but we don't want pushback at voting time. The pool concession stand adds about $5,000 to the Parks and Rec budget, so losing that affects our budget. There's a cost to putting in water fountains and using the water. The source list will be really important. She added that parents can forget kids' water bottles.

Ms. Cowan said we should modify the penalties and remedies section to have a violation process plan so that we have this be a positive thing. This is a good first step. What is the outreach to businesses and other organizations in town for next steps? Would it make sense to update the Parks and Rec clause to involve the Rec Advisory Committee? Parks and Rec could work with parents to mitigate, for example keeping bottles there and washing them for a fee. We need to create sustainable habits for families and kids without having it be a hardship.

Mr. Zigmont said there is powdered Gatorade and other things that don't use plastics. There are alternatives. We should look at what budget parameters are acceptable for replacements and develop a timeframe to sunset single-use plastic products.

Mr. Papakonstantis said the Select Board is supportive of this, but would like to push the third hearing to December 19 to allow the Sustainability Committee and the Arts & Culture Commission to discuss it, as well as investigate what Portsmouth does with Parks and Rec.

Mr. Papakonstantis asked whether the penalties and remedies apply to town Departments. Ms. Murphy said the authority to issue this is through the Health Department, but Mr. Murray was concerned about workload, so she was ok with being the point person. It's not intended to be punitive, and she supports language changes around that.

b. Town Ordinance First Reading: Sewer Regulations Update

Mr. Papakonstantis said this is the first hearing for the proposed updated sewer regulations

MOTION: Ms. Gilman moved to open the public hearing on the proposed town ordinance to update the sewer regulations. Ms. Belanger seconded. The motion passed 4-0.

Mr. Papakonstantis opened the discussion to the public, but there was no public comment.

MOTION: Ms. Gilman moved to close the public hearing on the proposed town ordinance to update the sewer regulations. Ms. Belanger seconded. The motion passed 4-0.

Ms. Gilman read the changes [see attachment].
Ms. Gilman said this is State issued language we need to adopt.
Mr. Papakonstantis said the second reading will be December 5th.

c. Boards & Committees Policies and Procedures

Mr. Papakonstantis said he and Ms. Oliff looked at Boards and Committees and came up with recommendations.

Regarding term limits, they did a review of other municipalities, and found no practice of limiting terms served, including on land use boards. They recommend not adopting a policy of limiting terms served, but the Board may want to consider a two year rotation of full members and alternates.

They recommend that town staff conduct an orientation for all new committee and board members, including a review of 91A.

They recommend a goals and objectives process for all boards and committees. The year's goals could be submitted to the Select Board in writing or through the Select Board rep to that committee. The Planning Board, ZBA, HDC, Budget Recommendations, and similar boards would be exempt.

Collaboration between committees would be beneficial, such as at a bi-annual meeting of all committees and boards.

They recommend that boards and committees review their mission statements and charges on an annual basis or as necessary. The Select Board should review the list of committees annually and consider ending or consolidating committees or revising the number of members to allow them to achieve a quorum. Boards and committees should review their meeting frequency. Regarding attendance, the Select Board adopted a policy that states those who failed to attend 60% of meetings may forfeit their membership; the Board should start to enforce that and have committee chairs submit attendance sheets.

Ms. Gilman said people apply to be alternates when there's a full member slot open. The board or committee should recommend who will take the full time slot. Full voting seats should be filled before alternate positions.

Ms. Belanger said she's glad we're not considering term limits, which undervalue historical knowledge. Ms. Gilman said a rotation of members and alternates used to be informally done by the Planning Board.

Ms. Belanger said instead of the goals being submitted in the first 90 days of calendar year, the date should be June 1st, since appointments end in April. Otherwise those aren't the same people who were part of the goal setting.

Ms. Belanger asked if the attendance requirement includes alternates. Ms. Gilman said it used to be for full voting members only. Ms. Belanger said we should consider adding alternates. Hearings may extend over several meetings, and alternates need to be ready to vote.

Ms. Cowan said we're running up against lack of participation and people not showing up. Ms. Gilman said childcare is an issue. Ms. Belanger said offering participation via Zoom meetings would help with childcare. Mr. Papakonstantis said that's a State issue.

Mr. Papakonstantis said this will be on a future agenda for further discussion.

d. All Boards Meeting Follow-up

Mr. Papakonstantis said the Library community room is available for the meeting. They do have a projector and screen. EXTV can film it and post the video but not show it live. Ms. Cowan said she likes the idea of having it there, as the Board should engage more with the Library. The Board decided to hold the meeting on February 8th at the library, time TBD.

Mr. Papakonstantis asked if the board and committee meetings can be scheduled out on the website for the next year.

7. Regular Business
   a. Tax Abatements, Veterans Credits and Exemptions
      i. There were no abatements or exemption considered at this meeting.

   b. Permits & Approvals
      i. There were no permits or approvals considered at this meeting.

   c. Town Manager's Report
      i. Christina Ristuce started November 18th in the HR Office.
      ii. He attended the NHMA Conference on Nov 16 and 17.
      iii. There were two BRC meetings last week, the Water & Sewer review and the CIP/wrap up.
      iv. We're continuing to meet with Public Works on the DOL audit.
      v. The work on tax bills continues. The overall rate was set at $24.75 per $1,000, an increase of 74 cents. The town rate increased 17 cents per $1,000. Bills should be out shortly
      vi. Last year, we had our first employee appreciation day, and we're proposing another one this year, on December 23rd. Mr. Papakonstantis said this is where we gave town employees an extra day off. The Board was in support. The volunteer appreciation event hasn't happened in a few years, but we will be issuing gift certificates for local businesses to volunteers in lieu of a gathering. It's a comparable cost. Ms. Belanger said volunteers should have a gathering outside of a meeting.
      vii. The Swasey Parkway hearing is scheduled Dec 5 for Cy Pres and deviation. This will be during the Select Board meeting. After that, we notify the Director of Charitable Trusts and Probate Court we've had the hearing. Mr. Papakonstantis said he wanted a statement from Attorney Mitchell on the process to include in the packet prior to the Public

Hearing. Mr. Dean said the wording of the petition will be available at the Public hearing; we can give a brief description at the meeting, including what was approved at Town Meeting. We can also post the petition online tomorrow.

viii. The holiday parade is December 3rd, starting at 5:30.

d. Select Board Committee Reports
   i. Ms. Cowan had no report.
   ii. Ms. Gilman said the Heritage Commission talked about recommendations for the Historic Registry for Town Hall and gathering stakeholders together. They voted to go ahead with a grant from the NH Preservation Alliance. They talked about a summary narrative about the Heritage Area for Park Street. They talked about the watering trough placement. They discussed how to document buildings that have been demolished. The Chair is going to write a response for the resident letter. Ms. Belanger said she's getting emails on that issue. The Select Board has no say over the committees and commissions, and can't tell the HC that it could never come back up again. Ms. Gilman said that's correct. The Heritage Commission is a State-defined land use board and is not under the purview of the Select Board.
   iii. Ms. Belanger said she met with Jennifer Perry and Jay Perkins regarding the winter parking ban. The downtown has 40 overnight parking spots, and can add 14 more spaces at the municipal lot. The three projects with 19 units which have been approved won't have people living in them this winter. We need to find a way to get data on how many overnight parking spots are being utilized. The downtown traffic parking study in the CIP would give us a better understanding of our needs. The Planning Board is in support of the study being on the warrant this year. At the Conservation Committee, they talked about a floodplain draft ordinance. There was a kayak event with 10 participants, several of whom were first-timers. They had no problems with the new boat launch. There was talk of a possible community garden near Raynes Barn, but there is limited parking and it's not close to town. The Trail Maintenance subcommittee met and talked about how to make the trails more user-friendly and keep people from getting lost.
   iv. Mr. Papakonstantis said he went to the Public Safety Complex open house, which was a good event but not well-attended. At the Swasey Trustee meeting, he updated the Trustees on the Swasey Park public hearing, the lifting of the water ban, and the vandalism addressed last week. They opened bids for maintenance of the park. He attended the CIP budget meeting last week, and the Board will hear the BRC's recommendations next week.

e. Correspondence

i. A letter from the Holland Company, who will not be offering a bid because they do not supply the correct chemical.

8. Review Board Calendar
    a. The next meetings are December 5 and December 19
9. Other business
    a. Mr. Papakonstantis said Santa's mailbox is up for children's letters to Santa. Ms. Belanger said the deadline is December 16.
10. Non-Public Session

MOTION: Ms. Belanger moved to enter into non-public session under RSA 91A:3II(a) and (c). Ms. Gilman seconded. In a roll call vote, the motion passed 4-0. The Board emerged from non public session. Motion made by Selectwoman Cowan to permanently seal the minutes, seconded by Selectwoman Belanger. The motion carried 4-0.

11. Adjournment. Selectwoman Belanger motioned to adjourn, seconded by Selectwoman Gilman. The motion carried and the Board stood adjourned at 9:50 pm.

Respectfully Submitted,
Joanna Bartell
Recording Secretary

Appointments

Hi Russ

Hope all is well with you and your family.
Everything at our house is good we just move at a slower pace,
Appreciate if you could provide this to the board for my nomination approval to continue with the Exeter Squamscott River Local Advisory Committee.

Have a great holiday season

Don Clement

Don C.

NHDES-W-07-030

LOCAL RIVER MANAGEMENT ADVISORY COMMITTEE NOMINEE FORM

New Hampshire Rivers Management and Protection Program

RSA 483:8-a

Please complete both sides of this form and email to riversprogram@des.nh.gov. Please type "NOMINEE FORM" and nominee's name in the subject line. Forms can also be sent by mail to: Rivers Coordinator, NHDES, 29 Hazen Drive, P.O. Box 95, Concord, NH 03302-0095. For questions please contact the Rivers Coordinator at 271-2959.

Nominee Information

Nominee Name: DONALD CLEMENT		Date: 11/17/2022
Street Address: 5 THELMA DRIVE		
Town: EXETER		Zip Code: 03833
Phone (home): 603 778-0238	Phone (cell): 603 205-5402	Phone (work):
Email: dclement43@comcast.net		

Nomination Information

Type of Appointment -	☐ New Appointment	☒ Reappointment
River Name: EXETER-SQUAMSCOTT		
Type of Representation -	Municipality:	Other:

Please state your interest(s) in serving on the Local River Management Advisory Committee:

☐ Local Government	☒ Conservation	☐ Agriculture
☐ Business	☒ Recreation	☐ Riparian Landowners
☐ Other, please specify:		

Board of Selectmen or Authorized Signature(s) – REQUIRED (e-signature acceptable)

Name:	Title:
Name:	Title:
Name:	Title:

Note: By statute, the New Hampshire Rivers Management Advisory Committee appoints the Local River Management Advisory Committee (LAC) members for each Designated River from nominees submitted by the local governing bodies through which the Designated River flows (RSA 483:8-a).

Additional Information

Please include a short description of your relevant background knowledge of local river-related issues or general river management and protection:

HAVE BEEN AN ACTIVE MEMBER FOR 20 YEARS, AND CHAIRPERSON FOR SEVERAL. HELPED TO CRAFT THE NOMINATION OF THE SQUAMSCOTT RIVER INTO THE PROGRAM. PRESENTLY SERVE OF TOWN CONSERVATION COMMISSION

Most Local Advisory Committees engage in a variety of activities. Reviewing those activities listed below, please check those that are of most interest to you:

- ☐ Grant Writing
- ☒ Public Education
- ☐ Committee Administration
- ☒ Event Organization
- ☒ Public Relations
- ☒ Management Plan Preparation/Implementation
- ☐ Other, please specify:

Most Local Advisory Committees meet monthly. In some cases they may meet more frequently to complete specific tasks, while in other cases your attendance may not be required at all meetings. Please check one of the boxes below to indicate your availability to attend regularly scheduled meetings:

- ☒ I can attend monthly meetings on most weeknights
- ☐ I can attend monthly meetings only if scheduled on a specific weeknight
- ☐ I can only attend a limited number of monthly meetings
- ☐ I cannot attend monthly meetings, but am willing to complete tasks on behalf of the Committee

For NHDES Office Use Only

LAC Member List and Contacts Database updated (date):
LAC Chair and Nominee have been contacted regarding nomination on (date):
RMPP Staff recommends appointment to the Rivers Management Advisory Committee -
☐ Approve RMPP staff: Date:
Appointment confirmation sent to municipality and LAC Chair on (date):

Appointment letter and information packet sent on (date):

(603) 271-2959 riversprogram@des.nh.gov
PO Box 95, Concord, NH 03302-0095
www.des.nh.gov

Public Hearing: Swasey Parkway Cy Pres & Deviation Petition

Legal Notice
NOTICE OF PUBLIC HEARING
SWASEY PARKWAY PETITION FOR CY PRES OR FOR DEVIATION RELIEF

The Exeter Select Board hereby gives notice of a public hearing on the Swasey Parkway Petition for Cy Pres or for Deviation Relief on Monday, December 5th, 2022, at 7:00 p.m., in the Nowak Room of the Exeter Town Offices. The public is welcome to attend and comment.

Dated: November 15th, 2022

Exeter Select Board
Niko Papakonstantis, Chair

DRAFT

THE STATE OF NEW HAMPSHIRE

ROCKINGHAM, SS

10th CIRCUIT- PROBATE DIVISION
BRENTWOOD

THE TOWN OF EXETER, NEW HAMPSHIRE

v.

NEW HAMPSHIRE ATTORNEY GENERAL
DIRECTOR OF CHARITABLE TRUSTS

Docket No. _____

PETITION FOR *CY PRES*, OR FOR DEVIATION RELIEF.

NOW COMES the Select Board for the Town of Exeter, New Hampshire, and in seeking the ruling of this court either under the rule of *Cy Pres* pursuant to RSA 547:3-c or Deviation Relief pursuant to RSA 547:3-d, states as follows:

1. The Town of Exeter is a municipal corporation formed under the laws of the State of New Hampshire; it has a business address of 10 Front Street, Exeter, New Hampshire 03833.

2. The Attorney General, Director of Charitable Trusts has oversight authority over charitable trusts pursuant to RSA 7:19-20 and has an address of 33 Capitol Street, Concord, New Hampshire 03301. The Director of Charitable Trusts is an indispensible party to this proceeding. See In re Mary Baker Eddy, 172 NH 266 (2019).

3. This court has jurisdiction over this matter pursuant with RSA 547:3-c and 547:3-d.

4. Ambrose Swasey, the donor of a trust that is the subject of this petition, was born near Exeter in 1846, grew up in Exeter, was educated as an engineer and began his

employment career working for a manufacturing business in Exeter.

5. Business opportunities caused him to move to Cleveland, Ohio, where he was successful and accumulated wealth.

6. Historical documents describe him as an engineer, inventor, machinist, entrepreneur, executive, and philanthropist.

7. In his later years Mr. Swasey moved back to Exeter, where he died and was buried, in 1937.

8. By a Trust Agreement dated August 9, 1929, Mr. Swasey, while still living in Cleveland, established and funded a trust for the purpose of "defraying the expense of acquiring a right of way and of constructing a parkway along the riverfront at Exeter, New Hampshire, to be used *solely for park purposes*, and the roadway therein open only to pleasure vehicles". This Trust enabled the initial purchase and construction, and remains in place as it contains provisions for continued annual disbursements of funds for maintenance and upkeep of the property.

9. This gift enabled the town to acquire property for the park along the river, behind the downtown business district, and to build a professionally designed park and roadway, with the park land immediately abutting the river and the roadway running roughly parallel to the river. The road borders the park land and runs from an entrance adjacent to the downtown business district (at Water Street) to a northerly entrance/exit at Newfields Road. After construction in the early 1930s, the road was designated by the Town as a Class V public highway. The park was named and remains "Swasey Parkway".

10. The gift that resulted in this park, and the receipt of annual disbursements, is regarded as having created a separate charitable trust. The members of the town's Select Board are regarded as the trustees of that trust for the purpose of filing this petition.

11. Over the following decades, as the town's business district has grown and become more active, and with the later establishment, growth and influence of the east/west highway NH Route 101 just a mile north of the park road's northerly terminus, the roadway through the park has more and more been used as a shortcut from the downtown business area to access Route 101 at Exit 10. This has created not only a significantly greater number of vehicles passing through the park road, but also a great number of vehicles moving at increased speeds, all of which detracts from the safety, relaxation and enjoyment of the users of the park land.

The result is that as the road has become busier, that increase has more and more interfered with what Mr. Ambrose intended when he established the trust to create a bucolic park.

12. When creating the Trust Agreement and referring to the intended use of the road, Mr. Swasey specifically described it as being for "pleasure vehicles"; this was consistent with his goal of having Exeter create a place of quiet and serenity for the enjoyment of natural beauty.

13. However, with the growth of the roadway's use by commuter and commercial vehicles traveling through Swasey Parkway, as contrasted with pleasure vehicle usage within the Swasey Parkway, these uses have become competing influences, with the commuter/commercial traffic detracting from Mr. Swasey's intended public goal that the park land be used *solely for park purposes*.

14. To address this problem, at the Town's 2022 Annual Town Meeting the Town's Select Board proposed to the voters to close and discontinue as a public highway the southerly portion of the roadway "from Water Street to the Pavilion."

15. This vote specified that the pavement in that closed and discontinued portion of the roadway was to be retained for the use of pedestrians, non-motorized and maintenance/emergency vehicles, and that the northerly portion of the roadway would

remain a Class V highway for vehicle access to the park. This change would restore the use of the roadway for "pleasure vehicles" to facilitate the enjoyment of Swasey Parkway itself, as opposed to simply a route to some other destination, and would thereby once again return the property to use *solely for park purposes*.

16. The warrant article was also conditioned on the Town filing this petition and obtaining this Court's approval. See Official Ballot Annual Town Election Exeter, New Hampshire, March 8, 2022, Article 33, attached as Exhibit 1.

17. That warrant article was approved by a vote of 1819 to 1083.

18. Because of the circumstances described above, the original charitable purposes of the trust when applied to the roadway have become impractical, obsolete, ineffective and/or prejudicial to the public interest to carry out, as those terms are used in RSA 547:3-d, I.

19. Alternatively, the Town seeks relief by Deviation under RSA 547:3-c in that a change in circumstances, as described above, has occurred that substantially impairs the accomplishment of the purposes of the Trust.

20. Granting this petition, to allow the Select Board to effectuate the Town vote altering the roadway in Swasey Parkway as contemplated, will be consistent with RSA 547:3-c and 547:3-d, and will be nearer to the original purposes intended by Mr. Swasey, that the park land be solely for park purposes.

21. In seeking this approval and making the proposed road changes, the Town commits that in this process it will address the needs of those with mobility issues, to assure that they will have continued access to the park.

22. On _____, 2022, the Town held the public hearing required by RSA 547:3-d, II, after giving at least fourteen (14) days notice to the public.

WHEREFORE, your petitioner respectfully requests that this Honorable Court:

A. Apply *Cy Pres* or Deviation to permit the changes approved by the town's voters; and

B. For such other relief as the court may deem just.

Respectfully submitted,

TOWN OF EXETER

By Its Attorneys
MITCHELL MUNICIPAL GROUP, P.A.

Date: _____ By: _____

Walter L. Mitchell, NH Bar No. 1778
25 Beacon Street East
Laconia, New Hampshire 03246
(603) 524-3885
walter@mitchellmunigroup.com

Budget Recommendations – Bob Kelly, Chairman BRC

Exeter, NH Budget Recommendations Committee (BRC)

FY 2023 Budget Report to the Selectboard

December 5, 2022

1. Budget Highlights and Challenges

   a. General Fund
      - Preliminary budget requests were 3.65% over 2022 budget. Final BRC recommended budget is 2.4% over the 2022 budget, a reduction of approximately $250,000.
      - Funding of part time Human Resources assistant is recommended.
      - Funding of Geographic Information Systems (GIS) resource manager (60%) is recommended.
      - Increase in DPW vehicle and building maintenance due to aging equipment and facilities.
      - New solid waste contract and poor recyclables markets requires $119,000 budget increase.
      - Support of using fund balance and ARPA funding as appropriate to minimize tax increases.

   b. Water Fund
      - Funding of Geographic Information Systems (GIS) resource manager (20%) is recommended.
      - Recommend beginning lead piping replacement analysis ahead of October 2024 deadline.
      - Significant increases in lab testing equipment, supplies, chemicals and management due to Federal regulations.
      - Third year of a 10-year management contract for water tanks results in $43,000 reduction.
      - Support expanded meter replacement program to replace older units.
      - Significant Capital Outlay requirements for well, filter and equipment refurbishments.

   c. Sewer Fund
      - Funding of Geographic Information Systems (GIS) resource manager (20%) is recommended.
      - Significant increases in lab testing equipment, supplies, chemicals and management due to Federal regulations.
      - Capital Outlay requests include construction of revenue-producing septage receiving facility.

   d. Capital Improvement Program (CIP)
      - Support of Town Manager's deferral projects and vehicles.
      - Support of proposed Police Station and Fire Substation on Continental Drive with Net Zero energy design ($16.3 M).
      - Support of Intersection Improvements Program including roundabout at Linden/Front St.
      - Support of Westside Drive drainage, water and sewer improvements utility project.
      - Support of continuing groundwater source development and sewer capacity analysis projects.
      - Support of new DPW Vactor Truck to give DPW flexibility in complying with Federal regulations. Though only 8 years old, extended equipment ordering timeframes required approval of one year earlier than anticipated.

2. Budget comparison, Year Over Year (YOY), 2019-2023

Fiscal Year	General Fund	CIP/Vehicles	Water Fund	CIP/Vehicles	Sewer Fund	CIP/Vehicles
2019	$19,066,857	$ 599,236	$3,253,033	$1,024,043	$2,817,866	$145,000
2020	$19,605,537	$ 546,664	$3,552,795	$ 200,000	$7,686,605	$1,600,000
2021	$19,891,082	$1,260,000	$4,054,184	$3,500,000	$7,015,364	$4,190,000
2022	$20,385,366	$2,511,579	$4,260,431	$ 204,538	$7,396,994	$5,981,838
2023 Rec	$21,154,780	$1,674,576	$4,549,849	$ 786,684	$7,432,780	$1,054,184

The above figures do not include amounts for the Police Station and Westside Drive Reconstruction as the first payments for those projects will not occur until 2024.

3. BRC recommendations

The presented FY 2023 budgets include our perspective on a balance between necessary projects and regulatory directives for continued town growth and improved quality of life and an acceptable cost of these programs.

Thank you for the opportunity to serve the Town of Exeter and its Selectboard,

Respectfully Submitted,

Robert Kelly December 1, 2022

BRC Chair

On behalf of members:

Ed Contreras
Kathy Corson
Enna Grazier
Dr. Judy Rowan
Chris Zigmont
Liz Canada
Andrew Elliott
Chris Newport
Chris Soutter
Dr. Anthony Zwaan

Discussion Agenda for FY 2023 CIP Items — November 17, 2022, Approved

Item	Item reference	Amount ($)	Subcomm	Funding Options	Decision
Projects:					
1. Public Works Garage Analysis	CIP p. 1 (DPW)	$ 50,000	DPW/W/S	1 yr non-debt	Yes, 10-0
2. Public Safety Complex	CIP p. 3 (P&F)	$15.9-16.3M	P & F	20 yr bond, $1.1M in 2024	Yes to 16.3M, 10-0
3. CRF for ADA Improvements	CIP p. 7 (PI)	$ 50,000	Gen Govt	1 yr non-debt	$25,000, Yes 10-0
4. Downtown Traffic/Parking Analysis	CIP p. 9 (PI)	$ 50,000	Gen Govt	1 yr non-debt	Yes, 7-3
5. Conservation Fund	CIP p. 11 (Con)	$ 50,000	Gen Govt	1 yr non-debt, on-going	Yes, 7-3
6. Parks Improvement Fund	CIP p. 12 (P&R)	$ 100,000	Parks/Rec	1 yr non-debt, on-going	Yes, 10-0
7. Planet Playground Improvements	CIP p. 13(P&R)	$ 1,000,000	Parks/Rec	10 yr bond, $126,400 in 2024	No, TM deferred
8. Intersection Improvements Program	CIP p. 16 (PI)	$ 798,000	DPW Hwy	10 yr bond, $100,867 in 2024	Yes, 10-0
9. Linden St. Bridge rehab	CIP p. 17 (DPW)	$ 295,000	DPW	1 yr. non-debt	Yes, 10-0
10. Sidewalk Capital Recovery Fund	CIP p. 21 (DPW)	$ 200,000	DPW Hwy	1 yr non-debt, on-going	No, 4-6
11. Westside Drive Reconstruction	CIP p. 26 (DPW)	$ 6,020,000	DPW/W/S	15 yr bond, $588k in 2024	Yes, 10-0
12. Court St. Sewer Pumping Station	CIP p. 27 (S)	$ 400,000	S	5 yr bond, Sewer Fund	Yes, 10-0
13. Sewer Capacity Analysis	CIP p. 28 (S)	$ 380,000	S	1 yr. non-debt	Yes, 10-0
14. New GW Source Development	CIP p. 31 (W)	$ 500,000	W	1 yr non-debt	Yes, 10-0
15. Tasers		$ 110,665	P & F	5 yr L/P	Yes, 8-2
Vehicles:					
16. Fire Inspector vehicle replacment	CIP p. 42 (F)	$ 49,313	P & F	Purchase	Yes, 10-0
17. Fire Utility #1 replacement	CIP p. 44 (F)	$ 61,986	P & F	Purchase	No, TM deferred
18. Sidewalk Tractor #57 replacement	CIP p. 48 (DPW)	$ 177,705	DPW Hwy	5 yr L/P, $36,816 in 2023	Yes, 10-0
19. Truck #5 replacment	CIP p. 50 (DPW)	$ 53,558	DPW	Purchase	Yes, 10-0
20. Truck #33 replacement	CIP p. 52 (DPW)	$ 75,032	DPW	Purchase	No, TM deferred
21. Sedan #24 replacement	CIP p. 54 (DPW)	$ 26,000	DPW	Purchase	Yes, 10-0
22. Vactor Truck #67 replacement	CIP p. 58 (W/S)	$ 548,369	W & S	7 yr L/P, $92,980 in 2023	Yes, 10-0

Grant Acceptance: Exeter Reservoir Dam Feasibility Study

EXETER PUBLIC WORKS DEPARTMENT

13 NEWFIELDS ROAD • EXETER, NH • 03833-4540 • (603) 773-6157 •FAX (603) 772-1355
www.exeternh.gov

MEMO

DATE: December 1, 2022

TO: Russell Dean, Town Manager

FROM: Paul Vlasich, P.E., Town Engineer

RE: High Hazard Dam Rehabilitation/Removal Grant Program
Exeter Reservoir Dam

The Town is a recipient of a NHDES American Rescue Plan Act grant for the Exeter Reservoir Dam. The dam is rated as a high hazard dam and the determination was reconfirmed by a breach analysis in 2016. The dam is currently unable to meet the required discharge capacity of 250% of the 100-year flood event with the appropriate freeboard.

The grant funds will support a feasibility study to develop alternatives and conceptual designs to bring the dam into compliance.

The grant is for $172,000 which will fund 100% of the study. The department is in the process of reestablishing a UEI number which will be required to receive the grant funds.

The Town will need a vote of authorization to accept the grant.

Suggested wording:

To accept a State ARPA grant from the NH Department of Environmental Services in the amount of $172,000 to the Town of Exeter and to authorize the Town Manager to sign the associated paperwork with such agreement on behalf of the Town for the Exeter Reservoir Dam.

The State of New Hampshire
Department of Environmental Services

Robert R. Scott, Commissioner

Paul Vlasich, PE, Town Engineer
Town of Exeter Public Works
10 Front Street
Exeter, NH 03833

November 18, 2022

Subject: High Hazard Dam Rehabilitation/Removal Grant Program
Exeter Reservoir Dam, D082002, Exeter

Dear Mr. Vlasich:

Attached is the final version of the Grant Agreement for the American Rescue Plan Act grant for the Exeter Reservoir Dam Project. Please review these documents carefully to ensure accuracy. If you believe edits are needed, provide clear and concise comments as applicable. NHDES will review these comments and contact you to discuss or confirm. If everything is acceptable, please complete the documents as follows:

1. Print the attached Grant Agreement and have the authorized representatives sign page 1 and initial and date pages 2 and 3.
2. Print the attached Exhibits A-C and initial and date at the bottom of each page.
3. Submit an original signed and notarized Certificate of Vote (attached).
4. Submit ARPA completed and signed Consultant (Engineer) Selection Justification form (attached).

Please return **single-sided hard copy versions** of the completed documents to my attention at the address below.

Once the required paperwork is returned, NHDES will submit the funding package to Governor and Executive Council for approval. If you have any questions, please contact me at (603) 271-4967 or Emily.szmyt@des.nh.gov.

Sincerely,

Emily Szmyt, Grant Manager
Dam Safety & Inspection Section

Enclosures: Grant Agreement
Certificate of Vote
Intent of Funding
Consultant (Engineer) Selection Justification

ec: Steve N. Doyon, PE, NHDES

GRANT AGREEMENT

The State of New Hampshire and the Grantee hereby
Mutually agree as follows:
GENERAL PROVISIONS

1. Identification and Definitions.

1.1. State Agency Name Department of Environmental Services		**1.2. State Agency Address** 29 Hazen Drive, P.O. Box 95 Concord, NH 03302-0095	
1.3. Grantee Name Town of Exeter Public Works		**1.4. Grantee Address** 10 Front Street, Exeter, NH 03833	
1.5 Grantee Phone # 603-773-6160	**1.6. Account Number** 03-44-44-440010-2657-072	**1.7. Completion Date** 1/1/2025	**1.8. Grant Limitation** $ 172,000
1.9. Grant Officer for State Agency Emily Szmyt, Environmental Program Manager		**1.10. State Agency Telephone Number** 603-271-4967	
If Grantee is a municipality or village district: **"By signing this form we certify that we have complied with any public meeting requirement for acceptance of this grant, including if applicable RSA 31:95-b."**			
1.11. Grantee Signature 1		**1.12. Name & Title of Grantee Signor 1**	
Grantee Signature 2		**Name & Title of Grantee Signor 2**	
Grantee Signature 3		**Name & Title of Grantee Signor 3**	
1.13 State Agency Signature(s)		**1.14. Name & Title of State Agency Signor(s)** Robert R. Scott, Commissioner Department of Environmental Services	
1.15. Approval by Attorney General (Form, Substance and Execution) (if G & C approval required) **By:** **Assistant Attorney General, On:** / /			
1.16. Approval by Governor and Council (if applicable) **By:** **On:** / /			

2. SCOPE OF WORK: In exchange for grant funds provided by the State of New Hampshire, acting through the Agency identified in block 1.1 (hereinafter referred to as "the State"), the Grantee identified in block 1.3 (hereinafter referred to as "the Grantee"), shall perform that work identified and more particularly described in the scope of work attached hereto as EXHIBIT B (the scope of work being hereinafter referred to as "the Project").

3. AREA COVERED. Except as otherwise specifically provided for herein, the Grantee shall perform the Project in, and with respect to, the State of New Hampshire.

4. EFFECTIVE DATE; COMPLETION OF PROJECT.

4.1. This Agreement, and all obligations of the parties hereunder, shall become effective on the date on the date of approval of this Agreement by the Governor and Council of the State of New Hampshire if required (block 1.16), or upon signature by the State Agency as shown in block 1.14 ("the Effective Date").

4.2. Except as otherwise specifically provided herein, the Project, including all reports required by this Agreement, shall be completed in ITS entirety prior to the date in block 1.7 (hereinafter referred to as "the Completion Date").

5. GRANT AMOUNT; LIMITATION ON AMOUNT; VOUCHERS; PAYMENT.

5.1. The Grant Amount is identified and more particularly described in EXHIBIT C, attached hereto.

5.2. The manner of, and schedule of payment shall be as set forth in EXHIBIT C.

5.3. In accordance with the provisions set forth in EXHIBIT C, and in consideration of the satisfactory performance of the Project, as determined by the State, and as limited by subparagraph 5.5 of these general provisions, the State shall pay the Grantee the Grant Amount. The State shall withhold from the amount otherwise payable to the Grantee under this subparagraph 5.3 those sums required, or permitted, to be withheld pursuant to N.H. RSA 80:7 through 7-c.

5.4. The payment by the State of the Grant amount shall be the only, and the complete payment to the Grantee for all expenses, of whatever nature, incurred by the Grantee in the performance hereof, and shall be the only, and the complete, compensation to the Grantee for the Project. The State shall have no liabilities to the Grantee other than the Grant Amount.

5.5. Notwithstanding anything in this Agreement to the contrary, and notwithstanding unexpected circumstances, in no event shall the total of all payments authorized, or actually made, hereunder exceed the Grant limitation set forth in block 1.8 of these general provisions.

6. COMPLIANCE BY GRANTEE WITH LAWS AND REGULATIONS. In connection with the performance of the Project, the Grantee shall comply with all statutes, laws regulations, and orders of federal, state, county, or municipal authorities which shall impose any obligations or duty upon the Grantee, including the acquisition of any and all necessary permits and RSA 31-95-b.

7. RECORDS and ACCOUNTS.

7.1. Between the Effective Date and the date seven (7) years after the Completion Date, unless otherwise required by the grant terms or the Agency, the Grantee shall keep detailed accounts of all expenses incurred in connection with the Project, including, but not limited to, costs of administration, transportation, insurance, telephone calls, and clerical materials and services. Such accounts shall be supported by receipts, invoices, bills and other similar documents.

7.2. Between the Effective Date and the date seven (7) years after the Completion Date, unless otherwise required by the grant terms or the Agency pursuant to subparagraph 7.1, at any time during the Grantee's normal business hours, and as often as the State shall demand, the Grantee shall make available to the State all records pertaining to matters covered by this Agreement. The Grantee shall permit the State to audit, examine, and reproduce such records, and to make audits of all contracts, invoices, materials, payrolls, records of personnel, data (as that term is hereinafter defined), and other information relating to all matters covered by this Agreement. As used in this paragraph, "Grantee" includes all persons, natural or fictional, affiliated with, controlled by, or under common ownership

8. with, the entity identified as the Grantee in block 1.3 of these provisions

8.1. PERSONNEL.

The Grantee shall, at its own expense, provide all personnel necessary to perform the Project. The Grantee warrants that all personnel engaged in the Project shall be qualified to perform such Project, and shall be properly licensed and authorized

8.2. to perform such Project under all applicable laws.

The Grantee shall not hire, and it shall not permit any subcontractor, subgrantee, or other person, firm or corporation with whom it is engaged in a combined effort to perform the Project, to hire any person who has a contractual relationship with

8.3. the State, or who is a State officer or employee, elected or appointed.

The Grant Officer shall be the representative of the State hereunder. In the event of any dispute hereunder, the interpretation of this Agreement by the Grant

9. Officer, and his/her decision on any dispute, shall be final.

9.1. DATA; RETENTION OF DATA; ACCESS.

As used in this Agreement, the word "data" shall mean all information and things developed or obtained during the performance of, or acquired or developed by reason of, this Agreement, including, but not limited to, all studies, reports, files, formulae, surveys, maps, charts, sound recordings, video recordings, pictorial reproductions, drawings, analyses, graphic representations, computer programs, computer printouts, notes, letters, memoranda, paper, and documents, all whether finished or unfinished.

9.2. Between the Effective Date and the Completion Date the Grantee shall grant to the State, or any person designated by it, unrestricted access to all data for examination, duplication, publication, translation, sale, disposal, or for any other purpose whatsoever.

9.3. No data shall be subject to copyright in the United States or any other country by anyone other than the State.

9.4. On and after the Effective Date all data, and any property which has been received from the State or purchased with funds provided for that purpose under this Agreement, shall be the property of the State, and shall be returned to the State upon demand or upon termination of this Agreement for any reason, whichever shall first occur.

9.5. The State, and anyone it shall designate, shall have unrestricted authority to publish, disclose, distribute and otherwise use, in whole or in part, all data.

10. CONDITIONAL NATURE OR AGREEMENT. Notwithstanding anything in this Agreement to the contrary, all obligations of the State hereunder, including, without limitation, the continuance of payments hereunder, are contingent upon the availability or continued appropriation of funds, and in no event shall the State be liable for any payments hereunder in excess of such available or appropriated funds. In the event of a reduction or termination of those funds, the State shall have the right to withhold payment until such funds become available, if ever, and shall have the right to terminate this Agreement immediately upon giving the Grantee notice of such termination.

11. EVENT OF DEFAULT; REMEDIES.

11.1. Any one or more of the following acts or omissions of the Grantee shall constitute an event of default hereunder (hereinafter referred to as "Events of Default"):

11.1.1 Failure to perform the Project satisfactorily or on schedule; or

11.1.2 Failure to submit any report required hereunder; or

11.1.3 Failure to maintain, or permit access to, the records required hereunder; or

11.1.4 Failure to perform any of the other covenants and conditions of this Agreement.

11.2. Upon the occurrence of any Event of Default, the State may take any one, or more, or all, of the following actions:

11.2.1 Give the Grantee a written notice specifying the Event of Default and requiring it to be remedied within, in the absence of a greater or lesser specification of time, thirty (30) days from the date of the notice; and if the Event of Default is not timely remedied, terminate this Agreement, effective two (2) days after giving the Grantee notice of termination; and

11.2.2 Give the Grantee a written notice specifying the Event of Default and suspending all payments to be made under this Agreement and ordering that the portion of the Grant Amount which would otherwise accrue to the Grantee during the period from the date of such notice until such time as the State determines that the Grantee has cured the Event of Default shall never be paid to the Grantee; and

11.2.3 Set off against any other obligation the State may owe to the Grantee any damages the State suffers by reason of any Event of Default; and

11.2.4 Treat the agreement as breached and pursue any of its remedies at law or in equity, or both.

12. TERMINATION.

12.1. In the event of any early termination of this Agreement for any reason other than the completion of the Project, the Grantee shall deliver to the Grant Officer, not later than fifteen (15) days after the date of termination, a report (hereinafter referred to as the "Termination Report") describing in detail all Project Work performed, and the Grant Amount earned, to and including the date of termination.

12.2. In the event of Termination under paragraphs 10 or 12.4 of these general provisions, the approval of such a Termination Report by the State shall entitle the Grantee to receive that portion of the Grant amount earned to and including the date of termination.

12.3. In the event of Termination under paragraphs 10 or 12.4 of these general provisions, the approval of such a Termination Report by the State shall in no event relieve the Grantee from any and all liability for damages sustained or incurred by the State as a result of the Grantee's breach of its obligations hereunder.

12.4. Notwithstanding anything in this Agreement to the contrary, either the State or, except where notice default has been given to the Grantee hereunder, the Grantee, may terminate this Agreement without cause upon thirty (30) days written notice.

13. CONFLICT OF INTEREST. No officer, member of employee of the Grantee, and no representative, officer or employee of the State of New Hampshire or of the governing body of the locality or localities in which the Project is to be performed, who exercises any functions or responsibilities in the review or

Grantee Initials _____

Date _____

approval of the undertaking or carrying out of such Project, shall participate in any decision relating to this Agreement which affects his or her personal interest or the interest of any corporation, partnership, or association in which he or she is directly or indirectly interested, nor shall he or she have any personal or pecuniary interest, direct or indirect, in this Agreement or the proceeds thereof.

14. GRANTEE'S RELATION TO THE STATE. In the performance of this Agreement the Grantee, its employees, and any subcontractor or subgrantee of the Grantee are in all respects independent contractors, and are neither agents nor employees of the State. Neither the Grantee nor any of its officers, employees, agents, members, subcontractors or subgrantees, shall have authority to bind the State nor are they entitled to any of the benefits, workmen's compensation or emoluments provided by the State to its employees.

15. ASSIGNMENT AND SUBCONTRACTS. The Grantee shall not assign, or otherwise transfer any interest in this Agreement without the prior written consent of the State. None of the Project Work shall be subcontracted or subgranted by the Grantee other than as set forth in Exhibit B without the prior written consent of the State.

16. INDEMNIFICATION. The Grantee shall defend, indemnify and hold harmless the State, its officers and employees, from and against any and all losses suffered by the State, its officers and employees, and any and all claims, liabilities or penalties asserted against the State, its officers and employees, by or on behalf of any person, on account of, based on, resulting from, arising out of (or which may be claimed to arise out of) the acts or omissions of the Grantee or subcontractor, or subgrantee or other agent of the Grantee. Notwithstanding the foregoing, nothing herein contained shall be deemed to constitute a waiver of the sovereign immunity of the State, which immunity is hereby reserved to the State. This covenant shall survive the termination of this agreement.

17. INSURANCE.

17.1 The Grantee shall, at its own expense, obtain and maintain in force, or shall require any subcontractor, subgrantee or assignee performing Project work to obtain and maintain in force, both for the benefit of the State, the following insurance:

17.1.1 Statutory workers' compensation and employees liability insurance for all employees engaged in the performance of the Project, and

17.1.2 General liability insurance against all claims of bodily injuries, death or property damage, in amounts not less than $1,000,000 per occurrence and $2,000,000 aggregate for bodily injury or death any one incident, and $500,000 for property damage in any one incident; and

17.2. The policies described in subparagraph 17.1 of this paragraph shall be the standard form employed in the State of New Hampshire, issued by underwriters acceptable to the State, and authorized to do business in the State of New Hampshire. Grantee shall furnish to the State, certificates of insurance for all renewal(s) of insurance required under this Agreement no later than ten (10) days prior to the expiration date of each insurance policy.

18. WAIVER OF BREACH. No failure by the State to enforce any provisions hereof after any Event of Default shall be deemed a waiver of its rights with regard to that Event, or any subsequent Event. No express waiver of any Event of Default shall be deemed a waiver of any provisions hereof. No such failure of waiver shall be deemed a waiver of the right of the State to enforce each and all of the provisions hereof upon any further or other default on the part of the Grantee.

19. NOTICE. Any notice by a party hereto to the other party shall be deemed to have been duly delivered or given at the time of mailing by certified mail, postage prepaid, in a United States Post Office addressed to the parties at the addresses first above given.

20. AMENDMENT. This Agreement may be amended, waived or discharged only by an instrument in writing signed by the parties hereto and only after approval of such amendment, waiver or discharge by the Governor and Council of the State of New Hampshire, if required or by the signing State Agency.

21. CONSTRUCTION OF AGREEMENT AND TERMS. This Agreement shall be construed in accordance with the law of the State of New Hampshire, and is binding upon and inures to the benefit of the parties and their respective successors and assignees. The captions and contents of the "subject" blank are used only as a matter of convenience, and are not to be considered a part of this Agreement or to be used in determining the intend of the parties hereto.

22. THIRD PARTIES. The parties hereto do not intend to benefit any third parties and this Agreement shall not be construed to confer any such benefit.

23. ENTIRE AGREEMENT. This Agreement, which may be executed in a number of counterparts, each of which shall be deemed an original, constitutes the entire agreement and understanding between the parties, and supersedes all prior agreements and understandings relating hereto.

24. SPECIAL PROVISIONS. The additional or modifying provisions set forth in Exhibit A hereto are incorporated as part of this agreement.

Grantee Initials _____

Date _____

EXHIBIT A
SPECIAL PROVISIONS

I. NEW HAMPSHIRE STATE AND LOCAL FISCAL RECOVERY FUNDS FEDERAL REQUIREMENTS

This Agreement is funded under a grant to the State of New Hampshire (State) and subsequently through the Governor's Office for Emergency Relief and Recovery (GOFERR) and New Hampshire Department of Environmental Services (NHDES) as approved by the Governor and Executive Council from the federal government through the Department of Treasury (Treasury) through the American Rescue Plan Act of 2021 (ARPA), with the source of funds being the State and Local Fiscal Recovery Funds (SLFRF) identified under the Catalog of Federal Domestic Assistance (CFDA) number #21.027. The Federal Award Identification Number (FAIN) for this award is SLFRP0145. This grant award is a subaward of SLFRF funds and any and all compliance requirements, as updated by Treasury, for use of SLFRF funds are applicable to the Subrecipient, without further notice. Treasury requirements are published and updated at https://home.treasury.gov/policy-issues/coronavirus/assistance-for-state-local-and-tribal-governments/state-and-local-fiscal-recovery-funds.

FEDERAL FUNDING ACCOUNTABILITY and TRANSPARENCY ACT (FFATA). The Subrecipient shall comply with the terms of the FFATA by providing NHDES with their Data Universal Numbering System (DUNS) number, and all applicable Executive Compensation Data information as required under the FFATA. A DUNS number may be obtained by visiting http://fedgov.dnb.com/webform/.

SAM REGISTRATION: The Subrecipient must have an active registration with the System for Award Management (SAM) (https://www.sam.gov).

GENERALLY ACCEPTED ACCOUNTING PROCEDURES: The Subrecipient, if a governmental entity, shall maintain project accounts in accordance with the Generally Accepted Accounting Principles (GAAP), including standards relating to the reporting of infrastructure assets as issued by the Governmental Accounting Standards Board (GASB). The full text of Governmental Accounting Reporting Standards is available through the GASB website at: http://www.gasb.org

RECORDKEEPING REQUIREMENTS: The Subrecipient must maintain records and financial documents for five years after all funds have been expended or returned to the State and/or Treasury. Treasury may request transfer of records of long-term value at the end of such period. Wherever practicable, such records should be collected, transmitted, and stored in open and machine-readable formats.

Subrecipient must agree to provide or make available such records to the State and Treasury upon request, and to the Government Accountability Office ("GAO"), Treasury's Office of Inspector General ("OIG"), and their authorized representative in order to conduct audits or other investigations.

Grantee Initials _____
Date _____

SINGLE AUDIT REQUIREMENTS: Recipients and subrecipients that expend more than $750,000 in Federal awards during their fiscal year will be subject to an audit under the Single Audit Act and its implementing regulation at 2 CFR Part 200, Subpart F regarding audit requirements. Recipients and subrecipients may also refer to the Office of Management and Budget (OMB) Compliance Supplements for audits of federal funds and related guidance and the Federal Audit Clearinghouse to see examples and single audit submissions.

CIVIL RIGHTS COMPLIANCE: The sub-grantee, contractor, subcontractor, successor, transferee, and assignee shall comply, and shall include in every contract or agreement funded with these funds this same requirement to comply, with Title VI of the Civil Rights Act of 1964, which prohibits recipients of federal financial assistance from excluding from a program or activity, denying benefits of, or otherwise discriminating against a person on the basis of race, color, or national origin (42 U.S.C. § 2000d et seq.), as implemented by the Department of the Treasury's Title VI regulations, 31 CFR Part 22, which are herein incorporated by reference and made a part of this contract (or agreement). Title VI also includes protection to persons with "Limited English Proficiency" in any program or activity receiving federal financial assistance, 42 U.S.C. § 2000d et seq., as implemented by the Department of the Treasury's Title VI regulations, 31 CFR Part 22, and herein incorporated by reference and made a part of this contract or agreement.

In order to carry out its enforcement responsibilities under Title VI of the Civil Rights Act, NHDES may collect and review information from subrecipients to ascertain their compliance with the applicable requirements before and after providing financial assistance. Treasury's implementing regulations, 31 CFR part 22, and the Department of Justice (DOJ) regulations, Coordination of Non-discrimination in Federally Assisted Programs, 28 CFR part 42, provide for the collection of data and information from recipients and subrecipients (see 28 CFR 42.406).

PERIOD OF PERFORMANCE: All funds are subject to statutory requirements that they must be used for costs incurred by the recipient during the period that begins on March 3, 2021, and ends on December 31, 2024, and that award funds for the financial obligations incurred by December 31, 2024 must be expended by December 31, 2026.

PROCUREMENT, SUSPENSION AND DEBARMENT: Recipients are responsible for ensuring that any procurement using SLFRF funds, or payments under procurement contracts using such funds are consistent with the procurement standards set forth in the Uniform Guidance at 2 CFR 200.317 through 2 CFR 200.327, as applicable. The Uniform Guidance establishes in 2 CFR 200.319 that all procurement transactions for property or services must be conducted in a manner providing full and open competition, consistent with standards outlined in 2 CFR 200.320, which allows for non-competitive procurements only in circumstances where at least one of the conditions below is true: the item is below the micro-purchase threshold; the item is only available from a single source; the public exigency or emergency will not permit a delay from publicizing a competitive solicitation; or after solicitation of a number of sources, competition is determined inadequate. Subrecipients must have and use documented procurement procedures that are consistent with the standards outlined in 2 CFR 200.317 through 2 CFR 200.320.

Grantee Initials _____
Date _____

Subrecipient shall fully comply with Subpart C of 2 C.F.R. Part 180 entitled, "Responsibilities of Participants Regarding Transactions Doing Business With Other Persons," as implemented and supplemented by 2 C.F.R. Part 1532. subrecipient is responsible for ensuring that any lower tier covered transaction, as described in Subpart B of 2 C.F.R. Part 180, entitled "Covered Transactions," and 2 C.F.R. § 1532.220, includes a term or condition requiring compliance with 2 C.F.R. Part 180, Subpart C. subrecipient is responsible for further requiring the inclusion of a similar term and condition in any subsequent lower tier covered transactions. subrecipient acknowledges that failing to disclose the information required under 2 C.F.R. § 180.335 to NHDES may result in the delay or negation of this assistance agreement, or pursuance of administrative remedies, including suspension and debarment. Subrecipients may access the System for Award Management (SAM) exclusion list at https://sam.gov/SAM/ to determine whether an entity or individual is presently excluded or disqualified.

By entering into this agreement, the subrecipient certifies that the subrecipient is not debarred or suspended. Furthermore, the subrecipient certifies that no part of this contract will be subcontracted to a debarred or suspended person or firm.

DOMESTIC PREFERENCES FOR PROCUREMENTS (2 C.F.R. § 200.322) As appropriate and to the extent consistent with law, to the greatest extent practicable, there is a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products). The requirements of this section must be included in all subawards including all contracts and purchase orders for work or products under this award.

For purposes of this section:

(1) "Produced in the United States" means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.

(2) "Manufactured products" means items and construction materials composed in whole or in part of non-ferrous metals such as aluminum; plastics and polymer-based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.

PROHIBITION ON CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT:

As required by 2 CFR 200.216, subrecipients, are prohibited from obligating or expending loan or grant funds to procure or obtain; extend or renew a contract to procure or obtain; or enter into a contract (or extend or renew a contract) to procure or obtain equipment, services, or systems that use covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. As described in Public Law 115-232, section 889, covered telecommunications equipment is telecommunications equipment produced by Huawei Technologies

Grantee Initials _____
Date _____

Company or ZTE Corporation (or any subsidiary or affiliate of such entities). Recipients, Subrecipients, and borrowers also may not use federal funds to purchase:

a. For the purpose of public safety, security of government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities).

b. Telecommunications or video surveillance services provided by such entities or using such equipment.

c. Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

Consistent with 2 CFR 200.471, costs incurred for telecommunications and video surveillance services or equipment such as phones, internet, video surveillance, and cloud servers are allowable except for the following circumstances:

a. Obligating or expending funds for covered telecommunications and video surveillance services or equipment or services as described in 2 CFR 200.216 to:

(1) Procure or obtain, extend or renew a contract to procure or obtain;
(2) Enter into a contract (or extend or renew a contract) to procure; or
(3) Obtain the equipment, services, or systems. Certain prohibited equipment, systems, or services, including equipment, systems, or services produced or provided by entities identified in section 889, are recorded in the System for Award Management exclusion list which can be found at https://www.sam.gov/SAM/pages/public/index.jsf

REPORTING REQUIREMENTS: For all projects listed under the Water and Sewer Expenditure Categories (see Table below), detailed project-level information is required.

5: Infrastructure	
5.1	Clean Water: Centralized Wastewater Treatment
5.2	Clean Water: Centralized Wastewater Collection and Conveyance
5.3	Clean Water: Decentralized Wastewater
5.4	Clean Water: Combined Sewer Overflows
5.5	Clean Water: Other Sewer Infrastructure
5.6	Clean Water: Stormwater
5.7	Clean Water: Energy Conservation
5.8	Clean Water: Water Conservation

Grantee Initials _____
Date _____

5.9	Clean Water: Nonpoint Source
5.10	Drinking water: Treatment
5.11	Drinking water: Transmission & Distribution
5.12	Drinking water: Transmission & Distribution: Lead Remediation
5.13	Drinking water: Source
5.14	Drinking water: Storage
5.15	Drinking water: Other water infrastructure

Definitions for water and sewer Expenditure Categories can be found in the EPA's handbooks. For "clean water" expenditure category definitions, please see: https://www.epa.gov/sites/production/files/2018-03/documents/cwdefinitions.pdf. For "drinking water" expenditure category definitions, please see: https://www.epa.gov/dwsrf/drinking-water-state- revolving-fund-national-information-management-system-reports.

All Clean Water and Drinking Water infrastructure projects:

- Projected/actual construction start date (month/year)
- Projected/actual initiation of operations date (month/year)
- Location (for broadband, geospatial location data)

For water and sewer projects:

- National Pollutant Discharge Elimination System (NPDES) Permit Number (if applicable; for projects aligned with the Clean Water State Revolving Fund)
- Public Water System (PWS) ID number (if applicable; for projects aligned with the Drinking Water State Revolving Fund)

II. FEDERAL REQUIREMENTS APPLICABLE TO ARPA INFRASTRUCTURE PROJECTS OVER $10M

For projects over $10 million (based on expected total cost) a recipient shall provide a certification that, for the relevant project, all laborers and mechanics employed by contractors and subcontractors in the performance of such project are paid wages at rates not less than those prevailing, as determined by the U.S. Secretary of Labor in accordance with subchapter IV of chapter 31 of title 40, United States Code (commonly known as the "Davis-Bacon Act"), for the corresponding classes of laborers and mechanics employed on projects of a character similar to the contract work in the civil subdivision of the State (or the District of Columbia) in which the work is to be performed. All contracts and subcontracts for the construction of treatment works shall insert in full in any contract the standard Davis-Bacon contract clause as specified by 29 CFR §5.5(a).

III. OTHER SPECIAL PROVISIONS

A. In addition to the above special provisions, the following provisions as required by federal regulations apply to this Agreement:

1. ***Financial management***. *The Contractor shall comply with 2 CFR part 200 Subpart D* and the specific standards regarding financial reporting, accounting records, internal control, budget control, allowable cost, source documentation, and cash management outlined therein.

Grantee Initials _____
Date _____

2. ***Allowable costs.*** All costs charged to this Agreement shall be eligible, necessary, and reasonable for performing the tasks outlined in the approved project scope of services. The costs, including match, shall be incurred during the period of performance of the project, and shall be allowable, meaning that the costs must conform to specific federal requirements detailed in *2 CFR part 200 Subpart E.*

3. ***Property Management.*** The Contractor shall comply with the property management and procedures detailed in 2 CFR Part 200 Subpart D.

4. ***Restrictions on Lobbying.*** The Contractor shall comply with the terms of 15 CFR part 28 and 2 CFR Part 200 Subpart E which prohibit the use of federal Contract funds to influence (or attempt to influence) a federal employee, and requires the submission of Standard Form LLL ("Disclosure of Lobbying Activities") if *non*federal funds have been used to influence (or attempt to influence) a federal employee.

5. ***Drug-Free Workplace.*** The Contractor shall comply with the terms of 2 CFR part 1329 which require that as a condition of the Agreement, certification that they maintain a drug-free workplace. By signing and submitting the Agreement, the Contractor certifies that he or she will not engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance in conducting any activity associated with the Agreement.

6. ***Protection for Whistleblowers.*** The Contractor shall comply with the terms of 41 U.S.C. §471 regarding Whistleblower protections. As described in 41 USC §471 "an employee of a contractor, subcontractor, grantee, or subgrantee or personal services contractor may not be discharged, demoted, or otherwise discriminated against as a reprisal for disclosing to a person or body described in paragraph (2) information that the employee reasonably believes is evidence of gross mismanagement of a Federal contract or grant, a gross waste of Federal funds, an abuse of authority relating to a Federal contract or grant, a substantial and specific danger to public health or safety, or a violation of law, rule, or regulation related to a Federal contract (including the competition for or negotiation of a contract) or grant."

Grantee Initials _____
Date _____

EXHIBIT B
SCOPE OF SERVICES

Town of Exeter Public Works (Dam #D082002):

The Town of Exeter Public Works will use the American Rescue Plan Act (ARPA) grant funds for planning and assessment activities associated with the rehabilitation of Exeter Reservoir Dam, a High Hazard Dam, in accordance with current dam safety requirements. Grant funds will be used for costs associated with planning and assessment and could include, among others, the following tasks:

- Data collection and engineering assessments.
- Evaluation to develop alternatives and conceptual designs to rehabilitate the dam.
- Update the Emergency Action Plan and Operations, Maintenance and Response Form.

As a requirement of this grant funding, the dam owner is responsible for complying with the requirements of all federal, state, and local regulations, paying particular attention to the rules associated with construction and reconstruction of dams, as referenced in Chapter Env-Wr 400. Additionally, the dam owner is responsible for obtaining all permits or approvals, as necessary, related to the activities associated with this project.

In addition, the Town of Exeter Public Works will be required to provide periodic progress updates and a final project report.

EXHIBIT C
METHOD OF PAYMENT

The NHDES shall pay to the Grantee the total reimbursable program costs in accordance with the following requirements:

Reimbursement requests for program costs shall be made no more than once per calendar month by the Grantee using the American Rescue Plan Act (ARPA) Disbursement form as supplied by the NHDES, which shall be completed and signed by the Grantee. The disbursement form shall be accompanied by proper supporting documentation based upon direct costs. The Grantee will maintain adequate documentation to substantiate all Program related costs. All work shall be performed to the satisfaction of the NHDES before payment is made.

The total reimbursement shall not exceed the ARPA grant award of $172,000. To the greatest extent possible, ARPA grant funds shall be fully disbursed prior to other funding sources.

Changes to the Scope of Services require NHDES approval in advance. Work must be completed and request for reimbursement must be made by the completion date listed on the grant agreement (section 1.7).

Grantee Initials _____
Date _____

NHDES-C-10-003

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

CERTIFICATE OF VOTE OF AUTHORIZATION
GRANTS ONLY

American Rescue Plan Act (ARPA)

A Certificate of Vote of Authorization is a certificate that states that a grant applicant is willing to enter into a grant agreement with the State of NH Department of Environmental Services and that whoever signs the Grant Agreement (provided under separate cover) has the authority to do so. The Certificate must be signed and notarized on the same date as, or within 30 days of, the Grant Agreement signature. **This is a three-person form: Person Completing this Form, Authorized Representative, and a Public Notary.**

- ☐ **Completed and signed by someone other than the person being given authority.**
- ☐ **Must be notarized.**
- ☐ **Original is required for submittal.**

Certificate of Vote of Authorization

GRANT RECIPIENT
INSERT TOWN ADDRESS, TOWN, NH ZIP CODE

I, Insert Name of Person Completing this form of the Insert Legal Name of Grant Recipient do hereby certify that at a meeting held on Click here to add date of meeting, the Insert Name of Governing Body with Authority to Certify Actions voted to enter into a American Rescue Plan Act Fund (ARPA) grant agreement with the New Hampshire Department Environmental Services to fund a Dam improvement project.

The Insert Legal Name of Grant Recipient further authorized the Insert Name and Title of Authorized Representative to execute any documents which may be necessary to effectuate this grant agreement.

IN WITNESS WHEREOF, I have hereunto set my hand as Insert Title of Person Completing form of Insert Grant Recipient Name, the Insert day "XX" day of Insert Month 20Insert year "XX".

Insert Name of Person Completing This Form Signature: Insert Signature
STATE OF NEW HAMPSHIRE, County of Insert County

On this Insert day "XX" day of Insert Month 20Insert year "XX", Insert Name of Public Notary, before me (Notary Public) the undersigned Officer, personally appeared. Insert Name of Person Completing this form, who acknowledged Choose an item. to be the Insert Title of Person Completing this form of Insert Name of Grant Recipient, being authorized so to do, execute the foregoing instrument for the purpose therein contained.

In witness thereof, I have set my hand and official seal.

Notary Public Insert Name of Public Notary My commission expires: Insert Notary's Commission Expiration Date

The State of New Hampshire
Department of Environmental Services

Robert R. Scott, Commissioner

Consultant (Engineer) Selection Justification Form
American Rescue Plan Act (ARPA)

This form is intended to be used by funding recipients receiving grant funds through the American Rescue Plan Act (ARPA) to document the consultant selection process per Uniform Guidance 2 CFR 200.317 through 2 CFR 200.327 and provide justification to the New Hampshire Department of Environmental Services (NHDES).

Dam Owner Name:	**Dam #:**
Dam Name:	
Town / City:	
Selected Consultant (Engineer) Name:	

Please select one of the following justifications for consultant (engineer) selection. Attach supporting documentation if applicable.

☐ **Qualifications Based Selection (QBS)** – If your organization issued a request for qualifications (RFQ) and selected a consultant (engineer) based on this process please provide the RFQ and a summary of the selection process.

☐ **Solicitation for Quotes/Proposals** – If quotes/proposals for professional consulting (engineer) services were solicited, please provide a brief explanation of the process and an overview of the results.

☐ * **Non-competitive/Sole Source** – If non-competitive procurement was followed, indicate the qualifying circumstances: 1) micropurchase (value under $10,000); 2) item or service only available from a single source; 3) public exigency or emergency for the requirement will not permit a delay resulting from publicizing competitive solicitation; 4) or after solicitation of a number of sources competition was deemed inadequate. If none of these situations apply provide justification for this selection process. *Non-competitive procurement requires the approval of the NHDES Bureau Administrator.

The dam owner agrees to comply with Env-Wr 403.03(a)(1) for the selection process of a qualified professional consultant (engineer). Please confirm selection with NHDES, Dam Bureau.

The authorized signature shall match the authorized signature on the Grant Agreement.

Authorized Signature: Date:

Printed Name: Title and Affiliation:

***NHDES USE ONLY – For approving non-construction non-competitive procurement procedures** NHDES Bureau Administrator Approval			
Name	Bureau	Signature	Date

www.des.nh.gov
29 Hazen Drive • PO Box 95 • Concord, NH 03302-0095
(603) 271-3503 • Fax: 271-2867 • TDD Access: Relay NH 1-800-735-2964

Town Ordinance Second Reading: Sewer Use Regulations

Town of Exeter

Pam McElroy <pmcelroy@exeternh.gov>

Re: New Local Limits

Steve Dalton <sdalton@exeternh.gov> Tue, Nov 22, 2022 at 8:05 AM
To: Pam McElroy <pmcelroy@exeternh.gov>
Cc: Russ Dean <rdean@exeternh.gov>, Melissa Roy <mroy@exeternh.gov>, Jennifer Perry <jperry@exeternh.gov>, Matt Berube <mberube@exeternh.gov>, Chris Goodwin <cgoodwin@exeternh.gov>

Hi Pam,

I just watched the meeting from last night. There was a typo identified on page 50 "discharger" has now been corrected to say discharge. Please find page 50 attached with the correction highlighted.

Thank you,

Steve Dalton
Water & Sewer Assistant Manager
Public Works Department
13 Newfields Road
Exeter, NH 03833
p) 603-773-6165
f) 603-772-1355

[Quoted text hidden]

Chapter 15 Page 50 Edit after 11-21-22 BOS Meeting.pdf
245K

access port through which the quantity of the contents of each truck may be ascertained by depth measurements;

2. Prior to discharging the load, the hauler shall record the following information in a log at the POTW:

    a. The hauler's name;

    b. Date;

    c. Time of disposal;

    d. Volume disposed;

    e. Origin of load (property owner's name, address, and telephone number); and

    f. Nature of the waste (e.g., grease or septage) being disposed.

3. The hauler shall be responsible to see that septage or holding tank wastewater does not leak on the ground near the discharge point, and that all exposed areas were washed to remove traces of septage or holding tank wastewater.

4. Owners of "RVs" who intend to discharge the contents of holding tanks are exempt from the permitting process.

1516.5. Septage Disposal Charge. There shall be a Septage Disposal Charge as established by the Town's current *Fee Schedule* for the receipt of septage into the Town's POTW for treatment. In the event that the permittee has either a defective sight level, no sight level attached to the track, and/or no access to the contents of the truck for depth measurement, the permittee shall be charged according to the full tank capacity at the time of discharge or by other method determined by the Director.

1517 Conflict of Ordinance

1517.1. If a provision of this Ordinance is found to be in conflict with any provision of zoning, building, safety, health or other ordinance or code of the Town, the State of New Hampshire, or the Federal Government existing on or subsequent to the effective date of this Ordinance, that provision, which in the judgment of the Town establishes the higher standard of safety and protection of health, shall prevail.

1517.2. The invalidity of any section, clause, sentence or provision of this Ordinance shall not affect the validity of any other part of this Ordinance, which can be given effect without such invalid part or parts.

1518 Interpretation of Requirements

1518.1. Interpretation. The provisions of this Ordinance with respect to the meaning of technical terms and phrases, the classification of different types of sewers, the regulations with respect to installing or constructing connections to sewers or drains, and other technical matters shall be interpreted and administered by the Director acting in and for the Town of Exeter, New Hampshire through the Board of Selectmen.

1518.2. Appeals. Any party aggrieved by any decision, regulation or provision under this Ordinance, as amended, from time to time, shall have the right of appeal within thirty (30) calendar days of said decision to the Director, who shall issue a decision within thirty (30) calendar days. If said appeal is denied by the Director, then the aggrieved

Chapter 15 Sewer Regulations

TABLE OF CONTENTS

CHAPTER 15 SEWER REGULATIONS

1500 Purpose and Definitions

The rules and regulations herein set forth for the maintenance and operations of the Exeter Municipal Publicly Owned Treatment Works (POTW) established by the Selectmen of the Town of Exeter as necessary or desirable for the efficient operation of said POTW and for accomplishing the purposes of RSA 231, as amended, and for the protection of the health and safety of the people of Exeter and for accomplishing the purposes of RSA 147 and RSA 485-A, as amended.

Pursuant to RSA 149-I and RSA 147, or revisions thereto, and every other authority thereto enabling, the Selectmen of Exeter enact and ordain the following Rules and Regulations.

Acronyms - The following acronyms, when used in these regulations, shall have the following designated meanings:

- BOD - Biochemical Oxygen Demand
- CFR - Code of Federal Regulations
- COD - Chemical Oxygen Demand
- EPA - United States Environmental Protection Agency
- gpd - gallons per day
- IDP - Industrial Wastewater Discharge Permit
- mg/L - milligrams per liter
- NHDES - New Hampshire Department of Environmental Services
- NPDES - National Pollutant Discharge Elimination System
- POTW - Publicly Owned Treatment Works
- RSA New Hampshire Revised Statutes Annotated
  - RSA 147 - Public Health / Nuisances; Toilets; Drains; Expectoration; Rubbish and Waste
  - RSA 149-I - Public Health / Sewers
  - RSA 231 - Transportation / Cities, Towns and Village District Highways
  - RSA 31:39 - Towns, Cities, Village Districts, And Unincorporated Places / Powers and Duties of Towns, Purpose and Penalties
  - RSA 485-A - Water Management and Protection / Water Pollution and Waste Disposal
  - RSA 595-B - Proceedings in Criminal Cases / Administrative Inspection Warrants
- TSS - Total Suspended Solids
- U.S.C. - United States Code
- °F , °C - degrees Fahrenheit, degrees Celsius

Definitions – Unless the context specifically and clearly indicates otherwise, the meaning of terms and phrases used in these regulations shall be as follows:

Authorized Representative of the User:

1. If the user is a corporation:

   a. The president, secretary, treasurer, or a vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or

   b. The manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions that govern

the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiate and direct other comprehensive measures to assure long-term compliance with environmental laws and regulations; can ensure that the necessary systems are established or actions taken to gather complete and accurate information for control mechanism requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedure

2. If the user is a partnership or sole proprietorship: a general partner or proprietor, respectively.

3. If the user is a federal, State, or local governmental facility: a director or the highest official appointed or designated to directly oversee the operation and performance of the activities of the government facility, or their designee.

4. The individuals described in paragraphs (1) through (3), above, may designate another authorized representative if the authorization is in writing, the authorization specifies the individual or position responsible for the overall operation of the facility from which the discharge originates or having overall responsibility for environmental matters for the user, and the written authorization is submitted to the Town.

Best Management Practices (BMPs): Schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to implement the pollutant control prohibitions of these regulations. BMPs also include treatment requirements, operating procedures and practices to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw materials storage.

Biochemical Oxygen Demand (BOD): The quantity of oxygen expressed in milligrams per liter, utilized in the biochemical oxidation of organic matter under standard laboratory procedures (as prescribed in the latest edition of "Standard Methods for the Examination of Water and Wastewater") in five (5) days at 20 degrees Centigrade.

Building Sewer: The connection between the tap at the Town sanitary sewer and the owner's source of wastewater, and shall include all the pipe fittings and couplers necessary to make the connections (including those portions located in the public right of way.)

Bypass: The intentional diversion of wastestreams from any portion of a pretreatment or wastewater treatment facility.

Categorical Pretreatment Standard: Any regulation containing pollutant discharge limits promulgated by EPA in accordance with Section 307(b) and (c) of the Clean Water Act (33 U.S.C. § 1317) that applies to a specific category of industrial users and that are found in 40 CFR, Subchapter N, Parts 405 through 471.

Cleanout: A means for inserting cleaning tools, for flushing, or for inserting an inspection light into sewers at bends.

Composite Sample: The sample resulting from the combination of individual wastewater samples taken at selected intervals based on an increment of either flow or time.

Conservative Pollutant: A pollutant that is presumed not to be destroyed, biodegraded, chemically transformed, or volatilized within the POTW. Conservative pollutants introduced to a POTW ultimately exit the POTW solely through the POTW's effluent and sludge. Most metals are considered conservative pollutants.

Dilution: Any increase in the use of water as a partial or complete substitute for adequate treatment to achieve compliance with a limitation on the discharge of pollutants.

Director: The Public Works Director who is the person designated by the Town to supervise the operation of the POTW, and who is charged with certain duties and responsibilities by these regulations, or a duly authorized representative.

Domestic Wastewater: See "Sanitary Sewage."

Environmental Protection Agency (EPA): The United States Environmental Protection Agency or, the Region 1 Water Management Division Director, or other duly authorized official of the agency.

Easements: An acquired legal right for the specific use of land owned by others.

Equalization: The process of combining wastewaters to dampen fluctuations in flow or pollutant discharges prior to release to the sanitary sewer or pretreatment facilities. Equalization is normally accomplished in sumps, holding basins, ponds, or tanks.

Excessive: Amounts or concentrations or a constitution of a wastewater which, in the judgment of the Director:

1. May cause damage to the Town wastewater treatment process;
2. May be harmful to a wastewater treatment process;
3. Cannot be removed in the Town treatment works to the degree required to meet the limiting stream classification standards of the receiving water and/or EPA effluent standards;
4. May otherwise endanger life, limb or public property;
5. May constitute a nuisance.

Floatable Oil: Oil, fat or grease in a physical state such that it will separate by gravity from wastewater by treatment in an approved pre-treatment facility. A wastewater shall be considered free of floatable oil if it is properly pretreated and the wastewater does not interfere with the collection system.

Force Main: A pipe or conduit constituting a part of the POTW where pumping is required; providing a connection from a pump station to a pump station or gravity sewer, with limited access from individual properties.

Garbage: Animal and vegetable waste from the domestic and commercial handling, preparation, cooking and dispensing of food, and from the handling, storage and sale of produce.

Grab Sample: A sample that is taken from a wastestream without regard to the flow in the wastestream and over a period of time not to exceed fifteen (15) minutes.

Gravity Sewer: Any pipe or conduit constituting a part of the POTW used or usable for wastewater collection purposes in which wastewater flows by gravity with no pumping required.

Grease: That material removed from a grease interceptor or grease trap serving a restaurant or other facilities requiring such a device. Also means volatile and non-volatile residual fats, fatty acids, soaps, waxes and other similar materials.

Human Excrement and other Putrescible Material: The liquid or solid matter discharged from the human intestinal canal or other liquid or solid waste materials that are likely to undergo

bacterial decomposition; provided, however, that these terms shall not include garbage as defined by RSA 485-A, or revisions thereto.

Improved Property: Any property located within the Town upon which there is erected a structure intended for continuous or periodic habitation, occupancy or use by human beings or animals and from which structure wastewater shall be or may be discharged.

Industrial Establishment: Any room, group of rooms, building or other enclosure used or intended for use in the operation of one (1) business enterprise for manufacturing, processing, cleaning, laundering or assembling any product, commodity or article and from which any industrial wastewater, as distinct from Sanitary Sewage, shall be discharged.

Industrial User (or User): A person who discharges industrial wastewater to the sanitary sewer of the Town.

Industrial Waste: Any liquid, gaseous or solid waste substance from any process or from development of any natural resource by industry, manufacturing, trade, or business.

Industrial Wastewater: Any wastewater that contains industrial waste, as distinct from sanitary sewage or unpolluted water.

Industrial Wastewater Discharge Permit (IDP): The written permit between the Town and an industrial user that discharges wastewater to the POTW, which outlines the conditions under which discharge to the POTW will be accepted.

Instantaneous Maximum Allowable Discharge Limit: The maximum concentration of a pollutant allowed to be discharged at any time, determined from the analysis of any discrete or composited sample collected, independent of the industrial flow rate and the duration of the sampling event.

Interference: A discharge, which alone or in conjunction with a discharge or discharges from other sources, inhibits or disrupts the POTW, its treatment processes or operations or its sludge processes, use or disposal; and therefore, is a cause of a violation of the Town's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of biosolids use or disposal in compliance with any of the following statutory/regulatory provisions or permits issued thereunder, or any more stringent State or local regulations: Section 405 of the Clean Water Act; the Solid Waste Disposal Act, including Title II commonly referred to as the Resource Conservation and Recovery Act (RCRA); any State regulations contained in any State biosolids management plan prepared pursuant to Subtitle D of the Solid Waste Disposal Act; the Clean Air Act; the Toxic Substances Control Act; the Marine Protection, Research, and Sanctuaries Act; and the 40 CFR Part 503 Standards for Sewage Sludge Use and Disposal.

Living Unit: Any portion of a dwelling consisting as a minimum: kitchen facilities, sanitary facilities and sleeping quarters for one family or user.

Local Limits: Specific, enforceable numerical limits on the types and quantities of pollutants that may be discharged to the POTW. Local limits are established by the Town and are distinct from State and federal limitations on the discharge of industrial wastewater to the POTW.

May: Is allowed to (permissive); see also "Shall".

Medical Waste: A waste that is generated or produced as a result of diagnosis, treatment, or immunization of human beings or animals, medical research, or production or testing of bacteria, viruses, spores, discarded live and attenuated vaccines used in human health care or research.

Examples include isolation wastes, infectious agents, human blood and blood products, pathological wastes, chemotherapy wastes, sharps, body parts, contaminated bedding, surgical wastes and specimens, potentially contaminated laboratory wastes, trauma scene wastes, sharps waste and dialysis wastes.

National Pollutant Discharge Elimination System (NPDES) Permit: A permit issued pursuant to Section 402 of the Clean Water Act (33 U.S.C. § 1342).

Natural Outlet: Any channel for the passage of surface or groundwater into a watercourse, pond, ditch, lake or other body of surface or groundwater.

Nonconservative Pollutant: A pollutant that is presumed to be destroyed, biodegraded, chemically transformed, or volatilized within the POTW, to some degree.

Noncontact Cooling Water: Water used for cooling that does not come into direct contact with any raw material, intermediate product, waste product, or finished product and is not degraded in quality by mixing with or addition of industrial waste or pollutants other than heat.

Owner: Any person vested with ownership, legal or equitable, sole or partial, or possession of any improved property.

Pass Through: A condition that exists when a discharge contains substances or their reaction or degradation products that exit the POTW in quantities or concentrations that, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the Town's NPDES permit, including an increase in the magnitude or duration of a violation.

Person: Any individual, partnership, co-partnership, firm, company, association, society, corporation, joint stock company, trust, estate, governmental entity or other legal entity; or their legal representatives, agents, or assigns. This definition includes all federal, State, and local governmental entities.

pH: The logarithm of the reciprocal of the hydrogen ion concentration of a solution, expressed in Standard Units. Solutions with pH values greater than 7 are basic (or alkaline); solutions with pH values less than 7 are acidic.

Pharmaceutical Waste: Means a prescription drug, as defined by RSA 318:1, XVII, or a nonprescription or proprietary medicine, as defined by RSA 318:1, XVIII, which is no longer suitable for its intended purpose or is otherwise being discarded.

Pollutant: Dredged spoil, solid waste, incinerator residue, filter backwash, garbage, wastewater treatment sludges, munitions, medical wastes, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, municipal, agricultural and industrial wastes, and certain characteristics of wastewater (*e.g.*, pH, temperature, TSS, turbidity, color, BOD, COD, toxicity, or odor).

Pollution Prevention: The use of processes, practices or products that reduce or eliminate the generation of pollutants and wastes or that protect natural resources through equipment or technology modifications; process or procedure modifications; reformulation or redesign of products; substitution of raw materials; and improvements in housekeeping, maintenance, training, or inventory control. The term "pollution prevention" does not include any practice that alters the physical, chemical, or biological characteristics or the volume of a hazardous substance, pollutant, or contaminant through a process or activity that itself is not integral to and necessary for the production of a product or the providing of a service.

Pretreatment: The reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater prior to, or in lieu of, introducing such pollutants into the POTW. This reduction or alteration can be obtained by physical, chemical, or biological processes; by process changes; or by other means, except by diluting the concentration of the pollutants unless allowed by an applicable pretreatment standard.

Pretreatment Requirement: Any substantive or procedural requirement related to pretreatment imposed on a user, other than a pretreatment standard.

Pretreatment Standard or **Standard:** Prohibited discharge standards, categorical pretreatment standards, and local limits.

Private Sewer: Any collector system installed in a private road (not Town accepted) and/or as part of a private subdivision. "Private Sewers" remain the property of the developers, other private parties or their assigns. Until they are accepted by the Town through acceptance of the private party who caused it to be constructed or its successors. "Private Sewers" shall be constructed according to the Public Works Department's *Standard Specifications for Construction of Public Utilities in Exeter, NH.*

Properly Shredded Garbage: The wastes from the preparation, cooking and dispensing of food that have been shredded to such a degree that all particles will be carried freely under the flow conditions normally prevailing in public sewers, with no particle greater than one-half (1/2) inch (1.27 centimeters) in any dimension.

Public Sewer: A generic term for a pipe or conduit that carries wastewater, stormwater, groundwater, subsurface water, or unpolluted water from any source, which is controlled by a governmental agency or public utility.

Publicly Owned Treatment Works (POTW): A "treatment works," as defined by Section 212 of the Clean Water Act (33 U.S.C. §1292) that is owned by the Town. This definition includes any devices or systems used in the collection, storage, treatment, recycling, and reclamation of sanitary sewage or industrial wastes of a liquid nature. It also includes the sewers, pipes, and other conveyances that convey wastewater to the Town's wastewater treatment facility. The term also means the municipality that has jurisdiction over discharges to and the discharges from such a treatment works.

Receiving Waters: Any watercourse, river, pond, ditch, lake, aquifer or other body of surface or groundwater receiving discharge of wastewater.

Sanitary Sewage: Wastewater consisting solely of normal water-carried household and toilet wastes or waste (such as human excrement and gray water [showers, dishwashing operations, etc.]) from sanitary conveniences of residences, commercial buildings, and industrial plants, as distinct from industrial wastewater and unpolluted water. See also: Industrial Wastewater.

Sanitary Sewer: A sewer that carries liquid and water-carried wastes from residences, commercial buildings, industrial facilities, and institutions, together with minor quantities of ground, storm, and surface waters that are not admitted intentionally.

Screening Level: A numerical value for a pollutant concentration above which actions are initiated to evaluate, prevent or reduce adverse environmental or health and safety impacts. A screening level may be adjusted upward or downward within an IDP to account for site-specific conditions at the point of discharge and administered as a local limit.

Septage: Any liquid, solid, or sludge pumped from chemical toilets, vaults, septic tanks, or cesspools or other holding tanks, which have received only sanitary sewage.

Sewer: Ageneric term for a pipe or conduit that carries wastewater (including industrial wastewater, sanitary sewage, or storm water, or groundwater, or subsurface water, or unpolluted water) from any source.

Shall: Is required to (mandatory). See also "May."

Significant Indirect Discharger: Means an industrial user that meets one or more of the following criteria (except as provided in paragraph 6 below):

1. Is subject to national categorical pretreatment standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N;
2. Discharges an average of 10,000 gallons per day or more of industrial wastewater;
3. Discharges industrial wastewater which contributes 5 percent or more of the hydraulic or organic loading to the Wastewater Treatment Facility;
4. Discharges medical/infectious waste, pharmaceutical waste, or radiological waste (unless exempted by the Town under paragraph (6) of this definition); or
5. Is designated as such by the Town as having a reasonable potential for adversely affecting the POTW's operation or performance or for violating any pretreatment standard or requirement.
6. Upon determining that a user meeting the criteria in paragraphs 3 or 4 of this definition has no reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement, the Town may at any time, on its own initiative or in response to a petition received from a user, and in accordance with procedures in 40 CFR 403.3(v)(3), determine that such user should not be considered a significant industrial user

Significant Noncompliance (SNC): An industrial user is in significant noncompliance if its violation meets one of the following criteria:

1. Chronic violations. A pattern of violating a numeric pretreatment standard or requirement, including instantaneous limits (any magnitude of exceedance) sixty-six percent (66%) or more of the time in a 6-month period;
2. Technical Review Criteria (TRC violations). Thirty-three percent (33%) or more of the measurements exceed the same numeric pretreatment standard or requirement, including instantaneous limits, by more than the TRC factor in a 6-month period [The TRC factor is 1.4 for BOD, TSS, oil & grease and 1.2 for all other pollutants except pH.];
3. For pH monitoring, excursions shall be considered significant noncompliance when:
   a. An individual excursion from the allowable range of pH values exceeds 60 minutes; or
   b. An excursion occurs that the Town believes has caused, alone or in combination with other discharges, interference or pass-through; or endangered the health of the POTW personnel or the general public.
4. Any other discharge violation that the Director believes has caused, alone or in combination with other discharges, interference or pass through, including endangering the health of POTW personnel or the general public;

5. Any discharge of pollutants that has caused imminent endangerment to the public or to the environment, or has resulted in the Director's exercise of emergency authority to halt or prevent such a discharge;

6. Failure to meet, within ninety (90) days of the scheduled date, a compliance schedule milestone contained in an IDP or enforcement order for starting construction, completing construction, or attaining final compliance;

7. Failure to provide within forty-five (45) days after the due date, any required reports, including baseline monitoring reports, IDP applications, reports on compliance with categorical pretreatment standard deadlines, periodic self-monitoring reports, and reports on compliance with compliance schedules;

8. Failure to accurately report noncompliance; or

9. Any other violation(s) or group of violations, which may include a violation of Best Management Practices, that the Director determines will adversely affect the operation or implementation of the local pretreatment program.

Slug: Means:

1. Any discharge of water or wastewater that, in concentration of any given constituent or in quantity of flow, exceeds for any period of duration longer than fifteen (15) minutes, more than five (5) times the average twenty-four (24) hour concentration or flow during normal operation;

2. Any discharge at a flow rate or concentration that could cause a violation of the prohibited discharge standards in Section 1507 of these regulations]; or

3. Any discharge of a non-routine, episodic nature, including but not limited to an accidental spill or a non-customary batch discharge, which has a reasonable potential to cause Interference or Pass Through, or adversely affect the collection system and/or performance of the POTW.

State: The State of New Hampshire.

Storm Drain or **Storm Sewer:** A drain or sewer which carries storm and surface waters and drainage, but excludes wastewater and industrial wastes, other than unpolluted water.

Stormwater: Any flow occurring during or following any form of natural precipitation and resulting therefrom, including snowmelt.

Suspended Solids or **Total Suspended Solids:** Total suspended matter that either floats on the surface of, or is in suspension in, water, wastewater or other liquids and that is removable by laboratory filtering as prescribed in "Standard Methods for the Examination of Water and Wastewater" and that is referred to as that fraction not soluble in water. Also referred to as non-filterable residue.

Town: The Town of Exeter, Rockingham County, New Hampshire, a municipality of the State of New Hampshire, acting by and through its Selectmen or in appropriate cases, acting by and through its authorized representatives.

Unpolluted Water: Water of quality equal to or better than the effluent criteria in effect or water that would not cause violation of receiving water quality standards and would not be benefited by discharge to the POTW.

User (or Industrial User): A person who discharges industrial wastewater to the sanitary sewer of the Town.

Wastewater: The spent water of a community. Any combination of the liquid and water-carried wastes from residences, commercial buildings, industrial plants, governmental facilities, and institutions, whether treated or untreated that is contributed to the POTW.

Wastewater Treatment Facility: That portion of the POTW that is used to provide treatment of sanitary sewage and industrial wastewater.

1501 Use of Public Sewers Required

Pursuant to the provisions of RSA 147:8, and 147:11, and any other authority thereto enabling, the owner of any improved property benefited, improved, served or accommodated by any sewer, or to which any sewer is available, shall connect such improved property thereto in such manner as the Town may require, within ninety (90) days after notice to such owner from the Town to make such connection, for the purpose of discharge of all sanitary sewage and industrial wastewater from such improved property into the POTW, subject to such limitations and restrictions as shall be established herein or otherwise shall be established by the Town from time to time. Each such owner shall, within the same time limit, cease and desist from all further discharge of sanitary sewage and/or industrial wastes into any other conduit or pre-existing system whether privately or publicly owned.

1501.1. All sanitary sewage and industrial wastewater from any improved property, after connection of such improved property to the POTW as required under Section 1501, shall be conducted into a sanitary sewer, subject to such limitations and restrictions as shall be established by these regulations or otherwise shall be established by the Town, from time to time.

1501.2. No person shall place or deposit, or permit to be placed or deposited, upon public or private property within the Town of Exeter, any sanitary sewage or industrial wastewater in violation of Section 1501.

1501.3. No person shall discharge or permit to be discharged to any natural outlet within the Town, any sanitary sewage, industrial wastewater, and/or pollutant in violation of Section 1501, except where suitable treatment has been provided which is satisfactory to the Town, and the NHDES.

1501.4. No privy vault, cesspool, sinkhole, septic tank or similar receptacle shall be used and maintained at any time upon any improved property which has been connected to the POTW or which shall be required under Section 1501 to be connected to the POTW. The use of portable chemical toilets is allowed at construction sites and for other temporary purposes provided the wastes are properly disposed off site.

1501.5. No privy vault, cesspool, sinkhole, septic tank or similar receptacle at any time shall be connected to the POTW.

1501.6. No person shall discharge into any public sewer of the Town, or into any fixture that thereafter discharges into any public sewer, any waste or substance until all applicable approvals and permits have been obtained.

1501.7. Except as specifically designated by the Town with reference to some particular sewer, sanitary sewers shall be used only for the conveyance and disposal of sanitary sewage, and for industrial wastewaters that are not objectionable as hereinafter provided. No sanitary sewer shall be used to receive and convey or dispose of any

storm or surface water, subsoil drainage, or unpolluted water. No industrial wastewater shall be directed to a sewer that is not connected to the POTW.

1501.8. No person shall make connection of roof downspouts, foundation drains, areaway drains, or other surface runoff, ground water or unpolluted water to a building sewer or building drain which in turn is connected directly or indirectly to a public sanitary sewer unless such connection is approved by the Town for purposes of disposal of polluted surface drainage.

Stormwater and all other unpolluted drainage shall be discharged to storm sewers, if available, or to a natural outlet approved by the Town. Unpolluted industrial cooling water or unpolluted process waters may be discharged, on approval of the Town, the NHDES and EPA to a storm sewer, if available, or an approved natural outlet.

1501.9. If the intended or designated use of any particular sewer or drain and allowable discharge thereto is unclear, the Director will consider the pertinent facts and make a determination. This determination shall be final and binding.

1502 Sewer Connection Permits and Fees

1502.1. No person shall uncover, repair, connect, make any opening into or use, alter or disturb in any manner any Sewer or any part of the POTW without first executing an "Application for Sewer Service Work" from the Public Works Department and paying all applicable fees.

All work must be performed and completed in accordance with all applicable regulations by persons who are: 1) certified and employed by firms that hold a valid "Utility Pipe Installers" license, or 2) with special permission of the Public Works Director, a residential building owner doing work for themselves, at their residence. Utility pipe installers shall maintain minimum insurance coverage in accordance with Selectmen's Policy 96-05.

1502.2. There shall be charges in all areas of the Town for a sewer tie-in or connection permit for single and multi-residential living units; for commercial establishments; and for establishments producing industrial wastes. Application for a permit must be made at the office of the Water and Sewer Billing during its normal working hours. A permit fee shall be paid for a single residential and commercial service and higher permit fee shall be paid for multi-dwelling or industrial service. These fees will be charged in accordance with a Schedule of Charges for Sewer Service which the Town may adopt from time to time.

1502.3. A permit fee shall be paid for each sewer service connection permit in those instances where the Town has already installed the building sewer to the street line. This charge will be charged in accordance with a Schedule of Charges for Sewer Service which the Town may adopt from time to time. In all other cases, the full cost of the connection shall be borne by the applicant.

Permits will be issued only to qualified utility pipe installers licensed to lay pipes in the Town, and homeowners qualified under section 1502.1. Permits are not transferable.

Permits will not be issued until the applicant has filed a layout plan showing the location of existing service connection, house location and route of sewer service, and said layout has been approved by the Town.

Permits shall be subject to revocation when any of the rules and regulations contained herein are not being followed.

If the work under the permit is not completed within ninety (90) days, renewal of the permit must be obtained at the then-in-effect fee for the permit, less any amount previously paid.

1502.4. Licenses to connect building sewers to the sanitary sewer will be issued to experienced and competent contractors. Licenses must be renewed annually on January 1. The fee for such license will be in accordance with such schedule of charges as the Selectmen may adopt from time to time and shall be payable to the Town. Said licenses shall be obtained at the office of the Public Works Director.

1502.5. No person, firm or corporation shall excavate any town-maintained street, roadway, sidewalk, parking lot, or right-of-way without a valid digging permit (Town Ordinance 504). An individual permit is required for each road cut.

1502.6. Any person proposing a new discharge into the system or a substantial change in the volume or character of pollutants that are being discharged into the system shall notify and obtain written approval from the Director at least sixty (60) days before the proposed change or connection. Proposed new discharges from residential or commercial sources involving loading exceeding 50 population equivalents (5,000 gallons per day average flow), any new industrial wastewater, or any alteration in either flow or waste characteristics of greater than twenty percent (20%) of existing industrial wastes that are being discharged into the POTW, and that could cause interference with the POTW or have an adverse effect on the receiving water or otherwise endanger life, limb, public property or constitute a nuisance, shall be approved by the NHDES Water Division. Approvals for industrial wastewater shall be obtained in accordance with Section 1509 of these regulations.

1503 Connections to Sanitary Sewer

Except as otherwise provided in this section, each improved property shall be connected separately and independently with the sanitary sewer through a building sewer. Grouping of more than one building sewer shall not be permitted, except under special circumstances and for good sanitary reasons or other good cause shown, and then only after special permission of the Director, in writing, shall have been secured and subject to such files, regulations, and specifications governing such grouping as may be prescribed by the Director. In addition to these regulations, the Town of Exeter Department of Public Works is hereby authorized to develop and implement specifications addressing the construction of public utilities within the Town.

1503.1. The owner will initially construct each building sewer, and all costs and expenses of construction of the building sewer, including connection to the structures served, shall be borne by the owner of the improved property to be connected; and such owner shall indemnify and save harmless the Town, its officers and agents, from all loss or damage that may be occasioned, directly or indirectly, as a result of construction of a building sewer on the owner's premises or its connection to the sanitary sewer. After the initial construction of the building sewer, the owner shall thereafter be obligated to pay all costs and expenses of operation, repair and maintenance and of reconstruction (if needed) of the building sewer beginning at the sanitary sewer and ending at the building. Every building sewer shall be maintained in a sanitary and safe operating condition by the owner.

If Town personnel are called out to work on a sewer and it is subsequently determined that the problem was on the owner's building sewer, the owner will reimburse the Town for all costs associated with the service call.

1503.2. If the owner of any building located within the Town and benefited, improved, served or accommodated by any public sewer, or to which any public sewer is available, after ninety (90) days notice from the Town, in accordance with Section 1501, shall fail to connect such building as required, the owner shall be in violation of these regulations and the Town may make such connection and may collect from such owner the costs and expenses thereof by such legal proceeding as may be permitted by law. The Town shall have full authority to enter on owner's property to do whatever is necessary to properly drain the improved property into the public sewer.

1503.3. If the owner of any building located within the Town shall fail or refuse, upon receipt of a notice of the Town, in writing, to remedy any unsatisfactory condition with respect to a building sewer within forty-five (45) days of receipt of such notice (except this time period may be reduced as necessary to protect the health and safety of the residents of the Town), the Town may remedy any unsatisfactory condition with respect to a building sewer and may collect from the owner the costs and expenses thereof by such legal proceedings as may be provided by law. The Town shall have full authority to enter on the owner's property to do whatever is necessary to remedy the unsatisfactory condition.

1503.4. A building sewer shall be connected to the sanitary sewer at the place designated by the Town.

1503.5. The connection of the building sewer into the sanitary sewer shall conform to the requirements of the current building and plumbing code, NHDES Env-Wq 704.13, and the Town's *Standard Specifications for Construction of Public Utilities in Exeter, New Hampshire*.

Pipe and fittings to be used in the work shall be only SDR 35 poly-vinyl chloride (PVC) ring tight joints, , (4 inches or more in diameter for single family residence and small commercial uses; 6 inches minimum for multifamily use and larger commercial uses; size shall be approved by the Director.)

In general, sewer services will not be allowed to have more than two (2) angle points, or a total angular deviation of 180 degrees, unless a variance is granted by the Town. A cleanout shall be installed at each angle point and/or every one hundred (100) ft. length where the sewer service extends more than 300 feet. The Town may require the installation of manholes subject to its approval.

All building sewers shall be laid in an envelope of washed screened gravel with not less than 6 inches of said materials all around the barrel of the pipe. Maximum stone size shall be 3/4 inch. The Town strongly recommends the installation depth to be minimum of 4.0 feet from finished grade. All pipe and fittings shall be laid to a minimum slope of 1/4 inch per foot unless otherwise approved by the Town. The Town requires the use of a backwater/one-way valve in the building sewer.

Line and grade of the pipe and fittings shall be controlled by the use of a transit or by the use of batter boards and string lines set for this purpose. Batter boards shall not exceed a distance of 30 feet apart unless otherwise allowed by the Town. Line and grade are to be established by the contractor subject to the approval of the Town.

Whenever possible, the building sewer should be brought to the building at an elevation above the basement floor. In all buildings in which any building drain is too low to permit gravity flow to the public sewer, sanitary sewage carried by such building drain may be lifted by a Town-approved means at the owner's expense and discharged to the building sewer.

No person shall connect a building sewer to a manhole unless permission is granted, in writing, from the Director.

The centerline of a building sewer at the point of connection shall enter the top half of the sanitary sewer. A smooth, neat joint shall be made and the connection of a building sewer to the sanitary sewer shall be made secure, watertight, and gas tight by the use of a "saddle", appropriate in size to the receiving sewer line, and shall be acceptable to the Town. A KOR-N-SEAL boot shall be provided where sewers are to be connected to manhole structures. Any deviation from the prescribed procedures and materials shall be approved by the Director before installation.

1503.6. Old building sewers may be used in connection with new buildings when they are found, on examination by the Town, to meet all requirements of these ordinances.

1503.7. No structure shall be connected to the sanitary sewer system unless there is a vent pipe extending to a point above the roof and properly vented or otherwise vented as per applicable codes and code enforcement offices in a manner approved by the Director. Vents shall be installed by the owner in all buildings as approved by the Building Inspector/Code Enforcement Officer. No person shall obstruct the free flow of air through any drain or soil pipe.

1503.8. A backwater valve shall be installed on all new sewer services entering the Town's sanitary sewer to prevent backflow from the public sewer from entering the facility or building. Backwater valves shall be sized and installed in accordance with the most current adopted State of New Hampshire plumbing code, and with the approval of the Town Building Inspector/Code Enforcement Officer. Backwater valves shall be located and installed so their working parts are readily and easily accessible for cleaning and inspection and shall be maintained by the Owner(s) at the Owners expense, in a continuous, efficient, operating condition at all times.

1503.9. An interior clean-out fitting shall be provided at the discretion of the Director for each building sewer at a readily accessible location, preferably just inside the basement wall. The fitting shall contain a forty-five degree (45°) branch with a removable watertight plug, and positioned so that sewer cleaning equipment can be inserted to clean the building sewer. Buildings and mobile homes without foundations shall have a clean-out installed on the outside.

1503.10. The Director shall maintain a record of all connections made to public sewers and drains and all repairs and alterations made to building connections or drains connected to or discharging into public sewers and drains of the Town or intended to so discharge. All persons concerned shall assist the Director in securing data needed for such records.

1503.11. When any sanitary sewer is to serve a school, hospital, or similar institutional or public housing, or is to serve a complex of industrial or commercial buildings, or which in the opinion of the Director, will receive sanitary sewage or industrial wastewater of such volume or character that frequent maintenance of or access to said building sewer and sanitary sewer is anticipated, then such building sewer shall be connected to the sanitary sewer through a manhole. The Director shall determine if and where this type

of connection to the sanitary sewer is required. Connections to existing manholes shall be made as directed by the Director. If required, a new manhole shall be installed in the public sewer.

1503.12. When a building is demolished and not immediately replaced, the owner shall adequately seal off the building sewer where it connects to the public sewer and shall schedule an inspection by the Director.

1503.13. All excavations for building sewer installation shall be adequately guarded with warning signs, traffic controls, barricades, and lights so as to protect the public from hazard, and in accordance the *Standard Specifications for Construction of Public Utilities in Exeter, New Hampshire*. Streets, sidewalks, parkways, and other public property disturbed in the course of the work shall be restored in a manner satisfactory to the Director, at the expense of the owner(s). The contractor is responsible for all other notification requirements, including DIGSAFE. It is the responsibility of the owner to coordinate work with the Town by providing written notification of any proposed work prior to initiation of excavation

1503.14. When ledge is encountered in the excavations, a permit must be obtained for the use of explosives from the Town of Exeter Fire Department.

All blasting shall be done in accordance with the requirements of the appropriate authorities; and by a person licensed in accordance with state laws.

1503.15. Trenches shall be backfilled and compacted and the street surface repaired in accordance with requirements specified by the Town's "Procedures and Specifications for Excavations on Town Streets or within Rights-of-Way."

Power shovels, bulldozers, loaders, trucks and other equipment shall not be operated on or across sidewalks, beams, curbing, etc., until they have been properly protected from damage by planking or other approved means. All damage resulting from the utility pipe layer's operations shall be repaired by him.

In or adjacent to State Highways the owner shall obtain necessary permits from the appropriate State Authority before the issuance, by the Town, of a sewer connection permit. All work shall then be done in accordance with the requirements set forth in the permit from the appropriate State Authority. Any costs in connection with obtaining permits shall be borne by the applicant.

1503.16. The owner or their agent shall notify the Town when the building sewer is ready for inspection and connection to the sanitary sewer (see Section 1503.17). The connection and testing shall be made under the supervision of the Director or authorized representative. Requests for inspections of sewer service connections shall be made to the Town forty-eight (48) hours in advance of the time any connection is to be made, and only during normal working hours.

Inspections will ordinarily be made only during the normal working hours of the Town.

An additional charge may be made for inspections required after normal working hours.

Services in excess of 100 feet in length are subject to review and such other requirements as may be found necessary to assure a functional connection.

In new construction, and where practicable in existing buildings when the common sewer is sufficiently deep, service shall be laid directly, without deflections, from the house plumbing vent stack to the connection provided at the common sewer.

Tunneling will not be allowed unless special permission for same is given.

Connection made to the building plumbing system shall be upstream of any septic tanks or cesspools.

Upon connection of the building plumbing system to the sanitary sewer, existing septic tanks and cesspools shall be completely filled with suitable material to the satisfaction of the Town.

1503.17. No building sewer shall be covered until it has been inspected and approved by the Town. If any part of the building sewer is covered before so being inspected and approved, it shall be uncovered for inspection if deemed necessary at the cost and expense of the owner of the improved property to be connected to the sanitary sewer. This requirement shall also apply to repairs or alterations to building connections, drains or pipes thereto.

In the event that such work is not ready for inspection or for any other reason may not be approved by the Director, the property owner, builder, or developer shall be notified that no further inspection of such work will be made until the property owner, builder, or developer has paid a service charge in the amount as established by the Town to cover the extra expense and cost to the Town. In the event of further disapproval of the same work, a further surcharge shall be paid by the property owner, builder, or developer in accordance with the Town's charge schedule, before a further inspection shall be made.

1504 New Sewers or Sewer Extensions

1504.1. When a property owner, builder, or developer proposes to construct sanitary sewers or extensions to sanitary sewers in an area proposed for subdivision, the plans, specifications, and method of installation shall be subject to the approval of the Director in accordance with Section 1502.1. Said property owner, builder or developer shall pay for the entire installation, including appropriate share of the cost of the wastewater treatment facility, sewers, pumping stations, force mains and all other Town expenses incidental thereto based on volume and plant capacity, as determined by the Town. Each building sewer shall be installed and inspected pursuant to Section 1503 and all application and inspection fees shall be paid by the applicant.

1504.2. Should the Town install a main line or extend a main line, by petition of the abutters, the total cost shall be determined and the proportionate cost for each abutter shall be assessed at the time of connection. If a property owner beyond the terminus of an existing sewer main desires to connect to the line, the property owner shall extend the main along the entire lot frontage owned by the potential customer (or to the limits of gravity flow with the proper cover). Unless the extension is installed via a petition as described above, all cost for this extension shall be borne by the property owner.

1504.3. Design and installation of sewers shall be in accordance with the NHDES Administrative Rules Env-Wq 700 - *Standards of Design and Construction for Sewerage and Wastewater Treatment Facilities*. Plans and specifications shall be submitted to, and approval obtained from, the Director and the NHDES before construction may proceed. The design of sewers shall anticipate and allow for flows

from all possible future extensions or developments within the immediate drainage area, being compatible with the master sewerage plan adopted by the Town.

Plugged service wye fittings shall be provided along sewer extensions in locations approved by the Director to accommodate future connections from existing unimproved lots.

1504.4. Other components and materials of POTW installations such as pumping stations, lift stations, or force mains shall be designed and approved in accordance with Section 1504.2 and shall be clearly shown and detailed on the plans and specifications submitted for approval. When requested, the owner, builder, or developer of the proposed installation shall submit to the Town all design calculations and other pertinent data to supplement a review of the plans and specifications. Costs associated with the engineer's review of the plans and specifications, and any NHDES design review fees shall be paid by the property owner, builder or developer.

1504.5. The installation of the sewer shall be subject to periodic inspection by the Director, and the expense for this inspection shall be paid for by the owner, builder, or developer. The Director's decisions shall be final in matters of quality and methods of construction. The sewer, as constructed, must pass an exfiltration test approved by the Town before any building sewer is connected thereto.

1504.6. As-built plans, specifications, and other required information shall be submitted to the Town prior to acceptance of the sewer. The Town shall be notified at least thirty (30) days in advance of the start of construction operations so that such inspection procedures as may be necessary or required may be established. No sanitary sewers will be accepted by the Town until such inspection of construction has been made as will assure the Town of compliance with these regulations and any amendments or additions thereto.

1505 Variances

1505.1. The Director, with the approval of the Town Manager, may allow reasonable variances from the provisions of Sections 1501 through 1504 of these regulations, which will not result in a violation of State or federal law, provided:

1. The owner shall be responsible for any variance fee as determined by the Board of Selectmen;
2. The variance allowed is the least variance reasonable;
3. The variance will not cause undue harm or inconvenience to the Town, the POTW, or the owner's neighbors;
4. The variance is justified by substantial reason; and
5. The variance is at the discretion of the Director.

1505.2. The owner shall apply for the variance in writing to the Director. The application shall identify the name and address of the owner, the property in question, the specific variance sought by the owner and a substantial reason justifying the variance. The variance fee shall be paid with the application or the variance shall be deemed to have been denied. The variance as issued shall identify any changes, limitations or restrictions on the variance as applied for.

1506 Powers of Assessment and Collection

1506.1. The assessment and collection of the expense of operating and maintaining the POTW shall be governed by the provisions of RSA 149-I:7-8, inclusive, and any other applicable general laws. The Selectmen of the Town shall have all the powers granted to Mayors and Boards of Aldermen thereunder with reference to establishing and assessing sewer charges and/or rentals. These charges will be in accordance with such Schedule of Charges for Sewer Service as the Selectmen may adopt from time to time. This schedule may include special charges for wastewater flows from private property where such flows do not originate from the Water System or are subject to a surcharge. If wastewater discharged to the sewer is significantly greater than the water consumed, the owner shall be required to install a recording flow meter. If wastewater discharged to the sewer is significantly less than the water consumed, the owner may be required to install a recording flow meter. The water consumption rate will be computed by using the Town water meters quantity readings. If the owner has a special circumstance where excessive amounts of water will not be disposed of to the POTW, the owner may request, in writing to the Director, permission to install a second meter as approved by the Director to accurately measure the amount of discharge into the sewer. If a sewer utilizes a source of water other than the Town's system, the owner may either 1) pay the rate designated for such use in the Schedule of Charges for Sewer Service adopted by the Selectmen, or 2) request, in writing, permission to install a meter on that source of water to measure the amount of discharge. Such installation shall have the prior approval of the Director, and any retrofitting of plumbing to prepare a place for a meter to be installed shall be at the sewer user's expense.

1507 Restrictions on Discharge to Sewers

1507.1. General Prohibitions. No person shall introduce or cause to be introduced into the POTW any pollutant or wastewater that causes pass through or interference or has an adverse effect on the receiving stream. These general prohibitions apply to all users of the POTW whether or not they are subject to categorical pretreatment standards or any other federal, State, or local pretreatment standards or requirements.

1507.2. Specific Prohibitions. No person shall discharge or cause to be discharged any of the following described waters or wastes to any public sewers:

A. Any gasoline, benzene, naphtha, fuel oil, or other flammable or explosive liquid, solid, gas, or any substance that can generate or form any flammable combustible or explosive substance, fluid, gas, vapor or liquid when combined with air, water or other substances present in sewers, including, but not limited to, wastestreams with a closed-cup flashpoint of less than 140°F (60°C) using the test methods specified in 40 CFR 261.21;

B. Any waters or wastes that contain toxic or poisonous solids, liquids, or gases in sufficient quantity, either singly or by interaction with other wastes, to injure or interfere with any wastewater treatment process, that constitute a hazard to humans or animals, that create a public nuisance, or that create any hazard at the wastewater treatment facility, including but not limited to heavy metals, strong acids, basic wastes and cyanides in the waste discharged to the public sewer;

C. Any waters or wastes having a pH less than 5.5 standard units, or greater than 11.5 standard units, as measured at the point of connection to the sanitary sewer or other available monitoring location, or otherwise having any other corrosive property capable of causing damage or hazard to structures, equipment, or personnel of the POTW or that contribute to or cause the wastewater treatment facility influent pH to exceed 8.0;

D. Solid or viscous substances including water or wastes containing fats, wax, grease, or oils, whether emulsified or not, or containing substances that can solidify or become viscous at temperatures between 32°F and 150°F (0-65°C) in quantities or of such size capable of causing obstruction to the flow in sewers, or other interference with the proper operation of the POTW, such as, but not limited to, ashes, cinders, sand, mod, straw, shavings, metal, glass, rags, feathers, tar, plastics, wood, whole blood, paunch manure, hair and fleshings, entrails, and paper dishes, cups, milk containers, etc., either whole or ground by garbage grinders;

E. Pollutants, including oxygen-demanding pollutants (e.g., BOD, COD), or chlorine demand requirements released in a discharge at a flow rate and/or pollutant concentration that, either singly or by interaction with other pollutants, will cause interference with the POTW, constitute a hazard to humans or animals, create a public nuisance, or cause pass through;

F. Wastewater containing such concentrations or quantities of pollutants that its introduction to the POTW could cause a treatment process upset and subsequent loss of treatment ability;

G. Wastewater having a temperature greater than 150°F (65°C), or that will inhibit biological activity in the wastewater treatment facility resulting in interference, but in no case wastewater that causes the temperature at the introduction into the wastewater treatment facility to exceed 104°F (40°C);

H. Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin, in amounts that will cause interference or pass through;

I. Any pollutants that result in the presence of toxic gases, vapors or fumes within the POTW in a quantity that may cause worker health and safety problems;

J. Any trucked or hauled pollutants, except at discharge points designated by the Director;

K. Any medical/infectious waste or radiological waste designated by the municipality as having a reasonable potential for adversely affecting the POTW's operation or performance or for violating any pretreatment standard or requirement;

L. Wastewater causing, alone or in conjunction with other sources, the wastewater treatment facility's effluent or biosolids to fail a toxicity test;

M. Any hazardous waste listed or designated by the NHDES under Env-Hw 400; and

N. Any pharmaceutical waste, except for such pharmaceutical wastes as are required by federal law to be disposed of by flushing into a municipal sewer system.

1507.3. Additional Prohibitions. No person shall discharge or cause to be discharged the following described substances, materials, waters, or wastes:

A. Wastewater that imparts color that cannot be removed by the treatment process, such as, but not limited to, dye wastes and vegetable tanning solutions, which consequently imparts color to the treatment facility's effluent, thereby violating the Town's NPDES permit;

B. Noxious or malodorous liquids, gases, solids, or other wastewater that, either singly or by interaction with other wastes, could be sufficient to create a public nuisance, objectionable odors, or a hazard to life, or to prevent entry into the public sewers for maintenance or repair;

C. Stormwater, surface water, groundwater, artesian well water, roof runoff, subsurface drainage, swimming pool drainage, condensate, deionized water, noncontact cooling water, or otherwise unpolluted wastewater unless specifically authorized by the Director in an IDP;

D. Sludges, screenings, or other residues from the pretreatment of industrial wastes unless specifically authorized by the Director in an IDP;

E. Detergents, surface active agents, or other substances that might cause excessive foaming in the POTW and/or cause a violation of the Town's NPDES permit;

F. Wastewater that could cause a reading on an explosion hazard meter at the point of discharge into the POTW, or at any point in the POTW, of more than ten percent (10%) of the Lower Explosive Limit;

G. Any garbage that has not been properly shredded (see definition of Properly Shredded Garbage in Section 1500). The installation and operation of any garbage grinder equipped with a motor of three-fourths (3/4) horsepower (0.76 hp metric) or greater shall be subject to the review and approval of the Town;

H. Any quantities of flow, concentrations, or both which constitute a "slug" as defined herein;

I. Any water or wastes which, by interaction with other water or wastes in the public sewer system, release dangerous or noxious gases or objectionable odors, form suspended solids that interfere with the collection system, or create a condition deleterious to structures and treatment processes;

J. Household hazardous wastes including but not limited to paints, stains, thinners, pesticides, herbicides, anti-freeze, transmission and brake fluids, motor oil and battery acid;

K. Any waters or wastes containing strong acid iron pickling wastes, or concentrated plating solutions whether neutralized or not;

L. Any waters or wastes containing iron, chromium, copper, zinc, and similar objectionable or toxic substances; or wastes exerting an excessive chlorine requirement, to such degree that any such material received in the composite wastewater at the wastewater treatment plant exceeds the limits established by the Town for such materials;

M. Any waters or wastes containing phenols or other taste or odor producing substances, in such concentrations exceeding limits which may be established by the Town as necessary, after treatment of the composite wastewater, to meet the requirements of the State, federal, or other public agencies having jurisdiction over such discharge to the receiving waters;

N. Waters or wastes containing substances which are not amenable to treatment or reduction by the wastewater treatment processes employed, or are amenable to treatment only to such degree that the wastewater treatment facility effluent cannot meet the requirements of other agencies having jurisdiction over discharge to the receiving waters;

O. Any wastes which violate federal, State or local pre-treatment standards;

P. Any wastes which cause the wastewater treatment facility to violate its NPDES permit; and

Q. Any water or waste that prevents disposal of sludge in the manner used by the POTW.

1507.4. Spills. Pollutants, substances, or wastewater prohibited by this section shall not be processed or stored in such a manner that they could be discharged to the POTW.

1507.5. Federal Categorical Pretreatment Standards. The federal categorical pretreatment standards are found at 40 CFR Chapter I, Subchapter N, Parts 405-471. EPA shall be the control authority for industrial users subject to federal categorical pretreatment standards. As the control authority, industrial users are responsible to the EPA for compliance with categorical pretreatment standards and the requirements of 40 CFR Part 403. Categorical industrial users shall provide the Town with copies of any reports to, or correspondence with EPA relative to compliance with the categorical pretreatment standards.

The industrial user is responsible to determine the applicability of categorical pretreatment standards. The user may request that EPA provide written certification on whether the user is subject to the requirements of a particular category.

1507.6. Local Discharge Restrictions. All persons discharging industrial wastes into public or private sewers connected to the Town's POTW shall comply with applicable federal requirements and State standards for pretreatment of wastes (as amended) in addition to the requirements of these regulations.

Local regulatory controls established by the Town for the discharge of pollutants of concern as set forth herein (referred to as "local limits"), federal, and all State

pretreatment standards shall apply, whichever is most stringent. Pollutants of concern include any pollutants that might reasonably be expected to be discharged to the POTW in quantities that could pass through or interfere with the POTW, contaminate the biosolids, or adversely impact human health or safety.

A. Maximum allowable industrial limitations:

For all users connected to sewer lines that are tributary to the Town's POTW, the Director will not issue permits that in combination with other industrial loads exceed the values in the following table:

POLLUTANT	MAXIMUM ALLOWABLE INDUSTRIAL LOADING (lb/day)	POLLUTANT	MAXIMUM ALLOWABLE INDUSTRIAL LOADING (lb/day)
Arsenic	BMPs [1]	Mercury	0.029
Cadmium	0.031	Molybdenum	0.028
Chromium (III and VI)	1.47	Nickel	0.82
Copper	1.28	Selenium	0.091
Cyanide	0.085	Silver	0.10
Lead	0.86	Zinc	0.72

(1) The capacity associated with the arsenic allowable loading is almost completely utilized by unregulated sources (*i.e.*, domestic and septage). Best Management Practices will be required limiting the addition of arsenic to wastewater discharges as an alternative to enforcement of a numerical value.

All mass loading limitations for metals represent total metals, regardless of the valance state, or the physical or chemical form of the metal. To administer these allowable loadings through IDPs, the Director may impose concentration-based limitations, or mass limitations in accordance with Section 1507.10. For industrial users, the values written into IDPs for the above pollutants shall apply at the end of the industrial wastestream and prior to dilution with non-industrial wastewaters.

Unless specifically identified in an IDP, an industrial user is not allowed to discharge the locally limited pollutants at concentrations significantly greater than background concentrations.

Daily concentration (or mass loading) is the concentration (or mass) of a pollutant discharged, determined from the analysis of a flow-composited sample (or other sampling procedure approved by the Director) representative of the discharge over the duration of a 24-hour day or industrial operating schedule of less than 24 hours.

B. Screening Levels: Screening levels are numerical values above which actions are initiated to evaluate, prevent or reduce adverse impacts on the POTW, the environment, and/or human health and safety. The Town monitors industrial sources of conservative pollutant-bearing discharges in comparison to established screening levels, and authorization to discharge at greater concentrations may be granted subject to the administrative procedures for managing mass loading limitations.

Screening levels for non-conservative pollutants are concentration-based values that, if exceeded, represent a potential to compromise worker safety, create flammability or chemical reactivity conditions in the collection system, or result in operational issues

such as excessive organic/solids loadings. Screening levels for non-conservative pollutants are developed as needed using the methodology of the Town.

The pollutants in the following table (list is not all inclusive) are representative of concentrations above which pollutants shall not be discharged to the POTW without the approval of the Director.

POLLUTANT	mg/L	POLLUTANT	mg/L
Total Kjedhal Nitrogen (TKN)	84	Oil & Grease – EPA Method 1664 HEM	350
Biochemical Oxygen Demand (BOD)	272	Total Petroleum Hydrocarbons - EPA Method 1664 SGT-HEM	100
Total Suspended Solids (TSS)	313	Sulfate (Type I concrete / Type II concrete)	150 / 1,500
Sulfide	1.0	Chloride	1,500
VOLATILE ORGANIC COMPOUNDS			
Acetone	372	Fluorotrichloromethane	1.25
Acrylonitrile	0.482	Formaldehyde	1.47
Benzene	0.001	Hexachloroethane (PCA)	0.06
2-Butoxyethanol	367	Methyl ethyl ketone (MEK)	200 (1)
Carbon disulfide	0.007	Methyl isobutyl ketone (MIBK)	36
Chlorobenzene	0.304	Methyl tert-butyl ether (MTBE)	5.5
Chloroform	0.065	Methylene chloride	1.0
1,4-Dichlorobenzene	0.103	Tetrachloroethylene (PCE)	0.23
1,1-Dichloroethane	1.74	Toluene	0.69
1,2-Dichloroethane	0.08	1,2,4-Trichlorobenzene	0.64
Trans 1,2-Dichloroethylene	2.06	1,1,1-Trichloroethane (TCA)	2.7
1,2-Dichloropropane	3.0	Trichloroethene	0.32
1,3-Dichloropropene	0.01	Vinyl chloride (chloroethene)	0.002
Di-isobutlyketone (DIBK)	8.0	Xylenes	1.4
Ethylbenzene	1.35	–	–

NOTE 1. The MEK limit is a hazardous waste criterion and may not be equal to or exceeded under any circumstances.

If any of the screening levels are exceeded, repeat analysis may be required by the Town to verify compliance or noncompliance with that screening level. If noncompliance is indicated, then the industrial user may be required, at the discretion of the Director, to conduct an appropriate engineering evaluation at the industrial user's expense to determine the potential impact of the discharge of this pollutant to the Town's POTW or alternatively, to develop a pollution prevention plan specifically addressing the pollutant that exceeds the screening level. This study or plan shall be approved by and conducted under the supervision of the Town. Should the evaluation indicate the impact to be unsatisfactory, the industrial user shall reduce the pollutant concentration to a satisfactory level. If the evaluation supports development of an alternate site-specific limitation, then the screening level may, at the discretion of the Director, be adjusted as a special agreement for the industrial user and administered as a permit limitation for the specific discharge.

If an industrial user proposes to discharge at concentrations greater than the concentration-based screening level maintained by the Town, then the industrial user may be required to conduct the evaluations described in the previous paragraph. Should the evaluations support an alternate site-specific limitation, then the screening level may, at the discretion of the Director, be adjusted as a special agreement for the industrial user and administered as a permit limitation for the specific discharge.

1507.7. Best Management Practices. The Town may develop Best Management Practices (BMPs) to implement Sections 1507.3 and 1507.6. Such BMPs shall be considered local limits and pretreatment standards for the purposes of these regulations.

1507.8. Special Agreements. No statement contained in Section 1507 except for Sections 1507.1, 1507.2, and Section 1507.5 shall be construed as preventing any special agreement or arrangement between the Town and any industrial user whereby an industrial waste of unusual strength or character may be accepted by the Town for treatment provided that said agreements do not contravene any requirements of existing federal or State laws, and/or regulations promulgated thereunder, are compatible with any user charge system in effect, and do not waive applicable federal categorical pretreatment standards. Special agreement requests may require submittal of a best management practices plan that specifically addresses the discharge for which a special agreement is requested.

1507.9. Dilution. No wastewaters, which otherwise will not meet the requirements of these regulations, shall be diluted with river water or other unpolluted waters in order to render the wastewater acceptable as meeting the requirements of these ordinances. The Director may impose mass limitations on users to discourage the use of dilution to meet applicable pretreatment standards or requirements, or in other cases when the imposition of mass limitations is appropriate.

1507.10. Mass Based Limitations. Users implementing process changes may request that compliance be determined based on mass limitations in lieu of concentration limitations. Such mass-based limitations will be calculated from the permitted concentration-based limitations and flows, and shall be equivalent to or less than the mass discharge in effect at the time of the request. The intent of a mass-based limit is to encourage and allow pollution prevention and/or water conservation measures that might cause a facility to increase pollutant concentrations in their discharge even though the total mass of the pollutant discharged does not increase, and may in fact decrease. Decisions on granting requests for mass-based compliance limitations will be based on user-specific information and current operating conditions of the POTW,

and will be at the discretion of the Director. Implementation of mass-based limitations may not contravene any requirements of federal or State laws and/or regulations implemented thereunder, and may not waive applicable federal categorical pretreatment standards.

1507.11. Town's Right of Revision. The discharge standards and requirements set forth in Section 1507 are established for the purpose of preventing discharges to the POTW that would harm either the public sewers, wastewater treatment process, or equipment; would have an adverse effect on the receiving stream; or would otherwise endanger lives, limb, public property, or constitute a nuisance.

To meet these objectives, the Director may, from time to time, review and set more stringent standards or requirements than those established if, in the Director's opinion, such more stringent standards or requirements are necessary to meet the above objectives. In forming this opinion, the Director may give consideration to such factors as the quantity of waste in relation to flows and velocities in the sewers, materials of construction of the sewers, the wastewater treatment process employed, capacity of the wastewater treatment facility, degree of treatability at the wastewater treatment facility, pollution prevention activities, and other pertinent factors. The limitations or restrictions on materials or characteristics of waste or wastewaters discharged to the sanitary sewer shall not be exceeded without the approval of the Director.

The Director shall allow affected industrial users reasonable time to comply with any changes to the local limits. The conditions and schedule for compliance shall accompany the written notification of amended local limits.

Users implementing process changes may request that compliance be determined based on mass limitations in lieu of concentration limitations. Such mass-based limitations will be calculated from the permitted concentration-based limitations and flows, and shall be equivalent to or less than the mass discharge in effect at the time of the request. The intent of a mass-based limit is to encourage and allow pollution prevention and/or water conservation measures that might cause a facility to increase pollutant concentrations in their discharge even though the total mass of the pollutant discharged does not increase, and may in fact decrease. Decisions on granting requests for mass-based compliance limitations will be based on user-specific information and current operating conditions of the POTW, and will be at the discretion of the Director. Implementation of mass-based limitations may not contravene any requirements of federal or State laws and/or regulations implemented thereunder, and may not waive applicable federal categorical pretreatment standards.

1508 Pretreatment of Wastewater

The Town shall determine the quantity and quality of all industrial wastes which can be properly received by the POTW and treated at the wastewater treatment facility, in addition to the sanitary wastewater from the Town.

1508.1. Pretreatment Facilities. If any waters or wastes are discharged, or are proposed to be discharged to the public sewers, which waters contain the substances or possess the characteristics enumerated in Section 1507 of this Ordinance, and which in the judgment of the Town, may have a deleterious effect upon the POTW, processes, equipment, or receiving waters, or which otherwise create a hazard to life or constitute a public nuisance, the Town may:

Reject the waters or wastes;

Require pretreatment to an acceptable condition for discharge to the public sewers. If applicable or required, such pretreatment requirements will conform to the requirements of the EPA;

Require control (e.g., equalization) over the quantities and rates of discharge; and/or

Require payment to cover the added cost of handling and treating the wastes.

If the Director allows the pretreatment or equalization of waste flows, the design and installation of the systems and equipment shall be subject to the review and approval of the Director and the State.

1508.2. Town Review and Approval. Where pretreatment or equalization of wastewater flows prior to discharge into any part of the wastewater treatment system is required, plans, specifications and other pertinent data or information relating to such pretreatment of flow-control facilities shall first be submitted to the Town for review and approval. Such approval shall not exempt the discharge or such facilities from compliance with any applicable code, ordinance, rule, regulation or order of any governmental authority. Any subsequent alterations or additions to such pretreatment or flow-control facilities shall not be made without due notice to and prior approval of the Town.

Where preliminary treatment or flow-equalizing facilities are provided for any waters or wastes, they shall be maintained continuously in satisfactory and effective operation by the owner at the owner's expense.

1508.3. Fats, Oils, and Grease (FOG), and Grit Interceptors. Interceptors for oil, grease, grit or other substances harmful or hazardous to the building drainage system, the public sewer or POTW shall be provided at the owner's expense when required by plumbing code, or in the opinion of the Town, they are necessary for the proper handling of liquid wastes containing grease in excessive amounts, as described in 1507.2, or any flammable wastes, sand or other harmful constituents as described in 1507.2 except that such interceptors shall not be required for private living quarters or dwelling units. All interceptors shall be of a type and capacity approved by the Town, shall be located so as to be readily and easily accessible for cleaning by the owner and inspection by the Town, and shall be maintained by the owner(s) at the owner's expense in a continuous, efficient operating condition at all times. In the maintaining of these interceptors, the owner(s) shall be responsible for the proper removal and disposal by appropriate means of the captured material and shall maintain records of the dates, and means of disposal which are subject to review by the Director. Maintenance records shall be made available to the Town upon request. Any removal and hauling of the collected materials not performed by owner(s) personnel must be performed by currently licensed waste disposal firms.

Concentrated greases and oils from fryers, grill and stove grease accumulation traps, and vent hoods shall be properly disposed or recycled and shall not be discharged to the sewer.

All new food service establishments (including but not limited to restaurants, hotel kitchens, hospital kitchens, school kitchens, bars, factory cafeterias and clubs) and any other facility discharging fats, oil and grease above the effluent limits described in 1507 shall be served by:

A. An external FOG interceptor, subject to the Director's approval, installed on a separate building sewer line servicing kitchen flows and connected only to the following fixtures or drains:

(i) pot sinks;

(ii) pre-rinse sinks;

(iii) any sink into which fats, oils, or grease are likely to be introduced;

(iv) soup kettles or similar devices;

(v) wok stations, rotisseries;

(vi) floor drains or sinks into which kettles may be drained;

(vii) automatic hood wash units;

(viii) dishwashers without pre-rinse sinks; and

(ix) any other fixtures or drains that are likely to allow fats, oils and grease to be discharged.

The FOG interceptor serving the above shall be sized at 1,000 gallons or greater and providing a minimum detention time of 24 hours.

B. If an external interceptor is not practical, FOG-bearing wastewaters shall be served by an indoor automated grease recovery unit(s) (AGRUs) that separates grease from the wastewater by active mechanical or electrical means, and are subject to the Director's approval and the following requirements,:

(i) An AGRU(s) shall be installed immediately downstream of each fixture or multiple fixtures listed in subsection (A) of this section.

(ii) The AGRU shall be sized to properly pre-treat the measured or calculated flows for all connected fixtures or drains.

(iii) The AGRU shall be constructed of corrosion-resistant material such as stainless steel or plastic.

(iv) Solids shall be intercepted and separated from the effluent flow using an internal or external strainer mechanism. This mechanism shall be an integral part of the unit.

(v) The unit shall operate using a skimming device, automatic draw-off, or other mechanical means to automatically remove separated fats and oils. This automatic skimming device shall be either hard wired or cord & plug connected electrically and controlled using a timer or level control. The operation of the automatic skimming device shall be field adjustable. The AGRU shall operate no less than once per day.

(vi) The AGRU shall be fitted with an internal or external flow control device to prevent the exceedence of the manufacturer's recommended design flow.

(vii) The AGRU shall be located so as to permit easy access for maintenance.

(viii) No fixture or drain other than those listed in subsection (A) of this section shall be connected to the AGRU unless approved by the authorized agent.

(ix) All AGRUs shall be designed and installed in accordance with the manufacturer's specifications.

Existing food service establishments undergoing significant renovation, or those designated in sewer service areas experiencing problems, such as grease blockages, may be required by the Director to install or upgrade existing FOG removal systems to satisfy the requirements of these regulations.

1508.4. Amalgam Separators. Any dental practice that is required by Env-Wq 306 to have an amalgam separator shall properly install and maintain the separator.

1508.5. Additional Pretreatment Measures. Whenever deemed necessary, the Director may require users to restrict their discharge during peak flow periods, designate that certain wastewater be discharged only into specific sewers, relocate and/or consolidate points of discharge, separate sanitary sewage wastestreams from industrial wastestreams, and impose such other conditions as are deemed necessary to protect the POTW and determine the user's compliance with the requirements of these regulations.

The Director may require any person discharging into the POTW to install and maintain, on their property and at their expense, a suitable storage and flow-control facility to ensure equalization of flow. An IDP may be issued solely for flow equalization.

1508.6. Monitoring Facilities. When required by the Town, the Owner of any property serviced by a Building Sewer carrying industrial wastes shall install a suitable control structure together with such necessary meters and other appurtenances in the Building Sewer to facilitate observation, sampling, and measurement of the wastes. Such structure, when required, shall be accessible and safely located, and shall be constructed in accordance with plans approved by the Director. The structure shall be installed by the owner(s) at the owner's expense, and shall be maintained by the owner's so as to be safe and accessible at all times. All industries discharging into a public sewer shall perform such monitoring of their discharges as the Town may reasonably require including installation, use and maintenance of monitoring equipment, keeping records and reporting the results of such monitoring to the Town. The failure of an industrial user to keep its monitoring facility in good working order shall not be grounds for the user to claim that sample results are unrepresentative of its discharge. Such records shall be made available upon request by the Town to other agencies having jurisdiction over discharges to the receiving waters.

Users with the potential to discharge flammable substances shall, at the discretion of the Director, install and maintain an approved combustible gas detection meter and alarm.

1508.7. Accidental Discharge/Slug Control Plans. The Director may evaluate whether an industrial user needs an accidental discharge/slug control plan or other action to control Slug Discharges.

Each industrial user shall provide protection from accidental discharge of prohibited materials or other wastes regulated by these regulations. Facilities to prevent accidental discharge of prohibited materials shall be provided and maintained at the Owner or Operator's own cost and expense. When required by the Director, detailed plans showing facilities and operating procedures to provide this protection and conforming to the spill prevention control regulations of the EPA shall be submitted to the Town for review. Review and acceptance of such plans and operating procedures shall not relieve the industrial user from the responsibility to modify its facility as

necessary to meet the requirements of these regulations. An accidental discharge/slug control plan shall address, at a minimum, the following:

A. Description of discharge practices, including non-routine batch discharges;

B. Description of stored chemicals;

C. Procedures for immediately notifying the POTW of any accidental or slug discharge as required by Section 1511.3 of these regulations; and

D. Procedures to prevent adverse impact from any accidental or slug discharge.

Such procedures include, but are not limited to, inspection and maintenance of storage areas, handling and transfer of materials, loading and unloading operations, control of plant site runoff, worker training, building of containment structures or equipment, measures for containing toxic organic pollutants (including solvents), and/or measures and equipment necessary for emergency response.

1508.8. Best Management Practices Plans. The Director may develop or require any person discharging wastes into the POTW to develop and implement, at their own expense, a Best Management Practices Plan (BMP Plan), also referenced as a pollution prevention plan (e.g., BMPs for commercial kitchen clean-up to reduce FOG load to grease interceptors). The Director may require users to submit as part of the BMP Plan information that demonstrates adherence to the following elements:

Management Support. For changes to be effective, the visible support of top management is required. Management's support should be explicitly stated and include designation of a pollution prevention coordinator, goals, and time frames for reductions in volume and toxicity of wastestreams, and procedures for employee training and involvement.

Process Characterization. A detailed process waste diagram shall be developed that identifies and characterizes the input of raw materials, the outflow of products, and the generation of wastes.

Waste Assessment. Estimates shall be developed for the amount of wastes generated by each process. This may include establishing and maintaining waste accounting systems to track sources, the rates and dates of generation, and the presence of hazardous constituents.

Analysis of Waste Management Economics. Waste management economic returns shall be determined based on the consideration of:

A. Reduced raw material purchases;

B. Avoidance of waste treatment, monitoring and disposal costs;

C. Reductions in operations and maintenance expenses;

D. Elimination of permitting fees and compliance costs;

E. Reduced liabilities for employee/public exposure to hazardous chemicals and cleanup of waste disposal sites.

Development of Best Management Practices Alternatives. Current and past best management practices activities shall be assessed, including estimates of the reduction in the amount and toxicity of waste achieved by the identified actions. Opportunities for pollution prevention shall then be assessed for identified processes where raw

materials become or generate wastes. Technical information on pollution prevention shall be solicited and exchanged, both from inside the organization and out.

Evaluation and Implementation. Technically and economically feasible pollution prevention opportunities shall be identified and an implementation timetable with interim and final milestones shall be developed. The recommendations that are implemented shall be periodically reviewed for effectiveness.

Recordkeeping. Documentation demonstrating implementation or compliance with best management practices shall be created, retained, and made available as required.

The review and approval of such pollution prevention plans by the Town shall in no way relieve the user from the responsibilities of modifying their facilities as necessary to produce a discharge acceptable to the Town in accordance with the provisions of these regulations.

1509 Industrial Wastewater Discharge Permit (IDP) Application

1509.1. Wastewater Characterization. When requested by the Director, a user must submit information on the nature and characteristics of its wastewater within sixty (60) days of the request. The Director is authorized to prepare a form for this purpose and may periodically require users to update this information.

1509.2. Industrial Wastewater Discharge Permit Requirement.

A. No significant indirect discharger shall discharge wastewater into the POTW without first obtaining an IDP from the Director, except that a significant indirect discharger that has filed a timely and complete application pursuant to Section 1509.4 of these regulations may continue to discharge for the time period specified therein.

B. The Director may require other users to obtain IDPs, or submit an application for an IDP, as necessary to execute the purposes of these regulations.

C. Any violation of the terms and conditions of an IDP shall be deemed a violation of these regulations and subjects the industrial discharge permittee to the enforcement actions set out in Section 1514 of these regulations. Obtaining an IDP does not relieve a permittee of its obligation to comply with all federal and State pretreatment standards or requirements or with any other requirements of federal, State, and local law.

D. A permit fee will be assessed in accordance with the Selectmen's tables of fees and charges. All permittees will pay all Town costs to test, monitor, and report to the EPA and NHDES as required by law for said permit conditions and requirements.

1509.3. State Indirect Discharge Request. Any new industrial waste, or any alteration in either flow or waste characteristics of greater than 20 percent of existing industrial wastewater that is being discharged into the POTW, or that the Director believes could cause interference with the POTW or have an adverse effect on the receiving water or otherwise endanger life, limb, public property or constitute a nuisance, shall be approved by the NHDES Water Division. Such approvals shall be obtained in accordance with Section 1511.2 of these regulations.

1509.4. Industrial Wastewater Discharge Permitting – Existing Connections. Any user required to obtain an IDP who was discharging wastewater into the POTW prior to the effective date of these regulations, and is not currently covered by a valid IDP, and who wishes

to continue such discharges in the future, shall, within sixty (60) days after said date, apply to the Director for an IDP in accordance with Section 1509 of these regulations, and shall not cause or allow discharges to the POTW to continue after one hundred twenty (120) days of the effective date of these regulations except in accordance with an IDP issued by the Director.

1509.5. Industrial Wastewater Discharge Permitting – New Connections. Any user required to obtain an IDP who proposes to begin or recommence discharging into the POTW must obtain an IDP prior to the beginning or recommencing of such discharge. An application for this IDP, in accordance with Section 1509.6 of these regulations, must be filed at least ninety (90) days prior to the date upon which any discharge will begin or recommence.

1509.6. Industrial Wastewater Discharge Permit Application Contents. When required by the Town, persons subject to these rules shall submit an application for an IDP. Such information may include some or all of the following:

A. The name and address of the facility, including the name of the operators and owners.

B. A list of all environmental permits held by or for the facility.

C. A brief description of the nature, average rate of production, and Standard Industrial Classification of the operations carried out at such facility.

D. A listing of all raw materials and chemicals used or stored at the facility that are or could accidentally or intentionally be discharged to the POTW, including usage information and quantities released to the sewer.

E. An identification of the categorical pretreatment standards applicable to each regulated process.

F. An analysis identifying the nature and concentration of pollutants in the discharge.

G. Site plans, floor plans, and details to show all major sources of industrial wastewater and points of discharge.

H. Information showing the measured average daily and maximum daily flow, in gallons per day, to the public sewer from regulated process streams and from other streams.

I. A schedule of actions to be taken to comply with discharge limitations.

J. Details of wastewater pretreatment facilities.

K. Copies of Best Management Practices Plans, Slug Control Plans or other similar plans that describe pollution prevention activities that may exist at the facility.

L. Additional information as determined by the Director may also be required.

Incomplete or inaccurate applications will not be processed and will be returned to the user for revision.

1509.7. Signatories and Certification. All IDP applications and user reports must be signed by an authorized representative of the user and contain the following certification statement:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on

my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

1509.8. Hauled Wastewater..

A. Septic tank waste may be introduced into the POTW only at locations designated by the Director, and at such times as are established by the Director, provided such wastes do not contain unacceptable quantities of toxic pollutants or materials, and provided such discharge does not violate any other special requirements established by the Town. Transport and discharge of such waste shall comply with Section 1516 of this Ordinance.

B. The Director may require generators and/or haulers of hauled industrial waste to obtain Industrial Discharge Permits. The Director may also prohibit the disposal of hauled industrial waste. All other requirements of these Sewer Regulations apply to the discharge of hauled industrial waste.

C. Industrial waste haulers may discharge loads only at locations designated by the Director. No load may be discharged without prior consent of the Director. The Director may collect samples of each hauled load to ensure compliance with applicable standards. The Director may require the industrial waste hauler to provide a waste analysis of any load prior to discharge.

D. Industrial waste haulers shall provide a waste-tracking form for every load. This form shall include, at a minimum, the name and address of the industrial waste hauler, permit number, truck identification, names and addresses of sources of waste, and volume and characteristics of waste. The form shall identify the type of industry, known or suspected waste constituents, and a certification that the wastes are not hazardous wastes.

1510 Industrial Wastewater Discharge Permit Issuance

1510.1. IDP Decisions. The Director will evaluate the data provided by the industrial user and may require additional information. Within thirty (30) days of receipt of a complete IDP application [or ninety (90) days in the case of an application for a new or increased discharge requiring review and approval by the NHDES Water Division], the Director will determine whether or not to issue an IDP. The Director may deny any application for an IDP.

1510.2. IDP Duration. An IDP shall be issued for a specified time period, not to exceed three (3) years for significant indirect dischargers [five (5) years for other users] from the effective date of the permit. An IDP may be issued for a period less than these intervals at the discretion of the Director. Each IDP will indicate a specific date upon which it will expire. IDPs shall be terminated upon cessation of operations or transfer of business ownership, unless notification of such transfer is provided in accordance with Section 1510.6 of these regulations. All IDPs issued to a particular user are void upon the issuance of a new IDP to that user.

1510.3. IDP Contents. An IDP shall include such conditions as are deemed reasonably necessary by the Director to prevent pass through or interference, protect the quality of the water body receiving the wastewater treatment facility's effluent, protect human health and safety, facilitate biosolids management and disposal, and protect against damage to the POTW.

IDPs will contain:

A. User name, street address, mailing address, and daytime telephone number;

B. Dates of IDP issuance and expiration, with a duration that in no event shall exceed five (5) years;

C. The general and specific conditions and prohibitions from these Sewer Regulations that apply to the discharge;

D. A statement that the IDP is nontransferable without prior notification to the Town in accordance with Section 1510.6 of these regulations, and provisions for providing the new owner or operator with a copy of the existing IDP;

E. A list of pollutants, allowable parameters, and discharge limitations'

F. Each condition specified in the NHDES' IDR approval;

G. Identification of applicable federal categorical pretreatment standards;

H. Self-monitoring, sampling, inspection, reporting, and record-keeping requirements. For pollutants to be monitored, these requirements shall include sampling locations, sampling frequencies, and sample types based on these regulations, and State and federal laws, rules and regulations;

I. Notification requirements for:

1. Slug loading;
2. Spills, bypasses, and upsets;
3. Changes in volume or characteristics of the discharge for which a permit revision is not required; and
4. Permit violations.

J. Notification requirements prior to any new or increased discharge;

K. For users with reporting requirements, such reports at a minimum shall require:

1. Periodic monitoring results indicating the nature and concentration of pollutants in the discharge from the regulated processes governed by the IDP and the average and maximum daily flow for these process units;
2. A statement as to whether the applicable pretreatment standards and requirements are being met on a consistent basis and, if not, identification of additional operation and maintenance practices and/or pretreatment systems that are necessary;
3. Submittal of any monitoring results performed in addition to the requirements of the IDP using procedures prescribed in the permit; and
4. Appropriate supporting documentation for items 1 through 3 above.

L. Applicable definitions from these Sewer Regulations;

M. A statement of applicable civil and criminal penalties for violation of pretreatment standards and requirements;

N. Requirement to submit a complete new application at a specified frequency, which shall be not less than once every five years;

O. Requirement to provide a copy of the permit to the NHDES, if the NHDES so requests;

P. Notification that the state has legal authority to take direct action against the user to enforce the provisions of Env-Wq 305.01 in accordance with RSA 485-A:5, IV, reprinted in Appendix C;

Q. A statement that compliance with the IDP does not relieve the permittee of responsibility for compliance with all applicable federal and State pretreatment standards, including those that become effective during the term of the IDP; and

R. Other conditions as deemed appropriate by the Director to ensure compliance with these regulations, and State and federal laws, rules, and regulations.

IDPs may contain, but not be limited to, the following:

A. Requirements to control Slug Discharges, if determined by the Director to be necessary; and

B. Any applicable compliance schedule. This schedule may not extend the time for compliance beyond that required by these regulations, and applicable State and federal laws, rules and regulations.

C. Limitations on the average and/or maximum rate of discharge, time of discharge, and/or requirements for flow regulation and equalization;

D. Requirements for the installation of pretreatment technology, pollution control, or construction of appropriate containment devices, designed to reduce, eliminate, or prevent the introduction of pollutants into the POTW;

E. Requirements for the development and implementation of spill control plans or other special conditions including best management practices necessary to adequately prevent accidental, unanticipated, or nonroutine discharges;

F. Development and implementation of Best Management Practices to control the amount of pollutants discharged to the POTW;

G. The unit charge or schedule of user charges and fees for the management of the wastewater discharged to the POTW;

H. Requirements for installation and maintenance of inspection and sampling facilities and equipment;

1510.4. IDP Appeals. Any person, including the user, may petition the Director to reconsider the terms of an IDP within thirty (30) days of its issuance.

A. Failure to submit a timely petition for review shall be deemed to be a waiver of the administrative appeal.

B. In its petition, the appealing person or user must indicate the IDP provisions objected to, the reasons for this objection, and the alternative condition, if any, it seeks to place in the IDP.

C. The effectiveness of the IDP shall not be stayed pending the appeal.

D. If the Director fails to act within thirty (30) days, a request for reconsideration shall be deemed to be denied. Decisions not to reconsider an IDP, not to issue an IDP, or not to modify an IDP shall be considered final administrative actions for purposes of judicial review.

E. Aggrieved parties may appeal the conditions of the IDP in accordance with Section 1518.2 of these regulations.

The filing of a request by the permittee for an IDP modification does not stay any IDP conditions.

1510.5. IDP Modifications. The Director may modify an IDP for good cause, including, but not limited to, the following reasons:

A. To incorporate any new or revised federal, State, or local pretreatment standards or requirements;

B. To address significant alterations or additions to the user's operation, processes, or wastewater volume or character since the time of IDP issuance;

C. A change in the POTW that requires either a temporary or permanent reduction or elimination of the authorized discharge;

D. Information indicating that the permitted discharge poses a threat to the Town POTW, Town personnel, or the water quality in the receiving waters;

E. Violation of any terms or conditions of the IDP;

F. Misrepresentations or failure to fully disclose all relevant facts in the IDP application or in any required reporting;

G. Revision of or a grant of variance from categorical pretreatment standards pursuant to 40 CFR 403.13;

H. To correct typographical or other errors in the IDP; or

I. To reflect a transfer of the facility ownership or operation to a new owner or operator.

1510.6. IDP Transfer. IDPs may be transferred to a new owner or operator only if the permittee provides at least sixty (60) days advance notice to the Director and the Director approves the IDP transfer. The notice to the Director must include a written certification by the new owner or operator that:

A. States that the new owner and/or operator has no immediate intent to change the facility's operations and processes that generate wastewater to be discharged to the POTW;

B. Identifies the specific date on which the transfer is to occur; and

C. Acknowledges full responsibility for complying with the existing IDP.

Failure to provide the required advance notice of a transfer renders the IDP void as of the date of facility transfer.

1510.7. IDP Termination. The Director may terminate an IDP for good cause as described in Section 1514.6.

1510.8. IDP Reissuance. A user with an expiring IDP shall apply for reissuance of the IDP by submitting a complete IDP application, in accordance with Section 1509.6 of these regulations, a minimum of sixty (60) days prior to the expiration of the user's existing IDP. Under no circumstances shall the permittee continue to discharge without an effective permit. An expired IDP will continue to be effective and enforceable until the IDP is reissued if:

A. The industrial user has submitted a complete IDP application at least sixty (60) days prior to the expiration date of the user's existing permit; and

B. The failure to reissue the IDP, prior to expiration of the previous IDP, is not due to any act or failure to act on the part of the industrial user.

1510.9. Regulation of Waste Received from Other Jurisdictions.

A. If another municipality, or user located within another municipality, contributes wastewater to the POTW, the Town shall enter into an intermunicipal agreement with the contributing municipality.

B. Intermunicipal agreements must receive NHDES approval.

1511 Reporting Requirements

1511.1. Periodic Compliance Reports.

A. All Significant Indirect Dischargers shall submit periodic reports as required, but not less often than semiannually, indicating the nature and concentration of pollutants in the discharge from the regulated processes governed by pretreatment standards and the average and maximum daily flow for the reporting period. The reports shall state whether the applicable categorical pretreatment standards and effluent limitations are being met on a consistent basis and, if not, what additional operation and maintenance practices and/or pretreatment are necessary. In cases where compliance with a Best Management Practice or pollution prevention alternative is required, the industrial user shall submit documentation as required by the Town or the applicable Standards to determine compliance status of the user. All periodic compliance reports must be signed and certified in accordance with Section 1509.7 of these regulations. Additional requirements for such reports may be imposed by the Director.

B. All wastewater samples must be representative of the user's discharge. Wastewater monitoring and flow measurement facilities shall be properly operated, kept clean and orderly, and maintained in good working order at all times. The failure of a user to maintain its monitoring facility in satisfactory working condition shall not be grounds for the user to claim that sample results are unrepresentative of its discharge.

C. If a user subject to the reporting requirements in the previous paragraph of this section monitors any pollutant more frequently than required by these regulations, using procedures prescribed in Sections 1511.7 and 1511.8, the results of this monitoring shall be included in the report.

1511.2. Reports of Changed Conditions. Each user must notify the Director of any planned significant changes to the user's operations or system that might alter the nature, quality, or volume of its wastewater at least ninety (90) days before the change.

A. The Director may require the user to submit such information as deemed necessary to evaluate the changed condition, including the submittal of an IDP application under Section 1509.6 of these regulations and all information required by the NHDES under the Env-Wq 305.10 *Industrial Wastewater Discharge Request* rules.

B. Upon approval of the request by the Town, an *Industrial Wastewater Indirect Discharge Request Application* may be submitted by the Town to the NHDES Water Division based on information submitted by the user. All applicable NHDES Water Division review fees shall be provided by the user.

C. Upon approval of the discharge request by the NHDES Water Division, the Director may issue an IDP under Section 1510 of these regulations or modify an existing IDP under Section 1510 of these regulations in response to changed conditions or anticipated changed conditions.

D. For purposes of this requirement, significant changes include, but are not limited to, flow increases of twenty percent (20%) or greater, and the discharge of any previously unreported pollutants.

1511.3. Reports of Slugs or Potentially Adverse Discharges.

A. All industrial users shall telephone and notify the Director immediately of all discharges that could cause problems to the POTW, including any slug loadings as defined in Section 1500 of these regulations. This notification shall include the location of the discharge, type of waste, concentration and volume, if known, and corrective actions conducted by the user.

B. Within five (5) days of the unauthorized discharge, the industrial user shall, unless waived by the Director, submit a written report fully describing the incident, the pollutants involved, the cause of the discharge and the measures taken and to be taken to prevent recurrence. Such notification shall not relieve the user of any expense, loss, damage, or other liability that may be incurred as a result of damage to the POTW, natural resources, or any other damage to person or property; nor shall such notification relieve the user of any fines, penalties, or other liability that may be imposed pursuant to these regulations. This report must be signed and certified in accordance with Section 1509.7 of these regulations.

C. A notice shall be permanently posted plainly visible to an industrial user's personnel responsible for managing wastewater discharges that instructs all employees whom to call in the event of a spill, slug discharge, pretreatment upset or bypass. Employers shall ensure that all employees who may cause such a discharge to occur know of the required notification to the Director.

D. The permittee shall notify the Town immediately of any changes at its facility that may affect the potential for a slug discharge. The Town may require the permittee to develop or modify a Slug Control Plan or take other actions to control slug discharges.

1511.4. Reports from Other Users. All non-significant users and users not required to obtain an IDP shall provide reports as the Director may require.

1511.5. Notice of Violation / Repeat Sampling and Reporting. If sampling performed by an industrial user indicates a violation (*i.e.*, exceedance of a limit), the presence of a previously unreported pollutant, or an exceedance of a screening level, the user shall notify the Town within twenty-four (24) hours of becoming aware of the exceedance. For violations (and unreported pollutants and screening level exceedances at the discretion of the Town), the user shall also repeat the sampling and submit the results as soon as possible but no later than thirty (30) days after becoming aware of the violation, except that the industrial user is not required to resample if:

A. The industrial user performs sampling at least once per month, or

B. The Town performs sampling at the industrial user between the time when the user performs its initial sampling and the time when the user receives the noncompliant sampling results.

1511.6. Discharge of Hazardous Waste. Any discharge into the POTW of a substance that, if otherwise disposed would be a hazardous waste under 40 CFR Part 261 or are hazardous wastes as defined in the NHDES Hazardous Waste Rules, is prohibited.

1511.7. Analytical Requirements. All measurements, tests, and analyses of the characteristics of waters and wastes to which reference is made in these regulations shall be determined in accordance with EPA approved methods published in the Code of Federal Regulations, Title 40, Part 136 (40 CFR Part 136) or as may be revised. Where 40 CFR Part 136 does not contain sampling or analytical techniques for the pollutant in question, sampling and analysis shall be performed by using validated analytical procedures, including procedures suggested by the POTW or other parties.

A laboratory that is currently certified by the State of New Hampshire to perform the requested tests shall perform all analyses. Complete copies of analytical laboratory reports, including all relevant quality control data, shall be submitted as part of each IDP application or report.

1511.8. Sample Collection.

A. Except as indicated in paragraph (B), below, the user shall collect wastewater samples using 24-hour flow-proportional composite collection techniques. In the event flow-proportional sampling is not feasible, the Director may authorize the use of time-proportional sampling, or grab sampling where the user demonstrates that this will provide a representative sample of the effluent being discharged. In addition, grab samples may be required to demonstrate compliance with instantaneous maximum allowable discharge limitations (*e.g.*, screening levels established to protect worker health and safety). A single grab sample may also be used in place of multiple grabs or a composite sample with approval of the Director when:

1. The effluent is not discharged on a continuous basis (*i.e.*, batch discharges of short duration), and only when the batch exhibits homogeneous characteristics (*i.e.*, completely mixed) and the pollutant can be safely assumed to be uniformly dispersed;
2. Sampling is at a facility where the Director determines that a statistical relationship can be established between previous grab samples and composite data; and
3. The waste conditions are relatively constant (*i.e.*, are completely mixed and homogeneous) over the period of the discharge.

B. Samples for temperature, pH, cyanides, oil & grease, total phenols, sulfides, and volatile organic compounds shall be obtained using grab collection techniques.

C. The industrial user is required to collect the number of grab samples necessary to assess and assure compliance with applicable pretreatment standards and requirements.

D. Using protocols (including appropriate preservation) specified in 40 CFR Part 136 and appropriate EPA guidance, multiple grab samples collected during a 24-hour period may be composited prior to the analysis as follows: for cyanide, total phenols, and sulfides the samples may be composited in the laboratory or in the field; for volatile organics and oil and grease, the samples may be composited in the laboratory.

E. Samples shall be collected by individuals who are properly qualified, through verifiable training and experience, to perform the type of sampling required. The integrity of all samples shall be ensured by following established chain-of-custody practices for evidentiary samples. Sampling and chain-of-custody records shall be maintained. Copies of chain-of-custody records shall be submitted as part of each analytical report.

1511.9. Timing. Written reports will be deemed to have been submitted on the date postmarked. For reports that are not mailed, postage prepaid, into a mail facility serviced by the United States Postal Service, the date of receipt of the report shall govern.

1511.10. Recordkeeping. Users subject to the reporting requirements of these regulations shall retain, and make available for inspection and copying, all records of information obtained pursuant to any monitoring activities required by these regulations and any additional records of information obtained pursuant to monitoring activities undertaken by the user independent of such requirements. The Town may require a user to submit these records upon written request to local or state officials. Records shall include the date, exact location, method, and time of sampling, and the name of the person(s) obtaining the samples; chain of custody; quality assurance/quality control records; the dates analyses were performed; who performed the analyses; the analytical techniques or methods used; and the results of such analyses. These records shall remain available for a period of at least five (5) years. This period shall be automatically extended for the duration of any litigation concerning the user or the Town, or where the user has been specifically notified of a longer retention period by the Director.

1512 Powers and Authority of Inspectors

1512.1. Duly authorized employees of the Town bearing proper credentials and identification shall be permitted to enter all properties for the purposes of inspection, observation, measurements, sampling, copying of records and testing pertinent to discharge to the POTW and the performance of any additional duties in accordance with the provisions of these regulations. At least once a year the Town will inspect each significant indirect discharger for compliance with the discharge permit, and this inspection shall include sampling if the Town determines that sampling is necessary to determine compliance.

1512.2. Duly authorized employees are authorized to obtain information concerning industrial processes which have a direct bearing on the kind and source of discharge to the wastewater collection system. An industry may declare certain information confidential, subject to the requirements in Section 1513 of these regulations.

1512.3. While performing the necessary work on private properties referred to in Section 1512.1, above, duly authorized employees of the Town shall observe all safety rules applicable to the premises, and the owner shall be held harmless for injury or death to Town employees, and the Town shall indemnify the owner against loss or damage to its property by Town employees and against liability claims and demands for personal injury, or property damage asserted against the owner and growing out of the gauging and sampling operation, except as such may be pulsed by negligence or failure of the owner to maintain safe conditions.

1512.4. Where a user has security measures in force that require proper identification and clearance before entry into its premises, the user shall make and maintain all necessary arrangements so that, upon presentation of suitable identification, the Director will be permitted to enter without delay for the purposes of performing specific responsibilities.

1512.5. The Director shall have the right to set up on the user's property, or require installation of, such devices as are necessary to conduct sampling and/or metering of the user's operations.

1512.6. The Director may require the user to install monitoring equipment as necessary. The facility's sampling and monitoring equipment shall be maintained at all times in a safe and proper operating condition by the user at its own expense. All devices used to measure wastewater flow and quality shall be calibrated in accordance with the manufacturer's recommendations (but at least annually) to ensure their accuracy. Calibration records shall be maintained.

1512.7. Any temporary or permanent obstruction to safe and easy access to the facility to be inspected and/or sampled shall be promptly removed by the user at the written or verbal request of the Director and shall not be replaced. The costs of clearing such access shall be borne by the user.

1512.8. Unreasonable delays in allowing the Director access to the user's premises, sampling or inspection sites, or pretreatment records shall be a violation of these regulations.

1512.9. The Director and/or other duly authorized employees of the Town, bearing proper credentials and identification, shall be permitted to enter all private properties through which the Town holds a duly negotiated easement for the purposes of, but not limited to, inspection, observation, measurement, sampling, repair, and maintenance of any portion of the wastewater facilities lying within said easement. All entry and subsequent work, if any, on said easement, shall be done in full accordance with the terms of the duly negotiated easement, pertaining to the private property involved.

1512.10. If the Director has been refused access to a building, structure, or property, or any part thereof, and is able to demonstrate probable cause to believe that there may be a violation of these regulations, or that there is a need to inspect and/or sample as part of a routine inspection and sampling program of the Town designed to verify compliance with these regulations or any permit or order issued hereunder, or to protect the overall public health, safety and welfare of the community, then the Director may obtain an administrative inspection warrant under RSA 595-B.

1513 Confidential Information / Public Participation

1513.1. Information and data about a user obtained from reports, questionnaires, IDP applications, IDPs, monitoring programs, and from Town inspection and sampling activities, shall be available to the public without restriction unless the user specifically requests, and is able to demonstrate to the satisfaction of the Town, that the release of such information would divulge information, processes or methods of production entitled to protection as trade secrets under applicable law. Any such request must be asserted at the time of submittal of the information or data.

1513.2. Wastewater constituents and characteristics and other "effluent data" as defined by 40 CFR 2.302 will not be recognized as confidential information and will be available to the public without restriction.

1513.3. When requested and demonstrated by the industrial user furnishing a report that such information should be held confidential, the portions of a report which might disclose trade secrets or secret processes shall not be made available for inspection by the public but shall be made available immediately upon request to governmental agencies for uses related to these regulations, the NPDES program or pretreatment program, and in enforcement proceedings involving the person furnishing the report.

1514 Enforcement and Penalties

1514.1. Notice of Violation. The Town, upon being informed in writing of a possible violation of these regulations or on its own initiative, shall make or cause to be made an investigation of facts and an inspection of the premises where such violations may exist. When investigation reveals evidence of any violation, or whenever the Director finds that any person has violated or is violating these regulations, or a IDP or order issued hereunder, the Director shall give written notice, either hand delivered or by certified mail with receipt acknowledged, of such violation to the owner and the occupant of such premises. The Town shall demand in such notice that such violation be abated within some designated reasonable time. Within the time period specified in the notice, an explanation of the violation and a plan for the satisfactory correction and prevention thereof, to include specific required actions, shall be submitted to the Director. Submittal of this plan in no way relieves the person of liability for any violations occurring before or after receipt of the Notice of Violation.

If, after such notice and demand, such violation has not been abated within the time specified, the Town shall institute appropriate action to prevent, correct, restrain or abate any violation of the Ordinance. The Town or its agents have the authority to enter the premises, cause the violation to be abated and recover any direct expenses. Nothing in this section shall limit the authority of the Director to take any action, including emergency actions or any other enforcement action, without first issuing a Notice of Violation.

1514.2. Compliance Schedule Development. The Director may require any user that has violated, or continues to violate, any provision of these regulations, an IDP or order issued hereunder, or any other pretreatment standard or requirement, to develop a compliance schedule. A compliance schedule pursuant to this section shall comply with the following conditions:

A. The schedule shall contain progress increments in the form of dates for the commencement and completion of major events leading to the construction and operation of additional pretreatment required for the user to meet the applicable pretreatment standards (such events include, but are not limited to, retaining an engineer, completing preliminary and final design plans, executing contracts for major components, commencing and completing construction, and beginning and conducting routine operation);

B. No increment referred to above shall exceed nine (9) months;

C. The user shall submit a progress report to the Director no later than fourteen (14) days following each date in the schedule and the final date of compliance including, as a minimum, whether or not it complied with the increment of progress, the reason for any delay, and, if appropriate, the action being taken by the user to return to the established schedule; and

D. In no event shall more than nine (9) months elapse between such progress reports to the Director.

1514.3. Best Management Practices Plan Development. The Director may develop or require any user that has violated or continues to violate any provision of these regulations, an IDP, or order issued hereunder, or any other pretreatment standard or requirement, to develop a Best Management Practices Plan acceptable to the Director in accordance with Section 1508.8 of these regulations. The Best Management Practices Plan must specifically address violation(s) for which this action was undertaken. The Best Management Practices Plan shall be developed using good engineering judgment and shall be submitted to the Director no later than sixty (60) days after the user was notified of this requirement.

1514.4. Show Cause Orders. The Director may order any person that causes or contributes to a violation of these regulations, IDP or order issued hereunder, or any other pretreatment standard or requirement, to appear before the Director and show cause why the proposed enforcement action should not be taken. Notice shall be served on the person specifying the time and place for the meeting, the proposed enforcement action, the reasons for such action, and a request that the person show cause why this proposed enforcement action should not be taken. The notice of the meeting shall be served personally or by registered or certified mail (return receipt requested) at least ten (10) days prior to the hearing. Such notice may be served on any person or authorized representative of a user. Whether or not a duly notified person appears as noticed, immediate enforcement action may be pursued. A show cause hearing shall not be a bar against, or prerequisite for, executing any other action against the person.

1514.5. Compliance Orders. When the Director finds that a person has violated or continues to violate the ordinance or a permit or order issued thereunder, the Director may issue an order to the person responsible for the discharge directing that, following a specified time period, sewer service may be discontinued unless adequate treatment facilities, devices, or other related appurtenances have been installed and are property operated. Orders may also contain such other requirements as might be reasonably necessary and appropriate to address the noncompliance, including the installation of pretreatment technology, additional self-monitoring, and management practices.

1514.6. IDP Termination. The Director may terminate a user's IDP for good cause, including but not limited to the following:

A. Violation of IDP conditions;

B. Failure to accurately report the wastewater constituents and characteristics of its discharge;

C. Failure to report significant changes in operations or wastewater constituents and characteristics;

D. Misrepresentation or failure to fully disclose all relevant facts in the IDP application;

E. Refusal of reasonable access to the user's premises for the purpose of inspection, monitoring, or sampling;

F. Falsifying self-monitoring reports;

G. Tampering with monitoring equipment;

H. Failure to pay fines;

I. Failure to pay sewer charges or fees;

J. Failure to meet compliance schedules;

K. Failure to complete a wastewater survey;

L. Failure to provide advance notice of the transfer of a permitted facility;

M. Discharging wastewater that presents an imminent hazard to the public health, safety or welfare, or to the local environment; or

N. Violation of any pretreatment standard or requirement, or this Ordinance or order issued hereunder, or any applicable State or federal law.

1514.7. Termination of Discharge. Any user who violates a Section 1514.6 criteria, or fails to cease and desist from any discharge of wastewater upon termination of their IDP for that discharge, is subject to discharge termination. Such user will be notified of the

proposed termination of its discharge and be offered an opportunity to show cause under Section 1514.4 of these regulations why the proposed action should not be taken. Exercise of this option by the Director shall not be a bar to, or a prerequisite for, taking any other action against the user.

1514.8. Emergency Suspensions. The Town may, after informal notice to a person discharging wastewater to the POTW, immediately halt or prevent any such discharge reasonably appearing to present an imminent endangerment to the health and welfare of the public, or any discharge presenting, or which may present, and endangerment to the environment, or which threatens to interfere with the operation of the POTW.

A. Any person notified of a suspension of its discharge shall immediately terminate or eliminate its wastewater discharge. In the event of a person's failure to immediately comply voluntarily with the suspension order, the Director may implement such steps as deemed necessary, including immediate severance of the sewer connection and entry on private property to halt such discharge, to prevent or minimize damage to the POTW, its receiving stream, or endangerment to any individuals. The Director may allow the person to recommence its discharge when the person has demonstrated to the satisfaction of the Director that the period of endangerment has passed, unless the termination proceedings in Section 1514.7 of these regulations are initiated against the person.

B. A person that is responsible, in whole or in part, for any discharge presenting imminent endangerment shall submit a detailed written statement, describing the causes of the harmful contribution and the measures implemented to prevent any future occurrence, to the Director prior to the date of any show cause or termination hearing under Sections 1514.4 or 1514.7 of these regulations.

Nothing in this section shall be interpreted as requiring a hearing prior to any emergency suspension under this section.

1514.9. Recovery of Expenses. Any person violating any of the provisions of these regulations shall become liable to the Town for any expense, loss or damage occasioned by the Town, by reason of such violations.

1514.10. If any Person shall fail, or refuse, upon receipt of a notice of the Town, in writing, to remedy any unsatisfactory condition with respect to a Building Sewer, within forty-five (45) days of receipt of such notice, the Town may remedy any unsatisfactory condition with respect to a Building Sewer and may collect from the Owner the costs and expenses thereof by such legal proceedings as may be provided by law. The Town shall have full authority to enter on the Owner's property to do whatever is necessary to remedy the unsatisfactory condition. The 45-day notice period shall not apply to a condition that threatens public health and/or safety.

1514.11. Penalties (Fines). When the Director of Public Works finds that a person has violated, or continues to violate, any provision of this Ordinance, an IDP, or order issued hereunder, or any other Pretreatment Standard or Requirement, the Director of Public Works may fine such user in an amount not to exceed $1,000. (Ref. RSA 31:39 III) Such fines shall be assessed on a per-violation, per-day basis. In the case of monthly or other long-term average discharge limits, fines shall be assessed for each day during the period of violation. The Director of Public Works is authorized to issue citations seeking penalties and for initiating judicial proceedings for penalties that are not paid.

Issuance of a penalty shall not be a bar against, or a prerequisite for, implementing any other action against a person.

1514.12. Civil Penalties. The Town may pursue any other or any combination of remedies for enforcement of this ordinance available to it under applicable law. Each day in which any such violation shall continue shall be deemed a separate offense.

A. Any person who has violated, or continues to violate, any provision of this Ordinance, an IDP, or order issued hereunder, or any other pretreatment standard or requirement shall be liable to the Town for a maximum civil penalty of $10,000 per violation per day, as authorized by RSA 149-I:6, plus actual damages incurred by the POTW. In the case of a monthly or other long-term average discharge limit, penalties shall accrue for each day during the period of the violation.

B. The Town may recover reasonable attorneys' fees, court costs, and other expenses associated with enforcement activities, including sampling and monitoring expenses, and the cost of any actual damages incurred by the Town. The Town shall petition the Court to impose, assess, and recover such sums.

C. In determining the amount of civil liability, the Court shall consider all relevant circumstances, including, but not limited to, the extent of harm caused by the violation, the magnitude and duration of the violation, any economic benefit gained through the violation, corrective actions implemented by the person, the compliance history of the person, and any other factor as justice requires.

D. Filing a suit for civil penalties shall not be a bar against, or a prerequisite for, implementing any other action against a person.

E. The Town shall give notice of the alleged violation to the NHDES within 10 days of commencement of any action under this section. (Ref. RSA 149-I:6)

1514.13. Criminal Penalties. Any person who willfully or negligently violates any provision of this Ordinance, an IDP, or order issued hereunder, or any other pretreatment standard or requirement shall be subject to criminal action under prevailing sections of the criminal code of the State of New Hampshire. The Director shall cooperate with all law enforcement officials having jurisdiction over such criminal conduct in the event that a prosecution is undertaken. Every separate provision violated shall constitute a separate violation. Every day that a violation occurs shall be deemed a separate violation. Additionally, any violation may be referred to the state for criminal prosecution under its powers. (Ref. RSA 485-A:22 and RSA 485-A:5)

1514.14. Nonexclusive Remedies. The remedies provided for in these regulations are not exclusive. The Town may take any, all, or any combination of these actions against a noncompliant person. The Town may pursue other action against any person ser without limitation, including *ex parte* temporary judicial relief to prevent a violation of these regulations. Further, the Town is empowered to pursue more than one enforcement action against any noncompliant person

1515 Affirmative Defenses to Discharge Violations

1515.1. Upset.

A. For the purposes of this section, "upset" means an exceptional incident in which there is unintentional and temporary noncompliance with pretreatment standards due to factors beyond the reasonable control of the user. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

B. An upset shall constitute an affirmative defense to an action brought for noncompliance with pretreatment standards if the requirements of paragraph (C), below, are met.

C. A user who intends to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

1. An upset occurred and the user can identify the cause(s) of the upset; and
2. At the time of the upset, the facility was being operated in a prudent and workman-like manner and in compliance with applicable operation and maintenance procedures;
3. The user has submitted the following information to the Director within twenty-four (24) hours of becoming aware of the upset (if this information is provided orally, a written submittal must be provided within five (5) days):
   a. A description of the discharge and cause of noncompliance;
   b. The period of noncompliance, including exact dates and times or, if not corrected, the anticipated time the noncompliance is expected to continue; and
   c. Action being implemented and/or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

D. In any enforcement proceeding, the user seeking to establish the occurrence of an upset shall have the burden of proof.

E. Users will have the opportunity for a judicial determination on any claim of upset only in an enforcement action brought for noncompliance with pretreatment standards.

F. A user shall control production of all discharges to the extent necessary to maintain compliance with pretreatment standards upon reduction, loss, or failure of its treatment facility until the facility is restored or an alternative method of treatment is provided. This requirement applies in the situation where, among other things, the primary source of power of the treatment facility is reduced, lost, or fails.

1515.2. Prohibited Discharge Standards. A user shall have an affirmative defense to an enforcement action brought against it for noncompliance with the general prohibitions in Section 1507.1 of these regulations or the specific prohibitions in Section 1507.2 of these regulations if it can prove that it did not know, or have reason to know, that its discharge, alone or in conjunction with discharges from other sources, would cause pass through or interference and that either.

A. A local limit exists for each pollutant discharged and the user was in compliance with each limit directly prior to, and during, the pass through or interference.

B. No local limit exists, but the discharge did not change substantially in nature or constituents from the user's prior discharge when the Town was regularly in compliance with its NPDES permit, and in the case of interference, was in compliance with applicable biosolids use or disposal requirements.

1515.3. Bypass

A. For the purposes of this section,

1. "Bypass" means the intentional diversion of wastestreams from any portion of a user's treatment facility.

2. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

B. A user may allow any bypass to occur that does not cause pretreatment standards or requirements to be violated, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provision of paragraphs (C) and (D) of this section.

C. The user shall provide the following notifications for bypass events:

1. If a user is aware in advance of the need for a bypass, the user shall submit prior notice to the Director, at least ten (10) days before the date of the bypass, if possible;

2. A user shall submit verbal notice to the Director of an unanticipated bypass that exceeds applicable pretreatment standards within twenty-four (24) hours from the time the user becomes aware of the bypass. A written submittal shall also be provided within five (5) days of the time the user becomes aware of the bypass. The written submittal shall contain a description of the bypass and its cause; the duration of the bypass, including exact dates and times, and, if the bypass has not been corrected, the anticipated time it is expected to continue; and steps implemented or planned to reduce, eliminate, and prevent reoccurrence of the bypass. The Director may waive the written report on a case-by-case basis if the oral report has been received within twenty-four (24) hours.

D. A bypass of the treatment system is prohibited, and the Director may initiate enforcement action against a user for a bypass, unless:

1. The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

2. There were no feasible alternatives to the bypass, including the use of auxiliary treatment, or retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance; and

3. The user submitted notices as required under paragraph (C) of this section.

E. The Director may approve an anticipated bypass, subsequent to considering its adverse effects, if the Director determines that it will satisfy the three conditions listed in paragraph (D) of this section.

1516 Septage Disposal

1516.1. No person shall discharge hauled septage into the Town's wastewater POTW who does not hold a septage hauler permit issued pursuant to RSA 485-A:4, XVI-a. A copy of such permit shall be filed by the permit holder with the Town. Upon renewal or revocation of such permit, the hauler shall be responsible for notification of such renewal or revocation to the Town. The Director may limit the quantities of septage that can be received or refuse to receive septage to ensure proper operation of the treatment facility pursuant to RSA 486:13.

1516.2. Septage Hauler Requirements.

A. A permitted hauler may discharge septage to the facilities provided at the Town's wastewater treatment facility only after paying the charges as set forth in Section 1516.5 of this Ordinance.

B. Those persons, firms, corporations, municipal subdivisions or institutions that conform to state definition of "RVs" shall dispose of such septage as human excrement or other putrescible materials at the dates, times, and locations designated by the Director.

C. No person, firm, corporation, municipal subdivision or institution shall discharge any toxic, poisonous, radioactive solids, liquids or gases, or the contents of grease, gas, oil and/or sand interceptors into the Town's wastewater treatment facility without specific authorization of the Director.

1516.3. Temporary Septage Permits. The Director may issue a temporary permit to allow the discharge of septage at a point of discharge other than the wastewater treatment facility in a situation where such temporary discharge point is necessary to protect the health and welfare of the Town. The Director shall issue such permit upon such terms and conditions as the Director deems to be in the best interests of the Town. The temporary permit shall not be valid for a period exceeding twelve (12) months. The Director shall have the right to revoke or suspend the temporary permit in the event that the terms and conditions are not met.

1516.4. Septage Permits.

A. Any septage hauler who intends to dispose of septage within the limits of the Town shall first obtain a permit from the Town.

B. Such permit as issued by the Town shall identify:

1. The motor vehicle;
2. The capacity of the tank;
3. The NHDES Permit Number; and
4. Any other details of compliance with NHDES rules.

C. The following conditions shall constitute conditions precedent to the issuance of each permit by the Town:

1. Each septic tank truck shall be equipped with either a sight level by which the quantity of the contents of each tank may be ascertained by sight or an

access port through which the quantity of the contents of each truck may be ascertained by depth measurements;

2. Prior to discharging the load, the hauler shall record the following information in a log at the POTW:

   a. The hauler's name;

   b. Date;

   c. Time of disposal;

   d. Volume disposed;

   e. Origin of load (property owner's name, address, and telephone number); and

   f. Nature of the waste (e.g., grease or septage) being disposed.

3. The hauler shall be responsible to see that septage or holding tank wastewater does not leak on the ground near the discharge point, and that all exposed areas were washed to remove traces of septage or holding tank wastewater.

4. Owners of "RVs" who intend to discharger the contents of holding tanks are exempt from the permitting process.

1516.5. Septage Disposal Charge. There shall be a Septage Disposal Charge as established by the Town's current *Fee Schedule* for the receipt of septage into the Town's POTW for treatment. In the event that the permittee has either a defective sight level, no sight level attached to the track, and/or no access to the contents of the truck for depth measurement, the permittee shall be charged according to the full tank capacity at the time of discharge or by other method determined by the Director.

1517 Conflict of Ordinance

1517.1. If a provision of this Ordinance is found to be in conflict with any provision of zoning, building, safety, health or other ordinance or code of the Town, the State of New Hampshire, or the Federal Government existing on or subsequent to the effective date of this Ordinance, that provision, which in the judgment of the Town establishes the higher standard of safety and protection of health, shall prevail.

1517.2. The invalidity of any section, clause, sentence or provision of this Ordinance shall not affect the validity of any other part of this Ordinance, which can be given effect without such invalid part or parts.

1518 Interpretation of Requirements

1518.1. Interpretation. The provisions of this Ordinance with respect to the meaning of technical terms and phrases, the classification of different types of sewers, the regulations with respect to installing or constructing connections to sewers or drains, and other technical matters shall be interpreted and administered by the Director acting in and for the Town of Exeter, New Hampshire through the Board of Selectmen.

1518.2. Appeals. Any party aggrieved by any decision, regulation or provision under this Ordinance, as amended, from time to time, shall have the right of appeal within thirty (30) calendar days of said decision to the Director, who shall issue a decision within thirty (30) calendar days. If said appeal is denied by the Director, then the aggrieved

party shall have the right to appeal to the Exeter District Court for equitable relief, provided that said appeal is entered within thirty (30) calendar days from the issuance of the decision of the Director.

1519 Modifications

The Town reserves the right to adopt, from time to time, additional rules and regulations as it shall deem necessary and proper relating to connections with a sewer and the POTW, which additional rules and regulations, to the extent appropriate, shall be a part of these regulations.

1520 Bell and Flynn Agreement (Agreement terminated 12/19/94)

1521 Oak Haven Sewer District (Agreement terminated 04/03/95)

1522 Ordinance in Force

This ordinance shall be in full force and effect from and after its passage, approval, recording, and publications as provided by law.

Duly enacted and ordained this ____ day of _____ by the Board of Selectmen of the Town of Exeter in Rockingham County, State of New Hampshire, at a duly noticed and duly held session of the said Board of Selectmen.

Exeter, New Hampshire

By:

_____ _____

_____ _____

_____ _____

_____ _____

Chapter 15 Sewer Regulations

TABLE OF CONTENTS

CHAPTER 15 SEWER REGULATIONS

1500 Purpose and Definitions

The rules and regulations herein set forth for the maintenance and operations of the Exeter Municipal Publicly Owned Treatment Works (POTW) established by the Selectmen of the Town of Exeter as necessary or desirable for the efficient operation of said POTW and for accomplishing the purposes of RSA 231, as amended, and for the protection of the health and safety of the people of Exeter and for accomplishing the purposes of RSA 147 and RSA 485-A, as amended.

Pursuant to RSA 149-I and RSA 147, or revisions thereto, and every other authority thereto enabling, the Selectmen of Exeter enact and ordain the following Rules and Regulations.

Acronyms - The following acronyms, when used in these regulations, shall have the following designated meanings:

- BOD - Biochemical Oxygen Demand
- CFR - Code of Federal Regulations
- COD - Chemical Oxygen Demand
- EPA - United States Environmental Protection Agency
- gpd - gallons per day
- IDP - Industrial Wastewater Discharge Permit
- mg/L - milligrams per liter
- NHDES - New Hampshire Department of Environmental Services
- NPDES - National Pollutant Discharge Elimination System
- POTW - Publicly Owned Treatment Works
- RSA New Hampshire Revised Statutes Annotated
  - RSA 147 - Public Health / Nuisances; Toilets; Drains; Expectoration; Rubbish and Waste
  - RSA 149-I - Public Health / Sewers
  - RSA 231 - Transportation / Cities, Towns and Village District Highways
  - RSA 31:39 - Towns, Cities, Village Districts, And Unincorporated Places / Powers and Duties of Towns, Purpose and Penalties
  - RSA 485-A - Water Management and Protection / Water Pollution and Waste Disposal
  - RSA 595-B - Proceedings in Criminal Cases / Administrative Inspection Warrants
- TSS - Total Suspended Solids
- U.S.C. - United States Code
- °F , °C - degrees Fahrenheit, degrees Celsius

Definitions – Unless the context specifically and clearly indicates otherwise, the meaning of terms and phrases used in these regulations shall be as follows:

Authorized Representative of the User:

1. If the user is a corporation:
   a. The president, secretary, treasurer, or a vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or
   b. The manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions that govern

the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiate and direct other comprehensive measures to assure long-term compliance with environmental laws and regulations; can ensure that the necessary systems are established or actions taken to gather complete and accurate information for control mechanism requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedure

2. If the user is a partnership or sole proprietorship: a general partner or proprietor, respectively.

3. If the user is a federal, State, or local governmental facility: a director or the highest official appointed or designated to directly oversee the operation and performance of the activities of the government facility, or their designee.

4. The individuals described in paragraphs (1) through (3), above, may designate another authorized representative if the authorization is in writing, the authorization specifies the individual or position responsible for the overall operation of the facility from which the discharge originates or having overall responsibility for environmental matters for the user, and the written authorization is submitted to the Town.

Best Management Practices (BMPs): Schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to implement the pollutant control prohibitions of these regulations. BMPs also include treatment requirements, operating procedures and practices to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw materials storage.

Biochemical Oxygen Demand (BOD): The quantity of oxygen expressed in milligrams per liter, utilized in the biochemical oxidation of organic matter under standard laboratory procedures (as prescribed in the latest edition of "Standard Methods for the Examination of Water and Wastewater") in five (5) days at 20 degrees Centigrade.

Building Sewer: The connection between the tap at the Town sanitary sewer and the owner's source of wastewater, and shall include all the pipe fittings and couplers necessary to make the connections (including those portions located in the public right of way.)

Bypass: The intentional diversion of wastestreams from any portion of a pretreatment or wastewater treatment facility.

Categorical Pretreatment Standard: Any regulation containing pollutant discharge limits promulgated by EPA in accordance with Section 307(b) and (c) of the Clean Water Act (33 U.S.C. § 1317) that applies to a specific category of industrial users and that are found in 40 CFR, Subchapter N, Parts 405 through 471.

Cleanout: A means for inserting cleaning tools, for flushing, or for inserting an inspection light into sewers at bends.

Composite Sample: The sample resulting from the combination of individual wastewater samples taken at selected intervals based on an increment of either flow or time.

Conservative Pollutant: A pollutant that is presumed not to be destroyed, biodegraded, chemically transformed, or volatilized within the POTW. Conservative pollutants introduced to a POTW ultimately exit the POTW solely through the POTW's effluent and sludge. Most metals are considered conservative pollutants.

Dilution: Any increase in the use of water as a partial or complete substitute for adequate treatment to achieve compliance with a limitation on the discharge of pollutants.

Director: The Public Works Director who is the person designated by the Town to supervise the operation of the POTW, and who is charged with certain duties and responsibilities by these regulations, or a duly authorized representative.

Domestic Wastewater: See "Sanitary Sewage."

Environmental Protection Agency (EPA): The United States Environmental Protection Agency or, the Region 1 Water Management Division Director, or other duly authorized official of the agency.

Easements: An acquired legal right for the specific use of land owned by others.

Equalization: The process of combining wastewaters to dampen fluctuations in flow or pollutant discharges prior to release to the sanitary sewer or pretreatment facilities. Equalization is normally accomplished in sumps, holding basins, ponds, or tanks.

Excessive: Amounts or concentrations or a constitution of a wastewater which, in the judgment of the Director:

1. May cause damage to the Town wastewater treatment process;
2. May be harmful to a wastewater treatment process;
3. Cannot be removed in the Town treatment works to the degree required to meet the limiting stream classification standards of the receiving water and/or EPA effluent standards;
4. May otherwise endanger life, limb or public property;
5. May constitute a nuisance.

Floatable Oil: Oil, fat or grease in a physical state such that it will separate by gravity from wastewater by treatment in an approved pre-treatment facility. A wastewater shall be considered free of floatable oil if it is properly pretreated and the wastewater does not interfere with the collection system.

Force Main: A pipe or conduit constituting a part of the POTW where pumping is required; providing a connection from a pump station to a pump station or gravity sewer, with limited access from individual properties.

Garbage: Animal and vegetable waste from the domestic and commercial handling, preparation, cooking and dispensing of food, and from the handling, storage and sale of produce.

Grab Sample: A sample that is taken from a wastestream without regard to the flow in the wastestream and over a period of time not to exceed fifteen (15) minutes.

Gravity Sewer: Any pipe or conduit constituting a part of the POTW used or usable for wastewater collection purposes in which wastewater flows by gravity with no pumping required.

Grease: That material removed from a grease interceptor or grease trap serving a restaurant or other facilities requiring such a device. Also means volatile and non-volatile residual fats, fatty acids, soaps, waxes and other similar materials.

Human Excrement and other Putrescible Material: The liquid or solid matter discharged from the human intestinal canal or other liquid or solid waste materials that are likely to undergo

bacterial decomposition; provided, however, that these terms shall not include garbage as defined by RSA 485-A, or revisions thereto.

Improved Property: Any property located within the Town upon which there is erected a structure intended for continuous or periodic habitation, occupancy or use by human beings or animals and from which structure wastewater shall be or may be discharged.

Industrial Establishment: Any room, group of rooms, building or other enclosure used or intended for use in the operation of one (1) business enterprise for manufacturing, processing, cleaning, laundering or assembling any product, commodity or article and from which any industrial wastewater, as distinct from Sanitary Sewage, shall be discharged.

Industrial User (or User): A person who discharges industrial wastewater to the sanitary sewer of the Town.

Industrial Waste: Any liquid, gaseous or solid waste substance from any process or from development of any natural resource by industry, manufacturing, trade, or business.

Industrial Wastewater: Any wastewater that contains industrial waste, as distinct from sanitary sewage or unpolluted water.

Industrial Wastewater Discharge Permit (IDP): The written permit between the Town and an industrial user that discharges wastewater to the POTW, which outlines the conditions under which discharge to the POTW will be accepted.

Instantaneous Maximum Allowable Discharge Limit: The maximum concentration of a pollutant allowed to be discharged at any time, determined from the analysis of any discrete or composited sample collected, independent of the industrial flow rate and the duration of the sampling event.

Interference: A discharge, which alone or in conjunction with a discharge or discharges from other sources, inhibits or disrupts the POTW, its treatment processes or operations or its sludge processes, use or disposal; and therefore, is a cause of a violation of the Town's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of biosolids use or disposal in compliance with any of the following statutory/regulatory provisions or permits issued thereunder, or any more stringent State or local regulations: Section 405 of the Clean Water Act; the Solid Waste Disposal Act, including Title II commonly referred to as the Resource Conservation and Recovery Act (RCRA); any State regulations contained in any State biosolids management plan prepared pursuant to Subtitle D of the Solid Waste Disposal Act; the Clean Air Act; the Toxic Substances Control Act; the Marine Protection, Research, and Sanctuaries Act; and the 40 CFR Part 503 Standards for Sewage Sludge Use and Disposal.

Living Unit: Any portion of a dwelling consisting as a minimum: kitchen facilities, sanitary facilities and sleeping quarters for one family or user.

Local Limits: Specific, enforceable numerical limits on the types and quantities of pollutants that may be discharged to the POTW. Local limits are established by the Town and are distinct from State and federal limitations on the discharge of industrial wastewater to the POTW.

May: Is allowed to (permissive); see also "Shall".

Medical Waste: A waste that is generated or produced as a result of diagnosis, treatment, or immunization of human beings or animals, medical research, or production or testing of bacteria, viruses, spores, discarded live and attenuated vaccines used in human health care or research.

Examples include isolation wastes, infectious agents, human blood and blood products, pathological wastes, chemotherapy wastes, sharps, body parts, contaminated bedding, surgical wastes and specimens, potentially contaminated laboratory wastes, trauma scene wastes, sharps waste and dialysis wastes.

National Pollutant Discharge Elimination System (NPDES) Permit: A permit issued pursuant to Section 402 of the Clean Water Act (33 U.S.C. § 1342).

Natural Outlet: Any channel for the passage of surface or groundwater into a watercourse, pond, ditch, lake or other body of surface or groundwater.

Nonconservative Pollutant: A pollutant that is presumed to be destroyed, biodegraded, chemically transformed, or volatilized within the POTW, to some degree.

Noncontact Cooling Water: Water used for cooling that does not come into direct contact with any raw material, intermediate product, waste product, or finished product and is not degraded in quality by mixing with or addition of industrial waste or pollutants other than heat.

Owner: Any person vested with ownership, legal or equitable, sole or partial, or possession of any improved property.

Pass Through: A condition that exists when a discharge contains substances or their reaction or degradation products that exit the POTW in quantities or concentrations that, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the Town's NPDES permit, including an increase in the magnitude or duration of a violation.

Person: Any individual, partnership, co-partnership, firm, company, association, society, corporation, joint stock company, trust, estate, governmental entity or other legal entity; or their legal representatives, agents, or assigns. This definition includes all federal, State, and local governmental entities.

pH: The logarithm of the reciprocal of the hydrogen ion concentration of a solution, expressed in Standard Units. Solutions with pH values greater than 7 are basic (or alkaline); solutions with pH values less than 7 are acidic.

Pharmaceutical Waste: Means a prescription drug, as defined by RSA 318:1, XVII, or a nonprescription or proprietary medicine, as defined by RSA 318:1, XVIII, which is no longer suitable for its intended purpose or is otherwise being discarded.

Pollutant: Dredged spoil, solid waste, incinerator residue, filter backwash, garbage, wastewater treatment sludges, munitions, medical wastes, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, municipal, agricultural and industrial wastes, and certain characteristics of wastewater (*e.g.*, pH, temperature, TSS, turbidity, color, BOD, COD, toxicity, or odor).

Pollution Prevention: The use of processes, practices or products that reduce or eliminate the generation of pollutants and wastes or that protect natural resources through equipment or technology modifications; process or procedure modifications; reformulation or redesign of products; substitution of raw materials; and improvements in housekeeping, maintenance, training, or inventory control. The term "pollution prevention" does not include any practice that alters the physical, chemical, or biological characteristics or the volume of a hazardous substance, pollutant, or contaminant through a process or activity that itself is not integral to and necessary for the production of a product or the providing of a service.

Pretreatment: The reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater prior to, or in lieu of, introducing such pollutants into the POTW. This reduction or alteration can be obtained by physical, chemical, or biological processes; by process changes; or by other means, except by diluting the concentration of the pollutants unless allowed by an applicable pretreatment standard.

Pretreatment Requirement: Any substantive or procedural requirement related to pretreatment imposed on a user, other than a pretreatment standard.

Pretreatment Standard or **Standard:** Prohibited discharge standards, categorical pretreatment standards, and local limits.

Private Sewer: Any collector system installed in a private road (not Town accepted) and/or as part of a private subdivision. "Private Sewers" remain the property of the developers, other private parties or their assigns. Until they are accepted by the Town through acceptance of the private party who caused it to be constructed or its successors. "Private Sewers" shall be constructed according to the Public Works Department's *Standard Specifications for Construction of Public Utilities in Exeter, NH.*

Properly Shredded Garbage: The wastes from the preparation, cooking and dispensing of food that have been shredded to such a degree that all particles will be carried freely under the flow conditions normally prevailing in public sewers, with no particle greater than one-half (1/2) inch (1.27 centimeters) in any dimension.

Public Sewer: A generic term for a pipe or conduit that carries wastewater, stormwater, groundwater, subsurface water, or unpolluted water from any source, which is controlled by a governmental agency or public utility.

Publicly Owned Treatment Works (POTW): A "treatment works," as defined by Section 212 of the Clean Water Act (33 U.S.C. §1292) that is owned by the Town. This definition includes any devices or systems used in the collection, storage, treatment, recycling, and reclamation of sanitary sewage or industrial wastes of a liquid nature. It also includes the sewers, pipes, and other conveyances that convey wastewater to the Town's wastewater treatment facility. The term also means the municipality that has jurisdiction over discharges to and the discharges from such a treatment works.

Receiving Waters: Any watercourse, river, pond, ditch, lake, aquifer or other body of surface or groundwater receiving discharge of wastewater.

Sanitary Sewage: Wastewater consisting solely of normal water-carried household and toilet wastes or waste (such as human excrement and gray water [showers, dishwashing operations, etc.]) from sanitary conveniences of residences, commercial buildings, and industrial plants, as distinct from industrial wastewater and unpolluted water. See also: Industrial Wastewater.

Sanitary Sewer: A sewer that carries liquid and water-carried wastes from residences, commercial buildings, industrial facilities, and institutions, together with minor quantities of ground, storm, and surface waters that are not admitted intentionally.

Screening Level: A numerical value for a pollutant concentration above which actions are initiated to evaluate, prevent or reduce adverse environmental or health and safety impacts. A screening level may be adjusted upward or downward within an IDP to account for site-specific conditions at the point of discharge and administered as a local limit.

Septage: Any liquid, solid, or sludge pumped from chemical toilets, vaults, septic tanks, or cesspools or other holding tanks, which have received only sanitary sewage.

Sewer: Ageneric term for a pipe or conduit that carries wastewater (including industrial wastewater, sanitary sewage, or storm water, or groundwater, or subsurface water, or unpolluted water) from any source.

Shall: Is required to (mandatory). See also "May."

Significant Indirect Discharger: Means an industrial user that meets one or more of the following criteria (except as provided in paragraph 6 below):

1. Is subject to national categorical pretreatment standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N;
2. Discharges an average of 10,000 gallons per day or more of industrial wastewater;
3. Discharges industrial wastewater which contributes 5 percent or more of the hydraulic or organic loading to the Wastewater Treatment Facility;
4. Discharges medical/infectious waste, pharmaceutical waste, or radiological waste (unless exempted by the Town under paragraph (6) of this definition); or
5. Is designated as such by the Town as having a reasonable potential for adversely affecting the POTW's operation or performance or for violating any pretreatment standard or requirement.
6. Upon determining that a user meeting the criteria in paragraphs 3 or 4 of this definition has no reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement, the Town may at any time, on its own initiative or in response to a petition received from a user, and in accordance with procedures in 40 CFR 403.3(v)(3), determine that such user should not be considered a significant industrial user

Significant Noncompliance (SNC): An industrial user is in significant noncompliance if its violation meets one of the following criteria:

1. Chronic violations. A pattern of violating a numeric pretreatment standard or requirement, including instantaneous limits (any magnitude of exceedance) sixty-six percent (66%) or more of the time in a 6-month period;
2. Technical Review Criteria (TRC violations). Thirty-three percent (33%) or more of the measurements exceed the same numeric pretreatment standard or requirement, including instantaneous limits, by more than the TRC factor in a 6-month period [The TRC factor is 1.4 for BOD, TSS, oil & grease and 1.2 for all other pollutants except pH.];
3. For pH monitoring, excursions shall be considered significant noncompliance when:
   a. An individual excursion from the allowable range of pH values exceeds 60 minutes; or
   b. An excursion occurs that the Town believes has caused, alone or in combination with other discharges, interference or pass-through; or endangered the health of the POTW personnel or the general public.
4. Any other discharge violation that the Director believes has caused, alone or in combination with other discharges, interference or pass through, including endangering the health of POTW personnel or the general public;

5. Any discharge of pollutants that has caused imminent endangerment to the public or to the environment, or has resulted in the Director's exercise of emergency authority to halt or prevent such a discharge;

6. Failure to meet, within ninety (90) days of the scheduled date, a compliance schedule milestone contained in an IDP or enforcement order for starting construction, completing construction, or attaining final compliance;

7. Failure to provide within forty-five (45) days after the due date, any required reports, including baseline monitoring reports, IDP applications, reports on compliance with categorical pretreatment standard deadlines, periodic self-monitoring reports, and reports on compliance with compliance schedules;

8. Failure to accurately report noncompliance; or

9. Any other violation(s) or group of violations, which may include a violation of Best Management Practices, that the Director determines will adversely affect the operation or implementation of the local pretreatment program.

Slug: Means:

1. Any discharge of water or wastewater that, in concentration of any given constituent or in quantity of flow, exceeds for any period of duration longer than fifteen (15) minutes, more than five (5) times the average twenty-four (24) hour concentration or flow during normal operation;

2. Any discharge at a flow rate or concentration that could cause a violation of the prohibited discharge standards in Section 1507 of these regulations]; or

3. Any discharge of a non-routine, episodic nature, including but not limited to an accidental spill or a non-customary batch discharge, which has a reasonable potential to cause Interference or Pass Through, or adversely affect the collection system and/or performance of the POTW.

State: The State of New Hampshire.

Storm Drain or **Storm Sewer:** A drain or sewer which carries storm and surface waters and drainage, but excludes wastewater and industrial wastes, other than unpolluted water.

Stormwater: Any flow occurring during or following any form of natural precipitation and resulting therefrom, including snowmelt.

Suspended Solids or **Total Suspended Solids:** Total suspended matter that either floats on the surface of, or is in suspension in, water, wastewater or other liquids and that is removable by laboratory filtering as prescribed in "Standard Methods for the Examination of Water and Wastewater" and that is referred to as that fraction not soluble in water. Also referred to as non-filterable residue.

Town: The Town of Exeter, Rockingham County, New Hampshire, a municipality of the State of New Hampshire, acting by and through its Selectmen or in appropriate cases, acting by and through its authorized representatives.

Unpolluted Water: Water of quality equal to or better than the effluent criteria in effect or water that would not cause violation of receiving water quality standards and would not be benefited by discharge to the POTW.

User (or Industrial User): A person who discharges industrial wastewater to the sanitary sewer of the Town.

Wastewater: The spent water of a community. Any combination of the liquid and water-carried wastes from residences, commercial buildings, industrial plants, governmental facilities, and institutions, whether treated or untreated that is contributed to the POTW.

Wastewater Treatment Facility: That portion of the POTW that is used to provide treatment of sanitary sewage and industrial wastewater.

1501 Use of Public Sewers Required

Pursuant to the provisions of RSA 147:8, and 147:11, and any other authority thereto enabling, the owner of any improved property benefited, improved, served or accommodated by any sewer, or to which any sewer is available, shall connect such improved property thereto in such manner as the Town may require, within ninety (90) days after notice to such owner from the Town to make such connection, for the purpose of discharge of all sanitary sewage and industrial wastewater from such improved property into the POTW, subject to such limitations and restrictions as shall be established herein or otherwise shall be established by the Town from time to time. Each such owner shall, within the same time limit, cease and desist from all further discharge of sanitary sewage and/or industrial wastes into any other conduit or pre-existing system whether privately or publicly owned.

1501.1. All sanitary sewage and industrial wastewater from any improved property, after connection of such improved property to the POTW as required under Section 1501, shall be conducted into a sanitary sewer, subject to such limitations and restrictions as shall be established by these regulations or otherwise shall be established by the Town, from time to time.

1501.2. No person shall place or deposit, or permit to be placed or deposited, upon public or private property within the Town of Exeter, any sanitary sewage or industrial wastewater in violation of Section 1501.

1501.3. No person shall discharge or permit to be discharged to any natural outlet within the Town, any sanitary sewage, industrial wastewater, and/or pollutant in violation of Section 1501, except where suitable treatment has been provided which is satisfactory to the Town, and the NHDES.

1501.4. No privy vault, cesspool, sinkhole, septic tank or similar receptacle shall be used and maintained at any time upon any improved property which has been connected to the POTW or which shall be required under Section 1501 to be connected to the POTW. The use of portable chemical toilets is allowed at construction sites and for other temporary purposes provided the wastes are properly disposed off site.

1501.5. No privy vault, cesspool, sinkhole, septic tank or similar receptacle at any time shall be connected to the POTW.

1501.6. No person shall discharge into any public sewer of the Town, or into any fixture that thereafter discharges into any public sewer, any waste or substance until all applicable approvals and permits have been obtained.

1501.7. Except as specifically designated by the Town with reference to some particular sewer, sanitary sewers shall be used only for the conveyance and disposal of sanitary sewage, and for industrial wastewaters that are not objectionable as hereinafter provided. No sanitary sewer shall be used to receive and convey or dispose of any

storm or surface water, subsoil drainage, or unpolluted water. No industrial wastewater shall be directed to a sewer that is not connected to the POTW.

1501.8. No person shall make connection of roof downspouts, foundation drains, areaway drains, or other surface runoff, ground water or unpolluted water to a building sewer or building drain which in turn is connected directly or indirectly to a public sanitary sewer unless such connection is approved by the Town for purposes of disposal of polluted surface drainage.

Stormwater and all other unpolluted drainage shall be discharged to storm sewers, if available, or to a natural outlet approved by the Town. Unpolluted industrial cooling water or unpolluted process waters may be discharged, on approval of the Town, the NHDES and EPA to a storm sewer, if available, or an approved natural outlet.

1501.9. If the intended or designated use of any particular sewer or drain and allowable discharge thereto is unclear, the Director will consider the pertinent facts and make a determination. This determination shall be final and binding.

1502 Sewer Connection Permits and Fees

1502.1. No person shall uncover, repair, connect, make any opening into or use, alter or disturb in any manner any Sewer or any part of the POTW without first executing an "Application for Sewer Service Work" from the Public Works Department and paying all applicable fees.

All work must be performed and completed in accordance with all applicable regulations by persons who are: 1) certified and employed by firms that hold a valid "Utility Pipe Installers" license, or 2) with special permission of the Public Works Director, a residential building owner doing work for themselves, at their residence. Utility pipe installers shall maintain minimum insurance coverage in accordance with Selectmen's Policy 96-05.

1502.2. There shall be charges in all areas of the Town for a sewer tie-in or connection permit for single and multi-residential living units; for commercial establishments; and for establishments producing industrial wastes. Application for a permit must be made at the office of the Water and Sewer Billing during its normal working hours. A permit fee shall be paid for a single residential and commercial service and higher permit fee shall be paid for multi-dwelling or industrial service. These fees will be charged in accordance with a Schedule of Charges for Sewer Service which the Town may adopt from time to time.

1502.3. A permit fee shall be paid for each sewer service connection permit in those instances where the Town has already installed the building sewer to the street line. This charge will be charged in accordance with a Schedule of Charges for Sewer Service which the Town may adopt from time to time. In all other cases, the full cost of the connection shall be borne by the applicant.

Permits will be issued only to qualified utility pipe installers licensed to lay pipes in the Town, and homeowners qualified under section 1502.1. Permits are not transferable.

Permits will not be issued until the applicant has filed a layout plan showing the location of existing service connection, house location and route of sewer service, and said layout has been approved by the Town.

Permits shall be subject to revocation when any of the rules and regulations contained herein are not being followed.

If the work under the permit is not completed within ninety (90) days, renewal of the permit must be obtained at the then-in-effect fee for the permit, less any amount previously paid.

1502.4. Licenses to connect building sewers to the sanitary sewer will be issued to experienced and competent contractors. Licenses must be renewed annually on January 1. The fee for such license will be in accordance with such schedule of charges as the Selectmen may adopt from time to time and shall be payable to the Town. Said licenses shall be obtained at the office of the Public Works Director.

1502.5. No person, firm or corporation shall excavate any town-maintained street, roadway, sidewalk, parking lot, or right-of-way without a valid digging permit (Town Ordinance 504). An individual permit is required for each road cut.

1502.6. Any person proposing a new discharge into the system or a substantial change in the volume or character of pollutants that are being discharged into the system shall notify and obtain written approval from the Director at least sixty (60) days before the proposed change or connection. Proposed new discharges from residential or commercial sources involving loading exceeding 50 population equivalents (5,000 gallons per day average flow), any new industrial wastewater, or any alteration in either flow or waste characteristics of greater than twenty percent (20%) of existing industrial wastes that are being discharged into the POTW, and that could cause interference with the POTW or have an adverse effect on the receiving water or otherwise endanger life, limb, public property or constitute a nuisance, shall be approved by the NHDES Water Division. Approvals for industrial wastewater shall be obtained in accordance with Section 1509 of these regulations.

1503 Connections to Sanitary Sewer

Except as otherwise provided in this section, each improved property shall be connected separately and independently with the sanitary sewer through a building sewer. Grouping of more than one building sewer shall not be permitted, except under special circumstances and for good sanitary reasons or other good cause shown, and then only after special permission of the Director, in writing, shall have been secured and subject to such files, regulations, and specifications governing such grouping as may be prescribed by the Director. In addition to these regulations, the Town of Exeter Department of Public Works is hereby authorized to develop and implement specifications addressing the construction of public utilities within the Town.

1503.1. The owner will initially construct each building sewer, and all costs and expenses of construction of the building sewer, including connection to the structures served, shall be borne by the owner of the improved property to be connected; and such owner shall indemnify and save harmless the Town, its officers and agents, from all loss or damage that may be occasioned, directly or indirectly, as a result of construction of a building sewer on the owner's premises or its connection to the sanitary sewer. After the initial construction of the building sewer, the owner shall thereafter be obligated to pay all costs and expenses of operation, repair and maintenance and of reconstruction (if needed) of the building sewer beginning at the sanitary sewer and ending at the building. Every building sewer shall be maintained in a sanitary and safe operating condition by the owner.

If Town personnel are called out to work on a sewer and it is subsequently determined that the problem was on the owner's building sewer, the owner will reimburse the Town for all costs associated with the service call.

1503.2. If the owner of any building located within the Town and benefited, improved, served or accommodated by any public sewer, or to which any public sewer is available, after ninety (90) days notice from the Town, in accordance with Section 1501, shall fail to connect such building as required, the owner shall be in violation of these regulations and the Town may make such connection and may collect from such owner the costs and expenses thereof by such legal proceeding as may be permitted by law. The Town shall have full authority to enter on owner's property to do whatever is necessary to properly drain the improved property into the public sewer.

1503.3. If the owner of any building located within the Town shall fail or refuse, upon receipt of a notice of the Town, in writing, to remedy any unsatisfactory condition with respect to a building sewer within forty-five (45) days of receipt of such notice (except this time period may be reduced as necessary to protect the health and safety of the residents of the Town), the Town may remedy any unsatisfactory condition with respect to a building sewer and may collect from the owner the costs and expenses thereof by such legal proceedings as may be provided by law. The Town shall have full authority to enter on the owner's property to do whatever is necessary to remedy the unsatisfactory condition.

1503.4. A building sewer shall be connected to the sanitary sewer at the place designated by the Town.

1503.5. The connection of the building sewer into the sanitary sewer shall conform to the requirements of the current building and plumbing code, NHDES Env-Wq 704.13, and the Town's *Standard Specifications for Construction of Public Utilities in Exeter, New Hampshire.*

Pipe and fittings to be used in the work shall be only SDR 35 poly-vinyl chloride (PVC) ring tight joints, , (4 inches or more in diameter for single family residence and small commercial uses; 6 inches minimum for multifamily use and larger commercial uses; size shall be approved by the Director.)

In general, sewer services will not be allowed to have more than two (2) angle points, or a total angular deviation of 180 degrees, unless a variance is granted by the Town. A cleanout shall be installed at each angle point and/or every one hundred (100) ft. length where the sewer service extends more than 300 feet. The Town may require the installation of manholes subject to its approval.

All building sewers shall be laid in an envelope of washed screened gravel with not less than 6 inches of said materials all around the barrel of the pipe. Maximum stone size shall be 3/4 inch. The Town strongly recommends the installation depth to be minimum of 4.0 feet from finished grade. All pipe and fittings shall be laid to a minimum slope of 1/4 inch per foot unless otherwise approved by the Town. The Town requires the use of a backwater/one-way valve in the building sewer.

Line and grade of the pipe and fittings shall be controlled by the use of a transit or by the use of batter boards and string lines set for this purpose. Batter boards shall not exceed a distance of 30 feet apart unless otherwise allowed by the Town. Line and grade are to be established by the contractor subject to the approval of the Town.

Whenever possible, the building sewer should be brought to the building at an elevation above the basement floor. In all buildings in which any building drain is too low to permit gravity flow to the public sewer, sanitary sewage carried by such building drain may be lifted by a Town-approved means at the owner's expense and discharged to the building sewer.

No person shall connect a building sewer to a manhole unless permission is granted, in writing, from the Director.

The centerline of a building sewer at the point of connection shall enter the top half of the sanitary sewer. A smooth, neat joint shall be made and the connection of a building sewer to the sanitary sewer shall be made secure, watertight, and gas tight by the use of a "saddle", appropriate in size to the receiving sewer line, and shall be acceptable to the Town. A KOR-N-SEAL boot shall be provided where sewers are to be connected to manhole structures. Any deviation from the prescribed procedures and materials shall be approved by the Director before installation.

1503.6. Old building sewers may be used in connection with new buildings when they are found, on examination by the Town, to meet all requirements of these ordinances.

1503.7. No structure shall be connected to the sanitary sewer system unless there is a vent pipe extending to a point above the roof and properly vented or otherwise vented as per applicable codes and code enforcement offices in a manner approved by the Director. Vents shall be installed by the owner in all buildings as approved by the Building Inspector/Code Enforcement Officer. No person shall obstruct the free flow of air through any drain or soil pipe.

1503.8. A backwater valve shall be installed on all new sewer services entering the Town's sanitary sewer to prevent backflow from the public sewer from entering the facility or building. Backwater valves shall be sized and installed in accordance with the most current adopted State of New Hampshire plumbing code, and with the approval of the Town Building Inspector/Code Enforcement Officer. Backwater valves shall be located and installed so their working parts are readily and easily accessible for cleaning and inspection and shall be maintained by the Owner(s) at the Owners expense, in a continuous, efficient, operating condition at all times.

1503.9. An interior clean-out fitting shall be provided at the discretion of the Director for each building sewer at a readily accessible location, preferably just inside the basement wall. The fitting shall contain a forty-five degree (45°) branch with a removable watertight plug, and positioned so that sewer cleaning equipment can be inserted to clean the building sewer. Buildings and mobile homes without foundations shall have a clean-out installed on the outside.

1503.10. The Director shall maintain a record of all connections made to public sewers and drains and all repairs and alterations made to building connections or drains connected to or discharging into public sewers and drains of the Town or intended to so discharge. All persons concerned shall assist the Director in securing data needed for such records.

1503.11. When any sanitary sewer is to serve a school, hospital, or similar institutional or public housing, or is to serve a complex of industrial or commercial buildings, or which in the opinion of the Director, will receive sanitary sewage or industrial wastewater of such volume or character that frequent maintenance of or access to said building sewer and sanitary sewer is anticipated, then such building sewer shall be connected to the sanitary sewer through a manhole. The Director shall determine if and where this type

of connection to the sanitary sewer is required. Connections to existing manholes shall be made as directed by the Director. If required, a new manhole shall be installed in the public sewer.

1503.12. When a building is demolished and not immediately replaced, the owner shall adequately seal off the building sewer where it connects to the public sewer and shall schedule an inspection by the Director.

1503.13. All excavations for building sewer installation shall be adequately guarded with warning signs, traffic controls, barricades, and lights so as to protect the public from hazard, and in accordance the *Standard Specifications for Construction of Public Utilities in Exeter, New Hampshire*. Streets, sidewalks, parkways, and other public property disturbed in the course of the work shall be restored in a manner satisfactory to the Director, at the expense of the owner(s). The contractor is responsible for all other notification requirements, including DIGSAFE. It is the responsibility of the owner to coordinate work with the Town by providing written notification of any proposed work prior to initiation of excavation

1503.14. When ledge is encountered in the excavations, a permit must be obtained for the use of explosives from the Town of Exeter Fire Department.

All blasting shall be done in accordance with the requirements of the appropriate authorities; and by a person licensed in accordance with state laws.

1503.15. Trenches shall be backfilled and compacted and the street surface repaired in accordance with requirements specified by the Town's "Procedures and Specifications for Excavations on Town Streets or within Rights-of-Way."

Power shovels, bulldozers, loaders, trucks and other equipment shall not be operated on or across sidewalks, beams, curbing, etc., until they have been properly protected from damage by planking or other approved means. All damage resulting from the utility pipe layer's operations shall be repaired by him.

In or adjacent to State Highways the owner shall obtain necessary permits from the appropriate State Authority before the issuance, by the Town, of a sewer connection permit. All work shall then be done in accordance with the requirements set forth in the permit from the appropriate State Authority. Any costs in connection with obtaining permits shall be borne by the applicant.

1503.16. The owner or their agent shall notify the Town when the building sewer is ready for inspection and connection to the sanitary sewer (see Section 1503.17). The connection and testing shall be made under the supervision of the Director or authorized representative. Requests for inspections of sewer service connections shall be made to the Town forty-eight (48) hours in advance of the time any connection is to be made, and only during normal working hours.

Inspections will ordinarily be made only during the normal working hours of the Town.

An additional charge may be made for inspections required after normal working hours.

Services in excess of 100 feet in length are subject to review and such other requirements as may be found necessary to assure a functional connection.

In new construction, and where practicable in existing buildings when the common sewer is sufficiently deep, service shall be laid directly, without deflections, from the house plumbing vent stack to the connection provided at the common sewer.

Tunneling will not be allowed unless special permission for same is given.

Connection made to the building plumbing system shall be upstream of any septic tanks or cesspools.

Upon connection of the building plumbing system to the sanitary sewer, existing septic tanks and cesspools shall be completely filled with suitable material to the satisfaction of the Town.

1503.17. No building sewer shall be covered until it has been inspected and approved by the Town. If any part of the building sewer is covered before so being inspected and approved, it shall be uncovered for inspection if deemed necessary at the cost and expense of the owner of the improved property to be connected to the sanitary sewer. This requirement shall also apply to repairs or alterations to building connections, drains or pipes thereto.

In the event that such work is not ready for inspection or for any other reason may not be approved by the Director, the property owner, builder, or developer shall be notified that no further inspection of such work will be made until the property owner, builder, or developer has paid a service charge in the amount as established by the Town to cover the extra expense and cost to the Town. In the event of further disapproval of the same work, a further surcharge shall be paid by the property owner, builder, or developer in accordance with the Town's charge schedule, before a further inspection shall be made.

1504 New Sewers or Sewer Extensions

1504.1. When a property owner, builder, or developer proposes to construct sanitary sewers or extensions to sanitary sewers in an area proposed for subdivision, the plans, specifications, and method of installation shall be subject to the approval of the Director in accordance with Section 1502.1. Said property owner, builder or developer shall pay for the entire installation, including appropriate share of the cost of the wastewater treatment facility, sewers, pumping stations, force mains and all other Town expenses incidental thereto based on volume and plant capacity, as determined by the Town. Each building sewer shall be installed and inspected pursuant to Section 1503 and all application and inspection fees shall be paid by the applicant.

1504.2. Should the Town install a main line or extend a main line, by petition of the abutters, the total cost shall be determined and the proportionate cost for each abutter shall be assessed at the time of connection. If a property owner beyond the terminus of an existing sewer main desires to connect to the line, the property owner shall extend the main along the entire lot frontage owned by the potential customer (or to the limits of gravity flow with the proper cover). Unless the extension is installed via a petition as described above, all cost for this extension shall be borne by the property owner.

1504.3. Design and installation of sewers shall be in accordance with the NHDES Administrative Rules Env-Wq 700 - *Standards of Design and Construction for Sewerage and Wastewater Treatment Facilities*. Plans and specifications shall be submitted to, and approval obtained from, the Director and the NHDES before construction may proceed. The design of sewers shall anticipate and allow for flows

from all possible future extensions or developments within the immediate drainage area, being compatible with the master sewerage plan adopted by the Town.

Plugged service wye fittings shall be provided along sewer extensions in locations approved by the Director to accommodate future connections from existing unimproved lots.

1504.4. Other components and materials of POTW installations such as pumping stations, lift stations, or force mains shall be designed and approved in accordance with Section 1504.2 and shall be clearly shown and detailed on the plans and specifications submitted for approval. When requested, the owner, builder, or developer of the proposed installation shall submit to the Town all design calculations and other pertinent data to supplement a review of the plans and specifications. Costs associated with the engineer's review of the plans and specifications, and any NHDES design review fees shall be paid by the property owner, builder or developer.

1504.5. The installation of the sewer shall be subject to periodic inspection by the Director, and the expense for this inspection shall be paid for by the owner, builder, or developer. The Director's decisions shall be final in matters of quality and methods of construction. The sewer, as constructed, must pass an exfiltration test approved by the Town before any building sewer is connected thereto.

1504.6. As-built plans, specifications, and other required information shall be submitted to the Town prior to acceptance of the sewer. The Town shall be notified at least thirty (30) days in advance of the start of construction operations so that such inspection procedures as may be necessary or required may be established. No sanitary sewers will be accepted by the Town until such inspection of construction has been made as will assure the Town of compliance with these regulations and any amendments or additions thereto.

1505 Variances

1505.1. The Director, with the approval of the Town Manager, may allow reasonable variances from the provisions of Sections 1501 through 1504 of these regulations, which will not result in a violation of State or federal law, provided:

1. The owner shall be responsible for any variance fee as determined by the Board of Selectmen;
2. The variance allowed is the least variance reasonable;
3. The variance will not cause undue harm or inconvenience to the Town, the POTW, or the owner's neighbors;
4. The variance is justified by substantial reason; and
5. The variance is at the discretion of the Director.

1505.2. The owner shall apply for the variance in writing to the Director. The application shall identify the name and address of the owner, the property in question, the specific variance sought by the owner and a substantial reason justifying the variance. The variance fee shall be paid with the application or the variance shall be deemed to have been denied. The variance as issued shall identify any changes, limitations or restrictions on the variance as applied for.

1506 Powers of Assessment and Collection

1506.1. The assessment and collection of the expense of operating and maintaining the POTW shall be governed by the provisions of RSA 149-I:7-8, inclusive, and any other applicable general laws. The Selectmen of the Town shall have all the powers granted to Mayors and Boards of Aldermen thereunder with reference to establishing and assessing sewer charges and/or rentals. These charges will be in accordance with such Schedule of Charges for Sewer Service as the Selectmen may adopt from time to time. This schedule may include special charges for wastewater flows from private property where such flows do not originate from the Water System or are subject to a surcharge. If wastewater discharged to the sewer is significantly greater than the water consumed, the owner shall be required to install a recording flow meter. If wastewater discharged to the sewer is significantly less than the water consumed, the owner may be required to install a recording flow meter. The water consumption rate will be computed by using the Town water meters quantity readings. If the owner has a special circumstance where excessive amounts of water will not be disposed of to the POTW, the owner may request, in writing to the Director, permission to install a second meter as approved by the Director to accurately measure the amount of discharge into the sewer. If a sewer utilizes a source of water other than the Town's system, the owner may either 1) pay the rate designated for such use in the Schedule of Charges for Sewer Service adopted by the Selectmen, or 2) request, in writing, permission to install a meter on that source of water to measure the amount of discharge. Such installation shall have the prior approval of the Director, and any retrofitting of plumbing to prepare a place for a meter to be installed shall be at the sewer user's expense.

1507 Restrictions on Discharge to Sewers

1507.1. General Prohibitions. No person shall introduce or cause to be introduced into the POTW any pollutant or wastewater that causes pass through or interference or has an adverse effect on the receiving stream. These general prohibitions apply to all users of the POTW whether or not they are subject to categorical pretreatment standards or any other federal, State, or local pretreatment standards or requirements.

1507.2. Specific Prohibitions. No person shall discharge or cause to be discharged any of the following described waters or wastes to any public sewers:

A. Any gasoline, benzene, naphtha, fuel oil, or other flammable or explosive liquid, solid, gas, or any substance that can generate or form any flammable combustible or explosive substance, fluid, gas, vapor or liquid when combined with air, water or other substances present in sewers, including, but not limited to, wastestreams with a closed-cup flashpoint of less than 140°F (60°C) using the test methods specified in 40 CFR 261.21;

B. Any waters or wastes that contain toxic or poisonous solids, liquids, or gases in sufficient quantity, either singly or by interaction with other wastes, to injure or interfere with any wastewater treatment process, that constitute a hazard to humans or animals, that create a public nuisance, or that create any hazard at the wastewater treatment facility, including but not limited to heavy metals, strong acids, basic wastes and cyanides in the waste discharged to the public sewer;

C. Any waters or wastes having a pH less than 5.5 standard units, or greater than 11.5 standard units, as measured at the point of connection to the sanitary sewer or other available monitoring location, or otherwise having any other corrosive property capable of causing damage or hazard to structures, equipment, or personnel of the POTW or that contribute to or cause the wastewater treatment facility influent pH to exceed 8.0;

D. Solid or viscous substances including water or wastes containing fats, wax, grease, or oils, whether emulsified or not, or containing substances that can solidify or become viscous at temperatures between 32°F and 150°F (0-65°C) in quantities or of such size capable of causing obstruction to the flow in sewers, or other interference with the proper operation of the POTW, such as, but not limited to, ashes, cinders, sand, mod, straw, shavings, metal, glass, rags, feathers, tar, plastics, wood, whole blood, paunch manure, hair and fleshings, entrails, and paper dishes, cups, milk containers, etc., either whole or ground by garbage grinders;

E. Pollutants, including oxygen-demanding pollutants (e.g., BOD, COD), or chlorine demand requirements released in a discharge at a flow rate and/or pollutant concentration that, either singly or by interaction with other pollutants, will cause interference with the POTW, constitute a hazard to humans or animals, create a public nuisance, or cause pass through;

F. Wastewater containing such concentrations or quantities of pollutants that its introduction to the POTW could cause a treatment process upset and subsequent loss of treatment ability;

G. Wastewater having a temperature greater than 150°F (65°C), or that will inhibit biological activity in the wastewater treatment facility resulting in interference, but in no case wastewater that causes the temperature at the introduction into the wastewater treatment facility to exceed 104°F (40°C);

H. Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin, in amounts that will cause interference or pass through;

I. Any pollutants that result in the presence of toxic gases, vapors or fumes within the POTW in a quantity that may cause worker health and safety problems;

J. Any trucked or hauled pollutants, except at discharge points designated by the Director;

K. Any medical/infectious waste or radiological waste designated by the municipality as having a reasonable potential for adversely affecting the POTW's operation or performance or for violating any pretreatment standard or requirement;

L. Wastewater causing, alone or in conjunction with other sources, the wastewater treatment facility's effluent or biosolids to fail a toxicity test;

M. Any hazardous waste listed or designated by the NHDES under Env-Hw 400; and

N. Any pharmaceutical waste, except for such pharmaceutical wastes as are required by federal law to be disposed of by flushing into a municipal sewer system.

1507.3. Additional Prohibitions. No person shall discharge or cause to be discharged the following described substances, materials, waters, or wastes:

A. Wastewater that imparts color that cannot be removed by the treatment process, such as, but not limited to, dye wastes and vegetable tanning solutions, which consequently imparts color to the treatment facility's effluent, thereby violating the Town's NPDES permit;

B. Noxious or malodorous liquids, gases, solids, or other wastewater that, either singly or by interaction with other wastes, could be sufficient to create a public nuisance, objectionable odors, or a hazard to life, or to prevent entry into the public sewers for maintenance or repair;

C. Stormwater, surface water, groundwater, artesian well water, roof runoff, subsurface drainage, swimming pool drainage, condensate, deionized water, noncontact cooling water, or otherwise unpolluted wastewater unless specifically authorized by the Director in an IDP;

D. Sludges, screenings, or other residues from the pretreatment of industrial wastes unless specifically authorized by the Director in an IDP;

E. Detergents, surface active agents, or other substances that might cause excessive foaming in the POTW and/or cause a violation of the Town's NPDES permit;

F. Wastewater that could cause a reading on an explosion hazard meter at the point of discharge into the POTW, or at any point in the POTW, of more than ten percent (10%) of the Lower Explosive Limit;

G. Any garbage that has not been properly shredded (see definition of Properly Shredded Garbage in Section 1500). The installation and operation of any garbage grinder equipped with a motor of three-fourths (3/4) horsepower (0.76 hp metric) or greater shall be subject to the review and approval of the Town;

H. Any quantities of flow, concentrations, or both which constitute a "slug" as defined herein;

I. Any water or wastes which, by interaction with other water or wastes in the public sewer system, release dangerous or noxious gases or objectionable odors, form suspended solids that interfere with the collection system, or create a condition deleterious to structures and treatment processes;

J. Household hazardous wastes including but not limited to paints, stains, thinners, pesticides, herbicides, anti-freeze, transmission and brake fluids, motor oil and battery acid;

K. Any waters or wastes containing strong acid iron pickling wastes, or concentrated plating solutions whether neutralized or not;

L. Any waters or wastes containing iron, chromium, copper, zinc, and similar objectionable or toxic substances; or wastes exerting an excessive chlorine requirement, to such degree that any such material received in the composite wastewater at the wastewater treatment plant exceeds the limits established by the Town for such materials;

M. Any waters or wastes containing phenols or other taste or odor producing substances, in such concentrations exceeding limits which may be established by the Town as necessary, after treatment of the composite wastewater, to meet the requirements of the State, federal, or other public agencies having jurisdiction over such discharge to the receiving waters;

N. Waters or wastes containing substances which are not amenable to treatment or reduction by the wastewater treatment processes employed, or are amenable to treatment only to such degree that the wastewater treatment facility effluent cannot meet the requirements of other agencies having jurisdiction over discharge to the receiving waters;

O. Any wastes which violate federal, State or local pre-treatment standards;

P. Any wastes which cause the wastewater treatment facility to violate its NPDES permit; and

Q. Any water or waste that prevents disposal of sludge in the manner used by the POTW.

1507.4. Spills. Pollutants, substances, or wastewater prohibited by this section shall not be processed or stored in such a manner that they could be discharged to the POTW.

1507.5. Federal Categorical Pretreatment Standards. The federal categorical pretreatment standards are found at 40 CFR Chapter I, Subchapter N, Parts 405-471. EPA shall be the control authority for industrial users subject to federal categorical pretreatment standards. As the control authority, industrial users are responsible to the EPA for compliance with categorical pretreatment standards and the requirements of 40 CFR Part 403. Categorical industrial users shall provide the Town with copies of any reports to, or correspondence with EPA relative to compliance with the categorical pretreatment standards.

The industrial user is responsible to determine the applicability of categorical pretreatment standards. The user may request that EPA provide written certification on whether the user is subject to the requirements of a particular category.

1507.6. Local Discharge Restrictions. All persons discharging industrial wastes into public or private sewers connected to the Town's POTW shall comply with applicable federal requirements and State standards for pretreatment of wastes (as amended) in addition to the requirements of these regulations.

Local regulatory controls established by the Town for the discharge of pollutants of concern as set forth herein (referred to as "local limits"), federal, and all State

pretreatment standards shall apply, whichever is most stringent. Pollutants of concern include any pollutants that might reasonably be expected to be discharged to the POTW in quantities that could pass through or interfere with the POTW, contaminate the biosolids, or adversely impact human health or safety.

A. Maximum allowable industrial limitations:

For all users connected to sewer lines that are tributary to the Town's POTW, the Director will not issue permits that in combination with other industrial loads exceed the values in the following table:

POLLUTANT	MAXIMUM ALLOWABLE INDUSTRIAL LOADING (lb/day)	POLLUTANT	MAXIMUM ALLOWABLE INDUSTRIAL LOADING (lb/day)
Arsenic	BMPs (1)	Mercury	0.029
Cadmium	0.031	Molybdenum	0.028
Chromium (III and VI)	1.47	Nickel	0.82
Copper	1.28	Selenium	0.091
Cyanide	0.085	Silver	0.10
Lead	0.86	Zinc	0.72

(1) The capacity associated with the arsenic allowable loading is almost completely utilized by unregulated sources (*i.e.*, domestic and septage). Best Management Practices will be required limiting the addition of arsenic to wastewater discharges as an alternative to enforcement of a numerical value.

All mass loading limitations for metals represent total metals, regardless of the valance state, or the physical or chemical form of the metal. To administer these allowable loadings through IDPs, the Director may impose concentration-based limitations, or mass limitations in accordance with Section 1507.10. For industrial users, the values written into IDPs for the above pollutants shall apply at the end of the industrial wastestream and prior to dilution with non-industrial wastewaters.

Unless specifically identified in an IDP, an industrial user is not allowed to discharge the locally limited pollutants at concentrations significantly greater than background concentrations.

Daily concentration (or mass loading) is the concentration (or mass) of a pollutant discharged, determined from the analysis of a flow-composited sample (or other sampling procedure approved by the Director) representative of the discharge over the duration of a 24-hour day or industrial operating schedule of less than 24 hours.

B. Screening Levels: Screening levels are numerical values above which actions are initiated to evaluate, prevent or reduce adverse impacts on the POTW, the environment, and/or human health and safety. The Town monitors industrial sources of conservative pollutant-bearing discharges in comparison to established screening levels, and authorization to discharge at greater concentrations may be granted subject to the administrative procedures for managing mass loading limitations.

Screening levels for non-conservative pollutants are concentration-based values that, if exceeded, represent a potential to compromise worker safety, create flammability or chemical reactivity conditions in the collection system, or result in operational issues

such as excessive organic/solids loadings. Screening levels for non-conservative pollutants are developed as needed using the methodology of the Town.

The pollutants in the following table (list is not all inclusive) are representative of concentrations above which pollutants shall not be discharged to the POTW without the approval of the Director.

POLLUTANT	mg/L	POLLUTANT	mg/L
Total Kjedhal Nitrogen (TKN)	84	Oil & Grease – EPA Method 1664 HEM	350
Biochemical Oxygen Demand (BOD)	272	Total Petroleum Hydrocarbons - EPA Method 1664 SGT-HEM	100
Total Suspended Solids (TSS)	313	Sulfate (Type I concrete / Type II concrete)	150 / 1,500
Sulfide	1.0	Chloride	1,500
VOLATILE ORGANIC COMPOUNDS			
Acetone	372	Fluorotrichloromethane	1.25
Acrylonitrile	0.482	Formaldehyde	1.47
Benzene	0.001	Hexachloroethane (PCA)	0.06
2-Butoxyethanol	367	Methyl ethyl ketone (MEK)	200 (1)
Carbon disulfide	0.007	Methyl isobutyl ketone (MIBK)	36
Chlorobenzene	0.304	Methyl tert-butyl ether (MTBE)	5.5
Chloroform	0.065	Methylene chloride	1.0
1,4-Dichlorobenzene	0.103	Tetrachloroethylene (PCE)	0.23
1,1-Dichloroethane	1.74	Toluene	0.69
1,2-Dichloroethane	0.08	1,2,4-Trichlorobenzene	0.64
Trans 1,2-Dichloroethylene	2.06	1,1,1-Trichloroethane (TCA)	2.7
1,2-Dichloropropane	3.0	Trichloroethene	0.32
1,3-Dichloropropene	0.01	Vinyl chloride (chloroethene)	0.002
Di-isobutlyketone (DIBK)	8.0	Xylenes	1.4
Ethylbenzene	1.35	–	–

NOTE 1. The MEK limit is a hazardous waste criterion and may not be equal to or exceeded under any circumstances.

If any of the screening levels are exceeded, repeat analysis may be required by the Town to verify compliance or noncompliance with that screening level. If noncompliance is indicated, then the industrial user may be required, at the discretion of the Director, to conduct an appropriate engineering evaluation at the industrial user's expense to determine the potential impact of the discharge of this pollutant to the Town's POTW or alternatively, to develop a pollution prevention plan specifically addressing the pollutant that exceeds the screening level. This study or plan shall be approved by and conducted under the supervision of the Town. Should the evaluation indicate the impact to be unsatisfactory, the industrial user shall reduce the pollutant concentration to a satisfactory level. If the evaluation supports development of an alternate site-specific limitation, then the screening level may, at the discretion of the Director, be adjusted as a special agreement for the industrial user and administered as a permit limitation for the specific discharge.

If an industrial user proposes to discharge at concentrations greater than the concentration-based screening level maintained by the Town, then the industrial user may be required to conduct the evaluations described in the previous paragraph. Should the evaluations support an alternate site-specific limitation, then the screening level may, at the discretion of the Director, be adjusted as a special agreement for the industrial user and administered as a permit limitation for the specific discharge.

1507.7. Best Management Practices. The Town may develop Best Management Practices (BMPs) to implement Sections 1507.3 and 1507.6. Such BMPs shall be considered local limits and pretreatment standards for the purposes of these regulations.

1507.8. Special Agreements. No statement contained in Section 1507 except for Sections 1507.1, 1507.2, and Section 1507.5 shall be construed as preventing any special agreement or arrangement between the Town and any industrial user whereby an industrial waste of unusual strength or character may be accepted by the Town for treatment provided that said agreements do not contravene any requirements of existing federal or State laws, and/or regulations promulgated thereunder, are compatible with any user charge system in effect, and do not waive applicable federal categorical pretreatment standards. Special agreement requests may require submittal of a best management practices plan that specifically addresses the discharge for which a special agreement is requested.

1507.9. Dilution. No wastewaters, which otherwise will not meet the requirements of these regulations, shall be diluted with river water or other unpolluted waters in order to render the wastewater acceptable as meeting the requirements of these ordinances. The Director may impose mass limitations on users to discourage the use of dilution to meet applicable pretreatment standards or requirements, or in other cases when the imposition of mass limitations is appropriate.

1507.10. Mass Based Limitations. Users implementing process changes may request that compliance be determined based on mass limitations in lieu of concentration limitations. Such mass-based limitations will be calculated from the permitted concentration-based limitations and flows, and shall be equivalent to or less than the mass discharge in effect at the time of the request. The intent of a mass-based limit is to encourage and allow pollution prevention and/or water conservation measures that might cause a facility to increase pollutant concentrations in their discharge even though the total mass of the pollutant discharged does not increase, and may in fact decrease. Decisions on granting requests for mass-based compliance limitations will be based on user-specific information and current operating conditions of the POTW,

and will be at the discretion of the Director. Implementation of mass-based limitations may not contravene any requirements of federal or State laws and/or regulations implemented thereunder, and may not waive applicable federal categorical pretreatment standards.

1507.11. Town's Right of Revision. The discharge standards and requirements set forth in Section 1507 are established for the purpose of preventing discharges to the POTW that would harm either the public sewers, wastewater treatment process, or equipment; would have an adverse effect on the receiving stream; or would otherwise endanger lives, limb, public property, or constitute a nuisance.

To meet these objectives, the Director may, from time to time, review and set more stringent standards or requirements than those established if, in the Director's opinion, such more stringent standards or requirements are necessary to meet the above objectives. In forming this opinion, the Director may give consideration to such factors as the quantity of waste in relation to flows and velocities in the sewers, materials of construction of the sewers, the wastewater treatment process employed, capacity of the wastewater treatment facility, degree of treatability at the wastewater treatment facility, pollution prevention activities, and other pertinent factors. The limitations or restrictions on materials or characteristics of waste or wastewaters discharged to the sanitary sewer shall not be exceeded without the approval of the Director.

The Director shall allow affected industrial users reasonable time to comply with any changes to the local limits. The conditions and schedule for compliance shall accompany the written notification of amended local limits.

Users implementing process changes may request that compliance be determined based on mass limitations in lieu of concentration limitations. Such mass-based limitations will be calculated from the permitted concentration-based limitations and flows, and shall be equivalent to or less than the mass discharge in effect at the time of the request. The intent of a mass-based limit is to encourage and allow pollution prevention and/or water conservation measures that might cause a facility to increase pollutant concentrations in their discharge even though the total mass of the pollutant discharged does not increase, and may in fact decrease. Decisions on granting requests for mass-based compliance limitations will be based on user-specific information and current operating conditions of the POTW, and will be at the discretion of the Director. Implementation of mass-based limitations may not contravene any requirements of federal or State laws and/or regulations implemented thereunder, and may not waive applicable federal categorical pretreatment standards.

1508 Pretreatment of Wastewater

The Town shall determine the quantity and quality of all industrial wastes which can be properly received by the POTW and treated at the wastewater treatment facility, in addition to the sanitary wastewater from the Town.

1508.1. Pretreatment Facilities. If any waters or wastes are discharged, or are proposed to be discharged to the public sewers, which waters contain the substances or possess the characteristics enumerated in Section 1507 of this Ordinance, and which in the judgment of the Town, may have a deleterious effect upon the POTW, processes, equipment, or receiving waters, or which otherwise create a hazard to life or constitute a public nuisance, the Town may:

Reject the waters or wastes;

Require pretreatment to an acceptable condition for discharge to the public sewers. If applicable or required, such pretreatment requirements will conform to the requirements of the EPA;

Require control (e.g., equalization) over the quantities and rates of discharge; and/or

Require payment to cover the added cost of handling and treating the wastes.

If the Director allows the pretreatment or equalization of waste flows, the design and installation of the systems and equipment shall be subject to the review and approval of the Director and the State.

1508.2. Town Review and Approval. Where pretreatment or equalization of wastewater flows prior to discharge into any part of the wastewater treatment system is required, plans, specifications and other pertinent data or information relating to such pretreatment of flow-control facilities shall first be submitted to the Town for review and approval. Such approval shall not exempt the discharge or such facilities from compliance with any applicable code, ordinance, rule, regulation or order of any governmental authority. Any subsequent alterations or additions to such pretreatment or flow-control facilities shall not be made without due notice to and prior approval of the Town.

Where preliminary treatment or flow-equalizing facilities are provided for any waters or wastes, they shall be maintained continuously in satisfactory and effective operation by the owner at the owner's expense.

1508.3. Fats, Oils, and Grease (FOG), and Grit Interceptors. Interceptors for oil, grease, grit or other substances harmful or hazardous to the building drainage system, the public sewer or POTW shall be provided at the owner's expense when required by plumbing code, or in the opinion of the Town, they are necessary for the proper handling of liquid wastes containing grease in excessive amounts, as described in 1507.2, or any flammable wastes, sand or other harmful constituents as described in 1507.2 except that such interceptors shall not be required for private living quarters or dwelling units. All interceptors shall be of a type and capacity approved by the Town, shall be located so as to be readily and easily accessible for cleaning by the owner and inspection by the Town, and shall be maintained by the owner(s) at the owner's expense in a continuous, efficient operating condition at all times. In the maintaining of these interceptors, the owner(s) shall be responsible for the proper removal and disposal by appropriate means of the captured material and shall maintain records of the dates, and means of disposal which are subject to review by the Director. Maintenance records shall be made available to the Town upon request. Any removal and hauling of the collected materials not performed by owner(s) personnel must be performed by currently licensed waste disposal firms.

Concentrated greases and oils from fryers, grill and stove grease accumulation traps, and vent hoods shall be properly disposed or recycled and shall not be discharged to the sewer.

All new food service establishments (including but not limited to restaurants, hotel kitchens, hospital kitchens, school kitchens, bars, factory cafeterias and clubs) and any other facility discharging fats, oil and grease above the effluent limits described in 1507 shall be served by:

A. An external FOG interceptor, subject to the Director's approval, installed on a separate building sewer line servicing kitchen flows and connected only to the following fixtures or drains:

(i) pot sinks;

(ii) pre-rinse sinks;

(iii) any sink into which fats, oils, or grease are likely to be introduced;

(iv) soup kettles or similar devices;

(v) wok stations, rotisseries;

(vi) floor drains or sinks into which kettles may be drained;

(vii) automatic hood wash units;

(viii) dishwashers without pre-rinse sinks; and

(ix) any other fixtures or drains that are likely to allow fats, oils and grease to be discharged.

The FOG interceptor serving the above shall be sized at 1,000 gallons or greater and providing a minimum detention time of 24 hours.

B. If an external interceptor is not practical, FOG-bearing wastewaters shall be served by an indoor automated grease recovery unit(s) (AGRUs) that separates grease from the wastewater by active mechanical or electrical means, and are subject to the Director's approval and the following requirements,:

(i) An AGRU(s) shall be installed immediately downstream of each fixture or multiple fixtures listed in subsection (A) of this section.

(ii) The AGRU shall be sized to properly pre-treat the measured or calculated flows for all connected fixtures or drains.

(iii) The AGRU shall be constructed of corrosion-resistant material such as stainless steel or plastic.

(iv) Solids shall be intercepted and separated from the effluent flow using an internal or external strainer mechanism. This mechanism shall be an integral part of the unit.

(v) The unit shall operate using a skimming device, automatic draw-off, or other mechanical means to automatically remove separated fats and oils. This automatic skimming device shall be either hard wired or cord & plug connected electrically and controlled using a timer or level control. The operation of the automatic skimming device shall be field adjustable. The AGRU shall operate no less than once per day.

(vi) The AGRU shall be fitted with an internal or external flow control device to prevent the exceedence of the manufacturer's recommended design flow.

(vii) The AGRU shall be located so as to permit easy access for maintenance.

(viii) No fixture or drain other than those listed in subsection (A) of this section shall be connected to the AGRU unless approved by the authorized agent.

(ix) All AGRUs shall be designed and installed in accordance with the manufacturer's specifications.

Existing food service establishments undergoing significant renovation, or those designated in sewer service areas experiencing problems, such as grease blockages, may be required by the Director to install or upgrade existing FOG removal systems to satisfy the requirements of these regulations.

1508.4. Amalgam Separators. Any dental practice that is required by Env-Wq 306 to have an amalgam separator shall properly install and maintain the separator.

1508.5. Additional Pretreatment Measures. Whenever deemed necessary, the Director may require users to restrict their discharge during peak flow periods, designate that certain wastewater be discharged only into specific sewers, relocate and/or consolidate points of discharge, separate sanitary sewage wastestreams from industrial wastestreams, and impose such other conditions as are deemed necessary to protect the POTW and determine the user's compliance with the requirements of these regulations.

The Director may require any person discharging into the POTW to install and maintain, on their property and at their expense, a suitable storage and flow-control facility to ensure equalization of flow. An IDP may be issued solely for flow equalization.

1508.6. Monitoring Facilities. When required by the Town, the Owner of any property serviced by a Building Sewer carrying industrial wastes shall install a suitable control structure together with such necessary meters and other appurtenances in the Building Sewer to facilitate observation, sampling, and measurement of the wastes. Such structure, when required, shall be accessible and safely located, and shall be constructed in accordance with plans approved by the Director. The structure shall be installed by the owner(s) at the owner's expense, and shall be maintained by the owner's so as to be safe and accessible at all times. All industries discharging into a public sewer shall perform such monitoring of their discharges as the Town may reasonably require including installation, use and maintenance of monitoring equipment, keeping records and reporting the results of such monitoring to the Town. The failure of an industrial user to keep its monitoring facility in good working order shall not be grounds for the user to claim that sample results are unrepresentative of its discharge. Such records shall be made available upon request by the Town to other agencies having jurisdiction over discharges to the receiving waters.

Users with the potential to discharge flammable substances shall, at the discretion of the Director, install and maintain an approved combustible gas detection meter and alarm.

1508.7. Accidental Discharge/Slug Control Plans. The Director may evaluate whether an industrial user needs an accidental discharge/slug control plan or other action to control Slug Discharges.

Each industrial user shall provide protection from accidental discharge of prohibited materials or other wastes regulated by these regulations. Facilities to prevent accidental discharge of prohibited materials shall be provided and maintained at the Owner or Operator's own cost and expense. When required by the Director, detailed plans showing facilities and operating procedures to provide this protection and conforming to the spill prevention control regulations of the EPA shall be submitted to the Town for review. Review and acceptance of such plans and operating procedures shall not relieve the industrial user from the responsibility to modify its facility as

necessary to meet the requirements of these regulations. An accidental discharge/slug control plan shall address, at a minimum, the following:

A. Description of discharge practices, including non-routine batch discharges;

B. Description of stored chemicals;

C. Procedures for immediately notifying the POTW of any accidental or slug discharge as required by Section 1511.3 of these regulations; and

D. Procedures to prevent adverse impact from any accidental or slug discharge.

Such procedures include, but are not limited to, inspection and maintenance of storage areas, handling and transfer of materials, loading and unloading operations, control of plant site runoff, worker training, building of containment structures or equipment, measures for containing toxic organic pollutants (including solvents), and/or measures and equipment necessary for emergency response.

1508.8. Best Management Practices Plans. The Director may develop or require any person discharging wastes into the POTW to develop and implement, at their own expense, a Best Management Practices Plan (BMP Plan), also referenced as a pollution prevention plan (e.g., BMPs for commercial kitchen clean-up to reduce FOG load to grease interceptors). The Director may require users to submit as part of the BMP Plan information that demonstrates adherence to the following elements:

Management Support. For changes to be effective, the visible support of top management is required. Management's support should be explicitly stated and include designation of a pollution prevention coordinator, goals, and time frames for reductions in volume and toxicity of wastestreams, and procedures for employee training and involvement.

Process Characterization. A detailed process waste diagram shall be developed that identifies and characterizes the input of raw materials, the outflow of products, and the generation of wastes.

Waste Assessment. Estimates shall be developed for the amount of wastes generated by each process. This may include establishing and maintaining waste accounting systems to track sources, the rates and dates of generation, and the presence of hazardous constituents.

Analysis of Waste Management Economics. Waste management economic returns shall be determined based on the consideration of:

A. Reduced raw material purchases;

B. Avoidance of waste treatment, monitoring and disposal costs;

C. Reductions in operations and maintenance expenses;

D. Elimination of permitting fees and compliance costs;

E. Reduced liabilities for employee/public exposure to hazardous chemicals and cleanup of waste disposal sites.

Development of Best Management Practices Alternatives. Current and past best management practices activities shall be assessed, including estimates of the reduction in the amount and toxicity of waste achieved by the identified actions. Opportunities for pollution prevention shall then be assessed for identified processes where raw

materials become or generate wastes. Technical information on pollution prevention shall be solicited and exchanged, both from inside the organization and out.

Evaluation and Implementation. Technically and economically feasible pollution prevention opportunities shall be identified and an implementation timetable with interim and final milestones shall be developed. The recommendations that are implemented shall be periodically reviewed for effectiveness.

Recordkeeping. Documentation demonstrating implementation or compliance with best management practices shall be created, retained, and made available as required.

The review and approval of such pollution prevention plans by the Town shall in no way relieve the user from the responsibilities of modifying their facilities as necessary to produce a discharge acceptable to the Town in accordance with the provisions of these regulations.

1509 Industrial Wastewater Discharge Permit (IDP) Application

1509.1. Wastewater Characterization. When requested by the Director, a user must submit information on the nature and characteristics of its wastewater within sixty (60) days of the request. The Director is authorized to prepare a form for this purpose and may periodically require users to update this information.

1509.2. Industrial Wastewater Discharge Permit Requirement.

A. No significant indirect discharger shall discharge wastewater into the POTW without first obtaining an IDP from the Director, except that a significant indirect discharger that has filed a timely and complete application pursuant to Section 1509.4 of these regulations may continue to discharge for the time period specified therein.

B. The Director may require other users to obtain IDPs, or submit an application for an IDP, as necessary to execute the purposes of these regulations.

C. Any violation of the terms and conditions of an IDP shall be deemed a violation of these regulations and subjects the industrial discharge permittee to the enforcement actions set out in Section 1514 of these regulations. Obtaining an IDP does not relieve a permittee of its obligation to comply with all federal and State pretreatment standards or requirements or with any other requirements of federal, State, and local law.

D. A permit fee will be assessed in accordance with the Selectmen's tables of fees and charges. All permittees will pay all Town costs to test, monitor, and report to the EPA and NHDES as required by law for said permit conditions and requirements.

1509.3. State Indirect Discharge Request. Any new industrial waste, or any alteration in either flow or waste characteristics of greater than 20 percent of existing industrial wastewater that is being discharged into the POTW, or that the Director believes could cause interference with the POTW or have an adverse effect on the receiving water or otherwise endanger life, limb, public property or constitute a nuisance, shall be approved by the NHDES Water Division. Such approvals shall be obtained in accordance with Section 1511.2 of these regulations.

1509.4. Industrial Wastewater Discharge Permitting – Existing Connections. Any user required to obtain an IDP who was discharging wastewater into the POTW prior to the effective date of these regulations, and is not currently covered by a valid IDP, and who wishes

to continue such discharges in the future, shall, within sixty (60) days after said date, apply to the Director for an IDP in accordance with Section 1509 of these regulations, and shall not cause or allow discharges to the POTW to continue after one hundred twenty (120) days of the effective date of these regulations except in accordance with an IDP issued by the Director.

1509.5. Industrial Wastewater Discharge Permitting – New Connections. Any user required to obtain an IDP who proposes to begin or recommence discharging into the POTW must obtain an IDP prior to the beginning or recommencing of such discharge. An application for this IDP, in accordance with Section 1509.6 of these regulations, must be filed at least ninety (90) days prior to the date upon which any discharge will begin or recommence.

1509.6. Industrial Wastewater Discharge Permit Application Contents. When required by the Town, persons subject to these rules shall submit an application for an IDP. Such information may include some or all of the following:

A. The name and address of the facility, including the name of the operators and owners.

B. A list of all environmental permits held by or for the facility.

C. A brief description of the nature, average rate of production, and Standard Industrial Classification of the operations carried out at such facility.

D. A listing of all raw materials and chemicals used or stored at the facility that are or could accidentally or intentionally be discharged to the POTW, including usage information and quantities released to the sewer.

E. An identification of the categorical pretreatment standards applicable to each regulated process.

F. An analysis identifying the nature and concentration of pollutants in the discharge.

G. Site plans, floor plans, and details to show all major sources of industrial wastewater and points of discharge.

H. Information showing the measured average daily and maximum daily flow, in gallons per day, to the public sewer from regulated process streams and from other streams.

I. A schedule of actions to be taken to comply with discharge limitations.

J. Details of wastewater pretreatment facilities.

K. Copies of Best Management Practices Plans, Slug Control Plans or other similar plans that describe pollution prevention activities that may exist at the facility.

L. Additional information as determined by the Director may also be required.

Incomplete or inaccurate applications will not be processed and will be returned to the user for revision.

1509.7. Signatories and Certification. All IDP applications and user reports must be signed by an authorized representative of the user and contain the following certification statement:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on

my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

1509.8. Hauled Wastewater..

A. Septic tank waste may be introduced into the POTW only at locations designated by the Director, and at such times as are established by the Director, provided such wastes do not contain unacceptable quantities of toxic pollutants or materials, and provided such discharge does not violate any other special requirements established by the Town. Transport and discharge of such waste shall comply with Section 1516 of this Ordinance.

B. The Director may require generators and/or haulers of hauled industrial waste to obtain Industrial Discharge Permits. The Director may also prohibit the disposal of hauled industrial waste. All other requirements of these Sewer Regulations apply to the discharge of hauled industrial waste.

C. Industrial waste haulers may discharge loads only at locations designated by the Director. No load may be discharged without prior consent of the Director. The Director may collect samples of each hauled load to ensure compliance with applicable standards. The Director may require the industrial waste hauler to provide a waste analysis of any load prior to discharge.

D. Industrial waste haulers shall provide a waste-tracking form for every load. This form shall include, at a minimum, the name and address of the industrial waste hauler, permit number, truck identification, names and addresses of sources of waste, and volume and characteristics of waste. The form shall identify the type of industry, known or suspected waste constituents, and a certification that the wastes are not hazardous wastes.

1510 Industrial Wastewater Discharge Permit Issuance

1510.1. IDP Decisions. The Director will evaluate the data provided by the industrial user and may require additional information. Within thirty (30) days of receipt of a complete IDP application [or ninety (90) days in the case of an application for a new or increased discharge requiring review and approval by the NHDES Water Division], the Director will determine whether or not to issue an IDP. The Director may deny any application for an IDP.

1510.2. IDP Duration. An IDP shall be issued for a specified time period, not to exceed three (3) years for significant indirect dischargers [five (5) years for other users] from the effective date of the permit. An IDP may be issued for a period less than these intervals at the discretion of the Director. Each IDP will indicate a specific date upon which it will expire. IDPs shall be terminated upon cessation of operations or transfer of business ownership, unless notification of such transfer is provided in accordance with Section 1510.6 of these regulations. All IDPs issued to a particular user are void upon the issuance of a new IDP to that user.

1510.3. IDP Contents. An IDP shall include such conditions as are deemed reasonably necessary by the Director to prevent pass through or interference, protect the quality of the water body receiving the wastewater treatment facility's effluent, protect human health and safety, facilitate biosolids management and disposal, and protect against damage to the POTW.

IDPs will contain::

A. User name, street address, mailing address, and daytime telephone number;

B. Dates of IDP issuance and expiration, with a duration that in no event shall exceed five (5) years;

C. The general and specific conditions and prohibitions from these Sewer Regulations that apply to the discharge;

D. A statement that the IDP is nontransferable without prior notification to the Town in accordance with Section 1510.6 of these regulations, and provisions for providing the new owner or operator with a copy of the existing IDP;

E. A list of pollutants, allowable parameters, and discharge limitations'

F. Each condition specified in the NHDES' IDR approval;

G. Identification of applicable federal categorical pretreatment standards;

H. Self-monitoring, sampling, inspection, reporting, and record-keeping requirements. For pollutants to be monitored, these requirements shall include sampling locations, sampling frequencies, and sample types based on these regulations, and State and federal laws, rules and regulations;

I. Notification requirements for:

1. Slug loading;
2. Spills, bypasses, and upsets;
3. Changes in volume or characteristics of the discharge for which a permit revision is not required; and
4. Permit violations.

J. Notification requirements prior to any new or increased discharge;

K. For users with reporting requirements, such reports at a minimum shall require:

1. Periodic monitoring results indicating the nature and concentration of pollutants in the discharge from the regulated processes governed by the IDP and the average and maximum daily flow for these process units;
2. A statement as to whether the applicable pretreatment standards and requirements are being met on a consistent basis and, if not, identification of additional operation and maintenance practices and/or pretreatment systems that are necessary;
3. Submittal of any monitoring results performed in addition to the requirements of the IDP using procedures prescribed in the permit; and
4. Appropriate supporting documentation for items 1 through 3 above.

L. Applicable definitions from these Sewer Regulations;

M. A statement of applicable civil and criminal penalties for violation of pretreatment standards and requirements;

N. Requirement to submit a complete new application at a specified frequency, which shall be not less than once every five years;

O. Requirement to provide a copy of the permit to the NHDES, if the NHDES so requests;

P. Notification that the state has legal authority to take direct action against the user to enforce the provisions of Env-Wq 305.01 in accordance with RSA 485-A:5, IV, reprinted in Appendix C;

Q. A statement that compliance with the IDP does not relieve the permittee of responsibility for compliance with all applicable federal and State pretreatment standards, including those that become effective during the term of the IDP; and

R. Other conditions as deemed appropriate by the Director to ensure compliance with these regulations, and State and federal laws, rules, and regulations.

IDPs may contain, but not be limited to, the following:

A. Requirements to control Slug Discharges, if determined by the Director to be necessary; and

B. Any applicable compliance schedule. This schedule may not extend the time for compliance beyond that required by these regulations, and applicable State and federal laws, rules and regulations.

C. Limitations on the average and/or maximum rate of discharge, time of discharge, and/or requirements for flow regulation and equalization;

D. Requirements for the installation of pretreatment technology, pollution control, or construction of appropriate containment devices, designed to reduce, eliminate, or prevent the introduction of pollutants into the POTW;

E. Requirements for the development and implementation of spill control plans or other special conditions including best management practices necessary to adequately prevent accidental, unanticipated, or nonroutine discharges;

F. Development and implementation of Best Management Practices to control the amount of pollutants discharged to the POTW;

G. The unit charge or schedule of user charges and fees for the management of the wastewater discharged to the POTW;

H. Requirements for installation and maintenance of inspection and sampling facilities and equipment;

1510.4. IDP Appeals. Any person, including the user, may petition the Director to reconsider the terms of an IDP within thirty (30) days of its issuance.

A. Failure to submit a timely petition for review shall be deemed to be a waiver of the administrative appeal.

B. In its petition, the appealing person or user must indicate the IDP provisions objected to, the reasons for this objection, and the alternative condition, if any, it seeks to place in the IDP.

C. The effectiveness of the IDP shall not be stayed pending the appeal.

D. If the Director fails to act within thirty (30) days, a request for reconsideration shall be deemed to be denied. Decisions not to reconsider an IDP, not to issue an IDP, or not to modify an IDP shall be considered final administrative actions for purposes of judicial review.

E. Aggrieved parties may appeal the conditions of the IDP in accordance with Section 1518.2 of these regulations.

The filing of a request by the permittee for an IDP modification does not stay any IDP conditions.

1510.5. IDP Modifications. The Director may modify an IDP for good cause, including, but not limited to, the following reasons:

A. To incorporate any new or revised federal, State, or local pretreatment standards or requirements;

B. To address significant alterations or additions to the user's operation, processes, or wastewater volume or character since the time of IDP issuance;

C. A change in the POTW that requires either a temporary or permanent reduction or elimination of the authorized discharge;

D. Information indicating that the permitted discharge poses a threat to the Town POTW, Town personnel, or the water quality in the receiving waters;

E. Violation of any terms or conditions of the IDP;

F. Misrepresentations or failure to fully disclose all relevant facts in the IDP application or in any required reporting;

G. Revision of or a grant of variance from categorical pretreatment standards pursuant to 40 CFR 403.13;

H. To correct typographical or other errors in the IDP; or

I. To reflect a transfer of the facility ownership or operation to a new owner or operator.

1510.6. IDP Transfer. IDPs may be transferred to a new owner or operator only if the permittee provides at least sixty (60) days advance notice to the Director and the Director approves the IDP transfer. The notice to the Director must include a written certification by the new owner or operator that:

A. States that the new owner and/or operator has no immediate intent to change the facility's operations and processes that generate wastewater to be discharged to the POTW;

B. Identifies the specific date on which the transfer is to occur; and

C. Acknowledges full responsibility for complying with the existing IDP.

Failure to provide the required advance notice of a transfer renders the IDP void as of the date of facility transfer.

1510.7. IDP Termination. The Director may terminate an IDP for good cause as described in Section 1514.6.

1510.8. IDP Reissuance. A user with an expiring IDP shall apply for reissuance of the IDP by submitting a complete IDP application, in accordance with Section 1509.6 of these regulations, a minimum of sixty (60) days prior to the expiration of the user's existing IDP. Under no circumstances shall the permittee continue to discharge without an effective permit. An expired IDP will continue to be effective and enforceable until the IDP is reissued if:

A. The industrial user has submitted a complete IDP application at least sixty (60) days prior to the expiration date of the user's existing permit; and

B. The failure to reissue the IDP, prior to expiration of the previous IDP, is not due to any act or failure to act on the part of the industrial user.

1510.9. Regulation of Waste Received from Other Jurisdictions.

A. If another municipality, or user located within another municipality, contributes wastewater to the POTW, the Town shall enter into an intermunicipal agreement with the contributing municipality.

B. Intermunicipal agreements must receive NHDES approval.

1511 Reporting Requirements

1511.1. Periodic Compliance Reports.

A. All Significant Indirect Dischargers shall submit periodic reports as required, but not less often than semiannually, indicating the nature and concentration of pollutants in the discharge from the regulated processes governed by pretreatment standards and the average and maximum daily flow for the reporting period. The reports shall state whether the applicable categorical pretreatment standards and effluent limitations are being met on a consistent basis and, if not, what additional operation and maintenance practices and/or pretreatment are necessary. In cases where compliance with a Best Management Practice or pollution prevention alternative is required, the industrial user shall submit documentation as required by the Town or the applicable Standards to determine compliance status of the user. All periodic compliance reports must be signed and certified in accordance with Section 1509.7 of these regulations. Additional requirements for such reports may be imposed by the Director.

B. All wastewater samples must be representative of the user's discharge. Wastewater monitoring and flow measurement facilities shall be properly operated, kept clean and orderly, and maintained in good working order at all times. The failure of a user to maintain its monitoring facility in satisfactory working condition shall not be grounds for the user to claim that sample results are unrepresentative of its discharge.

C. If a user subject to the reporting requirements in the previous paragraph of this section monitors any pollutant more frequently than required by these regulations, using procedures prescribed in Sections 1511.7 and 1511.8, the results of this monitoring shall be included in the report.

1511.2. Reports of Changed Conditions. Each user must notify the Director of any planned significant changes to the user's operations or system that might alter the nature, quality, or volume of its wastewater at least ninety (90) days before the change.

A. The Director may require the user to submit such information as deemed necessary to evaluate the changed condition, including the submittal of an IDP application under Section 1509.6 of these regulations and all information required by the NHDES under the Env-Wq 305.10 *Industrial Wastewater Discharge Request* rules.

B. Upon approval of the request by the Town, an *Industrial Wastewater Indirect Discharge Request Application* may be submitted by the Town to the NHDES Water Division based on information submitted by the user. All applicable NHDES Water Division review fees shall be provided by the user.

C. Upon approval of the discharge request by the NHDES Water Division, the Director may issue an IDP under Section 1510 of these regulations or modify an existing IDP under Section 1510 of these regulations in response to changed conditions or anticipated changed conditions.

D. For purposes of this requirement, significant changes include, but are not limited to, flow increases of twenty percent (20%) or greater, and the discharge of any previously unreported pollutants.

1511.3. Reports of Slugs or Potentially Adverse Discharges.

A. All industrial users shall telephone and notify the Director immediately of all discharges that could cause problems to the POTW, including any slug loadings as defined in Section 1500 of these regulations. This notification shall include the location of the discharge, type of waste, concentration and volume, if known, and corrective actions conducted by the user.

B. Within five (5) days of the unauthorized discharge, the industrial user shall, unless waived by the Director, submit a written report fully describing the incident, the pollutants involved, the cause of the discharge and the measures taken and to be taken to prevent recurrence. Such notification shall not relieve the user of any expense, loss, damage, or other liability that may be incurred as a result of damage to the POTW, natural resources, or any other damage to person or property; nor shall such notification relieve the user of any fines, penalties, or other liability that may be imposed pursuant to these regulations. This report must be signed and certified in accordance with Section 1509.7 of these regulations.

C. A notice shall be permanently posted plainly visible to an industrial user's personnel responsible for managing wastewater discharges that instructs all employees whom to call in the event of a spill, slug discharge, pretreatment upset or bypass. Employers shall ensure that all employees who may cause such a discharge to occur know of the required notification to the Director.

D. The permittee shall notify the Town immediately of any changes at its facility that may affect the potential for a slug discharge. The Town may require the permittee to develop or modify a Slug Control Plan or take other actions to control slug discharges.

1511.4. Reports from Other Users. All non-significant users and users not required to obtain an IDP shall provide reports as the Director may require.

1511.5. Notice of Violation / Repeat Sampling and Reporting. If sampling performed by an industrial user indicates a violation (*i.e.*, exceedance of a limit), the presence of a previously unreported pollutant, or an exceedance of a screening level, the user shall notify the Town within twenty-four (24) hours of becoming aware of the exceedance. For violations (and unreported pollutants and screening level exceedances at the discretion of the Town), the user shall also repeat the sampling and submit the results as soon as possible but no later than thirty (30) days after becoming aware of the violation, except that the industrial user is not required to resample if:

A. The industrial user performs sampling at least once per month, or

B. The Town performs sampling at the industrial user between the time when the user performs its initial sampling and the time when the user receives the noncompliant sampling results.

1511.6. Discharge of Hazardous Waste. Any discharge into the POTW of a substance that, if otherwise disposed would be a hazardous waste under 40 CFR Part 261 or are hazardous wastes as defined in the NHDES Hazardous Waste Rules, is prohibited.

1511.7. Analytical Requirements. All measurements, tests, and analyses of the characteristics of waters and wastes to which reference is made in these regulations shall be determined in accordance with EPA approved methods published in the Code of Federal Regulations, Title 40, Part 136 (40 CFR Part 136) or as may be revised. Where 40 CFR Part 136 does not contain sampling or analytical techniques for the pollutant in question, sampling and analysis shall be performed by using validated analytical procedures, including procedures suggested by the POTW or other parties.

A laboratory that is currently certified by the State of New Hampshire to perform the requested tests shall perform all analyses. Complete copies of analytical laboratory reports, including all relevant quality control data, shall be submitted as part of each IDP application or report.

1511.8. Sample Collection.

A. Except as indicated in paragraph (B), below, the user shall collect wastewater samples using 24-hour flow-proportional composite collection techniques. In the event flow-proportional sampling is not feasible, the Director may authorize the use of time-proportional sampling, or grab sampling where the user demonstrates that this will provide a representative sample of the effluent being discharged. In addition, grab samples may be required to demonstrate compliance with instantaneous maximum allowable discharge limitations (*e.g.*, screening levels established to protect worker health and safety). A single grab sample may also be used in place of multiple grabs or a composite sample with approval of the Director when:

1. The effluent is not discharged on a continuous basis (*i.e.*, batch discharges of short duration), and only when the batch exhibits homogeneous characteristics (*i.e.*, completely mixed) and the pollutant can be safely assumed to be uniformly dispersed;
2. Sampling is at a facility where the Director determines that a statistical relationship can be established between previous grab samples and composite data; and
3. The waste conditions are relatively constant (*i.e.*, are completely mixed and homogeneous) over the period of the discharge.

B. Samples for temperature, pH, cyanides, oil & grease, total phenols, sulfides, and volatile organic compounds shall be obtained using grab collection techniques.

C. The industrial user is required to collect the number of grab samples necessary to assess and assure compliance with applicable pretreatment standards and requirements.

D. Using protocols (including appropriate preservation) specified in 40 CFR Part 136 and appropriate EPA guidance, multiple grab samples collected during a 24-hour period may be composited prior to the analysis as follows: for cyanide, total phenols, and sulfides the samples may be composited in the laboratory or in the field; for volatile organics and oil and grease, the samples may be composited in the laboratory.

E. Samples shall be collected by individuals who are properly qualified, through verifiable training and experience, to perform the type of sampling required. The integrity of all samples shall be ensured by following established chain-of-custody practices for evidentiary samples. Sampling and chain-of-custody records shall be maintained. Copies of chain-of-custody records shall be submitted as part of each analytical report.

1511.9. Timing. Written reports will be deemed to have been submitted on the date postmarked. For reports that are not mailed, postage prepaid, into a mail facility serviced by the United States Postal Service, the date of receipt of the report shall govern.

1511.10. Recordkeeping. Users subject to the reporting requirements of these regulations shall retain, and make available for inspection and copying, all records of information obtained pursuant to any monitoring activities required by these regulations and any additional records of information obtained pursuant to monitoring activities undertaken by the user independent of such requirements. The Town may require a user to submit these records upon written request to local or state officials. Records shall include the date, exact location, method, and time of sampling, and the name of the person(s) obtaining the samples; chain of custody; quality assurance/quality control records; the dates analyses were performed; who performed the analyses; the analytical techniques or methods used; and the results of such analyses. These records shall remain available for a period of at least five (5) years. This period shall be automatically extended for the duration of any litigation concerning the user or the Town, or where the user has been specifically notified of a longer retention period by the Director.

1512 Powers and Authority of Inspectors

1512.1. Duly authorized employees of the Town bearing proper credentials and identification shall be permitted to enter all properties for the purposes of inspection, observation, measurements, sampling, copying of records and testing pertinent to discharge to the POTW and the performance of any additional duties in accordance with the provisions of these regulations. At least once a year the Town will inspect each significant indirect discharger for compliance with the discharge permit, and this inspection shall include sampling if the Town determines that sampling is necessary to determine compliance.

1512.2. Duly authorized employees are authorized to obtain information concerning industrial processes which have a direct bearing on the kind and source of discharge to the wastewater collection system. An industry may declare certain information confidential, subject to the requirements in Section 1513 of these regulations.

1512.3. While performing the necessary work on private properties referred to in Section 1512.1, above, duly authorized employees of the Town shall observe all safety rules applicable to the premises, and the owner shall be held harmless for injury or death to Town employees, and the Town shall indemnify the owner against loss or damage to its property by Town employees and against liability claims and demands for personal injury, or property damage asserted against the owner and growing out of the gauging and sampling operation, except as such may be pulsed by negligence or failure of the owner to maintain safe conditions.

1512.4. Where a user has security measures in force that require proper identification and clearance before entry into its premises, the user shall make and maintain all necessary arrangements so that, upon presentation of suitable identification, the Director will be permitted to enter without delay for the purposes of performing specific responsibilities.

1512.5. The Director shall have the right to set up on the user's property, or require installation of, such devices as are necessary to conduct sampling and/or metering of the user's operations.

1512.6. The Director may require the user to install monitoring equipment as necessary. The facility's sampling and monitoring equipment shall be maintained at all times in a safe and proper operating condition by the user at its own expense. All devices used to measure wastewater flow and quality shall be calibrated in accordance with the manufacturer's recommendations (but at least annually) to ensure their accuracy. Calibration records shall be maintained.

1512.7. Any temporary or permanent obstruction to safe and easy access to the facility to be inspected and/or sampled shall be promptly removed by the user at the written or verbal request of the Director and shall not be replaced. The costs of clearing such access shall be borne by the user.

1512.8. Unreasonable delays in allowing the Director access to the user's premises, sampling or inspection sites, or pretreatment records shall be a violation of these regulations.

1512.9. The Director and/or other duly authorized employees of the Town, bearing proper credentials and identification, shall be permitted to enter all private properties through which the Town holds a duly negotiated easement for the purposes of, but not limited to, inspection, observation, measurement, sampling, repair, and maintenance of any portion of the wastewater facilities lying within said easement. All entry and subsequent work, if any, on said easement, shall be done in full accordance with the terms of the duly negotiated easement, pertaining to the private property involved.

1512.10. If the Director has been refused access to a building, structure, or property, or any part thereof, and is able to demonstrate probable cause to believe that there may be a violation of these regulations, or that there is a need to inspect and/or sample as part of a routine inspection and sampling program of the Town designed to verify compliance with these regulations or any permit or order issued hereunder, or to protect the overall public health, safety and welfare of the community, then the Director may obtain an administrative inspection warrant under RSA 595-B.

1513 Confidential Information / Public Participation

1513.1. Information and data about a user obtained from reports, questionnaires, IDP applications, IDPs, monitoring programs, and from Town inspection and sampling activities, shall be available to the public without restriction unless the user specifically requests, and is able to demonstrate to the satisfaction of the Town, that the release of such information would divulge information, processes or methods of production entitled to protection as trade secrets under applicable law. Any such request must be asserted at the time of submittal of the information or data.

1513.2. Wastewater constituents and characteristics and other "effluent data" as defined by 40 CFR 2.302 will not be recognized as confidential information and will be available to the public without restriction.

1513.3. When requested and demonstrated by the industrial user furnishing a report that such information should be held confidential, the portions of a report which might disclose trade secrets or secret processes shall not be made available for inspection by the public but shall be made available immediately upon request to governmental agencies for uses related to these regulations, the NPDES program or pretreatment program, and in enforcement proceedings involving the person furnishing the report.

1514 Enforcement and Penalties

1514.1. Notice of Violation. The Town, upon being informed in writing of a possible violation of these regulations or on its own initiative, shall make or cause to be made an investigation of facts and an inspection of the premises where such violations may exist. When investigation reveals evidence of any violation, or whenever the Director finds that any person has violated or is violating these regulations, or a IDP or order issued hereunder, the Director shall give written notice, either hand delivered or by certified mail with receipt acknowledged, of such violation to the owner and the occupant of such premises. The Town shall demand in such notice that such violation be abated within some designated reasonable time. Within the time period specified in the notice, an explanation of the violation and a plan for the satisfactory correction and prevention thereof, to include specific required actions, shall be submitted to the Director. Submittal of this plan in no way relieves the person of liability for any violations occurring before or after receipt of the Notice of Violation.

If, after such notice and demand, such violation has not been abated within the time specified, the Town shall institute appropriate action to prevent, correct, restrain or abate any violation of the Ordinance. The Town or its agents have the authority to enter the premises, cause the violation to be abated and recover any direct expenses. Nothing in this section shall limit the authority of the Director to take any action, including emergency actions or any other enforcement action, without first issuing a Notice of Violation.

1514.2. Compliance Schedule Development. The Director may require any user that has violated, or continues to violate, any provision of these regulations, an IDP or order issued hereunder, or any other pretreatment standard or requirement, to develop a compliance schedule. A compliance schedule pursuant to this section shall comply with the following conditions:

A. The schedule shall contain progress increments in the form of dates for the commencement and completion of major events leading to the construction and operation of additional pretreatment required for the user to meet the applicable pretreatment standards (such events include, but are not limited to, retaining an engineer, completing preliminary and final design plans, executing contracts for major components, commencing and completing construction, and beginning and conducting routine operation);

B. No increment referred to above shall exceed nine (9) months;

C. The user shall submit a progress report to the Director no later than fourteen (14) days following each date in the schedule and the final date of compliance including, as a minimum, whether or not it complied with the increment of progress, the reason for any delay, and, if appropriate, the action being taken by the user to return to the established schedule; and

D. In no event shall more than nine (9) months elapse between such progress reports to the Director.

1514.3. Best Management Practices Plan Development. The Director may develop or require any user that has violated or continues to violate any provision of these regulations, an IDP, or order issued hereunder, or any other pretreatment standard or requirement, to develop a Best Management Practices Plan acceptable to the Director in accordance with Section 1508.8 of these regulations. The Best Management Practices Plan must specifically address violation(s) for which this action was undertaken. The Best Management Practices Plan shall be developed using good engineering judgment and shall be submitted to the Director no later than sixty (60) days after the user was notified of this requirement.

1514.4. Show Cause Orders. The Director may order any person that causes or contributes to a violation of these regulations, IDP or order issued hereunder, or any other pretreatment standard or requirement, to appear before the Director and show cause why the proposed enforcement action should not be taken. Notice shall be served on the person specifying the time and place for the meeting, the proposed enforcement action, the reasons for such action, and a request that the person show cause why this proposed enforcement action should not be taken. The notice of the meeting shall be served personally or by registered or certified mail (return receipt requested) at least ten (10) days prior to the hearing. Such notice may be served on any person or authorized representative of a user. Whether or not a duly notified person appears as noticed, immediate enforcement action may be pursued. A show cause hearing shall not be a bar against, or prerequisite for, executing any other action against the person.

1514.5. Compliance Orders. When the Director finds that a person has violated or continues to violate the ordinance or a permit or order issued thereunder, the Director may issue an order to the person responsible for the discharge directing that, following a specified time period, sewer service may be discontinued unless adequate treatment facilities, devices, or other related appurtenances have been installed and are property operated. Orders may also contain such other requirements as might be reasonably necessary and appropriate to address the noncompliance, including the installation of pretreatment technology, additional self-monitoring, and management practices.

1514.6. IDP Termination. The Director may terminate a user's IDP for good cause, including but not limited to the following:

A. Violation of IDP conditions;

B. Failure to accurately report the wastewater constituents and characteristics of its discharge;

C. Failure to report significant changes in operations or wastewater constituents and characteristics;

D. Misrepresentation or failure to fully disclose all relevant facts in the IDP application;

E. Refusal of reasonable access to the user's premises for the purpose of inspection, monitoring, or sampling;

F. Falsifying self-monitoring reports;

G. Tampering with monitoring equipment;

H. Failure to pay fines;

I. Failure to pay sewer charges or fees;

J. Failure to meet compliance schedules;

K. Failure to complete a wastewater survey;

L. Failure to provide advance notice of the transfer of a permitted facility;

M. Discharging wastewater that presents an imminent hazard to the public health, safety or welfare, or to the local environment; or

N. Violation of any pretreatment standard or requirement, or this Ordinance or order issued hereunder, or any applicable State or federal law.

1514.7. Termination of Discharge. Any user who violates a Section 1514.6 criteria, or fails to cease and desist from any discharge of wastewater upon termination of their IDP for that discharge, is subject to discharge termination. Such user will be notified of the

proposed termination of its discharge and be offered an opportunity to show cause under Section 1514.4 of these regulations why the proposed action should not be taken. Exercise of this option by the Director shall not be a bar to, or a prerequisite for, taking any other action against the user.

1514.8. Emergency Suspensions. The Town may, after informal notice to a person discharging wastewater to the POTW, immediately halt or prevent any such discharge reasonably appearing to present an imminent endangerment to the health and welfare of the public, or any discharge presenting, or which may present, and endangerment to the environment, or which threatens to interfere with the operation of the POTW.

A. Any person notified of a suspension of its discharge shall immediately terminate or eliminate its wastewater discharge. In the event of a person's failure to immediately comply voluntarily with the suspension order, the Director may implement such steps as deemed necessary, including immediate severance of the sewer connection and entry on private property to halt such discharge, to prevent or minimize damage to the POTW, its receiving stream, or endangerment to any individuals. The Director may allow the person to recommence its discharge when the person has demonstrated to the satisfaction of the Director that the period of endangerment has passed, unless the termination proceedings in Section 1514.7 of these regulations are initiated against the person.

B. A person that is responsible, in whole or in part, for any discharge presenting imminent endangerment shall submit a detailed written statement, describing the causes of the harmful contribution and the measures implemented to prevent any future occurrence, to the Director prior to the date of any show cause or termination hearing under Sections 1514.4 or 1514.7 of these regulations.

Nothing in this section shall be interpreted as requiring a hearing prior to any emergency suspension under this section.

1514.9. Recovery of Expenses. Any person violating any of the provisions of these regulations shall become liable to the Town for any expense, loss or damage occasioned by the Town, by reason of such violations.

1514.10. If any Person shall fail, or refuse, upon receipt of a notice of the Town, in writing, to remedy any unsatisfactory condition with respect to a Building Sewer, within forty-five (45) days of receipt of such notice, the Town may remedy any unsatisfactory condition with respect to a Building Sewer and may collect from the Owner the costs and expenses thereof by such legal proceedings as may be provided by law. The Town shall have full authority to enter on the Owner's property to do whatever is necessary to remedy the unsatisfactory condition. The 45-day notice period shall not apply to a condition that threatens public health and/or safety.

1514.11. Penalties (Fines). When the Director of Public Works finds that a person has violated, or continues to violate, any provision of this Ordinance, an IDP, or order issued hereunder, or any other Pretreatment Standard or Requirement, the Director of Public Works may fine such user in an amount not to exceed $1,000. (Ref. RSA 31:39 III) Such fines shall be assessed on a per-violation, per-day basis. In the case of monthly or other long-term average discharge limits, fines shall be assessed for each day during the period of violation. The Director of Public Works is authorized to issue citations seeking penalties and for initiating judicial proceedings for penalties that are not paid.

Issuance of a penalty shall not be a bar against, or a prerequisite for, implementing any other action against a person.

1514.12. Civil Penalties. The Town may pursue any other or any combination of remedies for enforcement of this ordinance available to it under applicable law. Each day in which any such violation shall continue shall be deemed a separate offense.

A. Any person who has violated, or continues to violate, any provision of this Ordinance, an IDP, or order issued hereunder, or any other pretreatment standard or requirement shall be liable to the Town for a maximum civil penalty of $10,000 per violation per day, as authorized by RSA 149-I:6, plus actual damages incurred by the POTW. In the case of a monthly or other long-term average discharge limit, penalties shall accrue for each day during the period of the violation.

B. The Town may recover reasonable attorneys' fees, court costs, and other expenses associated with enforcement activities, including sampling and monitoring expenses, and the cost of any actual damages incurred by the Town. The Town shall petition the Court to impose, assess, and recover such sums.

C. In determining the amount of civil liability, the Court shall consider all relevant circumstances, including, but not limited to, the extent of harm caused by the violation, the magnitude and duration of the violation, any economic benefit gained through the violation, corrective actions implemented by the person, the compliance history of the person, and any other factor as justice requires.

D. Filing a suit for civil penalties shall not be a bar against, or a prerequisite for, implementing any other action against a person.

E. The Town shall give notice of the alleged violation to the NHDES within 10 days of commencement of any action under this section. (Ref. RSA 149-I:6)

1514.13. Criminal Penalties. Any person who willfully or negligently violates any provision of this Ordinance, an IDP, or order issued hereunder, or any other pretreatment standard or requirement shall be subject to criminal action under prevailing sections of the criminal code of the State of New Hampshire. The Director shall cooperate with all law enforcement officials having jurisdiction over such criminal conduct in the event that a prosecution is undertaken. Every separate provision violated shall constitute a separate violation. Every day that a violation occurs shall be deemed a separate violation. Additionally, any violation may be referred to the state for criminal prosecution under its powers. (Ref. RSA 485-A:22 and RSA 485-A:5)

1514.14. Nonexclusive Remedies. The remedies provided for in these regulations are not exclusive. The Town may take any, all, or any combination of these actions against a noncompliant person. The Town may pursue other action against any person ser without limitation, including *ex parte* temporary judicial relief to prevent a violation of these regulations. Further, the Town is empowered to pursue more than one enforcement action against any noncompliant person

1515 Affirmative Defenses to Discharge Violations

1515.1. Upset.

A. For the purposes of this section, "upset" means an exceptional incident in which there is unintentional and temporary noncompliance with pretreatment standards due to factors beyond the reasonable control of the user. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

B. An upset shall constitute an affirmative defense to an action brought for noncompliance with pretreatment standards if the requirements of paragraph (C), below, are met.

C. A user who intends to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

1. An upset occurred and the user can identify the cause(s) of the upset; and

2. At the time of the upset, the facility was being operated in a prudent and workman-like manner and in compliance with applicable operation and maintenance procedures;

3. The user has submitted the following information to the Director within twenty-four (24) hours of becoming aware of the upset (if this information is provided orally, a written submittal must be provided within five (5) days):

a. A description of the discharge and cause of noncompliance;

b. The period of noncompliance, including exact dates and times or, if not corrected, the anticipated time the noncompliance is expected to continue; and

c. Action being implemented and/or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

D. In any enforcement proceeding, the user seeking to establish the occurrence of an upset shall have the burden of proof.

E. Users will have the opportunity for a judicial determination on any claim of upset only in an enforcement action brought for noncompliance with pretreatment standards.

F. A user shall control production of all discharges to the extent necessary to maintain compliance with pretreatment standards upon reduction, loss, or failure of its treatment facility until the facility is restored or an alternative method of treatment is provided. This requirement applies in the situation where, among other things, the primary source of power of the treatment facility is reduced, lost, or fails.

1515.2. Prohibited Discharge Standards. A user shall have an affirmative defense to an enforcement action brought against it for noncompliance with the general prohibitions in Section 1507.1 of these regulations or the specific prohibitions in Section 1507.2 of these regulations if it can prove that it did not know, or have reason to know, that its discharge, alone or in conjunction with discharges from other sources, would cause pass through or interference and that either.

A. A local limit exists for each pollutant discharged and the user was in compliance with each limit directly prior to, and during, the pass through or interference.

B. No local limit exists, but the discharge did not change substantially in nature or constituents from the user's prior discharge when the Town was regularly in compliance with its NPDES permit, and in the case of interference, was in compliance with applicable biosolids use or disposal requirements.

1515.3. Bypass

A. For the purposes of this section,

1. "Bypass" means the intentional diversion of wastestreams from any portion of a user's treatment facility.

2. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

B. A user may allow any bypass to occur that does not cause pretreatment standards or requirements to be violated, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provision of paragraphs (C) and (D) of this section.

C. The user shall provide the following notifications for bypass events:

1. If a user is aware in advance of the need for a bypass, the user shall submit prior notice to the Director, at least ten (10) days before the date of the bypass, if possible;

2. A user shall submit verbal notice to the Director of an unanticipated bypass that exceeds applicable pretreatment standards within twenty-four (24) hours from the time the user becomes aware of the bypass. A written submittal shall also be provided within five (5) days of the time the user becomes aware of the bypass. The written submittal shall contain a description of the bypass and its cause; the duration of the bypass, including exact dates and times, and, if the bypass has not been corrected, the anticipated time it is expected to continue; and steps implemented or planned to reduce, eliminate, and prevent reoccurrence of the bypass. The Director may waive the written report on a case-by-case basis if the oral report has been received within twenty-four (24) hours.

D. A bypass of the treatment system is prohibited, and the Director may initiate enforcement action against a user for a bypass, unless:

1. The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

2. There were no feasible alternatives to the bypass, including the use of auxiliary treatment, or retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance; and

3. The user submitted notices as required under paragraph (C) of this section.

E. The Director may approve an anticipated bypass, subsequent to considering its adverse effects, if the Director determines that it will satisfy the three conditions listed in paragraph (D) of this section.

1516 Septage Disposal

1516.1. No person shall discharge hauled septage into the Town's wastewater POTW who does not hold a septage hauler permit issued pursuant to RSA 485-A:4, XVI-a. A copy of such permit shall be filed by the permit holder with the Town. Upon renewal or revocation of such permit, the hauler shall be responsible for notification of such renewal or revocation to the Town. The Director may limit the quantities of septage that can be received or refuse to receive septage to ensure proper operation of the treatment facility pursuant to RSA 486:13.

1516.2. Septage Hauler Requirements.

A. A permitted hauler may discharge septage to the facilities provided at the Town's wastewater treatment facility only after paying the charges as set forth in Section 1516.5 of this Ordinance.

B. Those persons, firms, corporations, municipal subdivisions or institutions that conform to state definition of "RVs" shall dispose of such septage as human excrement or other putrescible materials at the dates, times, and locations designated by the Director.

C. No person, firm, corporation, municipal subdivision or institution shall discharge any toxic, poisonous, radioactive solids, liquids or gases, or the contents of grease, gas, oil and/or sand interceptors into the Town's wastewater treatment facility without specific authorization of the Director.

1516.3. Temporary Septage Permits. The Director may issue a temporary permit to allow the discharge of septage at a point of discharge other than the wastewater treatment facility in a situation where such temporary discharge point is necessary to protect the health and welfare of the Town. The Director shall issue such permit upon such terms and conditions as the Director deems to be in the best interests of the Town. The temporary permit shall not be valid for a period exceeding twelve (12) months. The Director shall have the right to revoke or suspend the temporary permit in the event that the terms and conditions are not met.

1516.4. Septage Permits.

A. Any septage hauler who intends to dispose of septage within the limits of the Town shall first obtain a permit from the Town.

B. Such permit as issued by the Town shall identify:

1. The motor vehicle;
2. The capacity of the tank;
3. The NHDES Permit Number; and
4. Any other details of compliance with NHDES rules.

C. The following conditions shall constitute conditions precedent to the issuance of each permit by the Town:

1. Each septic tank truck shall be equipped with either a sight level by which the quantity of the contents of each tank may be ascertained by sight or an

access port through which the quantity of the contents of each truck may be ascertained by depth measurements;

2. Prior to discharging the load, the hauler shall record the following information in a log at the POTW:
    a. The hauler's name;
    b. Date;
    c. Time of disposal;
    d. Volume disposed;
    e. Origin of load (property owner's name, address, and telephone number); and
    f. Nature of the waste (e.g., grease or septage) being disposed.
3. The hauler shall be responsible to see that septage or holding tank wastewater does not leak on the ground near the discharge point, and that all exposed areas were washed to remove traces of septage or holding tank wastewater.
4. Owners of "RVs" who intend to discharger the contents of holding tanks are exempt from the permitting process.

1516.5. Septage Disposal Charge. There shall be a Septage Disposal Charge as established by the Town's current *Fee Schedule* for the receipt of septage into the Town's POTW for treatment. In the event that the permittee has either a defective sight level, no sight level attached to the track, and/or no access to the contents of the truck for depth measurement, the permittee shall be charged according to the full tank capacity at the time of discharge or by other method determined by the Director.

1517 Conflict of Ordinance

1517.1. If a provision of this Ordinance is found to be in conflict with any provision of zoning, building, safety, health or other ordinance or code of the Town, the State of New Hampshire, or the Federal Government existing on or subsequent to the effective date of this Ordinance, that provision, which in the judgment of the Town establishes the higher standard of safety and protection of health, shall prevail.

1517.2. The invalidity of any section, clause, sentence or provision of this Ordinance shall not affect the validity of any other part of this Ordinance, which can be given effect without such invalid part or parts.

1518 Interpretation of Requirements

1518.1. Interpretation. The provisions of this Ordinance with respect to the meaning of technical terms and phrases, the classification of different types of sewers, the regulations with respect to installing or constructing connections to sewers or drains, and other technical matters shall be interpreted and administered by the Director acting in and for the Town of Exeter, New Hampshire through the Board of Selectmen.

1518.2. Appeals. Any party aggrieved by any decision, regulation or provision under this Ordinance, as amended, from time to time, shall have the right of appeal within thirty (30) calendar days of said decision to the Director, who shall issue a decision within thirty (30) calendar days. If said appeal is denied by the Director, then the aggrieved

party shall have the right to appeal to the Exeter District Court for equitable relief, provided that said appeal is entered within thirty (30) calendar days from the issuance of the decision of the Director.

1519 Modifications

The Town reserves the right to adopt, from time to time, additional rules and regulations as it shall deem necessary and proper relating to connections with a sewer and the POTW, which additional rules and regulations, to the extent appropriate, shall be a part of these regulations.

1520 Bell and Flynn Agreement (Agreement terminated 12/19/94)

1521 Oak Haven Sewer District (Agreement terminated 04/03/95)

1522 Ordinance in Force

This ordinance shall be in full force and effect from and after its passage, approval, recording, and publications as provided by law.

Duly enacted and ordained this ____ day of _____ by the Board of Selectmen of the Town of Exeter in Rockingham County, State of New Hampshire, at a duly noticed and duly held session of the said Board of Selectmen.

Exeter, New Hampshire

By:

_____	_____
_____	_____
_____	_____
_____	_____

DEVELOPMENT OF LOCAL POLLUTANT CONTROLS

Town of Exeter, New Hampshire
Department of Public Works
Water/Sewer Division

August 2022

TeTon Environmental, PLLC
19 Wood Hill Drive, Auburn, New Hampshire 03032
Telephone: (603) 587-0039

1521 Ordinance in Force

This ordinance shall be in full force and effect from and after its passage, approval, recording, and publications as provided by law.

Duly enacted and ordained this 28th day of January 28, 2013 by the Board of Selectmen of the Town of Exeter in Rockingham County, State of New Hampshire, at a duly noticed and duly held session of the said Board of Selectmen.

Exeter, New Hampshire

By:

_____	_____
_____	_____
_____	_____
_____	_____

Contents

CONTENTS

Contents

11237 / NH

Licensed Professional Engineer: Marc E. Sexton, P.E. Date Registration No./State

1. SUMMARY OF RESULTS

Wastewater discharges from the Town of Exeter (Exeter or Town) are conveyed to the Squamscott River. Exeter's Industrial Pretreatment Program (IPP) is subject to New Hampshire Department of Environmental Services (NHDES) regulations, and therefore includes pollutant controls for wastewater received from industrial sources.

To comply with the requirements applicable for wastewater received by the Exeter Publicly Owned Treatment Works (POTW), the following industrial wastewater pollutant controls are recommended for metals and cyanide:

Table 1-1 Recommended Allowable Loadings for Metals and Cyanide

Pollutant	Existing Maximum Allowable Industrial Loading (MAIL) (lb/day)	Proposed Maximum Allowable Industrial Loading (MAIL) (lb/day)
Aluminum	NLR	NLR
Antimony	NLR	NLR
Arsenic	0.048	BMPs[2]
Beryllium	NLR	NLR
Cadmium	0.02	0.031
Chromium (III and VI)	1.0	1.47
Copper	1.8	1.28
Cyanide (T)	0.10	0.085
Lead	0.39	0.86
Mercury	0.021	0.029
Molybdenum	BMPs[1]	0.028
Nickel	0.55	0.82
Selenium	0.06	0.091
Silver	0.07	0.10
Thallium	NLR	NLR
Zinc	0.59	0.72

NLR – No limit recommended. Beryllium and thallium were not detected in the sampling. For aluminum, no environmental criteria currently exists, therefore it was not included in the evaluation. Antimony is not a pollutant of concern at the levels present or likely to be present within the POTW.

Note 1. In the 2009 evaluation, the molybdenum (Mo) allowable loading capacity was completely utilized by Mo present in domestic wastewater. Best Management Practices were required to prohibit or limit the addition of Mo to wastewater discharges as an alternative to enforcement of a numerical value. In this 2021 evaluation, the recent WWTF upgrade had a significant impact on the WWTF's performance including a better

understanding of sludge production rates. Lower background measurements that were consistent with the mass balance also contributed to a revision in the Mo calculations.

Note 2. The arsenic allowable loading capacity is completely utilized by arsenic present in unregulated sources (*i.e.*, domestic and septage). Best Management Practices (BMPs) will be required to prohibit or limit the addition of arsenic to wastewater discharges as an alternative to enforcement of a numerical value.

Table 1-2 Recommended Regulatory Controls for Metals, Cyanide and pH

Pollutant	Existing Screening Level (mg/L)	Proposed Allowable Industrial Headworks Loading (MAIL) (lb/day)	Proposed Uniform Concentration Value (mg/L)
Arsenic	0.08	BMPs	Not applicable
Cadmium	0.03	0.031	0.046
Chromium (III and VI)	1.7	1.47	2.21
Copper	3.1	1.28	1.93
Cyanide (T)	0.17	0.085	0.13
Lead	0.66	0.86	1.30
Mercury	0.035	0.029	0.044
Molybdenum	Not applicable	0.028	0.042
Nickel	0.93	0.82	1.24
Selenium	0.11	0.091	0.14
Silver	0.11	0.10	0.16
Zinc	1.00	0.72	1.09
pH (maximum allowable range)		5.5 – 11.5 S.U.	

MAIL - Permitted concentration values are issued on a permit-specific basis and assure that the MAIHL is not exceeded. The Public Works Department will not issue permits that in combination with other industrial loads exceed the MAILs above.

Concentration values, mass values and Best Management Practices, when written into industrial wastewater discharge permits, are intended to apply to the combined industrial wastewater discharge from a facility. These requirements are enforceable under the provisions of the Sewer Regulations.

For discharges of non-metallic pollutants, the following screening levels are recommended:

Table 1-2 Screening Levels (Non-metals)

POLLUTANT	REGULATORY VALUE
Biochemical Oxygen Demand	272 mg/L
Total Suspended Solids	313 mg/L
Nitrogen (TKN)	84 mg/L
Sulfide	1.0 mg/L
Sulfate	150 mg/L (Type I concrete) / 1,500 mg/L (Type II concrete)
Oil & Grease – (EPA method 1664 SGT-HEM)	100 mg/L
Oil & Grease – (EPA method 1664 HEM)	350 mg/L
Chloride	1,500 mg/L
VOLATILE ORGANIC COMPOUNDS	
Acetone	372 mg/L
Acrylonitrile	0.482 mg/L
Benzene	0.001 mg/L
2-Butoxyethanol	367 mg/L
Carbon disulfide	0.007 mg/L
Chlorobenzene	0.304 mg/L
Chloroform	0.065 mg/L
1,4-Dichlorobenzene	0.103 mg/L
1,1-Dichloroethane	1.74 mg/L
1,2-Dichloroethane	0.08 mg/L
trans 1,2-Dichloroethylene	2.06 mg/L
1,2-Dichloropropane	3.0 mg/L
1,3-Dichloropropene	0.01 mg/L
Di-isobutylketone (DIBK)	8.0 mg/L
Ethylbenzene	1.35 mg/L
Fluorotrichloromethane	1.25 mg/L
Formaldehyde	1.47 mg/L
Hexachloroethane (PCA)	0.06 mg/L

POLLUTANT	REGULATORY VALUE
Methyl ethyl ketone (MEK)	160 mg/L(1)
Methyl isobutyl ketone (MIBK)	36 mg/L
Methyl tert-butyl ether (MTBE)	5.5 mg/L
Methylene chloride	1.0 mg/L
Tetrachloroethylene (PCE)	0.23 mg/L
Toluene	0.69 mg/L
1,2,4-Trichlorobenzene	0.64 mg/L
1,1,1-Trichloroethane (TCA)	2.7 mg/L
Trichloroethene	0.32 mg/L
Vinyl chloride	0.002 mg/L
Xylenes	1.4 mg/L

(1) The MEK limit is set at 80% of the hazardous waste TCLP criterion and may not be exceeded under any conditions.

Screening levels are concentration-based values that, if exceeded, represent a potential for adverse impacts. The potential impact of a discharge that is proposed or that exceeds a screening level value warrants administrative review or investigation on a case-by-case basis.

While not proposed for inclusion in the Town's Sewer Regulations, it should be noted that the metals contributions to the wastewater treatment facility from septage at the currently anticipated maximum septage volume of 350,000 gallons per month (11,507 gallons per day) is relatively significant and volumes in excess of this amount should not be accepted at the WWTF.

2. BACKGROUND

This update to Exeter's Local Pollutant Controls represents an ongoing process traceable back to a comprehensive local discharge limitations project by TeTon in 2009. Since 2009, changes in surface water quality regulations have taken place, the Main Pump Station and wastewater treatment facility (WWTF) were comprehensively upgraded in 2019, Town-wide efforts to reduce infiltration/inflow have occurred, and a general trend to increase water efficiency measures have changed the characteristics of the wastewater in the collection system. Based on the nature of such changes, the Town of Exeter (Town) requested in 2020 that the prior controls be re-evaluated and updated as appropriate.

The Town's wastewater, after treatment at its municipal WWTF, is conveyed into a tidally-influenced segment of the Squamscott River (Class B), upstream of the Great Bay. The Town's WWTF discharges treated effluent in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) Permit (No. NH0100871) issued by the U.S. Environmental Protection Agency (EPA) and certified by the New Hampshire Department of Environmental Services (NHDES). The Town's current NPDES permit was issued in 2012.

The Town's sewer collection and transport system includes approximately 50 miles of sewers ranging from 6 to 30 inches, 1,100 manholes and 10 pumping stations. The original sewers of the system date back to the early 1900s and were constructed as combined sewers that are still subject to significant inflow/infiltration (I/I) flows. A 1997 Infiltration/Inflow Study by CDM projected that I/I improvements could reduce I/I from 430,000 gpd to 860,000 gpd. A storm drainage separation program and removal of public inflow sources was subsequently completed; however combined sewer overflows still occur indicating that an I/I issue continues to exist.

The following description of the Exeter Publicly Owned Treatment Works (POTW) is primarily from the *Town of Exeter's WWTF O&M Manual* (August 2020, Wright-Pierce), with minor edits to serve as supplemental information for users of this report.

The wastewater process train starts at the Main Pump Station where influent wastewater flow is pumped to the treatment plant. The flow then goes through preliminary treatment with solids screening and grit removal. Preliminary treatment is followed by secondary treatment. The WWTF uses a 4-Stage Bardenpho process or a Modified Ludzack-Ettinger (MLE) process for secondary treatment and biological nitrogen removal. Secondary treatment is then completed in the secondary clarifiers, followed by UV disinfection in two channels before being discharged to the river outfall on the Squamscott River with a

dilution ratio of 26.0 to 1. Sludge from the treatment process is dewatered and disposed of off-site at the Turnkey Landfill via truck.

Additional space is allocated on the site and additional hydraulic head is reserved in the hydraulic profile for a possible future primary treatment system, future third aeration tank, and future tertiary treatment facility.

Exeter's upgraded WWTF was designed to treat an average annual daily flow of 2.2 MGD / 2.65 MGD (Bardenpho/MLE) and a peak influent flow of 5.5 MGD in the Phase 1 upgrade. Phase 2 upgrades include an average annual daily design flow of 3.0 MGD and a peak influent flow of 6.6 MGD. Average daily effluent flow in 2020 was approximately 1.52 MGD.

Wastewater accepted by the POTW includes sanitary wastewater, as well as industrial wastewater (including "commercial" sources such as restaurants and boiler blowdown). The service area includes a commercial development within the Town of Stratham. Hauled septage is now being accepted at the WWTF at a septage receiving station (with a maximum desired septage flow of 350,000 gallons per month).

The Town's WWTF is primarily designed to treat normal sanitary wastewater from residential locations and sink and toilet wastes from commercial, industrial and other locations. Wastewater discharged from other sources is generally identified as "industrial wastewater" by regulatory agencies, although it does not necessarily originate from manufacturing operations. Industrial wastewater may contain pollutants or concentrations of pollutants that POTWs are not designed to treat or manage. Therefore, controls are established to protect the POTW and the environment.

The primary goals of Exeter's wastewater discharge pollutant controls are to:

- Ensure that surface water quality requirements are satisfied;
- Protect the quality of biosolids generated at the facility so that its intended disposal options can be met;
- Ensure the safety of collection system workers;
- Comply with the requirements of its NPDES permit; and
- Protect the structures of the wastewater collection system.

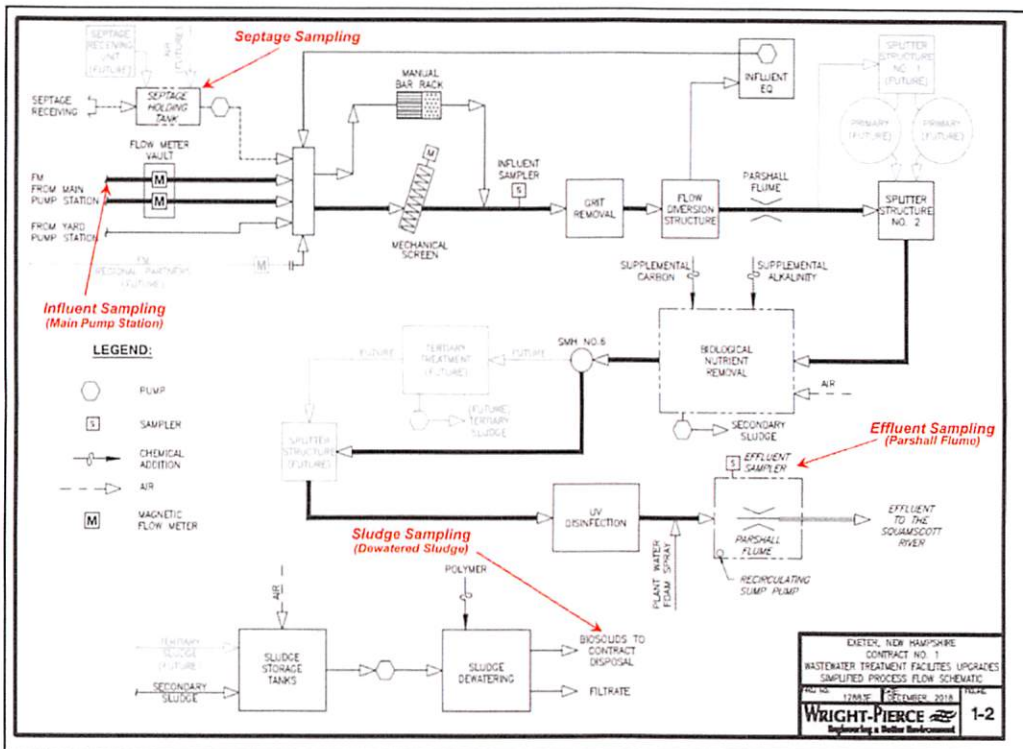
These considerations are incorporated into this report and the recommended controls for Exeter's industrial wastewater discharges.

This document describes the basis for those controls established for industrial wastewater discharges originating within Exeter. The methodology utilized is consistent with current EPA recommendations.

Approximately four (4) percent of Exeter's flow to the WWTF is of industrial origin and ten industrial wastewater discharge permits have been issued and are active.

Attachments to this section:

- *Figure 2-1 Exeter WWTF Process Schematic Diagram*



Design Loadings @ 2.2 MGD[1]

Parameter	Loading lb/day	Concentration mg/L
BOD	4,000	218
TSS	4,600	251
TKN	655	36
TP	90	4.9

[1] From 2020 Wright-Pierce WWTF O&M Manual

FIGURE NO. 2-1	PROJECT NO.	WASTEWATER TREATMENT FACILITY TOWN OF EXETER EXETER, NEW HAMPSHIRE PROCESS SCHEMATIC DIAGRAM	DES'D BY M.E.S. CK'D BY M.E.S. SCALE N.T.S. DATE Dec-2020

TeTon Environmental, PLLC

3. ENVIRONMENTAL CRITERIA

Exeter's pollutant controls are based on the environmental criteria typical for Publicly Owned Treatment Works (POTWs). These include:

- *Surface water quality standards*
- *Biosolids quality (including hazardous waste characterization)*
- *Process inhibition*
- *National Pollutant Discharge Elimination System (NPDES) permit limits*

Surface Water Quality Standards

Surface water quality standards are promulgated by NHDES in Chapter Env-Wq 1700 and include specific numeric standards in Part Env-Wq 1703.21. These standards are equal to or more stringent than EPA's National Recommended Water Quality Criteria for Priority Toxic Pollutants and were used as a basis for maintaining compliance with surface water quality standards.

For metals, the NHDES values in Part Env-Wq 1703.21 are expressed as dissolved concentrations. Part Env-Wq 1705 specifies the stream flows at which these standards apply. The Town's NPDES permit prohibits discharges that cause violations of the surface water quality standards.

The receiving stream, the Squamscott River, is a tidal river, thus the marine water quality standards apply. Human health criteria values in Env-Wq 1703.21 are expressed for two conditions, "Water & Fish Ingestion", and "Fish Consumption Only." The Squamscott is not used as a drinking water supply; therefore only the "Fish Consumption Only" values are applicable.

Metals analytical results and calculations used for this study are expressed as total recoverable metals. Since the criteria are for dissolved metals, the water quality criteria values in **Table 3-1** on the following page were converted from the dissolved metals values in Env-Wq 1703.21 to total recoverable metals using the conversion factors of Env-Wq Table 1703.2.

Table 3-1 State of New Hampshire Surface Water Quality Criteria (1)

POLLUTANT	ACUTE MARINE WATER CRITERIA (ug/L)	CHRONIC MARINE WATER CRITERIA (ug/L)	HUMAN HEALTH WATER CRITERIA[(2)] (ug/L)
Antimony	#N/A	#N/A	640
Arsenic	69.0	36.0	0.14
Cadmium	33.0	7.9	#N/A
Chromium (III)	10,300	#N/A	#N/A
Chromium (VI)	1,108	50.4	#N/A
Copper	5.8	3.7	1,000
Cyanide (T)	1.0	1.0	140
Lead	220.8	8.5	#N/A
Mercury	2.1	1.1	0.05
Molybdenum	#N/A	#N/A	#N/A
Nickel	75	8.3	4,600
Selenium	291	71.1	4,200
Silver	2.2	#N/A	65,000
Zinc	95.1	85.6	5,000

NOTES:

(1) Water quality criteria are expressed as total recoverable metals. The NHDES Table Env-Wq 1703.1 water criteria values are expressed as dissolved metals. These were divided by the Table Env-Wq 1703.2 conversion factors to obtain the total recoverable values listed above.

(2) Criteria for Fish Ingestion only - River is not used as a drinking water supply.

"#N/A" = An applicable water quality standard has not been established

Biosolids[1] Quality

The Town currently transports its sludge to the Turnkey Landfill in Rochester, NH for disposal. In the 2010 edition of this report, it was necessary to comply with the Env-Ws 904.04(c)(3) requirement to provide for beneficial reuse of sludge (biosolids land application), and that report included limits calculations to allow for land application disposal. The disposal of sludge is federally-regulated under 40 CFR Part 503, *Standards for the Use or Disposal of Sewage Sludge* and is also subject to the New Hampshire Code of Administrative Rules, Env-Wq 800, *Sludge Management*. Both regulations were promulgated to protect human health and the environment from pollutants potentially present in sewage sludge.

Effective August 1, 2013, the Env-Ws 904.04(c)(3) requirement was revised to read "that wastes introduced into a POTW by any person shall not...prevent disposal of sludge in the manner used by the POTW." (Note, this requirement is now codified as Env-Wq 305.04(c)(3).) Accordingly, the land application criteria are no longer applicable, unless the Town chooses to ensure its option to do so in the future. Since the Town has decided to keep its biosolids management options open at this time, these criteria have been included in this evaluation.

The NHDES standards are equal to or more stringent than EPA's 40 CFR Part 503 Standards and were therefore used as a basis for determining compliance with biosolids quality standards. The ceiling limits presented in Env-Wq 809.03(c) may at no time be exceeded if the Town's biosolids are to be considered for the land application disposal option. However, NHDES also publishes more restrictive "low-metals" standards in Env-Wq 809.03(h) as an alternative guideline. Meeting these higher quality standards allows communities to minimize potential future costs of tracking cumulative metals loading rates applicable for biosolids of lower quality. However, since the sludge at the Exeter WWTF is currently not being land applied, compliance with only the ceiling limits is targeted. The "ceiling" concentrations found in Env-Wq 809.03 (c) are presented in **Table 3-2**. A copy of Env-Wq 809.03 is attached to this section.

For pollutants not regulated by the Env-Wq 809 regulations, the NHDES has advised that the Guidance Values found in the *Table A. Interim Guidance Values for Assessing Sludge Quality* be applied. Where applicable, these values are listed in **Table 3-2**. A copy of the guidance values table is included as an attachment to this section.

[1] New Hampshire Revised Statutes Annotated, Section 485:A-2, XXII defines biosolids as any sludge derived from a sewage wastewater treatment facility that meets the standards for beneficial reuse specified by the NHDES. In general, the term "biosolids" applies to sludge at the outlet of all stabilization processes.

Table 3-2 Metals Biosolids Criteria [NHDES Env-Wq 809.03(c)]

POLLUTANT	TOTAL CONCENTRATION (mg/kg - dry weight basis)
Antimony	5 (1)
Arsenic	32
Cadmium	14
Chromium (III)	1,000
Chromium (VI)	1,000
Copper	1,500
Cyanide (T)	510 (1)
Lead	300
Mercury	10
Molybdenum	35
Nickel	200
Selenium	28
Silver	45 (1)
Zinc	2,500

NOTES:

(1) Values not published in NHDES Env-Wq 809.03. Used NHDES Class A Guidance Values.

EPA 40 CFR Part 503 standards are less restrictive than the NHDES requirements and therefore are not presented in the above table.

Sludge Hazardous Waste Designation Limitations

The Toxicity Characteristic Leaching Procedure (TCLP) is one of the protocols utilized to determine whether a solid waste exhibits hazardous waste characteristics under the federal Resource Conservation and Recovery Act (RCRA). If sludge generated by the Town's WWTF exceeds the TCLP limitations, then it is a hazardous waste and must be stored and disposed in accordance with RCRA requirements and the New Hampshire Hazardous Waste Rules. Pollutants, EPA hazardous waste numbers and TCLP threshold concentrations are listed in **Table 3-3**.

Table 3-3 NHDES Section Env-Hw 403.06 TCLP pollutant threshold concentrations for hazardous waste determination

EPA HAZARDOUS WASTE NO.	POLLUTANT	TCLP THRESHOLD CONCENTRATIONS (mg/L)
D004	Arsenic	5.0
D006	Cadmium	1.0
D007	Chromium	5.0
D008	Lead	5.0
D009	Mercury	0.2
D010	Selenium	1.0
D011	Silver	5.0

Process Inhibition

Interference with the WWTF's activated sludge process and/or nitrification could potentially occur. Accordingly, both activated sludge inhibition and nitrification inhibition were considered as part of this evaluation. The Town has currently not experienced interference or a disruption of WWTF operations or maintenance activities attributable to any one specific pollutant. Therefore, no site-specific inhibition data can be applied.

The inhibition data presented in Appendix G of EPA's 2004 Local Limits Development Guidance document has been used as default values in this evaluation. If a range of values was reported, an average of the range was used. For copper in particular, using the lower value of the range would have resulted in an overly restrictive limit. Given that the EPA default values have not been updated since 1984, an overly restrictive approach does not seem warranted at this time. If a value was not found in Appendix G for a specific pollutant, then other available EPA reference materials were used and noted accordingly.

The process inhibition values used in this local pollutant controls evaluation are presented in **Table 3-4** and EPA's Appendix G is attached to this section as a reference.

Table 3-4 Process Inhibition Values

POLLUTANT	ACTIVATED SLUDGE INHIBITION LEVELS (1) (mg/L)	NITRIFICATION INHIBITION LEVELS (1) (mg/L)
Antimony	#N/A	#N/A
Arsenic	0.10	1.5
Cadmium	5.0	5.2
Chromium (III)	30	1.08
Chromium (VI)	1.0	5.5
Copper	1.0	0.27
Cyanide (T)	2.5	0.42
Lead	3.0	0.50
Mercury	0.50	#N/A
Molybdenum	#N/A	#N/A
Nickel	1.75	0.38
Selenium	#N/A	#N/A
Silver	0.25 (2)	0.25 (3)
Zinc	0.30	0.29

NOTES:

(1) Average default value used (if range provided), EPA Local Limits Development Guidance, July 2004, App G unless otherwise noted.

(2) Default values, Prelim Version 4 User's Guide (May 1991), Table 3-2, p.14

(3) Default value, EPA Guidance Manual for Preventing Interference at POTWs (Sept. 1987), Table 2-1, p.20

NPDES Permit

The Town's current NPDES permit (No. NH0100871) was issued on August 5, 2022 and becomes effective on November 1, 2022. WWTF effluent discharge limitations for toxic pollutants are not included in the 2022 NPDES permit. However, several other NPDES permit conditions exist that control the discharge of toxic priority pollutants, including:

1. Part I (A) sets a lethal concentration (causes mortality to 50 percent of the test organisms - LC_{50}) limitation of 100 percent effluent (no dilution) based on acute whole effluent toxicity testing with mysid shrimp *(Mysidopsis bahia)* and inland silverside *(Menidia beryllina)*;
2. Part I (A.3) states "the discharge shall not cause a violation of the water quality standards of the receiving water."
3. Part I (A.8) states "Pollutants introduced into the POTW by a non-domestic source (user) shall not pass through the POTW or interfere with the operation or performance of the works."

It should also be noted that on November 24, 2020, EPA issued the Great Bay Total Nitrogen General Permit (GBTN GP) applicable to discharges of nitrogen from 13 WWTF's including Exeter. The General Permit includes a 106 lb/day total nitrogen rolling seasonal average limit from April 1 – October 31 applicable to Exeter. Authorization by EPA to discharge under the GBTN GP was granted on August 9, 2022, with the effective date of coverage being November 1, 2022.

A copy of the Town's 2022 NPDES permit and 2020 Great Bay Total Nitrogen General Permit are included as attachments to this section for reference (electronic version of this document only).

Attachments to this section:

- *NHDES Env-Wq 1703.21 Surface Water Quality Criteria*
- *NHDES Env-Wq 809.03 Sludge Quality Certification Requirements*
- *NHDES Interim Guidance Values for Assessing Sludge Quality*
- *EPA 2004 Local Limits Guidance - Appendix G*
- *Exeter WWTF 2022 NPDES Permit and Fact Sheet (electronic version of this document only)*
- *2020 Great Bay Total Nitrogen General Permit (electronic version of this document only)*

Env-Wq 1703.15 Gross Beta Radioactivity. Class A and B waters shall not contain gross beta radioactivity in excess of 1,000 picocuries per liter.

Source. (See Revision Notes at beginning of chapter) #12042, eff 12-1-16

Env-Wq 1703.16 Strontium-90. Class A and B waters shall not contain strontium-90 in excess of 10 picocuries per liter.

Source. (See Revision Notes at beginning of chapter) #12042, eff 12-1-16

Env-Wq 1703.17 Radium-226. Class A and B waters shall contain no radium-226 in excess of 3 picocuries per liter.

Source. (See Revision Notes at beginning of chapter) #12042, eff 12-1-16

Env-Wq 1703.18 pH.

(a) The pH of class A waters shall be as naturally occurs.

(b) As specified in RSA 485-A:8, II, the pH of class B waters shall be 6.5 to 8.0 unless due to natural causes.

(c) As specified in RSA 485-A:8, III, the pH of waters in temporary partial use areas shall be 6.0 to 9.0 unless due to natural causes.

Source. (See Revision Notes at beginning of chapter) #12042, eff 12-1-16

Env-Wq 1703.19 Biological and Aquatic Community Integrity.

(a) All surface waters shall support and maintain a balanced, integrated, and adaptive community of organisms having a species composition, diversity, and functional organization comparable to that of similar natural habitats of a region.

(b) Differences from naturally-occurring conditions shall be limited to non-detrimental differences in community structure and function.

Source. (See Revision Notes at beginning of chapter) #12042, eff 12-1-16

Env-Wq 1703.20 Risk Factors for Human Health Criteria.

(a) The department shall use a risk factor of one in 1,000,000 when determining human health criteria for all new discharges.

(b) The department shall use a one in 1,000,000 risk factor when determining human health criteria for any modification to a permit for an existing discharge unless the applicant for a water discharge permit can demonstrate that the criteria obtained using the one in 1,000,000 risk factor cannot be achieved because it is either technologically impossible or economically unfeasible.

(c) When establishing an alternative risk factor under (b), above, the department shall not allow a risk factor greater than one in 100,000.

Source. (See Revision Notes at beginning of chapter) #12042, eff 12-1-16

Env-Wq 1703.21 Water Quality Criteria for Toxic Substances.

(a) Unless naturally occurring or allowed under Env-Wq 1707, all surface waters shall be free from toxic substances or chemical constituents in concentrations or combinations that:

(1) Injure or are inimical to plants, animals, humans or aquatic life; or

(2) Persist in the environment or accumulate in aquatic organisms to levels that result in harmful concentrations in:

a. Edible portions of fish, shellfish, other aquatic life, or

b. Wildlife that might consume aquatic life.

(b) Unless allowed under Env-Wq 1707 or naturally occurring, concentrations of toxic substances in all surface waters shall not exceed the recommended safe exposure levels of the most sensitive surface water use shown in Table 1703-1, subject to the notes in Env-Wq 1703.22, as follows:

Table 1703-1: Water Quality Criteria For Toxic Substances

CAS Number	Chemical Name	Protection of Aquatic Life Concentration in micrograms per liter (µg/l)				Protection of Human Health Units per Liter	
		Fresh Acute Criteria	Fresh Chronic Criteria	Marine Acute Criteria	Marine Chronic Criteria	Water & Fish Ingestion	Fish Consumption Only
83329	Acenaphthene	1,700	520	970	710	20 µg [j]	20 µg [j]
107028	Acrolein	3	3	55	--	6 µg	400 µg
107131	Acrylonitrile	7,550	2,600	--	--	0.061 µg [c]	7 µg [c]
309002	Aldrin	3.0 [k]	--	1.3 [k]	--	0.049 ng [c]	0.05 ng [c]
N/A	Alkalinity	--	20,000 [a]	--	--	--	--
7429905	Aluminum	750 [s]	87 [s]	--	--	--	--
7664417	Ammonia [a]	Note a	Note a	Note a	Note a	--	--
62533	Aniline	28	14	77	37	--	--
120127	Anthracene	(see Polynuclear Aromatic Hydrocarbons)				8,300 µg	40,000 µg
7440360	Antimony	9,000	1,600	--	--	5.6 µg	640 µg
7440382	Arsenic	340 [d,t]	150 [d,t]	69 [d,t]	36 [d,t]	18 ng [b,c]	140 ng [b,c]
1332214	Asbestos	--	--	--	--	7,000,000 fibres [c]	--
7440393	Barium	--	--	--	--	1.0 mg	--
71432	Benzene	5,300	--	5,100	700	2.2 µg [c]	58 µg [c]
92875	Benzidine	2,500	--	--	--	0.14 ng [c]	11 ng [c]
56553	Benzo(a) Anthracene	(see Polynuclear Aromatic Hydrocarbons)				0.0038 µg [c]	0.018 µg [c]
50328	Benzo(a) Pyrene	(see Polynuclear Aromatic Hydrocarbons)				0.0038 µg [c]	0.018 µg [c]
205992	Benzo(b) Fluoranthene	(see Polynuclear Aromatic Hydrocarbons)				0.0038 µg [c]	0.018 µg [c]
192972	Benzo(e) Pyrene	(see Polynuclear Aromatic Hydrocarbons)				--	--
191242	Benzo(g,h,i) Perylene	(see Polynuclear Aromatic Hydrocarbons)				--	--
205823	Benzo(j) Fluoranthene	(see Polynuclear Aromatic Hydrocarbons)				--	--
207089	Benzo(k) Fluoranthene	(see Polynuclear Aromatic Hydrocarbons)				0.012 µg [c]	0.018 µg [c]
7440417	Beryllium	130	5.3	--	--	Note 1	--
N/A	BHC (Hexachloro-cyclohexane)	100 [e]	--	0.34 [e]	--	(see individual compounds)	
319846	alpha-BHC	(see BHC)				2.6 ng [c]	4.9 ng [c]
319857	beta-BHC	(see BHC)				9.1 ng [c]	17 ng [c]
319868	delta-BHC	(see BHC)				0.0123 µg	0.0414 µg
58899	gamma-BHC (Lindane)	0.95	0.08	0.16 [k]	--	4.2 µg [l]	4.4 µg
608731	technical-BHC	(see Hexachlorocyclo-hexane-(Technical))				(see Hexachlorocyclo-hexane-(Technical))	
111911	Bis (2-Chloroethoxy) methane	(see Chloroalkyl ethers)				--	--
111444	Bis (2-Chloroethyl) Ether	(see Chloroalkyl ethers)				0.03 µg [c]	2.2 µg [c]

CAS Number	Chemical Name	Protection of Aquatic Life Concentration in micrograms per liter (µg/l)				Protection of Human Health Units per Liter	
		Fresh Acute Criteria	Fresh Chronic Criteria	Marine Acute Criteria	Marine Chronic Criteria	Water & Fish Ingestion	Fish Consumption Only
108601	Bis (2-Chloroiso- propyl) ether	(see Chloroalkyl ethers)				1,400 µg	65,000 µg
117817	Bis (2-Ethylhexy)Phthalate	(see Phthalate esters)				1.2 µg [c]	2.2 µg [c]
75252	Bromoform	(see Halomethanes)				7 µg [c]	140 µg [c]
101553	4-Bromophenyl phenyl ether	(see Haloethers)				--	--
85687	Butyl benzyl phthalate	(see Phthalate esters)				1,500 µg	1,900 µg
7440439	Cadmium [i]	0.39 [f,d]	0.21 [f,d]	33 [d]	7.9 [d]	Note 1	--
63252	Carbaryl	2.1	2.1	1.6	--	--	--
56235	Carbon Tetrachloride	35,200	--	50,000	--	0.4 µg [c]	5 µg [c]
57749	Chlordane	2.4 [k]	0.0043 [k]	0.09 [k]	0.004 [k]	0.8 ng [c]	0.81 ng [c]
N/A	Chlorinated benzenes	250 [e]	50 [e]	160 [e]	129 [e]	(see individual compounds)	
108907	Chlorobenzene	(See Chlorinated benzenes)				20 µg [j]	20 µg [j]
16887006	Chlorides	860,000	230,000	--	--	--	--
70776033	Chlorinated napthalenes	1,600[e]	--	7.5[e]	--	(see individual compounds)	
7782505	Chlorine	19	11	13	7.5	Note 1	--
N/A	Chloroalkyl ethers	238,000[e]	--	--	--	(see individual compounds)	
111444	Chloroethyl ether (Bis-2)	see Bis (2-Chloroethyl) Ether				see Bis (2-Chloroethyl) Ether	
110758	Chloroethyl vinyl ether-2	(see Chloroalkyl ethers)				--	--
124481	Chlorodibromomethane	(see Halomethanes)				0.8 µg [c]	21 µg [c]
111911	Chloroethoxy methane (Bis-2)	(see Bis (2-Chloroethoxy) methane)				(see Bis (2-Chloroethoxy) methane)	
67663	Chloroform	28,900	1,240	(see Halomethanes)		60 µg [c]	2,000 µg [c]
108601	Chloroisopropyl ether (Bis-2)	see Bis (2-Chloroisopropyl) ether				see Bis (2-Chloroisopropyl) ether	
59507	p-Chloro-m-cresol	(see 3-Methyl-4-chlorophenol)				(see 3-Methyl-4-chlorophenol)	
542881	Chloromethyl ether (Bis)	(see Chloroalkyl ethers)				0.15 ng [c]	0.17 ng [c]
91587	Chloronaphthalene 2	(see Chlorinated naphthalenes)				1,000 µg	1,600 µg
95578	Chlorophenol 2	4,380	2,000	--	--	0.1 µg [j]	0.1 µg [j]
108430	Chlorophenol 3	--	--	--	--	0.1 µg [j]	0.1 µg [j]
106489	Chlorophenol 4	--	--	29,700	--	0.1 µg [j]	0.1 µg [j]
93721	Chlorophenoxy herbicides (2,4,5-TP)	--	--	--	--	100 µg [l]	--
94757	Chlorophenoxy herbicides (2,4-D)	--	--	--	--	1,300 µg [l]	--
7005723	Chlorophenyl phenyl ether 4	(see Haloethers)				--	--
2921882	Chlorpyrifos	0.083	0.041	0.011	0.0056	--	--
59507	Chloro-4 Methyl-3 Phenol	(see 3-Methyl-4-chlorophenol)				(see 3-Methyl-4-chlorophenol)	
18540299	Chromium+6	16 [d,i]	11 [d,i]	1,100 [d,i]	50 [d,i]	note l	--
16065831	Chromium+3	152 [f,d,i]	19.8 [f,d,i]	10,300	--	note l	--
218019	Chrysene	(see Polynuclear Aromatic Hydrocarbons)				0.12 µg [c]	0.13 µg [c]
7440508	Copper [i]	2.9 [f,d]	2.3 [f,d]	4.8 [d]	3.1 [d]	1,000 µg [j]	1,000 µg [j]
57125	Cyanide	22[m]	5.2[m]	1.0[m]	1.0[m]	140 µg [q]	140 µg [q]
72559	DDE(4,4')	1,050	--	14	--	0.22 ng [c]	0.22 ng [c]
72548	DDD(4,4')	0.6	--	3.6	--	0.31 ng [c]	0.31 ng [c]
50293	DDT(4,4')	1.1[k,t]	0.001[k,t]	0.13[k,t]	0.001[k,t]	0.22 ng [c]	0.22 ng [c]
8065483	Demeton	--	0.1	--	0.1	--	--

CAS Number	Chemical Name	Protection of Aquatic Life Concentration in micrograms per liter (µg/l)				Protection of Human Health Units per Liter	
		Fresh Acute Criteria	Fresh Chronic Criteria	Marine Acute Criteria	Marine Chronic Criteria	Water & Fish Ingestion	Fish Consumption Only
333415	Diazinon	0.17	0.17	0.82	0.82	--	--
53703	Dibenzo(a,h)Anthracene	(see Polynuclear Aromatic Hydrocarbons)				0.0038 µg [c]	0.018 µg [c]
84742	Dibutyl Phthalate	(see Di-n-butyl Phthalate)				(see Di-n-butyl Phthalate)	
N/A	Dichlorobenzenes	1,120[e]	763[e]	1,970[e]	--	(see individual compounds)	
95501	Dichlorobenzene(1,2)	(see Dichlorobenzenes)				1,000 µg [l]	3,000 µg
541731	Dichlorobenzene(1,3)	(see Dichlorobenzenes)				320 µg	960 µg
106467	Dichlorobenzene(1,4)	(see Dichlorobenzenes)				300 µg [l]	900 µg
91941	Dichlorobenzidine(3,3')	--	--	--	--	0.049 µg [c]	0.15 µg [c]
75274	Dichlorobromomethane	(see Halomethanes)				0.95 µg [c]	27 µg [c]
75718	Dichlorodifluoromethane	(see Halomethanes)				6.9 mg [c]	570 mg [c]
107062	Dichloroethane(1,2)	118,000	20,000	113,000	--	9.9 µg [c]	650 µg [c]
25323302	Dichloroethylenes	11,600 [e]	--	224,000[e]	--	(see individual compounds)	
75354	Dichloroethylene(1,1)	(see Dichloroethylenes)				330 µg [l]	20,000 µg
156605	Dichloroethylene (1,2-Trans)	(see Dichloroethylenes)				140 µg [l]	10,000 µg
576249	Dichlorophenol(2,3)	--	--	--	--	0.04 µg [j]	0.04 µg [j]
120832	Dichlorophenol(2,4)	2,020	365	--	--	0.3 µg [j]	0.3 µg [j]
583788	Dichlorophenol(2,5)	--	--	--	--	0.5 µg [j]	0.5 µg [j]
87650	Dichlorophenol(2,6)	--	--	--	--	0.2 µg [j]	0.2 µg [j]
95772	Dichlorophenol(3,4)	--	--	--	--	0.3 µg [j]	0.3 µg [j]
26638197	Dichloropropanes	23,000 [e]	5,700 [e]	10,300 [e]	3,040 [e]	(see individual compounds)	
78875	Dichloropropane(1,2)	(see Dichloropropanes)				0.9 µg [c]	31 µg [c]
26952238	Dichloropropenes	6,060 [e]	244 [e]	790 [e]	--	(see individual compounds)	
542756	Dichloropropene(1,3)	(see Dichloropropenes)				0.34 µg [c]	21 µg [c]
60571	Dieldrin	0.24	0.056	0.71[k]	0.0019[k]	0.052 ng [c]	0.054 ng [c]
84662	Diethyl Phthalate	--	--	--	--	17 mg	44 mg
105679	Dimethyl Phenol(2,4)	1,300	530	270	110	380 µg	400 µg [j]
131113	Dimethyl Phthalate	(see Phthalate esters)				270 mg	1.1 g
84742	Di-n-butyl Phthalate	(see Phthalate esters)				2 mg	4.5 mg
N/A	Dinitrotoluenes	330 [e]	230 [e]	590 [e]	370 [e]	(see individual compounds)	
121142	Dinitrotoluene(2,4)	(see Dinitrotoluenes)				0.11 µg [c]	3.4 µg [c]
606202	Dinitrotoluene(2,6)	(see Dinitrotoluenes)				--	--
N/A	Dinitro-o-cresol (2,4)	(see Nitrophenols)				13.4 µg	765 µg
534521	Dinitro-o-cresol (4,6)	(see 2 Methyl-4,6-Dinitrophenol)				(see 2 Methyl-4,6-Dinitrophenol)	
25550587	Dinitrophenols	(see Nitrophenols)				69 µg	5,300 µg
51285	Dinitrophenol(2,4)	(see Nitrophenols)				69 µg	5,300 µg
117840	Di-n-octyl phthalate	(see Phthalate esters)				--	--
1746016	2,3,7,8-TCDD (Dioxin)	--	--	--	--	0.000005 ng [c]	0.0000051 ng [c]
122667	Diphenylhydrazine(1,2)	270	--	--	--	0.036 µg [c]	0.2 µg [c]
117817	Di-2-ethylhexyl phthalate	(see Bis (2-Ethylhexy)Phthalate				(see Bis (2-Ethylhexy)Phthalate	
959988	alpha-Endosulfan	0.22 [k,r]	0.056 [k,r]	0.034 [k,r]	0.0087 [k,r]	62 µg	89 µg
33213659	beta-Endosulfan	0.22 [k,r]	0.056 [k,r]	0.034 [k,r]	0.0087 [k,r]	62 µg	89 µg
1031078	Endosulfan Sulfate	--	--	--	--	62 µg	89 µg
72208	Endrin	0.086	0.036	0.037 [k]	0.0023 [k]	0.059 µg	0.06 µg
7421934	Endrin Aldehyde	--	--	--	--	1 µg	1 µg

CAS Number	Chemical Name	Protection of Aquatic Life Concentration in micrograms per liter (µg/l)				Protection of Human Health Units per Liter	
		Fresh Acute Criteria	Fresh Chronic Criteria	Marine Acute Criteria	Marine Chronic Criteria	Water & Fish Ingestion	Fish Consumption Only
100414	Ethylbenzene	32,000	--	430	--	530 µg	2,100 µg
206440	Fluoranthene	(see Polynuclear Aromatic Hydrocarbons)				130 µg	140 µg
86737	Fluorene	(see Polynuclear Aromatic Hydrocarbons)				1,100 µg	5,300 µg
86500	Guthion	--	0.01	--	0.01	--	--
N/A	Haloethers	360 [e]	122 [e]	--	--	(see individual compounds)	
N/A	Halomethanes	11,000 [e]	--	12,000 [e]	6,400 [e]	(see individual compounds)	
76448	Heptachlor	0.52 [k]	0.0038 [k]	0.053 [k]	0.0036 [k]	0.079 ng [c]	0.079 ng [c]
1024573	Heptachlor Epoxide	0.52 [k]	0.0038 [k]	0.053 [k]	0.0036 [k]	0.039 ng [c]	0.039 ng [c]
67721	Hexachloroethane	980	540	940	--	1.4 µg [c]	3.3 µg [c]
118741	Hexachlorobenzene	(see Chlorinated benzenes)				0.28 ng [c]	0.29 ng [c]
87683	Hexachlorobutadiene	90	9.3	32	--	0.44 µg [c]	18 µg [c]
608731	Hexachlorocyclo-hexane-(Technical)	(see BHC)				0.0123 µg	0.0414 µg
77474	Hexachlorocyclopentadiene	7.0	5.2	7.0	--	1.0 [j]	1.0 [j]
193395	Ideno(1,2,3-cd)Pyrene	(see Polynuclear Aromatic Hydrocarbons)				0.0038 µg [c]	0.018 µg [c]
7439896	Iron	--	1,000	--	--	0.3 mg [j]	--
78591	Isophorone	117,000	--	12,900	--	35 µg [c]	1,800 µg [c]
7439921	Lead [i]	10.5 [f,d]	0.41 [f,d]	210 [d]	8.1 [d]	--	--
121755	Malathion	--	0.1	--	0.1	--	--
7439965	Manganese	--	--	--	--	50 µg [j]	100 µg
7439976	Mercury	1.4 [d,i]	0.77 [d,i]	1.8 [d,i]	0.94 [d,i]	0.05 µg	0.051 µg
72435	Methoxychlor	--	0.03	--	0.03	100 µg [f]	--
74839	Methyl Bromide	(see Halomethanes)				100 µg	10,000 µg
74873	Methyl Chloride	(see Halomethanes)				--	--
75092	Methylene Chloride	(see Halomethanes)				20 µg [c]	1,000 µg [c]
22967926	Methylmercury	see Mercury				--	0.3 mg/kg [g]
534521	2 Methyl-4,6-Dinitrophenol	(see Nitrophenols)				13 µg	280 µg
1570645	2-Methyl-4-chlorophenol	--	--	--	--	1,800 µg [j]	1,800 µg [j]
59507	3-Methyl-4-chlorophenol	30	--	--	--	3,000 µg [j]	3,000 µg [j]
615747	3-Methyl-6-chlorophenol	--	--	--	--	20 µg [j]	20 µg [j]
2385855	Mirex	--	0.001	--	0.001	--	--
91203	Naphthalene	2,300	620	2,350	--	--	--
7440020	Nickel [i]	120.0 [f,d]	13.3 [f,d]	74 [d]	8.2 [d]	610 µg	4,600 µg
14797558	Nitrates	--	--	--	--	10 mg	--
98953	Nitrobenzene	27,000	--	6,680	--	17 µg	30 µg [j]
25154556	Nitrophenols	230 [e]	150 [e]	4,850 [e]	--	(see individual compounds)	
88755	Nitrophenol 2	(see Nitrophenols)				--	--
100027	Nitrophenol 4	(see Nitrophenols)				--	--
N/A	Nitrosamines	5,850 [e]	--	3,300,000 [e]	--	0.8 ng	1.24 µg
924163	Nitrosodibutylamine N	(see Nitrosamines)				6.3 ng [c]	220 ng [c]
55185	Nitrosodiethylamine N	(see Nitrosamines)				0.8 ng [c]	1,240 ng [c]
62759	Nitrosodimethylamine N	(see Nitrosamines)				0.69 ng [c]	3 µg [c]
621647	Nitrosodi-n-propylamine N	(see Nitrosamines)				0.005 µg [c]	0.51 µg [c]
86306	Nitrosodiphenylamine N	(see Nitrosamines)				3.3 µg [c]	6 µg [c]
930552	Nitrosopyrrolidine N	(see Nitrosamines)				16 ng [c]	34,000 ng [c]
84852153	Nonylphenol	28	6.6	7	1.7	--	--
56382	Parathion	0.065	0.013	--	--	--	--
1336363	PCB	2.0 [c,n]	0.014 [c,n]	10.0 [c,n]	0.03 [c,n]	0.064 ng [c,n]	0.064 ng [c,n]

CAS Number	Chemical Name	Protection of Aquatic Life Concentration in micrograms per liter (µg/l)				Protection of Human Health Units per Liter	
		Fresh Acute Criteria	Fresh Chronic Criteria	Marine Acute Criteria	Marine Chronic Criteria	Water & Fish Ingestion	Fish Consumption Only
N/A	PCB-1242	(see PCB)				(see PCB)	(see PCB)
N/A	PCB-1254	(see PCB)				(see PCB)	(see PCB)
N/A	PCB-1221	(see PCB)				(see PCB)	(see PCB)
N/A	PCB-1248	(see PCB)				(see PCB)	(see PCB)
N/A	PCB-1260	(see PCB)				(see PCB)	(see PCB)
N/A	PCB-1016	(see PCB)				(see PCB)	(see PCB)
76017	Pentachloroethane	7,240	1,100	390	281	--	--
608935	Pentachlorobenzene	(see Chlorinated benzenes)				1.4 µg	1.5 µg
87865	Pentachlorophenol	5.28 [h]	4.05 [h]	13	7.9	0.27 µg [c]	3 µg [c]
85018	Phenanthrene	(see Polynuclear Aromatic Hydrocarbons)				--	--
108952	Phenol	10,200	2,560	5,800	--	300 µg [j]	300 µg [j]
N/A	Phthalate Esters	940 [e]	3 [e]	2,944 [e]	3.4 [e]	--	--
1336363	Polychlorinated Biphenyls	(see PCBs)				(see PCB)	(see PCB)
N/A	Polynuclear Aromatic Hydrocarbons	--	--	300 [e]	--	(see individual compounds)	
129000	Pyrene	(see Polynuclear Aromatic Hydrocarbons)				830 µg	4,000 µg
7782492	Selenium	--	5	290 [d,i]	71 [d,i]	170 µg [l]	4,200 µg
7440224	Silver	0.20 [d,f,i]	--	1.9 [d,i,k]	--	105 µg [p]	65 mg [p]
7783064	Sulfide-Hydrogen Sulfide	--	2.0	--	2.0	--	--
95943	Tetrachlorobenzene 1,2,4,5	(see Chlorinated benzenes)				0.97 µg	1.1 µg
79345	Tetrachloroethane 1,1,2,2	(see Tetrachlor-oethanes)	2,400	9,020	--	0.2 µg [c]	4 µg [c]
25322207	Tetrachloroethanes	9,320 [e]	--	--	--	(see individual compounds)	
127184	Tetrachloroethylene	5,280	840	10,200	450	10 µg [c]	29 µg [c]
935955	Tetrachlorophenol 2,3,5,6	--	--	440	--	--	--
58902	Tetrachlorophenol 2,3,4,6	--	--	--	--	1.0 µg [j]	1.0 µg [j]
7440280	Thallium	1,400	40	2,130	--	0.24 µg	0.47 µg
108883	Toluene	17,500	--	6,300	5,000	1.3 mg [l]	15 mg
8001352	Toxaphene	0.73	0.0002	0.21	0.0002	0.70 ng [c]	0.71 ng [c]
N/A	Tributyltin (TBT)	0.46	0.072	0.42	0.0074	--	--
N/A	Trichlorinated Ethanes	18,000 [e]	--	--	--	(see individual compounds)	
120821	Trichlorbenzene 1,2,4	(see Chlorinated benzenes)				35 µg	70 µg
71556	Trichloroethane 1,1,1	--	--	31,200	--	Note 1	--
79005	Trichloroethane 1,1,2	--	9,400	--	--	0.59 µg [c]	16 µg [c]
79016	Trichloroethylene	45,000	21,900	2,000	--	2.5 µg [c]	30 µg [c]
75694	Trichlorofluoromethane	(see Halomethanes)				10 mg	860 mg
95954	Trichlorophenol 2,4,5	--	--	--	--	1.0 µg [j]	1.0 µg [j]
88062	Trichlorophenol 2,4,6	--	970	--	--	1.5 µg [c]	2.0 µg [c,j]
75014	Vinyl Chloride	--	--	--	--	0.025 µg [c]	2.4 µg [c]
7440666	Zinc [i]	30.0 [f,d]	30.0 [f,d]	90 [d]	81 [d]	5,000 µg [j]	5,000 µg [j]

Source. (See Revision Notes at beginning of chapter) #12042, eff 12-1-16

Env-Wq 1703.22 Notes For Table 1703-1. The following shall apply to Table 1703-1:

(a) The letter "a" shall indicate that the freshwater and saltwater aquatic life criteria for ammonia are shown in Env-Wq 1703.25 through Env-Wq 1703.32.

(b) The letter "b" shall indicate that the criteria refer to the inorganic form only.

(c) The letter "c" shall indicate that these criteria for the protection of human health are based on carcinogenicity using a risk factor of one in 1,000,000, while the human health criteria without this footnote are based on systemic toxicity. Other risk factors shall be allowed only as specified in Env-Wq 1703.20.

(d) The letter "d" shall indicate that criteria for these metals are expressed as a function of the water effect ratio (WER) as defined in 40 CFR 131.36(c), and that because the values displayed in Table 1703-1 correspond to a WER of 1.0, metals criteria for different WERs shall be determined using the procedures described in the EPA publication "Interim Guidance on Determination and Use of Water-Effect Ratios for Metals", EPA-823-B-94-001, dated February 1994, available as noted in Appendix B, provided that for copper, either of the following references, both available as noted in Appendix B, may be used:

(1) The "Streamlined Water-Effect Ratio procedure for Discharges of Copper", EPA-822-R-01-005, dated March 2001; or

(2) The Biotic Ligand Model (freshwater only) as described in "Aquatic Life Ambient Freshwater Quality Criteria - Copper", EPA-822-R-07-001, dated February 2007.

(e) The letter "e" shall indicate that the following classes of compounds have 2 or more isomers and the appropriate aquatic life criteria apply to the sum of the concentrations of each isomer:

(1) BHC;

(2) Chlorinated benzenes;

(3) Chlorinated naphthalenes;

(4) Chloroalkyl ethers;

(5) Dichlorobenzenes;

(6) Dichloroethylenes;

(7) Dichloropropanes;

(8) Dichloropropenes;

(9) Dinitrotoluenes;

(10) Haloethers;

(11) Halomethanes;

(12) Nitrophenols;

(13) Nitrosamines;

(14) PCB;

(15) Phthalate esters;

(16) Polynuclear aromatic hydrocarbons;

(17) Tetrachloroethanes; and

(18) Trichlorinatedethanes.

(f) The letter "f" shall indicate that the freshwater aquatic criteria for these metals are expressed as a function of the total hardness, as mg/l $CaCO_3$ of the surface water, and that because the values displayed in Table 1703-1 correspond to a total hardness of 20 mg/l the aquatic life criteria for other hardness values expressed as calcium carbonate shall be calculated using the equations and tables in Env-Wq 1703.23 and Env-Wq 1703.24.

(g) The letter "g" shall indicate that if the methylmercury concentration in the edible portion of the aquatic species of concern exceeds 0.3 mg/kg, a risk assessment shall be conducted to determine whether a consumption advisory should be issued for the surface water. If a consumption advisory is issued by the department, the surface water shall be considered in non-attainment of the fish and/or shellfish consumption designated uses and in violation of these surface water quality regulations.

(h) The letter "h" shall indicate that the freshwater aquatic life criteria for pentachlorophenol are expressed as a function of pH. Values displayed in Table 1703-1 correspond to a pH value of 6.5. For other pH values, the formulas shown in Env-Wq 1703.32 shall be used.

(i) The letter "i" shall indicate that the values presented for aquatic life protection are dissolved metals and for hardness-dependent metals are based on a hardness of 20 mg/L. To convert dissolved to total recoverable metal, the equations and tables in Env-Wq 1703.23 shall be used. To calculate dissolved or total recoverable fresh water criteria for hardness-dependent metals for hardness values other than 20 mg/l, the equations and tables shown in Env-Wq 1703.23 and Env-Wq 1703.24 shall be used.

(j) The letter "j" shall indicate that these human health criteria prevent taste and odor effects in the surface water and in fish and other aquatic life as prohibited in Env-Wq 1703.03(c)(1)c. and (3).

(k) The letter "k" shall indicate that these criteria are based on EPA's 304(a) criteria in the 1980 documents listed below and were derived to be used as instantaneous maximum values, or to be applied after division by 2, to obtain a value comparable to an acute criterion derived using the 1985 Guidelines, when assessment is done using an averaging period:

(1) Aldrin/Dieldrin, document number 440/5-80-019;

(2) Chlordane, document number 440/5-80-027;

(3) DDT, document number 440/5-80-038;

(4) Endosulfan, document number 440/5-80-046;

(5) Endrin, document number 440/5-80-047;

(6) Heptachlor, document number 440/5-80-052;

(7) Hexachlorocyclohexane, document number 440/5-80-054; or

(8) Silver, document number 440/5-80-071.

(*l*) The letter "*l*" shall indicate that there is a more stringent drinking water maximum contaminant level (MCL) specified in Env-Dw 700, so if the surface water is a source for a public water system as defined in RSA 485:1-a, XV or is within 20 miles upstream of any active surface water intake for a public water system, the department shall use the MCL values shown in table 1703-2A, below, for the water and fish ingestion human health criteria:

Table 1703-2A: MCL Values for Water and Fish Ingestion Criteria

CAS Number	Chemical Name	MCL (Units per Liter)
7440417	Beryllium	4 µg
7440439	Cadmium	5 µg
7782505	Chlorine (as Cl_2)	4 mg
94757	Chlorophenoxy herbicides (2,4-D)	70 µg

Table 1703-2A: MCL Values for Water and Fish Ingestion Criteria

CAS Number	Chemical Name	MCL (Units per Liter)
93721	Chlorophenoxy herbicides (2,4,5-TP)	50 µg
18540299	Chromium+6	see Chromium Total
16065831	Chromium+3	see Chromium Total
7440473	Chromium Total (equal to the sum of Chromium+3 plus Chromium+6)	100 µg
95501	Dichlorobenzene (1,2)	600 µg
106467	Dichlorobenzene(1,4)	75 µg
107062	Dichloroethane (1,2)	5 µg
75354	Dichloroethylene(1,1)	7 µg
156605	Dichloroethylene(1,2-Trans)	100 µg
58899	gamma-BHC (Lindane)	0.2 µg
72435	Methoxychlor	40 µg
7782492	Selenium	50 µg
108883	Toluene	1 mg
71556	Trichloroethane 1,1,1	200 µg

(m) The letter "m" shall indicate that this criteria is expressed as micrograms of free cyanide per liter.

(n) The letter "n" shall indicate that this criteria applies to total PCBs or the sum of all of its congener or isomer or homolog or Arochlor analyses.

(o) The letter "o" shall indicate that the freshwater acute criteria for selenium shall be calculated using the values for the fraction f_1 of selenite and f_2 of selenate measured in the receiving water. To calculate the acute criteria, in µg/l, the number 1 shall be divided by the sum of the fractions f_1 divided by 185.9 and f_2 divided by 12.83, as follows:

$$\text{Acute Criteria} = \frac{1}{(f_1/185.9) + (f_2/12.83)}$$

(p) The letter "p" shall indicate that these human health criteria for silver shall be for the protection of humans from argyria.

(q) The letter "q" shall indicate that this value is expressed as total cyanide.

(r) The letter "r" shall indicate that this data was derived from data for endosulfan and is most appropriately applied to the sum of alpha-endosulfan and beta-endosulfan.

(s) The letter "s" shall indicate that this value is expressed as acid-soluble aluminum.

(t) The letter "t" shall indicate that the total concentration of DDT and its metabolites shall not exceed this value.

(u) The letter "u" shall indicate that the chronic criterion of 20 mg/L shall be the minimum value except where alkalinity is naturally lower, in which case the criterion shall not be lower than 25 percent of the natural level.

Source. (See Revision Notes at beginning of chapter) #12042, eff 12-1-16

Env-Wq 1703.23 Conversion Factors For Metals.

(a) Dissolved metal shall be determined by multiplying total recoverable metal by the conversion factor listed in Table 1703-2 for that metal, shown in equation form as follows:

Dissolved Metal = Total Recoverable Metal x Conversion Factor

(b) Total recoverable metals shall be determined by dividing dissolved metals by the conversion factor listed in table 1703-2, shown in equation form as follows:

Total Recoverable Metal = Dissolved Metal / Conversion Factor

(c) The conversion factors in Table 1703-2 shall be used as translators to go from the dissolved metals criteria listed in Table 1703-1 to permit limits expressed as total recoverable metals by dividing dissolved metal by the conversion factor.

(d) If the hardness of the receiving water is different than 20 mg/l, then aquatic life criteria for hardness-dependent metals shall be calculated as follows:

(1) The equations in Env-Wq 1703.24(a) and (b) shall be used in conjunction with the coefficients shown in Table 1703-3 to calculate the total recoverable metal for freshwater;

(2) The equations shown in (a) and (b), above, shall be used in conjunction with the factors shown in Table 1703-2 to convert total recoverable metal to dissolved metal or dissolved metal to total recoverable metal;

(3) For hardness less than 20 mg/l, a hardness of 20 mg/l shall be used in the equations; and

(4) For hardness values greater than 400 mg/l, a hardness of 400 mg/l shall be used in the equations.

(e) Table 1703-2 shall be as follows, provided that the conversion factors for cadmium and lead shall be no greater than 1.0:

Table 1703-2: Factors to Convert Total Recoverable Metals to Dissolved Metals

	FRESHWATER Conversion Factors		MARINE Conversion Factors	
	Acute	Chronic	Acute	Chronic
Arsenic	1.0	1.0	1.0	1.0
Cadmium	1.136672 - [(Ln Hardness)(0.041838)]	1.101672 - [(Ln Hardness)(0.041838)]	0.994	0.994
Chromium (+3)	0.316	0.860	-	-
Chromium (+6)	0.982	0.962	0.993	0.993
Copper	0.960	0.960	0.83	0.83
Lead	1.46203 - [(Ln Hardness)(0.145712)]	1.46203 - [(Ln Hardness)(0.145712)]	0.951	0.951
Mercury	0.85	0.85	0.85	0.85
Nickel	0.998	0.997	0.990	0.990
Selenium	-	-	0.998	0.998
Silver	0.85	-	0.85	-
Zinc	0.978	0.986	0.946	0.946

Source. (See Revision Notes at beginning of chapter) #12042, eff 12-1-16

Env-Wq 1703.24 Freshwater Aquatic Life Criteria For Metals. To calculate freshwater aquatic life criteria for total recoverable metals, the equations described in (a) and (b), below, shall be used in conjunction with the coefficients shown in (c), Table 1703-3, below, provided that the values used for hardness in the equations shall be as specified in Env-Wq 1703.23 (d):

(a) To calculate the acute criteria, in µg/l, for the metals shown Table 1703-3, the exponent "e" shall be raised to the power "x" where "x" is equal to the parenthetical expression "m_a" multiplied by the natural logarithm (ln) of the hardness and to which product the value "b_a" shall be added, as follows:

Acute Criteria = e^x where $x = (m_a [\ln (\text{hardness})] + b_a)$

(b) To calculate the chronic criteria, in µg/l, for the metals shown in Table 1703-3, the exponent "e" shall be raised to the power "x" where "x" is equal to the parenthetical expression "m_c" multiplied by the natural logarithm of the hardness and to which product the value "b_c" shall be added, as follows:

Chronic Criteria = e^x where $x = (m_c [\ln (\text{hardness})] + b_c)$

(c) Table 1703-3 shall be as follows:

Table 1703-3: Coefficients in Equations for Calculating Total Recoverable Aquatic Life Criteria for Metals

	m_a	b_a	m_c	b_c
Cadmium	0.9789	-3.866	0.7977	-3.909
Copper	0.9422	-1.700	0.8545	-1.702
Chromium+3	0.8190	3.7256	0.8190	.6848
Lead	1.273	-1.460	1.273	-4.705
Nickel	0.8460	2.255	0.8460	0.0584
Silver	1.72	-6.59	------	-------
Zinc	0.8473	0.884	0.8473	0.884

Source. (See Revision Notes at beginning of chapter) #12042, eff 12-1-16

Env-Wq 1703.25 Freshwater Acute Aquatic Life Criteria For Ammonia.

(a) Subject to (b) through (d), below, to determine freshwater acute aquatic life criteria for ammonia, in milligrams of nitrogen per liter (mg N/l), the applicant shall use:

(1) Table 1703-4A,where salmonids in the genus Oncorhynchus are or might be present; and

(2) Table 1703-4B, where salmonids in the genus Oncorhynchus are absent.

(b) The freshwater acute water quality criteria for ammonia in Table 1703-4A where salmonids in the genus Oncorhynchus are or might be present have been calculated by taking the lesser of the value resulting from dividing 0.275 by the sum of one plus 10 raised to the power of 7.204 minus the pH, and adding the resulting value to the value found by dividing 39.0 by the sum of one plus 10 raised to the power of the pH minus 7.204, to the value resulting from dividing 0.0114 by the sum of one plus 10 raised to the power of the pH minus 7.204, and adding the resulting value found by dividing 1.6181 by the sum of one plus 10 raised to the power of the pH minus 7.204 and multiplying this value by 0.7249 multiplied by the value resulting from multiplying 23.12 by 10 raised to the power of 0.036 multiplied by value of 20 minus the temperature, as shown in the following equation:

Freshwater Acute Criteria, Salmonids in the Genus Onchorhynchus Present =

$$\text{MIN} \{ [0.275 / (1+10^{7.204-pH}) + 39.0 / (1+10^{pH-7.204})], [0.7249 \times [0.0114/(1+10^{7.204-pH}) + 1.6181 / (1+10^{pH-7.204})] \times (23.12 \times 10^{0.036 \times (20-T)})] \}$$

Where MIN indicates the lesser of the two values separated by a comma.

(c) The freshwater acute water quality criteria for ammonia in table 1703-4B where salmonids in the genus Oncorhynchus are absent have been calculated by dividing 0.0114 by the sum of one plus 10 raised to the power of 7.204 minus the pH, and adding the resulting value to the value found by dividing 1.6181 by the sum of one plus 10 raised to the power of the pH minus 7.204, and multiplying this value by 0.7249 multiplied by the lesser of 51.93 or the value resulting from multiplying 23.12 by 10 raised to the power of 0.036 multiplied by value of 20 minus the temperature as shown in the following equation:

(2) A chronological summary of analytical data from the previous 3 years, if available, for each detected chemical, presented in tabular form and by category; and

(3) The results of testing required by Env-Wq 809.05, including laboratory reports, presented categorically as in (2), above, and summarized in tabular form.

Source. (See Revision Note #1 and Revision Note #2 at chapter heading) #10998, eff 1-1-16

Env-Wq 809.02 Sludge Quality Certification Fees.

(a) Subject to (c), below, the applicant for sludge quality certification shall submit a fee in the amount of $1,000 with the application.

(b) Fees, if paid by check or money order, shall be made payable to "Treasurer-State of NH."

(c) Political subdivisions whose facilities are permitted by the department under RSA 485-A:13 shall be exempt from the fee specified in (a), above.

Source. (See Revision Note #1 and Revision Note #2 at chapter heading) #10998, eff 1-1-16

Env-Wq 809.03 Criteria for Review. The department shall issue a sludge quality certification to the generating facility if it determines that the information submitted demonstrates that the sludge:

(a) Is not a hazardous waste as defined in RSA 147-A:2, VII;

(b) If derived from human waste, consistently meets the pathogen and vector attraction requirements specified in the application;

(c) Does not exceed the following concentrations, expressed as the total concentration on a dry weight basis:

(1) For total arsenic, 32 mg/kg;

(2) For total cadmium, 14 mg/kg;

(3) For total chromium, 1,000 mg/kg;

(4) For total copper, 1,500 mg/kg;

(5) For total lead, 300 mg/kg;

(6) For total mercury, 10 mg/kg;

(7) For total molybdenum, 35 mg/kg;

(8) For total nickel, 200 mg/kg;

(9) For total selenium, 28 mg/kg;

(10) For total zinc, 2,500 mg/kg;

(11) For polychlorinated biphenyls (PCB), 1.0 mg/kg; and

(12) For dibenzodioxins and dibenzofurans, 27 ng/kg TEQ for all congeners determined by EPA method 1613 using the 1989 toxic equivalency factors;

(d) Is of sufficiently consistent quality such that for the constituents in (c), above, the mean concentration for data submitted under Env-Wq 809.01(h) plus one standard deviation from the mean does not exceed the concentration specified in (c), above;

(e) Is not a threat to public health, safety, or the environment from other chemical contaminants when assessed according to risk methodologies described in the United States Environmental Protection Agency's

(US EPA's) Soil Screening Guidance, EPA/540/R-96/018 dated April 1996, the American Society for Testing and Materials E-1739-95, Guide for Risk-Based Corrective Action Applied to Petroleum Release Sites dated November, 1995, or equivalent approved pursuant to Env-Wq 811;

(f) If not generated in New Hampshire, meets the chemical standards of the state of origin for the equivalent category of sludge;

(g) If class B biosolids or mixtures of sludge containing class B biosolids that are to be certified for reclamation use, the material contains enteric virus concentrations of less than one plaque-forming unit per 4 grams of solid on a dry weight basis; and

(h) If the sludge is to be certified as low metals, does not exceed the following concentrations, expressed as the total concentration on a dry weight basis:

(1) For total arsenic, 10 mg/kg;

(2) For total cadmium, 10 mg/kg;

(3) For total chromium, 160 mg/kg;

(4) For total copper, 1,000 mg/kg;

(5) For total lead, 270 mg/kg;

(6) For total mercury, 7 mg/kg;

(7) For total molybdenum, 18 mg/kg;

(8) For total nickel, 98 mg/kg;

(9) For total selenium, 18 mg/kg; and

(10) For total zinc, 1,780 mg/kg.

Source. (See Revision Note #1 and Revision Note #2 at chapter heading) #10998, eff 1-1-16

Env-Wq 809.04 Expiration and Renewal of Sludge Quality Certification.

(a) A sludge quality certification shall expire 5 years from the date of issuance.

(b) To apply for renewal of sludge quality certification, the generator shall submit to the department, prior to expiration of the current sludge quality certification, the following:

(1) The information required by Env-Wq 809.01; and

(2) A summary in tabular form of all analytical data accumulated as a result of the testing requirements of Env-Wq 809.07 during the most recent certification term.

Source. (See Revision Note #1 and Revision Note #2 at chapter heading) #10998, eff 1-1-16

Env-Wq 809.05 Testing Required for Initial Certification.

(a) Subject to (b), below, with an application for a sludge quality certification the applicant shall submit the results of the analyses of the number of representative samples of sludge from the generating facility determined pursuant to (b) or (c), below, as applicable, taken at least 30 days apart within the 12 months prior to the date of application and analyzed for the constituents in Env-Wq 809.06.

(b) The number of representative samples shall be based on the total annual sludge production, as follows:

(1) For total annual sludge production of less than 1,600 dry tons, 2 representative samples; and

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

Table A. Interim Guidance Values For Assessing Sludge Quality

March 30, 2001

Compound	CAS	Class A Guidance Values	Class B and SPF Guidance Values		Detection Limit (mg/kg)
			Direct Contact	Leaching	
Section A. Volatile Organic Compounds					
Dichlorodifluoromethane	75-71-8	1,000 (a)	2,500 (a)	NCM	2 (1.0)
Chloromethane	74-87-3	2 (c)	170	2 (c)	2 (0.7)
Vinyl chloride	75-01-4	2 (c)	2 (c)	2	2 (0.4)
Bromomethane	74-83-9	2 (c)	60	2 (c)	2 (0.3)
Chloroethane	75-00-3	1,000 (a)	2,500 (a)	2,500 (a)	2 (1.0)
Trichlorofluoromethane	75-69-4	1,000 (a)	2,500 (a)	NCM	2 (1.0)
Diethyl ether	60-29-7	1,000 (a)	2,500 (a)	2,500 (a)	5.0
Acetone	67-64-1	200 (b)	2,500 (a)	200 (b)	5.0
1,1-Dichloroethene	75-35-4	3	2,500 (a)	3	2 (0.5)
Methylene chloride	75-09-2	2.2 (b)	290	2.2 (b)	2 (0.1)
Carbon disulfide	75-15-0	12 (b)	2,500 (a)	12 (b)	2 (0.2)
Methyl-tert-butylether (MTBE)	1634-04-4	2	1,200	2	2.0
trans-1,2-Dichloroethene	156-60-5	9	2,500 (a)	9	2 (1.0)
1,1-Dichloroethane	75-34-3	3	1,600	3	2 (1.0)
2-Butanone (MEK)	78-93-3	18 (b)	2,500 (a)	18 (b)	2 (1.0)
2,2-Dichloropropane	590-20-7	1,000 (a)	2,500 (a)	2,500 (a)	2 (1.0)
cis-1,2-Dichloroethene	156-59-2	2	1,600	2	2 (1.0)
Chloroform	67-66-3	6 (b)	360	6 (b)	2 (0.1)
Bromochloromethane	74-97-5	1,000 (a)	2,500 (a)	2,500 (a)	2 (1.0)
Tetrahydrofuran (THF)	109-99-9	7	2,500 (a)	7	2 (1.0)
1,1,1-Trichloroethane	71-55-6	42	2,500 (a)	42	2 (1.0)
1,1-Dichloropropene	563-58-6	1,000 (a)	2,500 (a)	2,500 (a)	2 (1.0)
Carbon tetrachloride	56-23-5	6	17	12	2 (1.0)
1,2-Dichloroethane	107-06-2	2.6 (b)	21	2.6 (b)	2 (0.08)
Benzene	71-43-2	2 (c)	75	2 (c)	2 (0.3)
Trichloroethene	79-01-6	2 (c)	200	2 (c)	2 (0.8)
1,2 Dichloropropane	78-87-5	2 (c)	32	2 (c)	2 (0.1)
Dichlorobromomethane	75-27-4	2 (c)	17	2 (c)	2 (0.02)
Dibromomethane	74-95-3	1,000 (a)	2,500 (a)	2,500 (a)	2 (1.0)
4-Methyl-2-pentanone (MIBK)	108-10-1	10	1,300	10	2 (1.0)
cis-1,3-Dichloropropene	10061-01-5	2 (c)	12	2 (c)	2 (0.5)
Toluene	108-88-3	100	2,500 (a)	100	2 (1.0)
trans-1,3-Dichloropropene	10061-02-6	2 (c)	12	2 (c)	2 (0.5)
1,1,2-Trichloroethane	79-00-5	2 (c)	20	2 (c)	2 (0.1)
2-Hexanone	591-78-6	1,000 (a)	2,500 (a)	2,500 (a)	5.0
1,3-Dichloropropane	142-28-9	1,000 (a)	2,500 (a)	2,500 (a)	2 (1.0)
Tetrachloroethene	127-18-4	2	42	2	2 (1.0)
Dibromochloromethane	128-48-1	2 (c)	8	2 (c)	2 (0.01)
1,2-Dibromoethane	106-93-4	2 (c)	2,500 (a)	2 (c)	2 (0.09)
Chlorobenzene	108-90-7	6	1,200	6	2 (1.0)
1,1,1,2-Tetrachloroethane	630-20-6	2	30	2	2 (1.0)
Ethylbenzene	100-41-4	140	2,500 (a)	140	2 (1.0)
m&p-Xylene	108-38-3 106-42-3	1,000 (a)	2,500 (a)	1,100	10
o-Xylene	95-47-6	1,000 (a)	2,500 (a)	1,100	5.0
Styrene	100-42-5	14	770	14	2 (1.0)

Compound	CAS	Class A Guidance Values	Class B and SPF Guidance Values		Detection Limit (mg/kg)
			Direct Contact	Leaching	
Bromoform	75-25-2	2 (c)	60	2 (c)	2 (0.1)
Isopropylbenzene	98-82-8	123	2,500 (a)	123	5.0
1,1,2,2-Tetrachloroethane	79-34-5	2 (c)	2	2 (c)	2 (0.02)
1,2,3-Trichloropropane	96-18-4	2 (c)	220	2 (c)	2 (1.0)
n-Propylbenzene	98-06-6	10	250	10	5.0
Bromobenzene	108-86-1	1000 (a)	2,500 (b)	2,500 (b)	2 (1.0)
1,3,5-Trimethylbenzene	108-67-8	27	250	27	5.0
2-Chlorotoluene	95-49-8	30	1,100	30	2 (1.0)
4-Chlorotoluene	106-43-4	21	800	21	2 (1.0)
tert-Butylbenzene	104-51-8	6	250	6	5.0
1,2,4-Trimethylbenzene	95-63-6	59	250	69	5.0
sec-Butylbenzene	135-98-8	7	250	7	5.0
p-Isopropyltoluene	99-87-6	59	250	250	5.0
1,3-Dichlorobenzene	541-73-1	45	1,900	45	5.0
1,4-Dichlorobenzene	106-46-7	6	17	9	5.0
n-Butylbenzene	104-51-8	18	250	18	5.0
1,2-Dichlorobenzene	95-50-1	66	2,000	66	5.0
1,2-Dibromo-3-chloropropane	96-12-8	2 (c)	2 (c)	2 (c)	2 (0.02)
1,2,4-Trichlorobenzene	120-82-1	15	210	15	2.0
Hexachlorobutadiene	87-68-3	2 (c)	2 (c)	2 (c)	2 (0.2)
Naphthalene	91-20-3	5	1,400	5	5.0
1,2,3-Trichlorobenzene	87-61-6	1,000 (a)	2,500 (a)	2,500 (a)	2.0
Section B. Semi-Volatile Organic Compounds					
1,2-Diphenylhydrazine (as Azobenzene)	122-66-7	2.5 (c)	2.5 (c)	2.5 (c)	2.5 (1.7)
2,4,5-Trichlorophenol	95-95-4	120	2,500 (a)	120	5.0
2,4,6-Trichlorophenol	88-06-2	2.5 (c)	94	2.5 (c)	2.5 (1.7)
2,4-Dichlorophenol	120-83-2	2.5 (c)	220	2.5 (c)	2.5 (1.7)
2,4-Dimethylphenol	105-67-9	4	1,500	4	2.5 (2.0)
2,4-Dinitrophenol	51-28-5	2.5 (c)	150	2.5 (c)	12
2,4-Dinitrotoluene	121-14-2	2.5 (c)	2.5 (c)	2.5 (c)	2.5 (1.7)
2,6-Dinitrotoluene	606-20-2	2.5 (c)	2.5 (c)	2.5 (c)	2.5 (1.7)
2-Chloronaphthalene	91-59-7	1,000 (a)	2,500 (a)	2,500 (a)	10
2-Chlorophenol	95-97-8	2.5 (c)	370	2.5 (c)	2.5 (2.0)
2-Methylnaphthalene	91-57-6	150	1400	150	5.0
2-Methylphenol (o-Cresol)	95-48-7	18	370	18	5.0
2-Nitroaniline	88-74-4	5.9	5.9	5.9	5.0
2-Nitrophenol	88-75-5	788	788	788	5.0
3,3'-Dichlorobenzidine	91-94-1	2.5 (c)	2.5 (c)	2.5 (c)	4.0
3-Nitroaniline	99-09-2	287	287	287	5.0
3&4-Methylphenol (m&p-Cresol)	106-44-5	8	37	37	5.0
4,6-Dinitro-2-methylphenol	534-52-1	9.8	9.8	9.8	12
4-Bromophenyl phenylether	85-68-7	1,000 (a)	2,500 (a)	2,500 (a)	10
4-Chloro-3-methylphenol	59-50-7	1,000 (a)	2,500 (a)	2,500 (a)	10
4-Chloroaniline	106-47-8	45 (b)	400	45 (b)	2.5 (1.3)
4-Chlorophenyl phenylether	7005-72-3	1,000 (a)	2,500 (a)	2,500 (a)	10
4-Nitroaniline	100-01-6	2.5 (c)	2.5 (c)	2.5 (c)	5.0
4-Nitrophenol	100-02-7	788	788	788	12
Acenaphthene	83-32-9	270	2,500 (a)	270	5.0
Acenaphthylene	208-96-8	300	2,500 (a)	300	5.0
Anthracene	120-12-7	1,000 (a)	2,500 (a)	2,500 (a)	5.0

Compound	CAS	Class A Guidance Values	Class B and SPF Guidance Values		Detection Limit (mg/kg)
			Direct Contact	Leaching	
Benzidine	92-87-5	2.5 (c)	2.5 (c)	2.5 (c)	12
Benzo (a) anthracene	56-55-3	2.5 (c)	2.5 (c)	NCM	2.5 (1.7)
Benzo (a) pyrene	50-32-8	2.5 (c)	2.5 (c)	2.5 (c)	2.5 (1.7)
Benzo (b) fluoranthene	205-99-2	7	20	NCM	5.0
Benzo (g,h,i) perylene	191-24-2	160	800	NCM	5.0
Benzo (k) fluoranthene	207-08-9	7	20	NCM	5.0
Bis (2-chloroethoxy) methane	111-91-1	1,000 (a)	2,500 (a)	2,500 (a)	5.0
Bis (2-chloroethyl) ether	111-44-4	2.5 (c)	2.5 (c)	2.5 (c)	2.5 (1.7)
Bis (2-chloroisopropyl) ether	39638-32-9	2.5 (c)	4	4	2.5 (2.0)
Bis (2-ethylhexyl) phthalate	117-81-7	39	110	NCM	5.0
Butyl Benzyl phthalate	85-68-7	810	930	810	5.0
Carbazole	86-74-8	2.5 (c)	32	2.5 (c)	2.5 (1.7)
Chrysene	218-01-9	70	200	NCM	5.0
Di-n-butyl phthalate	84-74-2	1,000 (a)	2,500 (a)	NCM	5.0
Di-n-octyl phthalate	117-84-0	1,000 (a)	1,600	1,600	5.0
Dibenzo (a,h) anthracene	53-70-3	2.5 (c)	2.5 (c)	NCM	2.5 (1.7)
Dibenzofuran	132-64-9	380	380	380	5.0
Diethyl phthalate	84-66-2	1,000 (a)	2,500 (a)	2,500 (a)	5.0
Dimethyl phthalate	131-11-3	1,000 (a)	2,500 (a)	1,500	5.0
Fluoranthene	206-44-0	270	1400	NCM	5.0
Fluorene	86-73-7	270	1400	510	5.0
Hexachlorobenzene	118-74-1	2.5 (c)	2.5 (c)	NCM	2.5 (1.7)
Hexachlorocyclopentadiene	77-47-4	36	150	NCM	5.0
Hexachloroethane	67-72-1	2.5 (c)	2.5 (c)	2.5 (c)	2.5 (1.7)
Indeno (1,2,3-cd) pyrene	193-39-5	2.5 (c)	2.5 (c)	NCM	2.5 (1.7)
Isophorone	78-59-1	2.5 (c)	1,100	2.5 (c)	2.5 (1.7)
N-Nitroso-di-n-propylamine	621-64-7	2.5 (c)	2.5 (c)	2.5 (c)	2.5 (1.7)
N-Nitrosodimethylamine	62-75-9	2.5 (c)	2.5 (c)	2.5 (c)	4.0
N-Nitrosodiphenylamine	86-30-6	2.5 (c)	130	2.5 (c)	2.5 (1.7)
Nitrobenzene	98-95-3	2.5 (c)	39	2.5 (c)	2.5 (1.7)
Pentachlorophenol	87-86-5	2.5 (c)	9	2.5 (c)	4.0
Phenanthrene	85-01-8	160	800	NCM	5.0
Phenol	108-95-2	56	2,500 (a)	56	5.0
Pyrene	129-00-0	160	800	NCM	5.0
Section C. Metals					
Total Arsenic	7440-38-2	STD	STD		10
Total Cadmium	7440-43-9	STD	STD		1.0
Total Chromium	16065-83-1	STD	STD		10
Total Copper	7440-50-8	STD	STD		10
Total Lead	7439-92-1	STD	STD		11
Total Mercury	7439-97-6	STD	STD		0.05
Total Molybdenum	7439-98-7	STD	STD		18
Total Nickel	7440-02-0	STD	STD		10
Total Selenium	7782-49-2	STD	STD		18
Total Zinc	7440-66-6	STD	STD		10
Total Antimony	7440-36-0	5	26	26	8
Total Beryllium	7440-41-7	0.95	0.95	0.95	0.1
Total Silver	7440-22-4	45	200	200	4.0
Total Thallium	7440-28-0	10 (c)	21	21	10
Section D. Pesticides					

Compound	CAS	Class A Guidance Values	Class B and SPF Guidance Values		Detection Limit (mg/kg)
			Direct Contact	Leaching	
Aldrin	309-00-2	0.3 (c)	0.3 (c)	NCM	0.3 (0.09)
Gamma-BHC (Lindane)	58-89-9	0.3 (c)	0.8	0.3 (c)	0.3 (0.09)
Alpha-BHC	319-84-6	0.3 (c)	0.3 (c)	0.3 (c)	0.3 (0.06)
Delta-BHC	319-86-8	4.4	4.4	4.4	0.3 (0.09)
Beta-BHC	319-85-7	0.3 (c)	0.6	0.3 (c)	0.3 (0.06)
Chlordane	57-74-9	0.8	2	NCM	0.8
4,4'-DDT	50-29-3	0.9	3	NCM	0.3 (0.09)
4,4'-DDE	72-55-9	0.7	2	NCM	0.3 (0.07)
4,4'-DDD	72-54-9	0.7	2	NCM	0.3 (0.07)
Alpha-Endosulfan	959-98-8	45	1,300	45	0.3 (0.07)
Beta-Endosulfan	33213-65-9	45	1,300	45	0.3 (0.07)
Endosulfan Sulfate	1031-07-8	1,000 (a)	2,500 (a)	2,500 (a)	0.3 (0.07)
Endrin	72-20-8	8	54	NCM	0.3 (0.07)
Endrin Aldehyde	7421-93-4	1,000 (a)	2,500 (a)	2,500 (a)	0.3 (0.07)
Heptachlor	76-44-8	0.3 (c)	0.7	NCM	0.3 (0.2)
Heptachlor Epoxide	1024-57-3	0.3 (c)	0.3	NCM	0.3 (0.07)
Toxaphene	8001-35-2	0.8 (c)	0.8 (c)	NCM	0.8
Section E. Polychlorinated Biphenyls					
PCB-1242	53469-21-9	STD	STD		1 (0.7)
PCB-1254	11097-69-1	STD	STD		1 (0.7)
PCB-1221	11104-28-2	STD	STD		1 (0.7)
PCB-1232	11141-16-5	STD	STD		1 (0.7)
PCB-1248	12672-29-6	STD	STD		1 (0.7)
PCB-1260	11096-82-5	STD	STD		1 (0.7)
PCB-1016	12674-11-2	STD	STD		1 (0.7)
Section F. Additional Analyses					
pH	na	na	na		na
Percent solids	na	na	na		na
nitrate-nitrite	14797-55-8 14797-65-0	na	na		30
Total Kjeldahl nitrogen	na	na	na		300
ammonia nitrogen	na	na	na		30
Total organic nitrogen	na	na	na		na
potassium	na	na	na		15
phosphorus	na	na	na		15
Section G. Dioxins					
2,3,7,8 TCDD & 2,3,7,8 TCDF	1746-01-6	STD	STD		5ppt TEQ
Remaining congeners of 2,3,7,8 TCDD	1746-01-6	STD	STD		5ppt TEQ
Section H. Cyanides					
Total cyanides	na	510	2,500 (a)	2,500 (a)	10
Section I. Enteric Virus					
Enteric Virus	na	STD	STD		1 PFU/ 4g

Notes:

(a) – For Class A, any risk value over 1,000 mg/kg was reduced to 1,000 mg/kg. For Class B, any risk value over 2,500 mg/kg was reduced to 2,500 mg/kg.

(b) – This value is the guidance value developed by SESOIL modeling for the stockpile scenario. See Table B for the reclamation and agriculture values.

(c) – Value based on the method detection limit

na - not applicable

NCM – Negligible contaminant movement

STD – Standard already established in the Env-Ws 800

(#) – number in parentheses indicates the detection limit currently required by the Env-Ws 800

APPENDIX G -
LITERATURE INHIBITION VALUES

Pollutant	Reported Range of Activated Sludge Inhibition Threshold Levels, mg/L	References*
METALS/NONMETAL INORGANICS		
Ammonia	480	(4)
Arsenic	0.1	(1), (2), (3)
Cadmium	1 - 10	(2), (3)
Chromium (VI)	1	(2), (3)
Chromium (III)	10 - 50	(2), (3)
Chromium (Total)	1 - 100	(1)
Copper	1	(2), (1), (3)
Cyanide	0.1 - 5 5	(1), (2), (3) (1)
Iodine	10	(4)
Lead	1.0 - 5.0 10 - 100	(3) (1)
Mercury	0.1 - 1 2.5 as Hg (II)	(2), (3) (1)
Nickel	1.0 - 2.5 5	(2), (3) (1)
Sulfide	25 -30	(4)
Zinc	0.3 - 5 5 - 10	(3) (1)
ORGANICS		
Anthracene	500	(1)
Benzene	100 - 500 125 - 500	(3) (1)
2-Chlorophenol	5 20 - 200	(2) (3)
1,2 Dichlorobenzene	5	(2)
1,3 Dichlorobenzene	5	(2)
1,4 Dichlorobenzene	5	(2)
2,4-Dichlorophenol	64	(3)
2,4 Dimethylphenol	40 - 200	(3)
2,4 Dinitrotoluene	5	(2)
1,2-Diphenylhydrazine	5	(2)
Ethylbenzene	200	(3)
Hexachlorobenzene	5	(2)
Naphthalene	500 500 500	(1) (2) (3)
Nitrobenzene	30 - 500 500 500	(3) (1) (2)

Pollutant	Reported Range of Activated Sludge Inhibition Threshold Levels, mg/L	References*
Pentachlorophenol	0.95 50 75 - 150	(2) (3) (1)
Phenanthrene	500 500	(1) (2)
Phenol	50 - 200 200 200	(3) (2) (1)
Toluene	200	(3)
2,4,6 Trichlorophenol	50 - 100	(1)
Surfactants	100 - 500	(4)

Pollutant	Reported Range of Trickling Filter Inhibition Threshold Levels, mg/L	References*
Chromium (III)	3.5 - 67.6	(1)
Cyanide	30	(1)

Pollutant	Reported Range of Nitrification Inhibition Threshold Levels, mg/L	References*
METALS/NONMETAL INORGANICS		
Arsenic	1.5	(2)
Cadmium	5.2	(1), (2)
Chloride	180	(4)
Chromium (VI)	1 - 10 [as $(CrO_4)^{2-}$]	(1)
Chromium (T)	0.25 - 1.9 1 - 100 (trickling filter)	(1), (2), (3) (1)
Copper	0.05 - 0.48	(2), (3)
Cyanide	0.34 - 0.5	(2), (3)
Lead	0.5	(2), (3)
Nickel	0.25 - 0.5 5	(2), (3) (1)
Zinc	0.08 - 0.5	(2), (3)
ORGANICS		
Chloroform	10	(2)
2,4-Dichlorophenol	64	(3)
2,4-Dinitrophenol	150	(2)
Phenol	4 4 - 10	(2) (3)

Pollutant	Reported Range of Anaerobic Digestion Inhibition Threshold Levels, mg/L	References*
METALS/NONMETAL INORGANICS		
Ammonia	1500 - 8000	(4)
Arsenic	1.6	(1)
Cadmium	20	(3)
Chromium (III)	130	(3)
Chromium (VI)	110	(3)
Copper	40	(3)
Cyanide	4 - 100 1 - 4	(1) (2), (3)
Lead	340	(3)
Nickel	10 136	(2), (3) (1)
Silver	13 - 65**	(3)
Sulfate	500 - 1000	(4)
Sulfide	50 - 100	(4)
Zinc	400	(3)
ORGANICS		
Acrylonitrile	5 5	(3) (2)
Carbon Tetrachloride	2.9 - 159.4 10 - 20 2.0	(1) (3) (2)
Chlorobenzene	0.96 - 3 0.96	(1) (2)
Chloroform	1 5 - 16 10 - 16	(2) (1) (3)
1,2-Dichlorobenzene	0.23 - 3.8 0.23	(1) (2)
1,4-Dichlorobenzene	1.4 - 5.3 1.4	(1) (2)
Methyl chloride	3.3 - 536.4 100	(1) (2)
Pentachlorophenol	0.2 0.2 - 1.8	(2) (1)
Tetrachloroethylene	20	(2)
Trichloroethylene	1 - 20 20 20	(1) (2) (3)
Trichlorofluoromethane	-	(2)

* Total pollutant inhibition levels, unless otherwise indicated.

** Dissolved metal inhibition levels.

(1) Jenkins, D.I., and Associates. 1984. *Impact of Toxics on Treatment Literature Review.*

(2) Russell, L. L., C. B. Cain, and D.I. Jenkins. 1984. *Impacts of Priority Pollutants on Publicly Owned Treated Works Processes: A Literature Review.* 1984 Purdue Industrial Waste Conference.

(3) Anthony, R. M., and L. H. Briemburst. 1981. *Determining Maximum Influent Concentrations of Priority Pollutants for Treatment Plants.* Journal Water Pollution Control Federation 53(10):1457-1468.

(4) U.S. EPA. 1986, *Working Document; Interferences at Publicly Owned Treatment Works.* September 1986.

Source: *EPA's Guidance Manual on the Development and Implementation of Local Discharge Limitations Under the Pretreatment Program*, December 1987, pp. 3-44 to 3-49.

AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Clean Water Act as amended, 33 U.S.C. §§ 1251 et seq. (the "CWA"),

Town of Exeter, New Hampshire

is authorized to discharge from the facility located at

Exeter Wastewater Treatment Plant **and** **1 Combined Sewer Overflow (CSO)**
13 Newfields Road
Exeter, NH 03833

to receiving water named

Squamscott River – Outfall 001
Clemson Pond – CSO Outfall 003
Exeter – Squamscott River Watershed

in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective on the first day of the calendar month immediately following 60 days after signature. [1]

This permit expires at midnight, five years from the last day of the month preceding the effective date.

This permit supersedes the permit issued on December 12, 2012.

This permit consists of **Part I** including the cover page(s), **Attachment A** (Marine Acute Toxicity Test Procedure and Protocol, February 2011) and **Part II** (NPDES Part II Standard Conditions, April 2018).

Signed this day of

KENNETH MORAFF Digitally signed by KENNETH MORAFF Date: 2022.08.05 15:22:06 -04'00'

Ken Moraff, Director
Water Division
Environmental Protection Agency
Region 1
Boston, MA

[1] Procedures for appealing EPA's Final Permit decision may be found at 40 CFR § 124.19.

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the effective date and lasting through the expiration date, the Permittee is authorized to discharge treated effluent through Outfall Serial Number 001 to Squamscott River. The discharge shall be limited and monitored as specified below; the receiving water and the influent shall be monitored as specified below.

Effluent Characteristic	Effluent Limitation			Monitoring Requirements[1,2,3]	
	Average Monthly	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type[4]
Rolling Average Effluent Flow[5]	3.0 MGD[5]	---	---	Continuous	Recorder
Effluent Flow[5]	Report MGD	---	Report MGD	Continuous	Recorder
BOD_5	30 mg/L 751 lb/day	45 mg/L 1,126 lb/day	50 mg/L 1,251 lb/day	2/Week	Composite
BOD_5 Removal	≥ 85 %	---	---	1/Month	Calculation
TSS	30 mg/L 751 lb/day	45 mg/L 1,126 lb/day	50 mg/L 1,251 lb/day	2/Week	Composite
TSS Removal	≥ 85 %	---	---	1/Month	Calculation
pH Range[6]	6.5 – 8.0 S.U.			1/Day	Grab
Enterococci Bacteria[7]	35/100 mL	---	104/100 mL	1/Day	Grab
Fecal Coliform[7, 8, 9]	14/100 mL	---	Report/100 mL	1/Day	Grab
Fecal Coliform[7, 8, 9] (% of samples > 28/100 mL)	---	---	≤ 10%	1/Day	Grab
Total Arsenic[10]	---	---	Report µg/L	2/Year	Grab
Inorganic Arsenic[10]	---	---	Report µg/L	2/Year	Grab
Perfluorohexanesulfonic acid (PFHxS)[11]	---	---	Report ng/L	1/Quarter	Composite
Perfluorononanoic acid (PFNA)[11]	---	---	Report ng/L	1/Quarter	Composite
Perfluorooctanesulfonic acid (PFOS)[11]	---	---	Report ng/L	1/Quarter	Composite
Perfluorooctanoic acid (PFOA)[11]	---	---	Report ng/L	1/Quarter	Composite

Effluent Characteristic	Effluent Limitation			Monitoring Requirements[1,2,3]	
	Average Monthly	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type[4]
Whole Effluent Toxicity (WET) Testing[12, 13]					
LC_{50}	---	---	≥ 100 %	2/Year	Composite
Salinity	---	---	Report ppt	2/Year	Composite
Ammonia Nitrogen	---	---	Report mg/L	2/Year	Composite
Total Cadmium	---	---	Report mg/L	2/Year	Composite
Total Copper	---	---	Report mg/L	2/Year	Composite
Total Nickel	---	---	Report mg/L	2/Year	Composite
Total Lead	---	---	Report mg/L	2/Year	Composite
Total Zinc	---	---	Report mg/L	2/Year	Composite
Total Organic Carbon	---	---	Report mg/L	2/Year	Composite

Ambient Characteristic[14]	Reporting Requirements			Monitoring Requirements[1,2,3]	
	Average Monthly	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type[4]
Salinity	---	---	Report ppt	2/Year	Grab
Ammonia Nitrogen	---	---	Report mg/L	2/Year	Grab
Total Cadmium	---	---	Report mg/L	2/Year	Grab
Total Copper	---	---	Report mg/L	2/Year	Grab
Total Nickel	---	---	Report mg/L	2/Year	Grab
Total Lead	---	---	Report mg/L	2/Year	Grab
Total Zinc	---	---	Report mg/L	2/Year	Grab
Total Organic Carbon	---	---	Report mg/L	2/Year	Grab
pH[15]	---	---	Report S.U.	2/Year	Grab
Temperature[15]	---	---	Report °C	2/Year	Grab
Total Arsenic[10]	---	---	Report µg/L	2/Year	Grab
Inorganic Arsenic[10]	---	---	Report µg/L	2/Year	Grab

Influent Characteristic	Reporting Requirements			Monitoring Requirements[1,2,3]	
	Average Monthly	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type[4]
BOD_5	Report mg/L	---	---	2/Month	Composite
TSS	Report mg/L	---	---	2/Month	Composite
Perfluorohexanesulfonic acid (PFHxS)[11]	---	---	Report ng/L	1/Quarter	Composite
Perfluorononanoic acid (PFNA)[11]	---	---	Report ng/L	1/Quarter	Composite
Perfluorooctanesulfonic acid (PFOS)[11]	---	---	Report ng/L	1/Quarter	Composite
Perfluorooctanoic acid (PFOA)[11]	---	---	Report ng/L	1/Quarter	Composite

Sludge Characteristic	Reporting Requirements			Monitoring Requirements[1,2,3]	
	Average Monthly	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type[4]
Perfluorohexanesulfonic acid (PFHxS)[16]	---	---	Report ng/g	1/Quarter	Composite[17]
Perfluorononanoic acid (PFNA)[16]	---	---	Report ng/g	1/Quarter	Composite[17]
Perfluorooctanesulfonic acid (PFOS)[16]	---	---	Report ng/g	1/Quarter	Composite[17]
Perfluorooctanoic acid (PFOA)[16]	---	---	Report ng/g	1/Quarter	Composite[17]

2. During the period beginning on the effective date of this permit and lasting through the expiration date, the Permittee is authorized to discharge stormwater and wastewaters from Combined Sewer Outfall Number 003 into Clemson Pond. These discharges are authorized only during wet weather. Such discharges shall be limited to the outfall listed and shall be monitored by the Permittee as specified below. Samples specified below shall be taken at a location that provides a representative analysis of the effluent. Additionally, monitoring results based on Parts I.H.5 and 6 below shall be reported in the monthly Discharge Monitoring Report (DMR) for Outfall 003.

Effluent Characteristic	Discharge Limitation	Monitoring Requirement	
	Wet Weather Event Maximum	Measurement Frequency	Sample Type
Escherichia coli Bacteria[18]	1,000/100 mL	1/Year	Grab

Footnotes:

1. All samples shall be collected in a manner to yield representative data. A routine sampling program shall be developed in which samples are taken at the same location, same time and same days of the week each month. Occasional deviations from the routine sampling program are allowed, but the reason for the deviation shall be documented as an electronic attachment to the applicable discharge monitoring report. The Permittee shall report the results to the Environmental Protection Agency Region 1 (EPA) and the State of any additional testing above that required herein, if testing is in accordance with 40 CFR Part 136.

2. In accordance with 40 CFR § 122.44(i)(1)(iv), the Permittee shall monitor according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR Part 136 or required under 40 CFR chapter I, subchapter N or O, for the analysis of pollutants or pollutant parameters (except WET). A method is "sufficiently sensitive" when: 1) The method minimum level (ML) is at or below the level of the effluent limitation established in the permit for the measured pollutant or pollutant parameter; or 2) The method has the lowest ML of the analytical methods approved under 40 CFR Part 136 or required under 40 CFR chapter I, subchapter N or O for the measured pollutant or pollutant parameter. The term "minimum level" refers to either the sample concentration equivalent to the lowest calibration point in a method or a multiple of the method detection limit (MDL), whichever is higher. Minimum levels may be obtained in several ways: They may be published in a method; they may be based on the lowest acceptable calibration point used by a laboratory; or they may be calculated by multiplying the MDL in a method, or the MDL determined by a laboratory, by a factor.

3. When a parameter is not detected above the ML, the Permittee must report the data qualifier signifying less than the ML for that parameter (e.g., < 50 µg/L, if the ML for a parameter is 50 µg/L). For reporting an average based on a mix of values detected and not detected, assign a value of "0" to all non-detects for that reporting period and report the average of all the results.

4. A "grab" sample is an individual sample collected in a period of less than 15 minutes.

   A "composite" sample is a composite of at least twenty-four (24) grab samples taken during one consecutive 24-hour period, either collected at equal intervals and combined proportional to flow or continuously collected proportional to flow.

5. The limit is a rolling annual average, reported in million gallons per day (MGD), which will be calculated as the arithmetic mean of the monthly average flow for the reporting month and the monthly average flows of the previous eleven months. Also report monthly average and maximum daily flow in MGD.

6. The pH shall be within the specified range at all times. The minimum and maximum pH sample measurement values for the month shall be reported in standard units (S.U.). See Part I.G.1 and Part I.J.5 below for a provision to modify the pH range.

7. The monthly average limits for *enterococci* and Fecal Coliform are expressed as geometric mean using the daily sample results.

8. The Daily Maximum limit is expressed as not more than 10% of the collected samples (over a monthly period) shall exceed a Most Probable Number (MPN) of 28 per 100 mL. Each month the percentage of collected samples that exceed an MPN of 28 per 100 mL shall be reported as the Daily Maximum value. Furthermore, all Fecal Coliform data collected must be submitted with the monthly Discharge Monitoring Reports (DMRs).

9. See Part I.J.12 below for additional fecal coliform State 401 Certification Conditions.

10. Total arsenic and inorganic arsenic monitoring of the effluent and ambient shall be conducted twice per year on the same day as the Whole Effluent Toxicity testing in the calendar quarters ending June 30th and September 30th. Total arsenic shall be measured using EPA Method 200.8. Inorganic arsenic shall be measured using EPA Method 1632.

11. Report in nanograms per liter (ng/L). This reporting requirement for the listed PFAS parameters takes effect the first full calendar quarter following 6 months after EPA notifies the Permittee that an EPA multi-lab validated method for wastewater is available.

12. The Permittee shall conduct acute toxicity tests (LC50) in accordance with test procedures and protocols specified in **Attachment A** of this permit. LC50 is defined in Part II.E. of this permit. The Permittee shall use the mysid shrimp (*Mysidopsis bahia*) and inland silverside (*Menidia beryllina*) as the test species. Toxicity test samples shall be collected during the same weeks each time of calendar quarters ending June 30th and September 30th. The complete report for each toxicity test shall be submitted as an attachment to the DMR submittal which includes the results for that toxicity test.

13. For Part I.A.1., Whole Effluent Toxicity testing, the Permittee shall conduct the analyses specified in **Attachment A,** Part VI. CHEMICAL ANALYSIS for the effluent sample. If toxicity test(s) using the receiving water as diluent show the receiving water to be toxic or unreliable, the Permittee shall follow procedures outlined in **Attachment A,** Section IV., DILUTION WATER. Minimum levels and test methods are specified in **Attachment A,** Part VI. CHEMICAL ANALYSIS.

14. For Part I.A.1., Ambient Characteristic, the Permittee shall conduct the analyses specified in **Attachment A,** Part VI. CHEMICAL ANALYSIS for the receiving water sample collected as part of the WET testing requirements. Such samples shall be taken from the receiving water at a point immediately outside of the permitted discharge's zone of influence at a reasonably accessible location, as specified in **Attachment A.** Minimum

levels and test methods are specified in **Attachment A**, Part VI. CHEMICAL ANALYSIS.

15. A pH and temperature measurement shall be taken of each receiving water sample at the time of collection and the results reported on the appropriate DMR. These pH and temperature measurements are independent from any pH and temperature measurements required by the WET testing protocols.

16. Report in nanograms per gram (ng/g). This reporting requirement for the listed PFAS parameters takes effect the first full calendar quarter following 6 months after EPA notifies the Permittee that an EPA multi-lab validated method for sludge is available.

17. Sludge sampling shall be as representative as possible based on guidance found at https://www.epa.gov/sites/production/files/2018-11/documents/potw-sludge-sampling-guidance-document.pdf.

18. The Permittee shall sample the discharge from Combined Sewer Outfall 003 at least once per calendar year. All attempts must be made to begin sampling during the first half hour after the outfall starts discharging. If this is not possible, a sample shall be collected as soon as possible after the discharge commences. The "event maximum" value for *Escherichia coli* shall be reported on the appropriate DMR for the month sampled. Report the appropriate No Data Indicator (NODI) code on the DMR for all other months.

    The Permittee shall also perform CSO and receiving water (Clemson Pond) sampling as described in Part I.H.5 and 6 below. All CSO and receiving water (Clemson Pond) data shall be reported for each DMR and submitted with the annual report required by Part I.H.4. of this permit.

Part I.A., continued.

3. The discharge shall not cause a violation of the water quality standards of the receiving water.

4. The discharge shall be free from substances in kind or quantity that settle to form harmful benthic deposits; float as foam, debris, scum or other visible substances; produce odor, color, taste or turbidity that is not naturally occurring and would render the surface water unsuitable for its designated uses; result in the dominance of nuisance species; or interfere with recreational activities.

5. Tainting substances shall not be present in the discharge in concentrations that individually or in combination are detectable by taste and odor tests performed on the edible portions of aquatic organisms.

6. The discharge shall not result in toxic substances or chemical constituents in concentrations or combinations in the receiving water that injure or are inimical to plants, animals, humans or aquatic life; or persist in the environment or accumulate in aquatic organisms to levels that result in harmful concentrations in edible portions of fish, shellfish, other aquatic life, or wildlife that might consume aquatic life.

7. The discharge shall not result in benthic deposits that have a detrimental impact on the benthic community. The discharge shall not result in oil and grease, color, slicks, odors, or surface floating solids that would impair any existing or designated uses in the receiving water.

8. The discharge shall not result in an exceedance of the naturally occurring turbidity in the receiving water by more than 10 NTUs.

9. The Permittee must provide adequate notice to EPA-Region 1 and the State of the following:

   a. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to Part 301 or Part 306 of the Clean Water Act if it were directly discharging those pollutants or in a primary industry category (see 40 CFR Part 122 Appendix A as amended) discharging process water; and

   b. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.

   c. For purposes of this paragraph, adequate notice shall include information on:

      (1) The quantity and quality of effluent introduced into the POTW; and

      (2) Any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

10. Pollutants introduced into the POTW by a non-domestic source (user) shall not pass through the POTW or interfere with the operation or performance of the works.

B. UNAUTHORIZED DISCHARGES

1. This permit authorizes discharges only from the outfalls listed in Part I.A.1, and Part I.A.2 in accordance with the terms and conditions of this permit. Discharges of wastewater from any other point sources, including sanitary sewer overflows (SSOs), are not authorized by this permit. The Permittee must provide verbal notification to EPA within 24 hours of becoming aware of any unauthorized discharge and a report within 5 days, in accordance with Part II.D.1.e (24-hour reporting). See Part I.I below for reporting requirements.

2. The Permittee must provide notification to the public within 24 hours of becoming aware of any unauthorized discharge, except SSOs that do not impact a surface water or the public, on a publicly available website, and it shall remain on the website for a minimum of 12 months. Such notification shall include the location (including latitude and longitude) and description of the discharge; estimated volume; the period of noncompliance, including exact dates and times, and, if the noncompliance has not been corrected, the anticipated time it is expected to continue.

C. OPERATION AND MAINTENANCE OF THE SEWER SYSTEM

Operation and maintenance (O&M) of the sewer system shall be in compliance with the Standard Conditions of Part II and the following terms and conditions. The Permittee and shall complete the following activities for the collection system which it owns:

1. Maintenance Staff

The Permittee shall provide an adequate staff to carry out the operation, maintenance, repair, and testing functions required to ensure compliance with the terms and conditions of this permit. Provisions to meet this requirement shall be described in the Collection System O&M Plan required pursuant to Section C.5. below.

2. Preventive Maintenance Program

The Permittee shall maintain an ongoing preventive maintenance program to prevent overflows and bypasses caused by malfunctions or failures of the sewer system infrastructure. The program shall include an inspection program designed to identify all potential and actual unauthorized discharges. Plans and programs to meet this requirement shall be described in the Collection System O&M Plan required pursuant to Section C.5. below.

3. Infiltration/Inflow

The Permittee shall control infiltration and inflow (I/I) into the sewer system as necessary to prevent high flow related unauthorized discharges from their collection systems and high flow related violations of the wastewater treatment plant's effluent limitations. Plans and programs to

control I/I shall be described in the Collection System O&M Plan required pursuant to Section C.5. below.

4. Collection System Mapping

The Permittee shall continue to maintain a map of the sewer collection system it owns. The map shall be on a street map of the community, with sufficient detail and at a scale to allow easy interpretation. The collection system information shown on the map shall be based on current conditions and shall be kept up-to-date and available for review by federal, state, or local agencies. Such map(s) shall include, but not be limited to the following:

a. All sanitary sewer lines and related manholes;

b. All combined sewer lines, related manholes, and catch basins;

c. All combined sewer regulators and any known or suspected connections between the sanitary sewer and storm drain systems (e.g. combination manholes);

d. All outfalls, including the treatment plant outfall(s), CSOs, and any known or suspected SSOs, including stormwater outfalls that are connected to combination manholes;

e. All pump stations and force mains;

f. The wastewater treatment facility(ies);

g. All surface waters (labeled);

h. Other major appurtenances such as inverted siphons and air release valves;

i. A numbering system which uniquely identifies manholes, catch basins, overflow points, regulators and outfalls;

j. The scale and a north arrow; and

k. The pipe diameter, date of installation, type of material, distance between manholes, and the direction of flow.

5. Collection System O&M Plan

The Permittee shall continue to update and implement the Collection System O&M Plan it has previously submitted to EPA and the State. The Plan shall be available for review by federal, state and local agencies as requested. The Plan shall include:

a. A description of the collection system management goals, staffing, information management, and legal authorities;

b. A description of the collection system and the overall condition of the collection system including a list of all pump stations and a description of recent studies and construction activities; and

c. A preventive maintenance and monitoring program for the collection system;

d. Description of sufficient staffing necessary to properly operate and maintain the sanitary sewer collection system and how the operation and maintenance program is staffed;

e. Description of funding, the source(s) of funding and provisions for funding sufficient for implementing the plan;

f. Identification of known and suspected overflows and back-ups, including manholes. A description of the cause of the identified overflows and back-ups, corrective actions taken, and a plan for addressing the overflows and back-ups consistent with the requirements of this permit;

g. A description of the Permittee's programs for preventing I/I related effluent violations and all unauthorized discharges of wastewater, including overflows and by-passes and the ongoing program to identify and remove sources of I/I. The program shall include an inflow identification and control program that focuses on the disconnection and redirection of illegal sump pumps and roof down spouts;

h. An educational public outreach program for all aspects of I/I control, particularly private inflow; and

i. An Overflow Emergency Response Plan to protect public health from overflows and unanticipated bypasses or upsets that exceed any effluent limitation in the permit.

6. Annual Reporting Requirement

The Permittee shall submit a summary report of activities related to the implementation of its Collection System O&M Plan during the previous calendar year. The report shall be submitted to EPA and the State annually by March 31. The summary report shall, at a minimum, include:

a. A description of the staffing levels maintained during the year;

b. A map and a description of inspection and maintenance activities conducted and corrective actions taken during the previous year;

c. Expenditures for any collection system maintenance activities and corrective actions taken during the previous year;

d. A map with areas identified for investigation/action in the coming year;

e. A summary of unauthorized discharges during the past year and their causes and a report of any corrective actions taken as a result of the unauthorized discharges reported pursuant to the Unauthorized Discharges section of this permit; and

f. If the monthly average flow exceeded 80 percent of the facility's 3.0 MGD design flow (2.4 MGD) for three consecutive months in the previous calendar year, or there have been capacity related overflows, the report shall include:

(1) Plans for further potential flow increases describing how the Permittee will maintain compliance with the flow limit and all other effluent limitations and conditions; and

(2) A calculation of the maximum daily, weekly, and monthly infiltration and the maximum daily, weekly, and monthly inflow for the reporting year.

D. ALTERNATE POWER SOURCE

In order to maintain compliance with the terms and conditions of this permit, the Permittee shall provide an alternative power source(s) sufficient to operate the portion of the publicly owned treatment works it owns and operates, as defined in Part II.E.1 of this permit.

E. INDUSTRIAL USERS

1. The Permittee shall submit to EPA and the State the name of any Industrial User (IU) subject to Categorical Pretreatment Standards under 40 CFR § 403.6 and 40 CFR chapter I, subchapter N (Parts 405-415, 417-430, 432, 447, 449-451, 454, 455, 457-461, 463-469, and 471 as amended) who commences discharge to the facility after the effective date of this permit.

   This reporting requirement also applies to any other IU who is classified as a Significant Industrial User which discharges an average of 25,000 gallons per day or more of process wastewater into the facility (excluding sanitary, noncontact cooling and boiler blowdown wastewater); contributes a process wastewater which makes up five (5) percent or more of the average dry weather hydraulic or organic capacity of the facility; or is designated as such by the Control Authority as defined in 40 CFR § 403.3(f) on the basis that the industrial user has a reasonable potential to adversely affect the wastewater treatment facility's operation, or for violating any pretreatment standard or requirement (in accordance with 40 CFR § 403.8(f)(6)).

2. In the event that the Permittee receives originals of reports (baseline monitoring reports, 90-day compliance reports, periodic reports on continued compliance, etc.) from industrial users subject to Categorical Pretreatment Standards under 40 CFR § 403.6 and 40 CFR chapter I, subchapter N (Parts 405-415, 417-430, 432-447, 449-451, 454, 455, 457-461, 463-469, and 471 as amended), or from a Significant Industrial User, the Permittee shall forward the originals of these reports within ninety (90) days of their receipt to EPA, and copy the State.

3. Beginning the first full calendar quarter following 6 months after EPA has notified the Permittee that a multi-lab validated method for wastewater is available, the Permittee shall commence annual sampling of the following types of industrial discharges into the POTW:

   - Commercial Car Washes
   - Platers/Metal Finishers
   - Paper and Packaging Manufacturers
   - Tanneries and Leather/Fabric/Carpet Treaters
   - Manufacturers of Parts with Polytetrafluoroethylene (PTFE) or teflon type coatings (*e.g.*, bearings)
   - Landfill Leachate
   - Centralized Waste Treaters
   - Contaminated Sites
   - Fire Fighting Training Facilities
   - Airports
   - Any Other Known or Expected Sources of PFAS

Sampling shall be for the following PFAS chemicals:

Industrial User Effluent Characteristic	Maximum Daily	Monitoring Requirements	
		Frequency	Sample Type
Perfluorohexanesulfonic acid (PFHxS)	Report ng/L	1/year	Composite
Perfluorononanoic acid (PFNA)	Report ng/L	1/year	Composite
Perfluorooctanesulfonic acid (PFOS)	Report ng/L	1/year	Composite
Perfluorooctanoic acid (PFOA)	Report ng/L	1/year	Composite

The industrial discharges sampled and the sampling results shall be summarized and submitted to EPA and copy the state as an electronic attachment to the March discharge monitoring report due April 15 of the calendar year following the testing.

F. SLUDGE CONDITIONS

1. The Permittee shall comply with all existing federal and state laws and regulations that apply to sewage sludge use and disposal practices, including EPA regulations promulgated at 40 CFR § 503, which prescribe "Standards for the Use or Disposal of Sewage Sludge" pursuant to § 405(d) of the CWA, 33 U.S.C. § 1345(d).

2. If both state and federal requirements apply to the Permittee's sludge use and/or disposal practices, the Permittee shall comply with the more stringent of the applicable requirements.

3. The requirements and technical standards of 40 CFR Part 503 apply to the following sludge use or disposal practices:

   a. Land application - the use of sewage sludge to condition or fertilize the soil

b. Surface disposal - the placement of sewage sludge in a sludge only landfill

c. Sewage sludge incineration in a sludge only incinerator

4. The requirements of 40 CFR Part 503 do not apply to facilities which dispose of sludge in a municipal solid waste landfill. 40 CFR § 503.4. These requirements also do not apply to facilities which do not use or dispose of sewage sludge during the life of the permit but rather treat the sludge (e.g., lagoons, reed beds), or are otherwise excluded under 40 CFR § 503.6.

5. The 40 CFR Part 503 requirements include the following elements:

   a. General requirements

   b. Pollutant limitations

   c. Operational Standards (pathogen reduction requirements and vector attraction reduction requirements)

   d. Management practices

   e. Record keeping

   f. Monitoring

   g. Reporting

Which of the 40 CFR Part 503 requirements apply to the Permittee will depend upon the use or disposal practice followed and upon the quality of material produced by a facility. The EPA Region 1 guidance document, "EPA Region 1 - NPDES Permit Sludge Compliance Guidance" (November 4, 1999), may be used by the Permittee to assist it in determining the applicable requirements.

6. The sludge shall be monitored for pollutant concentrations (all Part 503 methods) and pathogen reduction and vector attraction reduction (land application and surface disposal) at the following frequency. This frequency is based upon the volume of sewage sludge generated at the facility in dry metric tons per year, as follows:

less than 290	1/ year
290 to less than 1,500	1 /quarter
1,500 to less than 15,000	6 /year
15,000 +	1 /month

Sampling of the sewage sludge shall use the procedures detailed in 40 CFR § 503.8.

7. Under 40 CFR § 503.9(r), the Permittee is a "person who prepares sewage sludge" because it "is ... the person who generates sewage sludge during the treatment of

domestic sewage in a treatment works ...." If the Permittee contracts with another "person who prepares sewage sludge" under 40 CFR § 503.9(r) – i.e., with "a person who derives a material from sewage sludge" – for use or disposal of the sludge, then compliance with Part 503 requirements is the responsibility of the contractor engaged for that purpose. If the Permittee does not engage a "person who prepares sewage sludge," as defined in 40 CFR § 503.9(r), for use or disposal, then the Permittee remains responsible to ensure that the applicable requirements in Part 503 are met. 40 CFR § 503.7. If the ultimate use or disposal method is land application, the Permittee is responsible for providing the person receiving the sludge with notice and necessary information to comply with the requirements of 40 CFR § 503 Subpart B.

8. The Permittee shall submit an annual report containing the information specified in the 40 CFR Part 503 requirements (§ 503.18 (land application), § 503.28 (surface disposal), or § 503.48 (incineration)) by February 19 (see also "EPA Region 1 - NPDES Permit Sludge Compliance Guidance"). Reports shall be submitted electronically using EPA's Electronic Reporting tool ("NeT") (see "Reporting Requirements" section below).

9. Compliance with the requirements of this permit or 40 CFR Part 503 shall not eliminate or modify the need to comply with applicable requirements under RSA 485-A and Env-Wq 800, New Hampshire Sludge Management Rules.

G. SPECIAL CONDITIONS

1. Provision to Modify pH Range

The pH range may be modified if the Permittee satisfies conditions set forth in Part I.J.5 below. Upon notification of an approval by NHDES, EPA will review and, if acceptable, will submit written notice to the Permittee of the permit change. The modified pH range will not be in effect until the Permittee receives written notice from EPA.

H. COMBINED SEWER OVERFLOWS (CSOs)

1. During wet weather (including snowmelt), the Permittee is authorized to discharge storm water/wastewater from CSO Outfall 003.

2. The effluent discharged from the CSO is subject to the following limitations:

   a. The discharges shall receive treatment at a level providing Best Practicable Control Technology Currently Available ("BPT"), Best Conventional Pollutant Control Technology ("BCT") to control and abate conventional pollutants and Best Available Technology Economically Achievable ("BAT") to control and abate non-conventional and toxic pollutants. The EPA has made a Best Professional Judgment (BPJ) determination that BPT, BCT, and BAT for combined sewer overflow (CSO) control includes the implementation of Nine Minimum Controls (NMC) specified below. These Nine Minimum Controls and the Nine Minimum Controls Minimum Implementation Levels which are detailed further in Part I.H.3. are requirements of this permit.

(1) Proper operation and regular maintenance programs for the sewer system and the combined sewer overflows;

(2) Maximum use of the collection system for storage;

(3) Review and modification of the pretreatment program to assure CSO impacts are minimized;

(4) Maximization of flow to the POTW for treatment;

(5) Prohibition of dry weather overflows from CSOs;

(6) Control of solid and floatable materials in CSOs;

(7) Pollution prevention programs that focus on contaminant reduction activities;

(8) Public notification to ensure that the public receives adequate notification of CSO occurrences and impacts;

(9) Monitoring to effectively characterize CSO impacts and the efficacy of CSO controls.

b. The discharges shall not cause or contribute to violations of federal or state Water Quality Standards.

3. Nine Minimum Controls Minimum Implementation Levels

a. The Permittee must implement the nine minimum controls in accordance with the documentation provided to EPA and NHDES or as subsequently modified to enhance the effectiveness of the controls. This implementation must include the controls identified in Part I.H.3.b-g of this permit plus other controls the Permittee can reasonably undertake as set forth in the documentation.

b. Each CSO structure/regulator, pumping station and/or tidegate shall be routinely inspected, at a minimum of once per month, to ensure that they are in good working condition and adjusted to minimize combined sewer discharges (NMC # 1, 2 and 4). The following inspection results shall be recorded: the date and time of inspection, the general condition of the facility, and whether the facility is operating satisfactorily. If maintenance is necessary, the Permittee shall record: the description of the necessary maintenance, the date the necessary maintenance was performed, and whether the observed problem was corrected. The Permittee shall maintain all records of inspections for at least three years.

c. **Annually, by March 31st**, the Permittee shall submit a certification to NHDES and EPA which states that the previous calendar year's monthly inspections were conducted, results recorded, and records maintained. NHDES and EPA have the right to inspect any CSO related structure or outfall at any time without prior notification to the Permittee.

Discharges to the combined system of septage, holding tank wastes, or other material which may cause a visible oil sheen or containing floatable material are prohibited during wet weather when CSO discharges may be active (NMC # 3, 6, and 7).

d. Dry weather overflows ("DWOs") are prohibited (NMC # 5). All dry weather sanitary and/or industrial discharges from CSOs must be reported to EPA and NHDES orally within 24 hours of the time the Permittee becomes aware of the circumstances and a report shall also be provided within 5 days of the time the Permittee becomes aware of the circumstances using "NeTSewerOverflow" as described in Part I.I.5 below. See also Paragraph D.1.e. of Part II of this permit.

e. The Permittee shall quantify and record all discharges from combined sewer outfalls (NMC # 9). Quantification shall be through direct measurement. The following information must be recorded for each combined sewer outfall for each discharge event, as set forth in Part I.H.4.:

- Duration (hours) of discharge;
- Volume (gallons) of discharge;
- National Weather Service precipitation data from the nearest gage where precipitation is available at daily (24-hour) intervals and the nearest gage where precipitation is available at one-hour intervals. Cumulative precipitation per discharge event shall be calculated.

The Permittee shall maintain all records of discharges for at least six years after the effective date of this permit.

f. The Permittee shall install and maintain identification signs for all combined sewer outfall structures (NMC # 8). The signs must be located at or near the combined sewer outfall structures and easily readable by the public from the land and water. These signs shall be a minimum of 12 x 18 inches in size, with white lettering against a green background, and shall contain the following information:

TOWN OF EXETER
WET WEATHER
SEWAGE DISCHARGE
OUTFALL 003

The Permittee shall place signs in English and in Spanish or include a universal wet weather sewage discharge symbol.

Where there are easements over property not owned by the Permittee that must be obtained to meet this requirement, the Permittee shall identify the appropriate landowners and obtain the necessary easements, to the extent practicable.

g. Public Notification Plan

(1) Within 180 days of the effective date of the permit, the Permittee shall submit to EPA and NHDES a Public Notification Plan describing the measures that will be taken to meet NMC#8 in Part I.H.2 of this permit (NMC #8). The Public Notification Plan shall include the means for disseminating information to the public, including communicating the initial, supplemental, and annual notifications required in Part I.H.3.g.(2), (3) and (4) of this permit, as well as procedures for communicating with public health departments, including downstream communities, whose waters may be affected by discharges from the Permittee's CSOs.

(2)Initial notification of a probable CSO activation shall be provided to the public as soon as practicable, but no later than, two (2) hours after becoming aware by monitoring, modeling or other means that a CSO discharge may have occurred. In addition to posting this notification to a website, this information may also be communicated using other electronic means. The initial notification shall include the following information:

- Date and time of probable CSO discharge
- CSO number and location

(3)Supplemental notification shall be provided to the public as soon as practicable, but no later than, twenty-four (24) hours after becoming aware of the termination of any CSO discharge(s). In addition to posting this notification to a website, this information may also be communicated using other electronic means. The supplemental notification shall include the following information:

- CSO number and location
- Confirmation of CSO discharge
- Date, start time and stop time of the CSO discharge

(4)Annual notification - **Annually, by March 31st**, the Permittee shall post the annual report for the previous calendar year described in Part I.H.4 below on a publicly available website, and it shall remain on the website for a minimum of 24 months.

(5)The Public Notification Plan shall be implemented no later than 12 months following the effective date of the Permit.

4. Nine Minimum Controls Reporting Requirement

Annually, by March 31st, the Permittee shall submit a report summarizing activities during the previous calendar year relating to compliance with the nine minimum controls. The annual report shall include information on the locations of CSOs, a summary of CSO outfall monitoring data required by Part I.H.5 of this permit, status and progress of CSO abatement work, and the impacts of CSOs on water quality of the receiving water.

5. Combined Sewer Overflow Outfall Monitoring

For combined sewer overflow Outfall 003, the Permittee must monitor the following:

Parameters	Reporting Requirements	Monitoring Requirements	
	Total Monthly	Measurement Frequency	Sample Type
Total Flow	Report Gallons	Daily, when discharging	Continuous
Total Flow Duration (Duration of flow through CSO)	Report Hours	Daily, when discharging	Continuous
Number of CSO Discharge Events	Report Monthly Count	Daily, when discharging	Count

a. For Total Flow, measure the total flow discharged from each CSO outfall during the month. For Total Flow Duration, report the total duration (hours) of discharges for each CSO outfall during the month.

b. For those months when a CSO discharge does not occur, the Permittee must indicate "no discharge" for the outfall for which data was not collected.

c. This information shall be reported for each monthly DMR and submitted with the annual report required by Part I.H.4. of this permit.

6. Clemson Pond Monitoring

The Permittee shall sample at the outlet of Clemson Pond once per quarter for a CSO event of at least 40,000 gallons. The sample at the outlet of Clemson Pond shall be collected just inside the tide gate at NHDES Shellfish Monitoring Station SQMPS010 (42° 59' 12.9" N, 70° 57' 1.98" W). The sample shall be taken within 24 to 48 hours from the start of the event and shall be tested for Fecal Coliform bacteria, *Enterococci* bacteria, and temperature as presented below.

Parameters	Reporting Requirements	Monitoring Requirements	
	Total Monthly	Measurement Frequency	Sample Type
Fecal Coliform	Report #/100 mL	Quarterly	Grab
Enterococci	Report #/100 mL	Quarterly	Grab
Temperature	Report °C	Quarterly	Grab

a. For those quarters when a CSO discharge does not occur, the Permittee must indicate "no discharge" for the outfall for which data was not collected.

b. This information shall be reported for each DMR and submitted with the annual report

required by Part I.H.4. of this permit.

I. REPORTING REQUIREMENTS

Unless otherwise specified in this permit, the Permittee shall submit reports, requests, and information and provide notices in the manner described in this section.

1. Submittal of DMRs Using NetDMR

   The Permittee shall continue to submit its monthly monitoring data in discharge monitoring reports (DMRs) to EPA and the State electronically using NetDMR no later than the 15th day of the month. When the Permittee submits DMRs using NetDMR, it is not required to submit hard copies of DMRs to EPA or the State. NetDMR is accessible through EPA's Central Data Exchange at https://cdx.epa.gov/.

2. Submittal of Reports as NetDMR Attachments

   Unless otherwise specified in this permit, the Permittee shall electronically submit all reports to EPA as NetDMR attachments rather than as hard copies. This includes the NHDES Monthly Operating Reports (MORs). See Part I.I.6 for more information on State reporting. Because the due dates for reports described in this permit may not coincide with the due date for submitting DMRs (which is no later than the 15th day of the month), a report submitted electronically as a NetDMR attachment shall be considered timely if it is electronically submitted to EPA using NetDMR with the next DMR due following the report due date specified in this permit.

3. Submittal of Biosolids/Sewage Sludge Reports

   By February 19 of each year, the Permittee must electronically report their annual Biosolids/Sewage Sludge Report for the previous calendar year using EPA's NPDES Electronic Reporting Tool ("NeT"), or another approved EPA system, which is accessible through EPA's Central Data Exchange at https://cdx.epa.gov/.

4. Submittal of Requests and Reports to EPA Water Division (WD)

   a. The following requests, reports, and information described in this permit shall be submitted to the NPDES Applications Coordinator in EPA Water Division (WD):

      (1) Transfer of permit notice;

      (2) Request for changes in sampling location;

      (3) Request for reduction in testing frequency;

      (4) Report on unacceptable dilution water / request for alternative dilution water for WET testing.

(5) Report of new industrial user commencing discharge

(6) Report received from existing industrial user

b. These reports, information, and requests shall be submitted to EPA WD electronically at R1NPDESReporting@epa.gov.

5. Submittal of Sewer Overflow and Bypass Reports and Notifications:

The Permittee shall submit required reports and notifications under Part II.B.4.c, for bypasses, and Part II.D.1.e, for sanitary sewer overflows (SSOs) electronically using EPA's NPDES Electronic Reporting Tool for Sewer Overflows ("NeTSewerOverflow"), which will be accessible through EPA's Central Data Exchange at https://cdx.epa.gov/.

6. State Reporting

Unless otherwise specified in this permit or by the State, duplicate signed copies of all reports, information, requests or notifications described in this permit, including the reports, information, requests or notifications described in Parts I.I.3 through I.I.5 shall also be submitted to the New Hampshire Department of Environmental Services, Water Division (NHDES–WD) electronically to the Permittee's assigned NPDES inspector at NHDES-WD or as a hardcopy to the following addresses:

New Hampshire Department of Environmental Services
Water Division
Wastewater Engineering Bureau
29 Hazen Drive, P.O. Box 95
Concord, New Hampshire 03302-0095

7. Verbal Reports and Verbal Notifications

a. Any verbal reports or verbal notifications, if required in Parts I and/or II of this permit, shall be made to both EPA and to the State. This includes verbal reports and notifications which require reporting within 24 hours (e.g., Part II.B.4.c.(2), Part II.B.5.c.(3), and Part II.D.1.e).

b. Verbal reports and verbal notifications shall be made to:

EPA ECAD at 617-918-1510
and
NHDES Assigned NPDES Inspector at 603-271-1493

J. STATE 401 CERTIFICATION CONDITIONS

1. The Permittee shall not at any time, either alone or in conjunction with any person or persons, cause directly or indirectly the discharge of waste into the said receiving water

unless it has been treated in such a manner as will not lower the legislated water quality classification of, or interfere with the uses assigned to, said water by the New Hampshire Legislature (RSA 485-A:12).

2. This NPDES discharge permit is issued by EPA under federal law. Upon final issuance by EPA, the New Hampshire Department of Environmental Services-Water Division (NHDES-WD) may adopt this permit, including all terms and conditions, as a state permit pursuant to RSA 485-A:13.

3. EPA shall have the right to enforce the terms and conditions of this permit pursuant to federal law and NHDES-WD shall have the right to enforce the permit pursuant to state law, if the permit is adopted. Any modification, suspension, or revocation of this permit shall be effective only with respect to the agency taking such action and shall not affect the validity or status of the permit as issued by the other agency.

4. Pursuant to New Hampshire Statute RSA 485-A13,I(c), any person responsible for a bypass or upset at a wastewater facility shall give immediate notice of a bypass or upset to all public or privately owned water systems drawing water from the same receiving water and located within 20 miles downstream of the point of discharge regardless of whether or not it is on the same receiving water or on another surface water to which the receiving water is tributary. Wastewater facility is defined at RSA 485-A:2XIX as the structures, equipment, and processes required to collect, convey, and treat domestic and industrial wastes, and dispose of the effluent and sludge. The Permittee shall maintain a list of persons, and their telephone numbers, who are to be notified immediately by telephone. In addition, written notification, which shall be postmarked within 3 days of the bypass or upset, shall be sent to such persons.

5. The pH range of 6.5 to 8.0 Standard Units (S.U.) must be achieved in the final effluent unless the Permittee can demonstrate to NHDES-WD: 1) that the range should be widened due to naturally occurring conditions in the receiving water; or 2) that the naturally occurring receiving water pH is not significantly altered by the Permittee's discharge. The scope of any demonstration project must receive prior approval from NHDES-WD. In no case, shall the above procedure result in pH limits outside the range of 6.0 to 9.0 S.U., which is the federal effluent limitation guideline regulation for pH for secondary treatment and is found in 40 CFR § 133.102(c).

6. Pursuant to New Hampshire Code of Administrative Rules, Env-Wq 703.07(a):

   Any person proposing to construct or modify any of the following shall submit an application for a sewer connection permit to the department:

   a. Any extension of a collector or interceptor, whether public or private, regardless of flow;

   b. Any wastewater connection or other discharge in excess of 5,000 gpd;

   c. Any wastewater connection or other discharge to a WWTP operating in excess of 80

percent design flow capacity or design loading capacity based on actual average flow or loading for 3 consecutive months;

d. Any industrial wastewater connection or change in existing discharge of industrial wastewater, regardless of quality or quantity;

e. Any sewage pumping station greater than 50 gpm or serving more than one building; or

f. Any proposed sewer that serves more than one building or that requires a manhole at the connection.

7. For each new or increased discharge of industrial waste to the POTW, the Permittee shall submit, in accordance with Env-Wq 305.10(a) an "Industrial Wastewater Discharge Request."

8. Pursuant to Env-Wq 305.15(d) and 305.16(f), the Permittee shall not allocate or accept for treatment more than 90 percent of the headworks loading limits of the facility.

9. Pursuant to Env-Wq 305.21, at a frequency no less than every five years, the Permittee shall submit to NHDES:

   a. A copy of its current sewer use ordinance if it has been revised without department approval subsequent to any previous submittal to the department or a certification that no changes have been made.

   b. A current list of all significant indirect dischargers to the POTW. At a minimum, the list shall include for each significant indirect discharger, its name and address, the name and daytime telephone number of a contact person, products manufactured, industrial processes used, existing pretreatment processes, and discharge permit status.

   c. A list of all permitted indirect dischargers; and

   d. A certification that the municipality is strictly enforcing its sewer use ordinance and all discharge permits it has issued.

10. When the effluent discharged for a period of three (3) consecutive months exceeds 80 percent of the 3.0 MGD design flow (2.4 MGD) or design loading capacity, the Permittee shall submit to the permitting authorities a projection of flows and loadings up to the time when the design capacity of the treatment facility will be reached, and a program for maintaining satisfactory treatment levels consistent with approved water quality management plans. Before the design flow will be reached, or whenever treatment necessary to achieve permit limits cannot be assured, the Permittee may be required to submit plans for facility improvements.

11. Outfall Maintenance and Inspection

a. Effluent diffusers shall be maintained as necessary to ensure proper operation. Proper operation means that the plumes from each port will be balanced relative to each other and that they all have unobstructed flow. Maintenance may include dredging in the vicinity of the diffuser, clean out of solids in the diffuser header pipe, removal of debris and repair/replacement of riser ports and duckbill valves.

b. Any necessary maintenance dredging must be performed only after receiving all necessary permits from the NHDES Wetlands Bureau and other appropriate agencies.

c. To determine if maintenance will be required, the Permittee shall have a licensed diver or licensed marine contractor inspect and videotape the operation of the diffuser. The inspections and videotaping shall be performed in accordance with the following schedule:

(1) Every year if no duckbill valves have been installed on the riser ports; or

(2) Every 2 years if duckbill valves have been installed on the riser ports.

d. The video of the diffuser inspection and a copy of a report summarizing the results of the inspection shall be submitted to EPA and NHDES-WD on a USB drive within 60 days of each inspection. A schedule for cleaning, repairs, or other necessary maintenance shall be included in the report if the inspection indicates that it is necessary. Necessary cleaning, repairs, or other maintenance should be documented with a photo or video taken after the action is completed.

12. NHDES Shellfish Notification Procedures

The Permittee shall immediately notify the Shellfish Section of NHDES-WD of possible high bacteria/virus loading events from the facility or its sewage collection infrastructure. Such events include:

a. Any lapse or interruption of normal operation of the POTW disinfection system, or other event that results in discharge of sewage from the POTW or sewage collection infrastructure (pump stations, sewer lines, manholes, etc.) that has not undergone full disinfection as specified in this permit;

b. Total daily flows in excess of the POTW's average daily design flow of 3.0 MGD; and

c. Daily post-disinfection effluent sample result of 43 fecal coliform/100 mL or greater. Notification shall also be made for instances where NPDES-required bacteria sampling is not completed, or where the results of such sampling are invalid.

Notification shall be made using the program's cell phone number. If Shellfish Program staff are not available to answer the phone, leave a message describing the issue or situation and provide your contact information, including phone number. Then, call the Shellfish Program's pager and enter a call back number. Upon initial notification of a possible high bacteria/virus loading event, Shellfish Program staff will determine the most suitable interval for continued notification and updates on an event-by-event basis.

NHDES - Shellfish Program
Cell Phone: 603-568-6741
Pager: 603-771-9826

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 1
5 Post Office Square, Suite 100
Boston, MA 02109-3912

VIA EMAIL - READ RECEIPT REQUESTED

August 9, 2022

Matthew Berube
Water & Sewer Manager
Department of Public Works
13 Newfields Road
Exeter, NH 03833

Re: Authorization to discharge under the Great Bay Total Nitrogen General Permit (GBTN GP) – Authorization number NHG58A004 for the Exeter WWTP

Matthew Berube:

Based on the review of a Notice of Intent (NOI) dated March 16, 2021 submitted by the Town of Exeter for the facility referenced above, the U.S. Environmental Protection Agency, Region 1 (EPA) hereby authorizes the Town of Exeter, as the named operator, to discharge nitrogen in accordance with the provisions of the GBTN GP from this facility. The authorization number is listed above and the effective date of coverage is November 1, 2022. This authorization only applies to the discharge of nitrogen from Outfall 001 and does not impact your authorization to discharge under your individual permit (permit number NH0100871). In accordance with Part 6.2 of the GBTN GP, your permit coverage will be administratively continued upon expiration of the GBTN GP if the general permit has not been reissued.

The applicable effluent limitations and monitoring requirements for your facility are described in Part 2.1 of the GBTN GP and are summarized below.

Wastewater Treatment Facility	Effluent Limitations (April 1 through October 31)	Year-Round Reporting Requirements				Year-Round Monitoring Requirements[1,2]	
	Total Nitrogen	Total Nitrogen		Total Kjeldahl Nitrogen	Nitrate + Nitrite Nitrogen		
	Rolling Seasonal Average (lb/day)[3,4]	Monthly Average (lb/day)[5]	Monthly Average (mg/L)[5]	Monthly Average (mg/L)[5]	Monthly Average (mg/L)[5]	Monitoring Frequency	Sample Type[6]
Exeter	106	Report	Report	Report	Report	1/week	Composite

* For footnotes, refer to pages 4 through 6 of the Final General Permit (found at link below). To summarize, monitoring for total Kjeldahl nitrogen and nitrate + nitrite nitrogen shall be conducted year-round once per week. Reporting for those parameters and for total nitrogen (*i.e.*, the sum of those parameters) shall be done each month through NetDMR as described in Part 5.1 of the GBTN GP. The rolling seasonal average load will be reported following each month from April through October (*i.e.*, the "growing season") once you have collected 7-months of data during the growing season. Therefore, the first rolling seasonal average load will be reported following October of 2023 and will be calculated as the average of the 7 monthly average loads for April 2023 through October 2023. The seasonal rolling average load will then be recalculated and reported after each month from April through October of each year, using the monthly average loads from the 7 most recent months during the growing season and will be used to confirm compliance with the rolling seasonal average effluent limit applicable to your facility of 106 lb/day.

Please note that this summary does not represent the complete requirements of the GBTN GP. Operators must comply with all of the applicable requirements of the GBTN GP, including all record-keeping and reporting requirements. For the complete general permit, see EPA's GBTN GP website, currently available at: https://www.epa.gov/npdes-permits/great-bay-total-nitrogen-general-permit.

Please note that with the establishment of this new permit authorization number, your facility will need to have the signatory for the facility request access to the new permit through NetDMR and receive approval from EPA in order to report each month. We have attached a copy of the instructions for completing this step to this letter. If you still have questions or need assistance with NetDMR please send an email to R1.NetDMR@epa.gov .

Please contact Michael Cobb at Cobb.Michael@epa.gov or (617) 918-1369 if you have any other questions.

Sincerely,

For Ellen Weitzler, Chief
Wastewater Permits Section
Water Division

Enclosure: NetDMR Instructions

cc: New Hampshire Department of Environmental Services, Water Division

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GREAT BAY TOTAL NITROGEN GENERAL PERMIT FOR WASTEWATER TREATMENT FACILITIES IN NEW HAMPSHIRE

NPDES GENERAL PERMIT: NHG58A000

The Great Bay Total Nitrogen General Permit ("General Permit") covers discharges of nitrogen from Wastewater Treatment Facilities (WWTFs) in the State of New Hampshire listed in Part 1. Parts 2 through 6 contain General Permit provisions, including applicability and coverage requirements, effluent limitations, and monitoring and reporting requirements.

Table of Contents

GREAT BAY TOTAL NITROGEN GENERAL PERMIT

NEW HAMPSHIRE GENERAL PERMIT (No. NHG58A000)

In compliance with the provisions of the Federal Clean Water Act, as amended (33 U.S.C. 1251 et seq.), the following General Permit authorizes discharges of nitrogen from wastewater treatment facilities (WWTFs) in New Hampshire to all waters within the Great Bay watershed, unless otherwise restricted, in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

The General Permit shall become effective on the first day of the calendar month immediately following 60 days after signature.

This General Permit authorizes the discharge of nitrogen for all covered facilities. This General Permit will expire at midnight, five (5) years from the last day of the month preceding the effective date.

Signed this 24 day of November, 2020.

/S/ SIGNATURE ON FILE

Ken Moraff, Director
Water Division
U.S. Environmental Protection Agency
5 Post Office Square – Suite 100
Boston, MA 02109-3912

Part 1 – Applicability and Coverage

1.1 Eligible Discharges

The 13 WWTFs located in New Hampshire that discharge wastewater into a surface water of the Great Bay watershed may be covered by this General Permit. The discharge of all pollutants other than nitrogen shall continue to be covered under each WWTF's individual NPDES permit, including discharges of ammonia. These eligible Permittees are listed below with their corresponding General Permit tracking number and their individual NPDES permit number, for reference.

Table 1 - List of Subject Facilities

Wastewater Treatment Facility	General Permit Tracking Number	Individual NPDES Permit Number
Rochester	NHG58A001	NH0100668
Portsmouth	NHG58A002	NH0100234
Dover	NHG58A003	NH0101311
Exeter	NHG58A004	NH0100871
Durham	NHG58A005	NH0100455
Somersworth	NHG58A006	NH0100277
Pease ITP	NHG58A007	NH0090000
Newmarket	NHG58A008	NH0100196
Epping	NHG58A009	NH0100692
Newington	NHG58A010	NHG581141[1]
Rollinsford	NHG58A011	NH0100251
Newfields	NHG58A012	NH0101192
Milton	NHG58A013	NH0100676

[1] The Newington WWTF is currently authorized to discharge under the General Permit for the Discharge of Wastewater from Certain Publicly Owned Treatment Works Treatment Plants (POTW Treatment Plants) and Other Treatment Works Treating Domestic Sewage in the State of New Hampshire.

1.2 Geographic Coverage Area

Facilities authorized by this General Permit may discharge nitrogen into Class B waters of the Great Bay watershed in the State of New Hampshire, except as provided in Section 1.3, immediately below, unless otherwise restricted by the State Water Quality Standards, New Hampshire RSA 485-A:8 (or as revised) and the New Hampshire Code of Administrative Rules, Chapter Env-Wq 1700 (or as revised).

1.3 Limitations on Coverage

Discharges from facilities not listed in Part 1.1 above are excluded from coverage under this General Permit. Discharges from non-WWTF outfalls are excluded from coverage under this General Permit. Discharges to Class A waters are excluded from coverage under this General Permit.

Part 2 – Effluent Limitations and Monitoring Requirements

2.1 Effluent Limitations and Monitoring Requirements

During the period beginning on the effective date of the authorization to discharge under the permit and lasting through expiration of the permit, each Permittee is authorized to discharge nitrogen from wastewater treatment facilities to the state's Class B receiving waters through each facility's designated outfall for treated wastewater effluent. Each outfall discharging wastewater shall be limited and monitored as specified in Table 2 below.

Table 2 - Effluent Limitations and Monitoring Requirements

Wastewater Treatment Facility	Effluent Limitations	Year-Round Reporting Requirements				Year-Round Monitoring Requirements[1,2]	
	Total Nitrogen	Total Nitrogen		Total Kjeldahl Nitrogen	Nitrate + Nitrite Nitrogen		
	Rolling Seasonal Average (lb/day)[3,4]	Monthly Average (lb/day)[5]	Monthly Average (mg/L)[5]	Monthly Average (mg/L)[5]	Monthly Average (mg/L)[5]	Monitoring Frequency	Sample Type[6]
Rochester	198	Report	Report	Report	Report	1/week	Composite
Portsmouth[7]	248	Report	Report	Report	Report	1/week	Composite
Dover	167	Report	Report	Report	Report	1/week	Composite
Exeter	106	Report	Report	Report	Report	1/week	Composite
Durham	59	Report	Report	Report	Report	1/week	Composite
Somersworth	92	Report	Report	Report	Report	1/week	Composite
Pease ITP[7]	93	Report	Report	Report	Report	1/week	Composite
Newmarket	30	Report	Report	Report	Report	1/week	Composite
Epping	43	Report	Report	Report	Report	1/week	Composite
Newington	15	Report	Report	Report	Report	1/week	Composite
Rollinsford	Report[8,9]	Report	Report	Report	Report	1/week	Composite
Newfields	16	Report	Report	Report	Report	1/week	Grab
Milton	Report[8,9]	Report	Report	Report	Report	1/week	Grab

Footnotes:

1. Effluent samples shall yield data representative of the discharge. A routine sampling program shall be developed in which samples are taken at the same location, same time and same days of the week each month. Occasional deviations from the routine sampling program are allowed, but the reason for the deviation shall be documented in correspondence appended to the applicable discharge monitoring report. The Permittees shall report the results to the Environmental Protection Agency Region 1 (EPA) and the State of any additional testing above that required herein, if testing is in accordance with 40 Code of Federal Regulations (CFR) Part 136.
2. In accordance with 40 CFR § 122.44(i)(1)(iv), the Permittees shall monitor according to

sufficiently sensitive test procedures (*i.e.*, methods) approved under 40 CFR Part 136 or required under 40 CFR chapter I, subchapter N or O, for the analysis of pollutants or pollutant parameters. A method is "sufficiently sensitive" when: 1) The method minimum level (ML) is at or below the level of the effluent limitation established in the permit for the measured pollutant or pollutant parameter; or 2) The method has the lowest ML of the analytical methods approved under 40 CFR Part 136 or required under 40 CFR chapter I, subchapter N or O for the measured pollutant or pollutant parameter. The term "minimum level" refers to either the sample concentration equivalent to the lowest calibration point in a method or a multiple of the method detection limit (MDL), whichever is higher. Minimum levels may be obtained in several ways: They may be published in a method; they may be based on the lowest acceptable calibration point used by a laboratory; or they may be calculated by multiplying the MDL in a method, or the MDL determined by a laboratory, by a factor.

3. The limit is a seasonal load limit (in units of average pounds per day) and shall be reported as a rolling average. The value will be calculated as the arithmetic mean of the monthly average load (in lb/day) for the reporting month and the monthly average loads (in lb/day) of the previous six months from April 1st through October 31st of each year (*i.e.*, rolling 7-month average). For example, the rolling average load for April 2022 will be the average of the monthly average loads for April 2022 and May through October of 2021.
4. These limits are subject to change by operation of the provision in Part 2.2 below.
5. Total Nitrogen concentration shall be calculated from the sum of total Kjeldahl nitrogen (TKN) and nitrate + nitrite analyses of concurrently collected samples. The method used for each parameter must have a minimum level (ML) less than or equal to 0.25 mg/L. If any results are below the ML, a value of zero for that parameter shall be used for calculating total nitrogen. The results of these analyses shall be used to calculate both the concentration and mass loadings of total nitrogen. The total nitrogen monthly average mass loading reported each month shall be calculated as follows: Total Nitrogen (lb/day) = average monthly total nitrogen concentration (mg/L) * average monthly flow (MGD) * 8.345.
6. Each composite sample will consist of at least twenty-four (24) grab samples taken during one consecutive 24-hour period, either collected at equal intervals and combined proportional to flow or continuously collected proportional to flow.
7. The City of Portsmouth is the operator for both the Portsmouth and Pease ITP wastewater treatment facilities. The City shall report the rolling annual average load from each facility and compliance will be based on the sum of the discharges compared to the total load allocation of 341 lb/day (*i.e.*, 248 lb/day for Portsmouth plus 93 lb/day for Pease ITP).
8. During the first 24 months from the effective date of the authorization to discharge under the permit, the Towns of Milton and Rollinsford shall monitor and report only. After 24 months from the effective date of the authorization to discharge under the permit, effluent limits for these POTWs will be established as the average load, in lb/day, from the initial 14 growing season months (*i.e.*, all months between April 1st and October 31st within the first 24 months).
9. During the first 24 months from the effective date of the authorization to discharge under the permit, the Towns of Milton and Rollinsford shall continue to implement normal operation of their existing wastewater treatment facilities, including, but not limited to, utilizing all available equipment for nitrogen removal and maintaining standard septage receiving practices. The facilities shall be operated without allowing for any significant increase in the nitrogen load. Each Town shall submit a report 24 months from the effective date of the authorization to discharge under the permit, certifying that they have fulfilled this condition and describing their

efforts. The report shall be submitted as an electronic attachment to the monthly DMR as specified in Part 5.2 below.

2.2 Septic System or Private Sewer System Tie-In Provision

A Permittee may request an increase in its permitted load upon successful completion of septic system or private sewer system tie-in projects. EPA will review these requests and, if they meet the criteria set forth below, will increase the load limits as specified below in the next reissuance of this General Permit. These requests must include the following:

1. A description of the projects, confirming that the proposed septic system or private sewer system existed prior to the effective date of the General Permit;
2. An analysis of the expected decrease in delivered total nitrogen load to the Great Bay estuary (*i.e.*, the entire 21 square mile estuary) resulting from removal of the septic system or private sewer system. This analysis shall include a description of the methods used to estimate the decreased nitrogen load based on scientifically defensible values for:
    a. decrease in wastewater flow into septic system or private sewer system (based on per capita wastewater generation, average house occupancy, etc.),
    b. septic system or private sewer system effluent concentration, and
    c. decrease in delivered load from existing system after nitrogen attenuation expected in septic systems or private sewer system, leach fields, and downgradient groundwater and surface water travel;
3. An analysis of the expected increase in delivered total nitrogen load from the POTW to the Great Bay estuary (*i.e.*, the entire 21 square mile estuary) resulting from the tie-in of the septic system or private sewer system. This analysis shall include a description of the methods used to estimate the increased nitrogen load based on scientifically defensible values for:
    a. increase in POTW wastewater flow (based on per capita wastewater generation, average house occupancy, etc. and on a growing season average basis),
    b. effluent total nitrogen concentration from POTW (*i.e.*, after treatment and on a growing season average basis),
    c. increase in effluent total nitrogen load from POTW (*i.e.*, [the increased POTW flow, in MGD] x [the effluent concentration, in mg/L] x 8.345, on a growing season average basis)
    d. increase in POTW delivered load (*i.e.*, after attenuation, if applicable)
4. The requested increase in the POTW's load limit (*i.e.*, in lb/day and on a growing season average basis) such that the overall total nitrogen load to the Great Bay estuary does not increase. This value shall be specified as either the value presented in subpoint 2.c or subpoint 3.c., whichever is smaller.

    For example, if removal of a septic system is expected to decrease the delivered load by 20 lb/day (subpart 2.c) and is expected to increase the POTW effluent load by 10 lb/day (subpart 3.c), the allowable increase in the load limit is 10 lb/day. On the other hand, if removal of a

septic system is expected to decrease the delivered load by 10 lb/day (subpart 2.c) and is expected to increase the POTW effluent load by 20 lb/day (subpart 3.c), the allowable increase in the load limit is 10 lb/day.

EPA regards this provision as an extension of the load limits and it is intended to operate in conjunction with the load limits (*i.e.*, a mechanism to adjust the load limits within the framework of the General Permit).

Part 3 – Adaptive Management Framework Voluntary Submittal

This General Permit is one aspect of the adaptive management framework. The other elements of the adaptive management framework include ambient monitoring, pollution tracking, reduction planning, and review. Implementation of adaptive management includes collaboration between EPA, the State of New Hampshire, and public, private, and commercial stakeholders. The following provision allows Permittees the option, at their election, to be involved in this collaboration, by submitting a detailed proposal, as specified below.

1. Within 180 days of the effective date of the permit, the permittees may, at their election, submit a proposal to EPA that outlines:
    a. The approach to monitor the ambient water quality in the Great Bay estuary to determine progress and trends.
    b. The method(s) to track reductions and additions of total nitrogen over the course of the permit.
    c. An outline/plan for overall source reductions of total nitrogen over the course of the permit.
    d. An inclusive and transparent process for comprehensively evaluating any significant scientific and methodological issues relating to the permit, including the choice of a load-based threshold of 100 kg ha^{-1} yr^{-1} versus any other proposed threshold, including a concentration-based threshold of 0.32 mg/L. This submission shall include detailed milestones culminating in submission of a report to EPA for inclusion in the administrative record for permit renewal. That report shall be completed prior to expiration of the permit term and shall indicate whether the New Hampshire Department of Environmental Services (NHDES) concurs with the findings.
    e. A proposed timeline for completing a Total Maximum Daily Load (TMDL) for Total Nitrogen in Great Bay and for submitting it to EPA for review and approval.
2. Permittees may, at their election, submit this proposal jointly or separately. EPA encourages permittees to consult with NHDES, the Piscataqua Region Estuaries Partnership (PREP) and other interested parties in advance of their proposed submission(s).

Part 4 – Opportunity to Obtain Authorization to Discharge

To obtain coverage under the General Permit, a Notice of Intent (NOI) must be submitted to EPA <u>within 60 days</u> of the effective date of the General Permit.

To obtain coverage under the General Permit, facilities identified in Part 1.1 of this General Permit may, at their election, submit a NOI to EPA within 60 days of the effective date of the General Permit in accordance with 40 CFR § 122.28(b)(2)(i) & (ii). The contents of the NOI shall include at a minimum, the legal name and address of the owner or operator, the facility name and address, type of facility or discharges, the receiving stream(s) and be signed by the operator in accordance with the signatory requirements of 40 CFR § 122.22, including the certification statement found at § 122.22(d), as follows:

> *I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*

All NOIs must be submitted within 60 days from the effective date of the General Permit to EPA either electronically to R1NPDESReporting@epa.gov (Note: electronic submittals must include electronic signature) or physically to the following address:

United States Environmental Protection Agency
ATTN: Municipal Permits Section
5 Post Office Square – Suite 100
Mail Code – 06-1
Boston, Massachusetts 02109-3912

Authorization to discharge will be effective upon the date indicated in written notice from EPA. The nitrogen requirements in this General Permit, once effective, will authorize the discharge of nitrogen for each Permittee. All other pollutants will continue to be regulated by the current, or administratively continued, individual permits until such permits are reissued in the future.

The Towns of Exeter and Newmarket have effluent limits for total nitrogen in their individual permits, which are both expired. Both permittees have submitted a timely application for permit renewal and the General Permit represents the reissuance of the authorization to discharge for nitrogen only. As a precondition to obtaining authorization to discharge under the General Permit, Exeter and Newmarket's authorization to discharge nitrogen pursuant to their individual permits will be removed using appropriate procedures under Part 124. While Exeter and Newmarket must submit a NOI within 60 days from the effective date of the General Permit should either wish to obtain coverage, EPA's confirmation of coverage will be subject to completion of appropriate Part 124 proceedings.

Part 5 – Monitoring, Recordkeeping and Reporting Requirements

The approved analytical procedures found in 40 CFR Part 136 shall be used unless other procedures are explicitly required in the permit. The Permittees shall monitor and report sampling results to EPA and NHDES within the time specified within the permit.

Unless otherwise specified in this permit, the Permittees shall submit reports, requests, and

information and provide notices in the manner described in this section.

5.1 Submittal of DMRs Using NetDMR

Upon the effective date of the authorization to discharge under the General Permit, each Permittee shall submit monthly effluent monitoring data in discharge monitoring reports (DMRs) to EPA and NHDES electronically using NetDMR no later than the 15th day of the month following the completed reporting period. Permittees shall submit DMRs and reports required under this permit electronically to EPA using NetDMR. NetDMR is accessible through EPA's Central Data Exchange at https://cdx.epa.gov. When the Permittee submits DMRs using NetDMR, it is not required to submit hard copies of DMRs to EPA or NHDES.

5.2 Submittal of Reports as NetDMR Attachments

Reports required in this General Permit shall be submitted electronically as a NetDMR attachment. Since the due dates for reports described in this permit may not coincide with the due date for submitting DMRs (which is no later than the 15th day of the month), a report submitted electronically as a NetDMR attachment shall be considered timely if it is electronically submitted to EPA using NetDMR with the next DMR due following the particular report due date specified in this permit.

Part 6 – Administrative Requirements

6.1 Termination of Operations

Permittees shall notify EPA, with a copy to NHDES, in writing with any request to terminate the authorization to discharge under this General Permit, at the addresses listed below.

U.S. Environmental Protection Agency Region I
Enforcement Appliance and Assurance Division (ECAD)
Water Technical Unit (04-SMR)
5 Post Office Square, Suite 100
Boston, MA 02109-3912

New Hampshire Department of Environmental Services
Water Division, Wastewater Engineering Bureau
29 Hazen Drive, P.O. Box 95
Concord, NH 03302-0095

6.2 Continuation of this General Permit after its Expiration

If this General Permit is not reissued or replaced prior to the expiration date, it will be administratively continued in accordance with the Administrative Procedure Act (5 U.S.C. 558(c)) and 40 CFR § 122.6) and remain in force and in effect for discharges that were authorized prior to expiration. Any Permittee who was granted permit coverage prior to the expiration date will automatically remain covered by the continued permit until the earliest of:

1. Authorization under a reissuance of this General Permit; or
2. The Permittee's submittal of a Notice of Termination; or
3. Issuance of an individual permit for the Permittee's discharge of nitrogen; or
4. A formal permit decision by EPA not to reissue this General Permit, at which time the Permittee must seek coverage for the discharge of nitrogen under an alternative General Permit or an individual permit.

If a facility is not notified by EPA that is it covered under a reissued permit, or does not submit a timely, appropriate, complete, and accurate NOI requesting authorization to discharge under the reissued permit, or a timely request for authorization under an individual or alternative General Permit, authorization under this permit will terminate on the effective date of the reissued permit, unless otherwise specified in the reissued permit.

6.3 State Adoption of Permit

This NPDES permit is issued by the EPA under Federal law. Upon final issuance by the EPA, the NHDES may adopt this permit, including all terms and conditions, as a State permit pursuant to RSA 485-A:13. Each agency shall have the independent right to enforce the terms and conditions of this permit. Any modification, suspension or revocation of this permit shall be effective only with respect to the agency taking such action and shall not affect the validity or status of the permit as issued by the other agency, unless and until each agency has concurred in writing with such modification, suspension or revocation.

APPENDIX I - STANDARD CONDITIONS
(April 26, 2018)

TABLE OF CONTENTS

APPENDIX I - STANDARD CONDITIONS
(April 26, 2018)

A. GENERAL REQUIREMENTS

1. Duty to Comply

The Permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act (CWA or Act) and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

a. The Permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.

b. Penalties for Violations of Permit Conditions: The Director will adjust the civil and administrative penalties listed below in accordance with the Civil Monetary Penalty Inflation Adjustment Rule (83 Fed. Reg. 1190-1194 (January 10, 2018) and the 2015 amendments to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461 note. See Pub. L.114-74, Section 701 (Nov. 2, 2015)). These requirements help ensure that EPA penalties keep pace with inflation. Under the above-cited 2015 amendments to inflationary adjustment law, EPA must review its statutory civil penalties each year and adjust them as necessary.

(1) Criminal Penalties

(a) *Negligent Violations.* The CWA provides that any person who negligently violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to criminal penalties of not less than $2,500 nor more than $25,000 per day of violation, or imprisonment of not more than 1 year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than $50,000 per day of violation or by imprisonment of not more than 2 years, or both.

(b) *Knowing Violations.* The CWA provides that any person who knowingly violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a fine of not less than $5,000 nor more than $50,000 per day of violation, or by imprisonment for not more than 3 years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than $100,000 per day of violation, or imprisonment of not more than 6 years, or both.

(c) *Knowing Endangerment.* The CWA provides that any person who knowingly violates permit conditions implementing Sections 301, 302, 303, 306, 307, 308, 318, or 405 of the Act and who knows at that time that he or she is placing another person in imminent danger of death or serious bodily injury shall upon conviction be subject to a fine of not more than $250,000 or by imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing

endangerment violation, a person shall be subject to a fine of not more than $500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in Section 309(c)(3)(B)(iii) of the Act, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than $1,000,000 and can be fined up to $2,000,000 for second or subsequent convictions.

(d) *False Statement.* The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both. The Act further provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

(2) *Civil Penalties.* The CWA provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a civil penalty not to exceed the maximum amounts authorized by Section 309(d) of the Act, the 2015 amendments to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461 note, and 40 C.F.R. Part 19. *See* Pub. L.114-74, Section 701 (Nov. 2, 2015); 83 Fed. Reg. 1190 (January 10, 2018).

(3) *Administrative Penalties.* The CWA provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to an administrative penalty as follows:

(a) *Class I Penalty.* Not to exceed the maximum amounts authorized by Section 309(g)(2)(A) of the Act, the 2015 amendments to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461 note, and 40 C.F.R. Part 19. *See* Pub. L.114-74, Section 701 (Nov. 2, 2015); 83 Fed. Reg. 1190 (January 10, 2018).

(b) *Class II Penalty.* Not to exceed the maximum amounts authorized by Section 309(g)(2)(B) of the Act the 2015 amendments to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461 note, and 40 C.F.R. Part 19. *See* Pub. L.114-74, Section 701 (Nov. 2, 2015); 83 Fed. Reg. 1190 (January 10, 2018).

2. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit

condition.

3. Duty to Provide Information

The Permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The Permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

4. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the Permittee from responsibilities, liabilities or penalties to which the Permittee is or may be subject under Section 311 of the CWA, or Section 106 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA).

5. Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege.

6. Confidentiality of Information

a. In accordance with 40 C.F.R. Part 2, any information submitted to EPA pursuant to these regulations may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission in the manner prescribed on the application form or instructions or, in the case of other submissions, by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, EPA may make the information available to the public without further notice. If a claim is asserted, the information will be treated in accordance with the procedures in 40 C.F.R. Part 2 (Public Information).

b. Claims of confidentiality for the following information will be denied:

(1) The name and address of any permit applicant or Permittee;
(2) Permit applications, permits, and effluent data.

c. Information required by NPDES application forms provided by the Director under 40 C.F.R. § 122.21 may not be claimed confidential. This includes information submitted on the forms themselves and any attachments used to supply information required by the forms.

7. Duty to Reapply

If the Permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the Permittee must apply for and obtain a new permit. The Permittee shall submit a new application at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Director. (The Director shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)

8. State Authorities

Nothing in Parts 122, 123, or 124 precludes more stringent State regulation of any activity

covered by the regulations in 40 C.F.R. Parts 122, 123, and 124, whether or not under an approved State program.

9. Other Laws

The issuance of a permit does not authorize any injury to persons or property or invasion of other private rights, or any infringement of State or local law or regulations.

B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance

The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

2. Need to Halt or Reduce Not a Defense

It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

3. Duty to Mitigate

The Permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

4. Bypass

a. Definitions

(1) *Bypass* means the intentional diversion of waste streams from any portion of a treatment facility.

(2) *Severe property damage* means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

b. *Bypass not exceeding limitations.* The Permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (c) and (d) of this Section.

c. Notice

(1) *Anticipated bypass.* If the Permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass. As of December 21, 2020 all notices submitted in compliance with this Section must be submitted electronically by the Permittee to the Director or initial recipient, as defined in 40 C.F.R. § 127.2(b), in compliance with this Section and 40 C.F.R. Part 3 (including, in all cases, Subpart D to Part 3), § 122.22, and 40 C.F.R. Part 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of Part 127, Permittees may be required to report electronically if specified by a particular permit or if required to do so by state law.

(2) *Unanticipated bypass.* The Permittee shall submit notice of an unanticipated bypass as required in paragraph D.1.e. of this part (24-hour notice). As of December 21, 2020 all notices submitted in compliance with this Section must be submitted electronically by the Permittee to the Director or initial recipient, as defined in 40 C.F.R. § 127.2(b), in compliance with this Section and 40 C.F.R. Part 3 (including, in all cases, Subpart D to Part 3), § 122.22, and 40 C.F.R. Part 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of Part 127, Permittees may be required to report electronically if specified by a particular permit or required to do so by law.

d. *Prohibition of bypass.*

(1) Bypass is prohibited, and the Director may take enforcement action against a Permittee for bypass, unless:

(a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and

(c) The Permittee submitted notices as required under paragraph 4.c of this Section.

(2) The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in paragraph 4.d of this Section.

5. Upset

a. *Definition. Upset* means an exceptional incident in which there is an unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or

improper operation.

b. *Effect of an upset.* An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph B.5.c. of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

c. *Conditions necessary for a demonstration of upset.* A Permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

(1) An upset occurred and that the permittee can identify the cause(s) of the upset;
(2) The permitted facility was at the time being properly operated; and
(3) The permittee submitted notice of the upset as required in paragraph D.12.b.e (24-hour notice).
(4) The permittee complied with any remedial measures required under B.3. above.

d. *Burden of proof.* In any enforcement proceeding the Permittee seeking to establish the occurrence of an upset has the burden of proof.

C. MONITORING REQUIREMENTS

1. Monitoring and Records

a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

b. Except for records of monitoring information required by this permit related to the Permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least 5 years (or longer as required by 40 C.F.R. § 503), the Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.

c. Records of monitoring information shall include:

(1) The date, exact place, and time of sampling or measurements;
(2) The individual(s) who performed the sampling or measurements;
(3) The date(s) analyses were performed;
(4) The individual(s) who performed the analyses;
(5) The analytical techniques or methods used; and
(6) The results of such analyses.

d. Monitoring must be conducted according to test procedures approved under 40 C.F.R. § 136 unless another method is required under 40 C.F.R. Subchapters N or O.

e. The Clean Water Act provides that any person who falsifies, tampers with, or

knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both.

2. Inspection and Entry

The Permittee shall allow the Director, or an authorized representative (including an authorized contractor acting as a representative of the Administrator), upon presentation of credentials and other documents as may be required by law, to:

a. Enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

D. REPORTING REQUIREMENTS

1. Reporting Requirements

a. *Planned Changes*. The Permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

(1) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 C.F.R. § 122.29(b); or

(2) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements at 40 C.F.R. § 122.42(a)(1).

(3) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

b. *Anticipated noncompliance*. The Permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

c. *Transfers*. This permit is not transferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Clean Water Act. *See* 40 C.F.R. § 122.61; in some cases, modification or revocation and reissuance is mandatory.

d. *Monitoring reports*. Monitoring results shall be reported at the intervals specified elsewhere in this permit.

(1) Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by the Director for reporting results of monitoring of sludge use or disposal practices. As of December 21, 2016 all reports and forms submitted in compliance with this section must be submitted electronically by the permittee to the Director or initial recipient, as defined in 40 C.F.R. § 127.2(b), in compliance with this Section and 40 C.F.R. Part 3 (including, in all cases, Subpart D to part 3), § 122.22, and 40 C.F.R. Part 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of Part 127, permittees may be required to report electronically if specified by a particular permit or if required to do so by State law.

(2) If the Permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 C.F.R. § 136, or another method required for an industry-specific waste stream under 40 C.F.R. Subchapters N or O, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Director.

(3) Calculations for all limitations which require averaging or measurements shall utilize an arithmetic mean unless otherwise specified by the Director in the permit.

e. *Twenty-four hour reporting.*

(1) The Permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Permittee becomes aware of the circumstances. A written report shall also be provided within 5 days of the time the Permittee becomes aware of the circumstances. The written report shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports must include the data described above (with the exception of time of discovery) as well as the type of event (combined sewer overflows, sanitary sewer overflows, or bypass events), type of sewer overflow structure (e.g., manhole, combined sewer overflow outfall), discharge volumes untreated by the treatment works treating domestic sewage, types of human health and environmental impacts of the sewer overflow event, and whether the noncompliance was related to wet weather. As of December 21, 2020 all

reports related to combined sewer overflows, sanitary sewer overflows, or bypass events submitted in compliance with this section must be submitted electronically by the Permittee to the Director or initial recipient, as defined in 40 C.F.R. § 127.2(b), in compliance with this Section and 40 C.F.R. Part 3 (including, in all cases Subpart D to Part 3), § 122.22, and 40 C.F.R. Part 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of Part 127, Permittees may be required to electronically submit reports related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section by a particular permit or if required to do so by state law. The Director may also require Permittees to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section.

(2) The following shall be included as information which must be reported within 24 hours under this paragraph.

(a) Any unanticipated bypass which exceeds any effluent limitation in the permit. *See* 40 C.F.R. § 122.41(g).
(b) Any upset which exceeds any effluent limitation in the permit.
(c) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in the permit to be reported within 24 hours. *See* 40 C.F.R. § 122.44(g).

(3) The Director may waive the written report on a case-by-case basis for reports under paragraph D.1.e. of this Section if the oral report has been received within 24 hours.

f. *Compliance Schedules.* Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

g. *Other noncompliance.* The Permittee shall report all instances of noncompliance not reported under paragraphs D.1.d., D.1.e., and D.1.f. of this Section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph D.1.e. of this Section. For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports shall contain the information described in paragraph D.1.e. and the applicable required data in Appendix A to 40 C.F.R. Part 127. As of December 21, 2020 all reports related to combined sewer overflows, sanitary sewer overflows, or bypass events submitted in compliance with this section must be submitted electronically by the Permittee to the Director or initial recipient, as defined in 40 C.F.R. § 127.2(b), in compliance with this Section and 40 C.F.R. Part 3 (including, in all cases, Subpart D to Part 3), §122.22, and 40 C.F.R. Part 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of Part 127, Permittees may be required to electronically submit reports related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section by a particular permit or if required to do so by state law. The Director may also require Permittees to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this Section.

h. *Other information.* Where the Permittee becomes aware that it failed to submit any

relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information.

i. *Identification of the initial recipient for NPDES electronic reporting data.* The owner, operator, or the duly authorized representative of an NPDES-regulated entity is required to electronically submit the required NPDES information (as specified in Appendix A to 40 C.F.R. Part 127) to the appropriate initial recipient, as determined by EPA, and as defined in 40 C.F.R. § 127.2(b). EPA will identify and publish the list of initial recipients on its Web site and in the FEDERAL REGISTER, by state and by NPDES data group (see 40 C.F.R. § 127.2(c) of this Chapter). EPA will update and maintain this listing.

2. Signatory Requirement

a. All applications, reports, or information submitted to the Director shall be signed and certified. *See* 40 C.F.R. §122.22.

b. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

3. Availability of Reports.

Except for data determined to be confidential under paragraph A.8. above, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the State water pollution control agency and the Director. As required by the CWA, effluent data shall not be considered confidential. Knowingly making any false statements on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the CWA.

E. DEFINITIONS AND ABBREVIATIONS

1. General Definitions

For more definitions related to sludge use and disposal requirements, see EPA Region 1's NPDES Permit Sludge Compliance Guidance document (4 November 1999, modified to add regulatory definitions, April 2018).

Administrator means the Administrator of the United States Environmental Protection Agency, or an authorized representative.

Applicable standards and limitations means all, State, interstate, and federal standards and limitations to which a "discharge," a "sewage sludge use or disposal practice," or a related activity is subject under the CWA, including "effluent limitations," water quality standards, standards of performance, toxic effluent standards or prohibitions, "best management practices," pretreatment standards, and "standards for sewage sludge use or disposal" under Sections 301, 302, 303, 304, 306, 307, 308, 403 and 405 of the CWA.

Application means the EPA standard national forms for applying for a permit, including any additions, revisions, or modifications to the forms; or forms approved by EPA for use in

"approved States," including any approved modifications or revisions.

Approved program or *approved State* means a State or interstate program which has been approved or authorized by EPA under Part 123.

Average monthly discharge limitation means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month.

Average weekly discharge limitation means the highest allowable average of "daily discharges" over a calendar week, calculated as the sum of all "daily discharges" measured during a calendar week divided by the number of "daily discharges" measured during that week.

Best Management Practices ("BMPs") means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of "waters of the United States." BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Bypass see B.4.a.1 above.

C-NOEC or *"Chronic (Long-term Exposure Test) – No Observed Effect Concentration" means* the highest tested concentration of an effluent or a toxicant at which no adverse effects are observed on the aquatic test organisms at a specified time of observation.

Class I sludge management facility is any publicly owned treatment works (POTW), as defined in 40 C.F.R. § 501.2, required to have an approved pretreatment program under 40 C.F.R. § 403.8 (a) (including any POTW located in a State that has elected to assume local program responsibilities pursuant to 40 C.F.R. § 403.10 (e)) and any treatment works treating domestic sewage, as defined in 40 C.F.R. § 122.2, classified as a Class I sludge management facility by the EPA Regional Administrator, or, in the case of approved State programs, the Regional Administrator in conjunction with the State Director, because of the potential for its sewage sludge use or disposal practice to affect public health and the environment adversely.
Contiguous zone means the entire zone established by the United States under Article 24 of the Convention on the Territorial Sea and the Contiguous Zone.

Continuous discharge means a "discharge" which occurs without interruption throughout the operating hours of the facility, except for infrequent shutdowns for maintenance, process changes, or similar activities.

CWA means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Public Law 92-500, as amended by Public Law 95-217, Public Law 95-576, Public Law 96-483and Public Law 97-117, 33 U.S.C. 1251 *et seq.*

CWA and regulations means the Clean Water Act (CWA) and applicable regulations promulgated thereunder. In the case of an approved State program, it includes State program requirements.

Daily Discharge means the "discharge of a pollutant" measured during a calendar day or any other 24-hour period that reasonably represents the calendar day for purposes of sampling. For

pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurements, the "daily discharge" is calculated as the average measurement of the pollutant over the day.

Direct Discharge means the "discharge of a pollutant."

Director means the Regional Administrator or an authorized representative. In the case of a permit also issued under Massachusetts' authority, it also refers to the Director of the Division of Watershed Management, Department of Environmental Protection, Commonwealth of Massachusetts.

Discharge

(a) When used without qualification, *discharge* means the "discharge of a pollutant."

(b) As used in the definitions for "interference" and "pass through," *discharge* means the introduction of pollutants into a POTW from any non-domestic source regulated under Section 307(b), (c) or (d) of the Act.

Discharge Monitoring Report ("DMR") means the EPA uniform national form, including any subsequent additions, revisions, or modifications for the reporting of self-monitoring results by permittees. DMRs must be used by "approved States" as well as by EPA. EPA will supply DMRs to any approved State upon request. The EPA national forms may be modified to substitute the State Agency name, address, logo, and other similar information, as appropriate, in place of EPA's.

Discharge of a pollutant means:

(a) Any addition of any "pollutant" or combination of pollutants to "waters of the United States" from any "point source," or

(b) Any addition of any pollutant or combination of pollutants to the waters of the "contiguous zone" or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation.

This definition includes additions of pollutants into waters of the United States from: surface runoff which is collected or channeled by man; discharges through pipes, sewers, or other conveyances owned by a State, municipality, or other person which do not lead to a treatment works; and discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works. This term does not include an addition of pollutants by any "indirect discharger."

Effluent limitation means any restriction imposed by the Director on quantities, discharge rates, and concentrations of "pollutants" which are "discharged" from "point sources" into "waters of the United States," the waters of the "contiguous zone," or the ocean.

Effluent limitation guidelines means a regulation published by the Administrator under section 304(b) of CWA to adopt or revise "effluent limitations."

Environmental Protection Agency ("EPA") means the United States Environmental Protection Agency.

Grab Sample means an individual sample collected in a period of less than 15 minutes.

Hazardous substance means any substance designated under 40 C.F.R. Part 116 pursuant to Section 311 of CWA.

Incineration is the combustion of organic matter and inorganic matter in sewage sludge by high temperatures in an enclosed device.

Indirect discharger means a nondomestic discharger introducing "pollutants" to a "publicly owned treatment works."

Interference means a discharge (see definition above) which, alone or in conjunction with a discharge or discharges from other sources, both:

(a) Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and

(b) Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including title II, more commonly referred to as the Resources Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to Subtitle D of the SDWA), the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

Landfill means an area of land or an excavation in which wastes are placed for permanent disposal, and that is not a land application unit, surface impoundment, injection well, or waste pile.

Land application is the spraying or spreading of sewage sludge onto the land surface; the injection of sewage sludge below the land surface; or the incorporation of sewage sludge into the soil so that the sewage sludge can either condition the soil or fertilize crops or vegetation grown in the soil.

Land application unit means an area where wastes are applied onto or incorporated into the soil surface (excluding manure spreading operations) for agricultural purposes or for treatment and disposal.

LC_{50} means the concentration of a sample that causes mortality of 50% of the test population at a specific time of observation. The LC_{50} = 100% is defined as a sample of undiluted effluent.

Maximum daily discharge limitation means the highest allowable "daily discharge."

Municipal solid waste landfill (MSWLF) unit means a discrete area of land or an excavation that receives household waste, and that is not a land application unit, surface impoundment, injection well, or waste pile, as those terms are defined under 40 C.F.R. § 257.2. A MSWLF unit also may receive other types of RCRA Subtitle D wastes, such as commercial solid waste, nonhazardous sludge, very small quantity generator waste and industrial solid waste. Such a landfill may be publicly or privately owned. A MSWLF unit may be a new MSWLF unit, an existing MSWLF

unit or a lateral expansion. A construction and demolition landfill that receives residential lead-based paint waste and does not receive any other household waste is not a MSWLF unit.

Municipality

(a) When used without qualification *municipality* means a city, town, borough, county, parish, district, association, or other public body created by or under State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under Section 208 of CWA.

(b) As related to sludge use and disposal, *municipality* means a city, town, borough, county, parish, district, association, or other public body (including an intermunicipal Agency of two or more of the foregoing entities) created by or under State law; an Indian tribe or an authorized Indian tribal organization having jurisdiction over sewage sludge management; or a designated and approved management Agency under Section 208 of the CWA, as amended. The definition includes a special district created under State law, such as a water district, sewer district, sanitary district, utility district, drainage district, or similar entity, or an integrated waste management facility as defined in Section 201 (e) of the CWA, as amended, that has as one of its principal responsibilities the treatment, transport, use or disposal of sewage sludge.

National Pollutant Discharge Elimination System means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 402, 318, and 405 of the CWA. The term includes an "approved program."

New Discharger means any building, structure, facility, or installation:

(a) From which there is or may be a "discharge of pollutants:"

(b) That did not commence the "discharge of pollutants" at a particular "site" prior to August 13, 1979;

(c) Which is not a "new source:" and

(d) Which has never received a finally effective NPDES permit for discharges at that "site."

This definition includes an "indirect discharger" which commences discharging into "waters of the United States" after August 13, 1979. It also includes any existing mobile point source (other than an offshore or coastal oil and gas exploratory drilling rig or a coastal oil and gas exploratory drilling rig or a coastal oil and gas exploratory drilling rig or a coastal oil and gas developmental drilling rig) such as a seafood processing rig, seafood processing vessel, or aggregate plant, that begins discharging at a "site" for which it does not have a permit; and any offshore or coastal mobile oil and gas exploratory drilling rig or coastal mobile oil and gas developmental drilling rig that commences the discharge of pollutants after August 13, 1979, at a "site" under EPA's permitting jurisdiction for which it is not covered by an individual or general permit and which is located in an area determined by the Director in the issuance of a final permit to be in an area of biological concern. In determining whether an area is an area of biological concern, the Director shall consider the factors specified in 40 C.F.R. §§ 125.122 (a) (1) through (10).

An offshore or coastal mobile exploratory drilling rig or coastal mobile developmental drilling

rig will be considered a "new discharger" only for the duration of its discharge in an area of biological concern.

New source means any building, structure, facility, or installation from which there is or may be a "discharge of pollutants," the construction of which commenced:

(a) After promulgation of standards of performance under Section 306 of CWA which are applicable to such source, or

(b) After proposal of standards of performance in accordance with Section 306 of CWA which are applicable to such source, but only if the standards are promulgated in accordance with Section 306 within 120 days of their proposal.

NPDES means "National Pollutant Discharge Elimination System."

Owner or operator means the owner or operator of any "facility or activity" subject to regulation under the NPDES programs.

Pass through means a Discharge (see definition above) which exits the POTW into waters of the United States in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation).

Pathogenic organisms are disease-causing organisms. These include, but are not limited to, certain bacteria, protozoa, viruses, and viable helminth ova.

Permit means an authorization, license, or equivalent control document issued by EPA or an "approved State" to implement the requirements of Parts 122, 123, and 124. "Permit" includes an NPDES "general permit" (40 C.F.R § 122.28). Permit does not include any permit which has not yet been the subject of final agency action, such as a "draft permit" or "proposed permit."

Person means an individual, association, partnership, corporation, municipality, State or Federal agency, or an agent or employee thereof.

Person who prepares sewage sludge is either the person who generates sewage sludge during the treatment of domestic sewage in a treatment works or the person who derives a material from sewage sludge.

pH means the logarithm of the reciprocal of the hydrogen ion concentration measured at 25° Centigrade or measured at another temperature and then converted to an equivalent value at 25° Centigrade.

Point Source means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff (see 40 C.F.R. § 122.3).

Pollutant means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials (except those regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 *et seq.*)), heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal,

and agricultural waste discharged into water. It does not mean:

(a) Sewage from vessels; or

(b) Water, gas, or other material which is injected into a well to facilitate production of oil or gas, or water derived in association with oil and gas production and disposed of in a well, if the well is used either to facilitate production or for disposal purposes is approved by the authority of the State in which the well is located, and if the State determines that the injection or disposal will not result in the degradation of ground or surface water resources.

Primary industry category means any industry category listed in the NRDC settlement agreement (*Natural Resources Defense Council et al. v. Train*, 8 E.R.C. 2120 (D.D.C. 1976), *modified* 12 E.R.C. 1833 (D. D.C. 1979)); also listed in Appendix A of 40 C.F.R. Part 122.

Privately owned treatment works means any device or system which is (a) used to treat wastes from any facility whose operator is not the operator of the treatment works and (b) not a "POTW."

Process wastewater means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product.

Publicly owned treatment works (POTW) means a treatment works as defined by Section 212 of the Act, which is owned by a State or municipality (as defined by Section 504(4) of the Act). This definition includes any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes and other conveyances only if they convey wastewater to a POTW Treatment Plant. The term also means the municipality as defined in Section 502(4) of the Act, which has jurisdiction over the Indirect Discharges to and the discharges from such a treatment works.

Regional Administrator means the Regional Administrator, EPA, Region I, Boston, Massachusetts.

Secondary industry category means any industry which is not a "primary industry category."

Septage means the liquid and solid material pumped from a septic tank, cesspool, or similar domestic sewage treatment system, or a holding tank when the system is cleaned or maintained.

Sewage Sludge means any solid, semi-solid, or liquid residue removed during the treatment of municipal waste water or domestic sewage. Sewage sludge includes, but is not limited to, solids removed during primary, secondary, or advanced waste water treatment, scum, septage, portable toilet pumpings, type III marine sanitation device pumpings (33 C.F.R. Part 159), and sewage sludge products. Sewage sludge does not include grit or screenings, or ash generated during the incineration of sewage sludge.

Sewage sludge incinerator is an enclosed device in which only sewage sludge and auxiliary fuel are fired.

Sewage sludge unit is land on which only sewage sludge is placed for final disposal. This does not include land on which sewage sludge is either stored or treated. Land does not include waters of the United States, as defined in 40 C.F.R. § 122.2.

Sewage sludge use or disposal practice means the collection, storage, treatment, transportation, processing, monitoring, use, or disposal of sewage sludge.

Significant materials includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substance designated under Section 101(14) of CERCLA; any chemical the facility is required to report pursuant to Section 313 of title III of SARA; fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with storm water discharges.

Significant spills includes, but is not limited to, releases of oil or hazardous substances in excess of reportable quantities under Section 311 of the CWA (see 40 C.F.R. §§ 110.10 and 117.21) or Section 102 of CERCLA (*see* 40 C.F.R. § 302.4).
Sludge-only facility means any "treatment works treating domestic sewage" whose methods of sewage sludge use or disposal are subject to regulations promulgated pursuant to section 405(d) of the CWA, and is required to obtain a permit under 40 C.F.R. § 122.1(b)(2).

State means any of the 50 States, the District of Columbia, Guam, the Commonwealth of Puerto Rico, the Virgin Islands, American Samoa, the Commonwealth of the Northern Mariana Islands, the Trust Territory of the Pacific Islands, or an Indian Tribe as defined in the regulations which meets the requirements of 40 C.F.R. § 123.31.

Store or storage of sewage sludge is the placement of sewage sludge on land on which the sewage sludge remains for two years or less. This does not include the placement of sewage sludge on land for treatment.

Storm water means storm water runoff, snow melt runoff, and surface runoff and drainage.

Storm water discharge associated with industrial activity means the discharge from any conveyance that is used for collecting and conveying storm water and that is directly related to manufacturing, processing, or raw materials storage areas at an industrial plant.

Surface disposal site is an area of land that contains one or more active sewage sludge units

Toxic pollutant means any pollutant listed as toxic under Section 307(a)(1) or, in the case of "sludge use or disposal practices," any pollutant identified in regulations implementing Section 405(d) of the CWA.

Treatment works treating domestic sewage means a POTW or any other sewage sludge or waste water treatment devices or systems, regardless of ownership (including federal facilities), used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated for the disposal of sewage sludge. This definition does not include septic tanks or similar devices.

For purposes of this definition, "domestic sewage" includes waste and waste water from humans or household operations that are discharged to or otherwise enter a treatment works. In States where there is no approved State sludge management program under Section 405(f) of the CWA, the Director may designate any person subject to the standards for sewage sludge use and disposal in 40 C.F.R. Part 503 as a "treatment works treating domestic sewage," where he or she finds that there is a potential for adverse effects on public health and the environment from poor sludge quality or poor sludge handling, use or disposal practices, or where he or she finds that

such designation is necessary to ensure that such person is in compliance with 40 C.F.R. Part 503.

Upset see B.5.a. above.

Vector attraction is the characteristic of sewage sludge that attracts rodents, flies, mosquitoes, or other organisms capable of transporting infectious agents.

Waste pile or *pile* means any non-containerized accumulation of solid, non-flowing waste that is used for treatment or storage.

Waters of the United States or waters of the U.S. means:

(a) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

(b) All interstate waters, including interstate "wetlands;"

(c) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, "wetlands", sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:

(1) Which are or could be used by interstate or foreign travelers for recreational or other purpose;

(2) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or

(3) Which are used or could be used for industrial purposes by industries in interstate commerce;

(d) All impoundments of waters otherwise defined as waters of the United States under this definition;

(e) Tributaries of waters identified in paragraphs (a) through (d) of this definition;

(f) The territorial sea; and

(g) "Wetlands" adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) through (f) of this definition.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 C.F.R. § 423.11(m) which also meet the criteria of this definition) are not waters of the United States. This exclusion applies only to manmade bodies of water which neither were originally created in waters of the United States (such as disposal area in wetlands) nor resulted from the impoundment of waters of the United States. Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA.

Wetlands means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

Whole Effluent Toxicity (WET) means the aggregate toxic effect of an effluent measured directly by a toxicity test.

*Zone of Initial Dilution (*ZID) means the region of initial mixing surrounding or adjacent to the end of the outfall pipe or diffuser ports, provided that the ZID may not be larger than allowed by mixing zone restrictions in applicable water quality standards.

2. Commonly Used Abbreviations

BOD	Five-day biochemical oxygen demand unless otherwise specified
CBOD	Carbonaceous BOD
CFS	Cubic feet per second
COD	Chemical oxygen demand
Chlorine	
Cl2	Total residual chlorine
TRC	Total residual chlorine which is a combination of free available chlorine (FAC, see below) and combined chlorine (chloramines, etc.)
TRO	Total residual chlorine in marine waters where halogen compounds are present
FAC	Free available chlorine (aqueous molecular chlorine, hypochlorous acid, and hypochlorite ion)
Coliform	
Coliform, Fecal	Total fecal coliform bacteria
Coliform, Total	Total coliform bacteria
Cont.	Continuous recording of the parameter being monitored, i.e. flow, temperature, pH, etc.
Cu. M/day or M^3/day	Cubic meters per day
DO	Dissolved oxygen
kg/day	Kilograms per day
lbs/day	Pounds per day

APPENDIX I - STANDARD CONDITIONS
(April 26, 2018)

mg/L	Milligram(s) per liter
mL/L	Milliliters per liter
MGD	Million gallons per day
Nitrogen	
Total N	Total nitrogen
NH3-N	Ammonia nitrogen as nitrogen
NO3-N	Nitrate as nitrogen
NO2-N	Nitrite as nitrogen
NO3-NO2	Combined nitrate and nitrite nitrogen as nitrogen
TKN	Total Kjeldahl nitrogen as nitrogen
Oil & Grease	Freon extractable material
PCB	Polychlorinated biphenyl
Surfactant	Surface-active agent
Temp. °C	Temperature in degrees Centigrade
Temp. °F	Temperature in degrees Fahrenheit
TOC	Total organic carbon
Total P	Total phosphorus
TSS or NFR	Total suspended solids or total nonfilterable residue
Turb. or Turbidity	Turbidity measured by the Nephelometric Method (NTU)
µg/L	Microgram(s) per liter
WET	"Whole effluent toxicity"
ZID	Zone of Initial Dilution

4. MEASUREMENTS USED IN THIS STUDY

Flows

Metals loadings (present and future) are mass values and are calculated using concentration and flow values. A local limits evaluation is generally intended to retain validity through a 5-year period. Accordingly, an estimate of Exeter's industrial and sanitary flows through the year 2025 was completed. Supporting information for this estimate includes historical water supply and wastewater treatment facility flows and New Hampshire Office of Energy and Planning population projections.

Table 4-1 on the following page summarizes the anticipated year 2025 flows contributing to Exeter's POTW used for this study and their respective percentages by type of flow. The following factors were considered:

1. The Office of Energy and Planning estimates a 1.3 percent population increase during the 5-year period ending in 2025 (see **ATTACHMENTS** to this section).
2. The **Figure 4-1** flow trends (see **ATTACHMENTS** to this section) are based on the most recent 4-year water and wastewater flow measurements. The figure indicates a general decreasing trend. Municipal water distribution is generally steady, while Infiltration/Inflow (I/I) is decreasing, likely due to ongoing improvements to the POTW to eliminate I/I and less precipitation in 2019 and 2020 compared to 2018.
3. The currently permitted industrial user flow in the Town is 60,435 gpd (see *Historical Flow Data* table in **ATTACHMENTS** to this section).
4. The I/I estimated value is 0.75 MGD. (4-year average POTW effluent flow less the 4-year average municipal water supplied to the distribution system – see table in **ATTACHMENTS** to this section). TeTon assumes that this is an underestimate of I/I on the basis that leaks in the water distribution system, and water used for irrigation and other non-discharge purposes, are not measured or estimated.
5. Septage is currently accepted by the wastewater treatment facility and is expected to be during the next five years. A cap on septage receiving of approximately 350,000 gallons per month has been set by Exeter WWTF personnel.

6. Domestic (sanitary) water usage is estimated by subtracting the permitted industrial flow from the average water supplied. (see also *Historical Flow Data* table in **ATTACHMENTS** to this section).

7. Stratham Hill Park (SHP) in the neighboring town of Stratham, which includes industrial flow from Lindt & Sprüngli, obtains their water supply from Exeter. Sanitary flow from SHP is included in the calculations as Exeter domestic flow.

Based on the items above, the following conclusions, summarized in the table below, are made:

1. The domestic water supply flow will increase by 1.3 percent from the most recent 4-year average.
2. I/I will remain constant.
3. Industrial flow at its current level is relatively low. A 20 percent growth allowance (12,087 gpd) is recommended in addition to the other standard safety factors.

Table 4-1 Flow Values Used for this Study

SOURCE	FLOW (MGD)	PERCENT OF TOTAL
Exeter Sources (Projected Year 2025 Values)		
Industrial	0.073	4.11%
Domestic	0.933	52.88%
Infiltration/Inflow	0.747	42.36%
Septage	0.012	0.65%
Exeter Total	*1.76*	100.00%
TOTAL FLOW	**1.76**	**100%**

Sampling Program / Analytical Data

A copy of Exeter's NHDES-approved sampling program completed for this local limits evaluation has been included as an attachment to this section. The sampling program's primary objective was to obtain information needed to quantify WWTF pollutant removal efficiencies, and WWTF and background (*i.e.*, uncontrolled) loadings for total metals, cyanide, biochemical oxygen demand (BOD), total suspended solids (TSS), toxic organics, and oil & grease.

Analytical data summary tables, included as an attachment to this section, summarize the data collected in support of this study. Copies of the analytical laboratory reports and chain-of-custody records are included in **Section 10 APPENDICES** of this report.

The sampling program in support of this study was completed over a 5-day period of relatively dry weather flow (≈0.99 MGD) from October 4, 2020 through October 8, 2020. Wastewater treatment facility staff collected the wastewater treatment facility and collection system samples (with the exception of PFAS sampling, which was completed by a contract analytical laboratory). A contract analytical laboratory (Eastern Analytical of Concord, New Hampshire) analyzed for all parameters from the following sources:

- WWTF influent;
- WWTF final effluent;
- WWTF dewatered sludge;
- Septage (receiving station);
- Two domestic/residential locations;
- One industrial/commercial location.

The two domestic monitoring locations, which were identified as representative of non-industrial flows, were selected to capture points where commercial and industrial contributions were absent.

Septage results from the October 2020 sampling event were significantly elevated compared to septage results observed in other New Hampshire communities (e.g., Milford, Lebanon). The Town believes that the samples obtained during the October event were not representative of actual conditions due to the low volume in the septage receiving tank at the time of sampling and due to the timing of the sample event during the manually-trigged discharge cycle. Therefore, a second round of septage monitoring was performed on April 28, April 29, and May 3, 2021. This sampling event resulted in septage concentrations more consistent with septage in other New Hampshire communities and is believed to be more representative of the septage treated by the WWTF. Therefore, the septage results from October 2020 were not used in this study.

The WWTF sampling locations are depicted on the WWTF schematic in **Section 2** of this document.

Analytical Quality Assurance / Quality Control

To assess the accuracy and precision of the analytical data, Quality Assurance / Quality Control (QA/QC) evaluations were completed for metals and volatile organic compounds (VOCs). QA/QC evaluations included duplicate and blank sample analysis.

A metals duplicate sample was planned, and bottles were supplied by the analytical laboratory; however, a mistake occurred and the metals duplicate sampling bottles were never relinquished to the laboratory. However, a VOCs duplicate sample was provided to the laboratory and analyzed.

The QA/QC analytical results and evaluations are included as an attachment to this section of the document. All blank sample metals results were less than the analytical quantitation limit. The relative percent difference calculations for the duplicate VOC sample were all near or below 20% (a typical acceptance criteria value). In general, the QA/QC results support the validity of the analytical measurements used for this report.

Attachments to this section:

- *NH Office of Energy and Planning - Population Projections*
- *Figure 4-1 - Flow Trends*
- *Flow Data Table - Historical and Projected*
- *NHDES-Approved Sampling Program*
- *Figures 4-2 - Collection System Sampling Locations*
- *Analytical Data Summary Table*
- *QA/QC Results*

State of New Hampshire
County Population Projections, By Municipality

September 2016

The New Hampshire Office of Energy and Planning (OEP) in partnership with the state's Regional Planning Commissions (RPCs) has developed county level population projections by municipality for the period 2020 through 2040, as shown in the attached tables. The projections are done in five-year intervals, and are consistent with the county population projections in the report titled: *State of New Hampshire, Regional Planning Commissions, County Population Projections, 2016, By Age and Sex.*

The method used to develop these municipal level projections starts with the above forecast for total population for each county in New Hampshire. Because these numbers are controlled to the county and state projections, these numbers are considered reasonable in the aggregate as well as at the local level.

Next, the town/city shares of county population in the 2010 Census and in the 2015 OEP population estimates were computed and compared to the 2000 Census share of county population for each town/city in that county.

This analysis revealed that the share of each municipality's population (relative to the county) has been changing over time. To confirm the observed trend, municipal shares of the county population were examined for the Census years 1970, 1980, and 1990. That analysis confirmed the observed trend in changing shares over time.

The methodology used to allocate the county population projections to the municipalities assumes that the 2000 to 2015 shift in share (municipality as a share of the county) will continue into the year 2025. The method attempts to account for a community's share of the county's recent population change, rather than assuming an unchanging share of the county's total population.

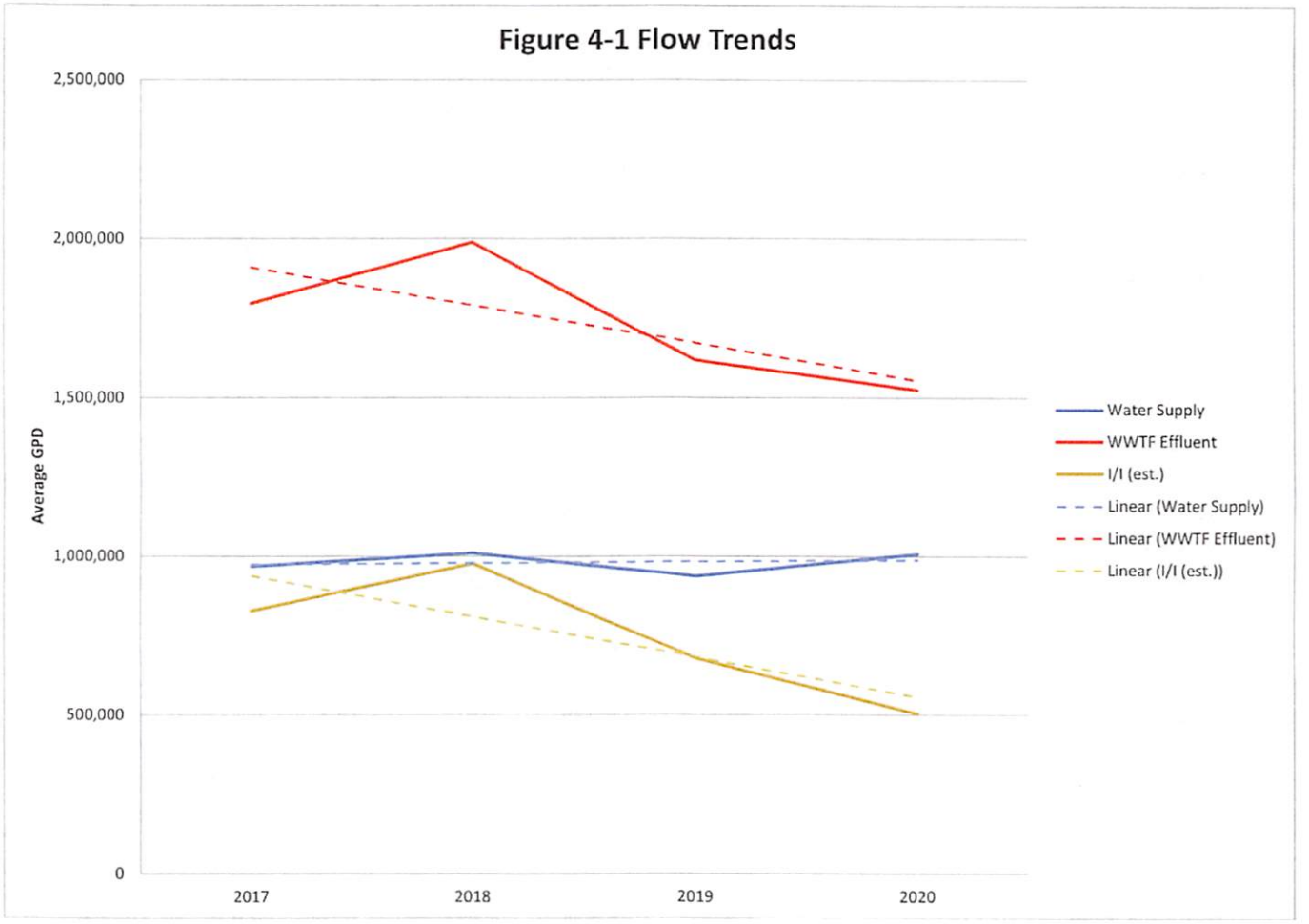
Next, that share of the municipality's population relative to the county's population is frozen at the 2025 share level (held constant) through the remaining 15 year projection period (2025 to 2040).

OEP and the RPCs encourage the use of these projections as a point of departure for users to establish their own projections and/or for evaluating other projection efforts. Users of these projections are cautioned about placing strong confidence in very small projected changes of population. Small changes, up or down, essentially mean that a community is expected to be "stable" for the involved time period. Small changes in population may simply be the result of controlling to county totals or rounding.

OEP wishes to acknowledge the RPCs and their consultant, Robert Scardamalia of RLS Demographics, for their valued input and assistance on these projections.

County/County Subdivision	2015 est.	2020	2025	2030	2035	2040
Rockingham County	**300,569**	**307,013**	**314,418**	**321,441**	**325,474**	**326,238**
Atkinson town	6,722	6,834	6,967	7,122	7,212	7,229
Auburn town	5,315	5,560	5,828	5,959	6,033	6,048
Brentwood town	4,678	5,116	5,586	5,711	5,783	5,796
Candia town	3,909	3,891	3,880	3,967	4,016	4,026
Chester town	4,887	5,199	5,536	5,660	5,731	5,744
Danville town	4,458	4,577	4,710	4,816	4,876	4,888
Deerfield town	4,413	4,631	4,869	4,978	5,040	5,052
Derry town	32,948	32,459	32,018	32,733	33,144	33,222
East Kingston town	2,398	2,568	2,751	2,812	2,847	2,854
Epping town	6,828	7,279	7,767	7,941	8,041	8,059
Exeter town	14,582	14,732	14,922	15,255	15,446	15,482
Fremont town	4,597	4,959	5,347	5,467	5,535	5,548
Greenland town	3,860	4,104	4,368	4,465	4,521	4,532
Hampstead town	8,602	8,668	8,755	8,951	9,063	9,084
Hampton town	15,050	15,032	15,046	15,382	15,575	15,611
Hampton Falls town	2,239	2,329	2,428	2,482	2,513	2,519
Kensington town	2,114	2,163	2,219	2,268	2,297	2,302
Kingston town	6,049	6,079	6,124	6,261	6,340	6,355
Londonderry town	24,891	25,434	26,057	26,639	26,973	27,036
New Castle town	966	949	933	954	966	968
Newfields town	1,685	1,716	1,752	1,791	1,813	1,817
Newington town	770	770	771	788	798	800
Newmarket town	9,170	9,505	9,877	10,097	10,224	10,248
Newton town	4,865	5,070	5,296	5,414	5,482	5,495
North Hampton town	4,511	4,615	4,733	4,839	4,900	4,911
Northwood town	4,214	4,347	4,495	4,595	4,653	4,664
Nottingham town	4,904	5,246	5,614	5,740	5,812	5,825
Plaistow town	7,602	7,525	7,462	7,628	7,724	7,742
Portsmouth city	21,496	21,664	21,886	22,374	22,655	22,708
Raymond town	10,257	10,403	10,577	10,814	10,949	10,975
Rye town	5,400	5,462	5,539	5,663	5,734	5,747
Salem town	28,674	28,672	28,733	29,375	29,743	29,813
Sandown town	6,255	6,604	6,984	7,140	7,229	7,246
Seabrook town	8,814	9,049	9,314	9,522	9,642	9,664
South Hampton town	811	797	785	802	812	814
Stratham town	7,334	7,592	7,878	8,054	8,155	8,175
Windham town	14,301	15,414	16,612	16,983	17,196	17,237

Figure 4-1 Flow Trends



Historical Flow Data and Flow Projections
Exeter Municipal Water Supply and Wastewater Treatment Facility

Year	Water Supply gal/day	Septage gal/day	WWTF Effluent gal/day	Infiltration / Inflow (calculated*)	Annual Rainfall (in.)
2017	967,994	no septage was received at WWTF	1,795,890	827,896	41
2018	1,010,953		1,988,767	977,814	51
2019	937,837		1,618,725	680,888	34
2020	1,008,705	11,507	1,523,320	503,108	32
2017 - 2020 Average GPD	981,372	11,507	1,731,676	747,427	39
2017 - 2020 Average MGD	0.981	0.012	1.73	0.75	

* Infiltration/Inflow = WWTF Effluent minus (Water Supply + Septage)

INDUSTRIAL/SANITARY FLOW DISTRIBUTION

Average Water Supply	981,372		This calculation conservatively assumes that all water supplied will be discharged to the sewer. Note: Stratham Hill Park receives its water supply from Exeter.
Less Permitted Industrial	-60,435		Current 2020 permitted industrial flow
Calculated Sanitary	920,937		

PROJECTIONS FOR THE YEAR 2025

Projected Sanitary	932,909		1.3% growth 2020 - 2025 (Office of Energy and Planning estimates)
Infiltration / Inflow	747,427		Should decrease due to I/I reduction efforts, however, as a conservative approach, no change incorporated into the limits calculations
Septage	11,507		Expected to remain capped at approximately 350,000 gallons per month
Existing Industrial	60,435		
Industrial Growth	12,087		20% growth allowance through 2025
Projected Industrial	72,522		Industrial flow allowance for 2025

Projected Total Flow	1,764,365		WWTF flow projection for 2025

TABLE 1 - LOCAL LIMITS REDEVELOPMENT SAMPLING AND ANALYSIS PLAN
Town of Exeter
Exeter, New Hampshire

MONITORING POINT	SAMPLING DATE	PROPOSED FOR SEPTEMBER 2020							
	ANALYTE	PFAS 24	TCLP 8 Metals & 13 PPM & Molybdenum (total recoverable)	13 Priority Pollutant Metals (PPM), plus Molybdenum (total recoverable), analyzed by ICP-MS		Volatile Organics Compounds plus 15 TICs (624)	BOD, TSS, O&G (total and SGT-HEM), Cyanide	Total Nitrogen (Ammonia-N, TKN, NO3-N/NO2-N)	Acid & Base/Neutral Compounds plus 15 TICs (625)
	COMMENTS / TYPE OF SAMPLE	1-day composite, HDPE or polypropylene jug for influent & effluent	1-day grab composite	5-day composite sample[1] (MON, TUE, WED, THU, FRI) unless otherwise noted	Two 1-day 3-grab composite samples (TUE - WED) - to be composited by lab for one sample at each location	One day (WED) of 3-grab (manual) samples to be composited by lab -To confirm whether any new pollutants should be regulated or tracked within the collection system	One day (WED) 3-grabs (manual) into one container - For conventional pollutant information	Inf/Eff locations: One day (WED) composite Collection system locations: One day (WED) 3-grabs (manual) into one container	One day of 3-grab (manual) composite samples (WED) -To confirm whether any new pollutants should be regulated or tracked within the collection system
WWTF Influent (Main Pumping Station)	5-day composite to be flow-proportional[1,2]	1	-	1	-	1	1	1	1
WWTF Effluent	5-day composites to be flow-proportional[1,2]	1	-	1	-	1	1	1	1
WWTF Sludge (centrifuge)	1-day composite. 7 to 8 grab samples from various locations of sludge pile into one bottle	1	1	-	-	-	-	-	-
Domestic WW (2 locations same as 2009 study: Rte 111A near Penn Ln & Rte 111 MH in parking lot)	Time composite (3 grabs/day), two locations	-	-	-	2	-	2	2	-
Commercial area monitoring point (1 location: High St.)	Time composite (3 grabs/day), one collection system location that represents primarily commercial source areas	-	-	-	1	1	1	1	-
Septage (receiving station discharge sampling port)	5-day composite, 1 grab/day for 5 days (M - F), 5 samples to be composited equally by lab	-	-	1	-	-	-	-	-
QA/QC Duplicate (collect one duplicate sample set)	Submit duplicate of one sample	-	-	-	1 (DOM duplicate)	1 (influent duplicate)	-	-	-
QA/QC Blank	Submit one distilled water sample	-	-	1 (1 sample)	-	-	-	-	-
Total Number of Analyses		3	1	4	4	4	5	5	2

Notes:
1. Lab to composite five (5) individual samples based on compositing instructions to prepare one 5-day composite sample for analysis. Lab to save individual daily aliquots for further testing if requested.
2. Flow totalizers are present at POTW influent / effluent locations. Two mag meters (one on each influent force main) and a Parshall flume (effluent).

BOTTLE ORDER -
2020 LOCAL LIMITS SAMPLING PROGRAM

Town of Exeter, New Hampshire

Parameter	No. of Bottles	Comments
13 Priority pollutant (PP) metals plus molybdenum (COMPOSITES)	11	lab to receive 5 bottles for each sample location (2 locations: Influent and Effluent) and instructed to composite based on given percentages for 1 analysis per location - lab to also receive 1 bottle for a QA/QC Blank (TOTAL # OF ANALYSES = 3)
13 PP metals plus molybdenum (COMPOSITES)	5	lab to receive 5 bottles (septage) and instructed to composite equally (TOTAL # OF ANALYSES = 1)
13 PP metals plus molybdenum (GRAB-COMPOSITE IN FIELD)	8	lab to receive 2 bottles per location (4 collection system locations) and instructed to composite equally for 1 analysis per location (TOTAL # OF ANALYSES = 4)
13 PP metals plus molybdenum (GRAB-COMPOSITE IN FIELD) *solids matrix (sludge)*	1	lab to receive 1 bottle (sludge) (TOTAL # OF ANALYSES = 1)
RCRA 8 TCLP analysis (GRAB-COMPOSITE IN FIELD) *solids matrix (sludge)*	1	lab to receive 1 bottle (sludge) (TOTAL # OF ANALYSES = 1)
Volatile Organics Compounds plus 15 TICs (624) (GRABS)	12 sets	lab to receive 3 sets of VOC samples (6 or 9 VOA vials) per location (4 locations) and instructed to composite equally for 1 analysis per location TOTAL # OF ANALYSES = 4)
Total Cyanide (GRAB-COMPOSITE IN FIELD)	5	lab to receive 1 bottle per location (5 locations) (TOTAL # OF ANALYSES = 5)
BOD, TSS (1 bottle for both assumed) (COMPOSITE FOR INFLUENT & EFFLUENT; GRAB-COMPOSITE IN FIELD)	5	lab to receive 1 bottle per location (5 locations) (TOTAL # OF ANALYSES = 5)
Total Nitrogen (Ammonia-N, TKN, NO3-N/NO2-N) (COMPOSITE FOR INFLUENT & EFFLUENT; GRAB-COMPOSITE IN FIELD)	5	lab to receive 1 bottle per location (5 locations) (TOTAL # OF ANALYSES = 5)
O&G (total and SGT-HEM) (GRAB-COMPOSITES)	5	lab to receive 1 bottle per location (5 locations) (TOTAL # OF ANALYSES = 5)
Acid & Base/Neutral Compounds plus 15 TICs (625) (GRAB-COMPOSITES)	2	lab to receive 1 bottle per location (2 locations) (TOTAL # OF ANALYSES = 2)
PFAS 24	3	NOTE: LAB TO SAMPLE FOR PFAS 1 bottle per location (2 wastewater + 1 sludge) (TOTAL # OF ANALYSES = 3)

REQUESTED ANALYTICAL REPORTING LIMITS

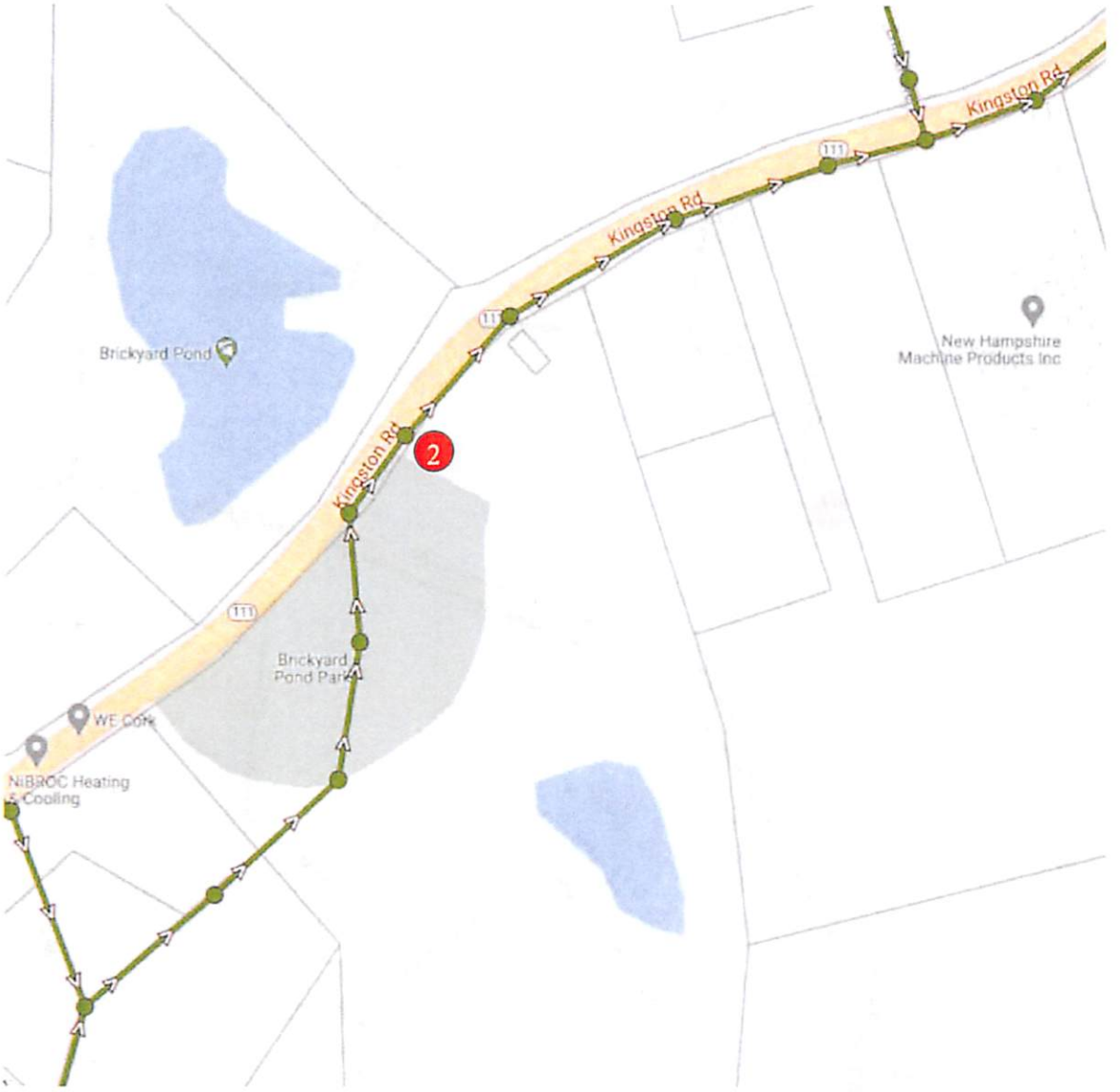
Town of Exeter, New Hampshire

Analyte	Total Recoverable ppm	TCLP - Sludge ppm
Antimony	0.0010	-
Arsenic	0.0005	0.5
Barium	-	0.5
Beryllium	0.0005	-
Cadmium	0.0005	0.1
Chromium	0.0005	0.1
Copper	0.0010	-
Lead	0.0005	0.5
Mercury	0.0010	0.01
Molybdenum	0.0005	-
Nickel	0.0005	-
Selenium	0.0005	0.1
Silver	0.0005	0.1
Thallium	0.0005	-
Zinc	0.0010	-

Figure 4-2A – Domestic Sampling Location

Collection System Sampling Location Legend (Oct. 2020 sampling program)

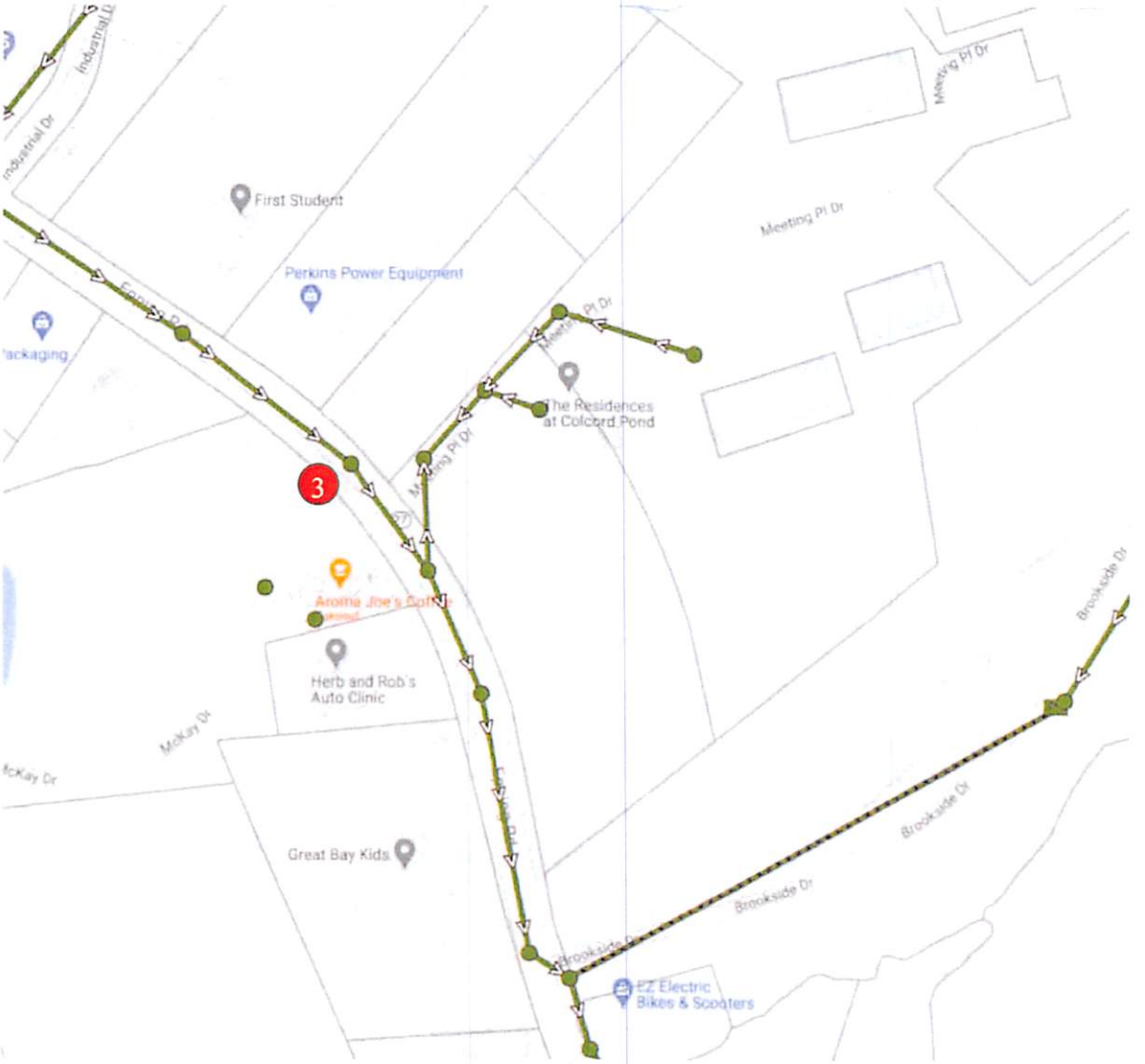
1 Domestic: Manhole SMH-0571 on Hobart St. – ~60 year-old suburban neighborhood



Collection System Sampling Location Legend (Oct. 2020 sampling program)

2 Domestic: Manhole SMH-0523 on Kingston Rd – ~20 year-old suburban neighborhood

Figure 4-2B – Domestic Sampling Location



Collection System Sampling Location Legend (Oct. 2020 sampling program)

3 Industrial: Manhole SMH-0768 on Epping Rd – Industrial zoned area

Figure 4-2C – Industrial Sampling Location

Reported Concentrations (mg/L)

DATA ACCUMULATIONS as of Jun 4 21	Date	Description	Arsenic	Antimony	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Zinc	Cyanide	BOD	TSS	O&G(T)	TPH
Chemtan START																					
Chemtan	Aug 19 08	Self-monitoring	< 0.016			< 0.020	1.51	0.098	0.020	< 0.0002	< 0.2	< 0.08	< 0.02	< 0.03		0.606	< 0.01	1000	100.0	220.0	99.0
Chemtan	Jun 17 09	Self-monitoring					1.17														
Chemtan																					
Chemtan	Oct 27 17	Self-monitoring	< 0.002			< 0.0005	0.017	0.0070	0.0013	< 0.00001	< 0.005	0.022	< 0.002	< 0.0005		0.038	< 0.005				
Chemtan	Nov 10 20	Self-monitoring	0.0026			< 0.0005	0.12	0.0110	0.0012	< 0.00002	< 0.005	0.023	< 0.002	< 0.0005		0.051	< 0.005	430	110	52	
Chemtan		2019 - 2020 avg					0.41														
Chemtan																					
Chemtan END																					
Chemtan AVERAGES			0.003	#N/A	#N/A	< 0.0005	0.410	0.0090	0.0013	< 0.00001	< 0.005	0.023	< 0.002	< 0.0005	#N/A	0.044	< 0.005	430	110	52	99

DATA ACCUMULATIONS as of Jun 4 21	Date	Description	Arsenic	Antimony	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Zinc	Cyanide	BOD	TSS	O&G(T)	TPH
Exeter Hospital START																					
Exeter Hospital	Nov 13 08	Self-monitoring	< 0.002			< 0.0005	< 0.002	0.088	0.0007	0.000078	0.074	0.003	< 0.002	< 0.001		0.300	< 0.005	170	78.0	10.0	< 10
Exeter Hospital	Sep 15 09	Self-monitoring	< 0.002			< 0.0005	< 0.002	0.086	0.0016	0.000010	< 0.005	0.004	< 0.002	0.002		0.450	< 0.005	300	93.3	15.9	< 5
Exeter Hospital	Sep 15 10	Self-monitoring	< 0.002			< 0.0005	< 0.002	0.063	0.0009	< 0.00001	< 0.005	0.003	< 0.002	< 0.001		0.270	< 0.005	130	39.6	146.0	< 5
Exeter Hospital																					
Exeter Hospital	Aug 14 18	Self-monitoring									< 0.005					0.099					
Exeter Hospital	Jul 23 19	Self-monitoring									< 0.005					0.100					
Exeter Hospital	Jul 22 20	Self-monitoring									< 0.005					0.130		130	52	14.2	
Exeter Hospital	Dec 7 20	Self-monitoring	< 0.001			< 0.0003		0.058	0.0006	< 0.00001	< 0.005	0.0038	< 0.002	< 0.0003		0.051	< 0.005	130	36	44	
Exeter Hospital																					
Exeter Hospital END																					
Exeter Hospital AVERAGES			< 0.001	#N/A	#N/A	< 0.0003	< 0.002	0.058	0.0006	< 0.00001	< 0.005	0.004	< 0.002	< 0.0003	#N/A	0.095	< 0.005	130	44	29	< 5

DATA ACCUMULATIONS as of Jun 4 21	Date	Description	Arsenic	Antimony	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Zinc	Cyanide	BOD	TSS	O&G(T)	TPH
Cobham START																					
Cobham	Jul 9 08	Self-monitoring (001)	0.001			< 0.0013	0.187	0.098	< 0.0057	< 0.0001	0.002	< 0.0483	< 0.0010	< 0.0105		< 0.0962	< 0.02		< 6	< 5	
Cobham	JAN - JUN 2009	Self-monitoring (001) - avg				< 0.0013	0.187	0.098	< 0.0057			< 0.0483		< 0.0105		< 0.0962	< 0.02		< 6	< 5	
Cobham																					
Cobham	APR - SEPT 20	Self-monitoring (001) - avg				< 0.0010	0.072	0.029	< 0.0010	< 0.0002	< 0.0010	0.013		0.018		0.018	0.028		< 5	< 6	
Cobham																					
Cobham END																					
Cobham AVERAGES			0.001	#N/A	#N/A	< 0.001	0.072	0.029	< 0.001	< 0.000	< 0.001	0.013	< 0.001	0.018	#N/A	0.018	0.028	#N/A	< 5	< 6	#N/A

DATA ACCUMULATIONS as of Jun 4 21	Date	Description	Arsenic	Antimony	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Zinc	Cyanide	BOD	TSS	O&G(T)	TPH
OSRAM START																					
OSRAM	Mar 12 09	Self-monitoring	< 0.1		< 0.010	< 0.010	< 0.010	0.022	< 0.005	< 0.0002	0.066	< 0.0100	< 0.1000	< 0.0100		0.202					
OSRAM																					
OSRAM	2019-2020	Self-monitoring (MH-AZ) - avg					< 0.010	0.047		< 0.0001	0.048					0.140		56	68	11	
OSRAM																					
OSRAM END																					
OSRAM AVERAGES			< 0.1	#N/A	< 0.010	< 0.010	< 0.010	0.047	< 0.0050	< 0.0001	0.045	< 0.010	< 0.100	< 0.010	#N/A	0.140	#N/A	56	68	11	#N/A

DATA ACCUMULATIONS as of Jun 4 21	Date	Description	Arsenic	Antimony	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Zinc	Cyanide	BOD	TSS	O&G(T)	TPH
Lindt START																					
Lindt																					
Lindt		NO METALS DATA AVAILABLE																			
Lindt END																					
Lindt AVERAGES			#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A

DATA ACCUMULATIONS as of Jun 4 21	Date	Description	Arsenic	Antimony	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Zinc	Cyanide	BOD	TSS	O&G(T)	TPH
PEA Power Plant START																					
PEA Power Plant																					
PEA Power Plant	Mar 7 19	Self-monitoring					< 0.010	0.180	< 0.050	< 0.002	< 0.010	< 0.010				< 0.010					
PEA Power Plant																					
PEA Power Plant END																					
PEA Power Plant AVERAGES			#N/A	#N/A	#N/A	#N/A	< 0.010	0.180	< 0.050	< 0.002	< 0.010	< 0.010	#N/A	#N/A	#N/A	< 0.010	#N/A	#N/A	#N/A	#N/A	#N/A

** Shaded cells - values not used in calculations*

Yellow shaded cells = ND reported; value is MDL

Reported Concentrations (mg/L)

DATA ACCUMULATIONS as of Jun 4 21			Arsenic	Antimony	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Zinc	Cyanide	BOD	TSS	O&G(T)	TPH
WWTF Influent START	**Date**	**Description**																			
WWTF Influent																					
WWTF Influent	Aug 18 09	2009 Local Limits sampling																250	250	23.8	< 10
WWTF Influent	Aug 19 09	2009 Local Limits sampling															< 0.005	100	266	28	< 10
WWTF Influent	8/17-21/2009	2009 Local Limits sampling	0.0021	< 0.0005	< 0.0005	< 0.0005	0.0016	0.035	0.0034	0.000013	0.0037	0.0033	< 0.0005	< 0.0005	< 0.0005	0.16					
WWTF Influent	8/17-21/09(Dup)		0.0022	< 0.0005	< 0.0005	< 0.0005	0.0016	0.032	0.0031	0.000017	0.0039	0.0034	< 0.0005	< 0.0005	< 0.0005	0.15					
WWTF Influent																					
WWTF Influent	Oct 9 20	2020 Local Limits sampling	0.0036	0.00077	< 0.0005	< 0.0005	0.0025	0.053	0.0016	< 0.00001	0.0036	0.0039	< 0.0005	0.0016	< 0.0005	0.15	0.027	300	340	50	< 5
WWTF Influent																					
WWTF Influent END																					
WWTF Influent AVERAGES			0.0036	0.00077	< 0.0005	< 0.0005	0.0025	0.053	0.0016	< 0.00001	0.0036	0.0039	< 0.0005	0.0016	< 0.0005	0.15	0.027	300	340	50	5
ADJUSTED FOR SEPTAGE:			0.0077	0.0009	< 0.0005	< 0.0006	0.0034	0.068	0.0025	< 0.00004	0.0042	0.0048	< 0.0007	0.0016	< 0.0005	0.23					

DATA ACCUMULATIONS as of Jun 4 21			Arsenic	Antimony	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Zinc	Cyanide	BOD	TSS	O&G(T)	TPH
WWTF Effluent START	**Date**	**Description**																			
WWTF Effluent																					
WWTF Effluent	Aug 18 09	2009 Local Limits sampling																20	21	< 10	< 10
WWTF Effluent	Aug 19 09	2009 Local Limits sampling															< 0.005	7.6	21	< 10	< 10
WWTF Effluent	8/17-21/2009	2009 Local Limits sampling	0.0012	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.008	< 0.0005	< 0.00001	0.0075	0.0028	< 0.0005	< 0.0005	< 0.0005	0.009					
WWTF Effluent																					
WWTF Effluent	Feb 4 20	Toxicity monitoring (new WWTF)				< 0.0005	< 0.001	0.0066	< 0.0005			0.0017				0.055					
WWTF Effluent	Aug 19 20	Toxicity monitoring (new WWTF)				< 0.0005	< 0.001	0.0055	< 0.0005			0.0019				0.074					
WWTF Effluent																					
WWTF Effluent	Oct 9 20	2020 Local Limits sampling	0.0034	0.00059	< 0.0005	< 0.0005	0.0014	0.031	0.0019	< 0.00001	0.0058	0.0035	< 0.0005	< 0.0005	< 0.0005	0.12	< 0.020	< 6	< 5	< 5	< 5
WWTF Effluent																					
WWTF Effluent END																					
WWTF Effluent AVERAGES			0.0034	0.00059	< 0.0005	< 0.0005	0.0014	0.031	0.0019	< 0.00001	0.0058	0.0035	< 0.0005	< 0.0005	< 0.0005	0.12	< 0.02	< 6	< 5	< 5	< 5

DATA ACCUMULATIONS as of Jun 4 21			Arsenic	Antimony	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Zinc	Cyanide	BOD	TSS	O&G(T)	TPH
Domestic - Hobart (DOM1) START	**Date**	**Description**																			
Domestic - Hobart (DOM1)																					
Domestic - Hobart (DOM1)	Aug 18 09	2009 Local Limits sampling																180	124	26.2	< 10
Domestic - Hobart (DOM1)	Aug 19 09	2009 Local Limits sampling	0.0034	< 0.0005	< 0.0005	< 0.0005	0.0009	0.037	0.0017	0.000010 J	0.002	0.0032	< 0.0005	< 0.0005 J5	< 0.0005	0.11		180	157	30	< 10
Domestic - Hobart (DOM1)																					
Domestic - Hobart (DOM1)	Oct 8 20	2020 Local Limits sampling	0.0036	< 0.0005	< 0.0005	< 0.0005	0.0012	0.084	0.002	< 0.0001	0.0019	0.0032	< 0.0005	< 0.0005	< 0.0005	0.13	0.040	370	170		
Domestic - Hobart (DOM1)																					
Domestic - Hobart (DOM1) END																					
Domestic - Hobart (DOM1) AVERAGES			0.0036	< 0.0005	< 0.0005	< 0.0005	0.0012	0.084	0.0023	< 0.0001	0.0019	0.0032	< 0.0005	< 0.0005	< 0.0005	0.13	0.040	370	170	28	< 10

DATA ACCUMULATIONS as of Jun 4 21			Arsenic	Antimony	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Zinc	Cyanide	BOD	TSS	O&G(T)	TPH
Domestic - Kingston(DOM2) START	**Date**	**Description**																			
Domestic - Kingston(DOM2)																					
Domestic - Kingston(DOM2)	Aug 18 09	2009 Local Limits sampling																310	164	42	< 10
Domestic - Kingston(DOM2)	Aug 19 09	2009 Local Limits sampling	0.0012 B	< 0.0005	< 0.0005	< 0.0005	0.0011	0.042	0.0019	0.000011	0.013	0.0027	< 0.0005	< 0.0005	0.0009	0.23		280	188	36.4	< 10
Domestic - Kingston(DOM2)																					
Domestic - Kingston(DOM2)	Oct 8 20	2020 Local Limits sampling	0.0047	< 0.0005	< 0.0005	< 0.0005	0.0015	0.072	0.0022	< 0.0001	0.0040	0.0030	0.0010	< 0.0005	< 0.0005	0.20	0.033	390	320		
Domestic - Kingston(DOM2)																					
Domestic - Kingston(DOM2) END																					
Domestic - Kingston(DOM2) AVERAGES			0.0047	< 0.0005	< 0.0005	< 0.0005	0.0015	0.072	0.0022	< 0.0001	0.0040	0.0030	0.0010	< 0.0005	< 0.0005	0.20	0.033	390	320	39	< 10
Overall Domestic Averages AVERAGES			0.0042	< 0.0005	< 0.0005	< 0.0005	0.0014	0.078	0.0023	< 0.0001	0.0039	0.0031	< 0.00075	< 0.0005	< 0.0005	0.17	0.037	380	249	33.650	< 10

** Shaded cells = values not used in calculations*

Yellow shaded cells = ND reported; value is MDL

Reported Concentrations (mg/L)

DATA ACCUMULATIONS as of	Jun 4 21		Arsenic	Antimony	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Zinc	Cyanide	BOD	TSS	O&G(T)	TPH
Industrial/Commercial START	**Date**	**Description**																			
Industrial/Commercial																					
Industrial/Commercial	Aug 18 09	2009 Local Limits sampling																			
Industrial/Commercial	Aug 19 09	2009 Local Limits sampling	0.0005 B	< 0.0005	< 0.0005	0.0006	0.02	0.055	0.085	0.000011	0.0041	0.008	0.004	< 0.0005	< 0.0005	0.26	0.005	280	270	31.8	< 10
Industrial/Commercial																					
Industrial/Commercial	Oct 8 20	2020 Local Limits sampling	0.0033	0.00057	< 0.0005	< 0.0005	0.02	0.062	0.003	< 0.0001	0.0046	0.010	0.001	0.0061	< 0.0005	0.12	0.032	260	310		
Industrial/Commercial																					
Industrial/Commercial END																					
Industrial/Commercial AVERAGES			0.0033	0.0006	< 0.0005	< 0.0005	0.020	0.062	0.003	< 0.0001	0.005	0.010	0.001	0.008	< 0.0005	0.120	0.032	260	310	29	< 10

DATA ACCUMULATIONS as of	Jun 4 21		Arsenic	Antimony	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Zinc	Cyanide	BOD	TSS	O&G(T)	TPH
WWTF Sludge mg/kg START	**Date**	**Description**																			
WWTF Sludge mg/kg																					
WWTF Sludge mg/kg	Oct 7 20	2020 Local Limits sampling	11.0	1.6	< 0.5	0.99	26	510	19	0.58	10	19	4.8	3.9	< 0.5	770	2.5				
WWTF Sludge mg/kg																					
WWTF Sludge mg/kg END																					
WWTF Sludge mg/kg AVERAGES			11.000	1.600	0.500	1.0	26.0	510.0	19.0	0.6	10	19.0	4.8	3.9	0.5	770.0	2.50	#N/A	#N/A	#N/A	#N/A

DATA ACCUMULATIONS as of	Jun 4 21		Arsenic	Antimony	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Zinc	Cyanide	BOD	TSS	O&G(T)	TPH
WWTF Sludge (TCLP) START	**Date**	**Description**																			
WWTF Sludge (TCLP)																					
WWTF Sludge (TCLP)	Jun 4 20	Sludge (TCLP) monitoring	< 0.5			< 0.1	< 0.1		< 0.5	< 0.01			< 0.1	< 0.1							
WWTF Sludge (TCLP)	Oct 7 20	2020 Local Limits sampling	< 0.5			< 0.1	< 0.1		< 0.5	< 0.01			< 0.1	< 0.1							
WWTF Sludge (TCLP)																					
WWTF Sludge (TCLP) END																					
WWTF Sludge (TCLP) AVERAGES			< 0.5000	#N/A	#N/A	0.100	0.100	#N/A	0.500	< 0.0100	#N/A	#N/A	< 0.1000	0.100	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A

DATA ACCUMULATIONS as of	Jun 4 21		Arsenic	Antimony	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Zinc	Cyanide	BOD	TSS	O&G(T)	TPH
Septage START	**Date**	**Description**																			
Septage																					
Septage	Oct 9 20	2020 Local Limits sampling	0.400	0.038	< 0.005	0.031	0.27	14	0.45	0.017	0.23	0.53	0.12	0.058	< 0.005	32					
Septage																					
Septage	Apr 28 21	Additional Septage sampling	0.260	< 0.005	< 0.005	0.006	0.027	0.730	0.036	0.003	0.067	0.056	0.005	< 0.005	< 0.005	6.400					
Septage	Apr 29 21	Additional Septage sampling	0.230	< 0.005	< 0.005	0.006	0.024	2.300	0.043	0.002	0.028	0.072	0.005	< 0.005	< 0.005	6.700					
Septage	May 3 21	Additional Septage sampling	0.730	0.020	0.0053	0.014	0.220	1.400	0.190	0.005	0.093	0.150	0.037	0.008	< 0.005	12.000					
Septage																					
Septage END																					
Septage AVERAGES			0.407	0.010	0.005	0.009	0.093	1.477	0.090	0.003	0.063	0.093	0.016	0.006	0.005	8.367	#N/A	#N/A	#N/A	#N/A	#N/A

** Shaded cells = values not used in calculations*

Yellow shaded cells = ND reported; value is MDL

QA/QC TRIP BLANK ANALYSIS TABLE

Trip Blank Preparation Date: 9/23/2020

ANALYTE	RESULTS (mg/L) TRIP BLANK [QA/QC1] (1)	QUANTITATION LIMIT
Antimony	< 0.0005	0.0005
Arsenic	< 0.0005	0.0005
Beryllium	< 0.0005	0.0005
Cadmium	< 0.0005	0.0005
Chromium	< 0.0005	0.0005
Copper	< 0.0005	0.0005
Lead	< 0.0005	0.0005
Mercury	< 0.0001	0.0001
Molybdenum	< 0.0005	0.0005
Nickel	< 0.0005	0.0005
Selenium	< 0.0005	0.0005
Silver	< 0.0005	0.0005
Thallium	< 0.0005	0.0005
Zinc	< 0.001	0.001

NOTE: (1) Field sampling was performed by the Town's Wastewater Treatment Facility staff.

QA/QC DUPLICATE ANALYSIS TABLE

Sample Date(s): 10/7/20 (VOCs)
Sampling Location: WWTF Influent

ANALYTE	RESULTS (mg/L)		RELATIVE PERCENT DIFFERENCE
	INFLUENT	DUPLICATE	
Acetone	210	170	21.1%
Chloroform	2.6	2.4	8.0%
Toluene	2.2	2.2	0.0%
1,4-Dichlorobenzene	4.6	5.7	21.4%
Other VOCs	BDL	BDL	NA

5. REMOVAL EFFICIENCIES

Removal efficiency values are required for determining the WWTF's Maximum Allowable Headworks Loadings (MAHLs) – the maximum pollutant loading measured at the headworks to the WWTF to prevent pass through or inference. This is the percentage of a conservative pollutant (*e.g.*, metals) that is removed from the wastewater as it is treated at the WWTF. Since metals are "conserved," those that are removed from the water are retained in the WWTF sludge.

Removal efficiencies may also be calculated for non-conservative pollutants. However, this practice is less useful since the removal mechanisms include biodegradation and volatilization. These mechanisms are also at work in the collection system, which introduces far more uncertainty regarding a non-conservative pollutant's fate after discharge than for metals. Therefore, a removal efficiency analysis for non-conservative pollutants is not usually carried out broadly, but is instead attempted on a case-by-case basis if an individual pollutant issue has been identified. At present, no non-conservative pollutants have been identified as pollutants of concern at the Exeter WWTF.

The methodology chosen for this local limits evaluation to determine removal efficiencies is the Mean Removal Efficiency (MRE) method, which is one of the three removal efficiency calculation methodologies described in EPA's 2004 *Local Limits Development Guidance* document. In this method, all influent sample results are averaged and all effluent sample results are averaged and the averages are used to calculate the removal efficiency. For the Exeter sampling program, this would be completed by analyzing each of the five daily influent and effluent values and averaging the five influent/effluent results. However, to reduce analytical costs, one laboratory composite for each of the influent and effluent samples was prepared using the five daily samples that represented the average wastewater quality for the 5-day period. These 5-day composite samples represented the average influent and effluent results for the MRE calculation.

The removal efficiency calculation is:

$$R_{wwtf} = (C_{INF} - C_{EFF}) \div (C_{INF})$$

where:

R_{wwtf} = WWTF overall removal efficiency (as decimal)
C_{INF} = Average influent concentration (mg/L)
C_{EFF} = Average effluent concentration (mg/L)

When the Town's influent/effluent or effluent results were less than the analytical reporting limits, removal efficiency values could not be calculated. When this occurred, the default removal efficiency values from EPA's 2004 guidance document (Appendix R) were used if available.

Specific documentation regarding the removal efficiency values utilized in this local limits study for each pollutant is included in the removal efficiency tables attached to this section.

Attachments to this section:

- *Removal Efficiency Tables*
- *EPA Guidance Manual Removal Efficiencies*

ANTIMONY

Dates Sampled	Influent (mg/L)	Final Effluent (mg/L)	Removal Efficiency %
10/5 - 10/9/20	0.0009*	0.00059	32%
		Average Calculated Removal Rate	**32%**

*Influent measurement has been adjusted to account for septage (which was absent from influent sampling location)

OTHER REMOVAL EFFICIENCY DATA

EPA Local Limits Guidance Removal Rate	**NA**

DISCUSSION

The field sampling program results reported above consist of measurements that are greater than the analytical reporting limit. As a result, the average calculated removal rate is considered to be valid.

ANTIMONY REMOVAL EFFICIENCIES USED FOR FURTHER EVALUATIONS

Removal %
32%

ARSENIC

Dates Sampled	Influent (mg/L)	Final Effluent (mg/L)	Removal Efficiency %
10/5 - 10/9/20	0.0077*	0.0034	56%
		Average Calculated Removal Rate	56%

*Influent measurement has been adjusted to account for septage (which was absent from influent sampling location)

OTHER REMOVAL EFFICIENCY DATA

EPA Local Limits Guidance Removal Rate	**45%**

DISCUSSION

The field sampling program results reported above consist of measurements that are greater than the analytical reporting limit. As a result, the average calculated removal rate is considered to be valid. EPA Local Limits Guidance default data is also available for arsenic. As a result, both the calculated removal rate and EPA Guidance data can be used to determine a removal efficiency range (45 - 56%). As a conservative approach, the efficiency may be considered to fall at the low end of this range (45%) for water quality-based calculations and at the upper end (56%) to estimate a biosolids-based limit.

ARSENIC REMOVAL EFFICIENCY USED FOR FURTHER EVALUATIONS

	Removal %
Water Quality Basis	45%
Biosolids Quality Basis	56%

CADMIUM

Dates Sampled	Influent (mg/L)	Final Effluent (mg/L)	Removal Efficiency %
10/5 - 10/9/20	< 0.0006	< 0.0005	NA
		Average Calculated Removal Rate	**NA**

*Influent measurement has been adjusted to account for septage (which was absent from influent sampling location)

OTHER REMOVAL EFFICIENCY DATA

EPA Local Limits Guidance Removal Rate	**67%**

DISCUSSION

The field sampling program results for influent and effluent concentrations are less than the analytical reporting limit. EPA Local Limits Guidance default data is available for cadmium. As a result, the EPA Guidance data is used.

CADMIUM REMOVAL EFFICIENCY USED FOR FURTHER EVALUATIONS

Removal %
67%

CHROMIUM

Dates Sampled	Influent (mg/L)	Final Effluent (mg/L)	Removal Efficiency %
10/5 - 10/9/20	0.0034*	0.0014	59%
		Average Calculated Removal Rate	**59%**

*Influent measurement has been adjusted to account for septage (which was absent from influent sampling location)

OTHER REMOVAL EFFICIENCY DATA

EPA Local Limits Guidance Removal Rate	**82%**

DISCUSSION

The field sampling program results reported above consist of measurements that are greater than the analytical reporting limit. As a result, the average calculated removal rate is considered to be valid. EPA Local Limits Guidance default data is also available for chromium. As a result, both the calculated removal rate and EPA Guidance data can be used to determine a removal efficiency range (59 - 82%). As a conservative approach, the efficiency may be considered to fall at the low end of this range (59%) for water quality-based calculations and at the upper end (82%) to estimate a biosolids-based limit.

CHROMIUM REMOVAL EFFICIENCY USED FOR FURTHER EVALUATIONS

	Removal %
Water Quality Basis	**59%**
Biosolids Quality Basis	**82%**

CHROMIUM

COPPER

Dates Sampled	Influent (mg/L)	Final Effluent (mg/L)	Removal Efficiency %
10/5 - 10/9/20	0.068	0.031	54%
		Average Calculated Removal Rate	**54%**

*Influent measurement has been adjusted to account for septage (which was absent from influent sampling location)

OTHER REMOVAL EFFICIENCY DATA

EPA Local Limits Guidance Removal Rate	**86%**

DISCUSSION

The field sampling program results reported above consist of measurements that are greater than the analytical reporting limit. As a result, the average calculated removal rate is considered to be valid. EPA Local Limits Guidance default data is also available for copper. As a result, both the calculated removal rate and EPA Guidance data can be used to determine a removal efficiency range (54 - 86%). As a conservative approach, the efficiency may be considered to fall at the low end of this range (54%) for water quality-based calculations and at the upper end (86%) to estimate a biosolids-based limit.

COPPER REMOVAL EFFICIENCY USED FOR FURTHER EVALUATIONS

	Removal %
Water Quality Basis	**54%**
Biosolids Quality Basis	**86%**

LEAD

Dates Sampled	Influent (mg/L)	Final Effluent (mg/L)	Removal Efficiency %
10/5 - 10/9/20	0.0025	0.0019	24%
		Average Calculated Removal Rate	**24%**

*Influent measurement has been adjusted to account for septage (which was absent from influent sampling location)

OTHER REMOVAL EFFICIENCY DATA

EPA Local Limits Guidance Removal Rate	**61%**

DISCUSSION

The field sampling program results reported above consist of measurements that are greater than the analytical reporting limit. As a result, the average calculated removal rate is considered to be valid. EPA Local Limits Guidance default data is also available for lead. As a result, both the calculated removal rate and EPA Guidance data can be used to determine a removal efficiency range (24 - 61%). As a conservative approach, the efficiency may be considered to fall at the low end of this range (24%) for water quality-based calculations and at the upper end (61%) to estimate a biosolids-based limit.

LEAD REMOVAL EFFICIENCY USED FOR FURTHER EVALUATIONS

	Removal %
Water Quality Basis	**24%**
Biosolids Quality Basis	**61%**

LEAD

MERCURY

Dates Sampled	Influent (mg/L)	Final Effluent (mg/L)	Removal Efficiency %
10/5 - 10/9/20	< 0.00004	< 0.00001	NA
		Average Calculated Removal Rate	**NA**

*Influent measurement has been adjusted to account for septage (which was absent from influent sampling location)

OTHER REMOVAL EFFICIENCY DATA

EPA Local Limits Guidance Removal Rate	**60%**

DISCUSSION

The concentrations reported from the influent and effluent field sampling program are less than the analytical reporting limit. EPA Local Limits Guidance comparative data is available for mercury. As a result, the EPA guidance data is used.

MERCURY REMOVAL EFFICIENCIES USED FOR FURTHER EVALUATIONS

Removal %
60%

MOLYBDENUM

Dates Sampled	Influent (mg/L)	Final Effluent (mg/L)	Removal Efficiency %
10/5 - 10/9/20	0.0042*	0.0058	NA
		Average Calculated Removal Rate	**NA**

*Influent measurement has been adjusted to account for septage (which was absent from influent sampling location)

OTHER REMOVAL EFFICIENCY DATA

EPA Local Limits Guidance Removal Rate	**NA**

DISCUSSION

The field sampling program molybdenum concentrations result in a data anomally - the effluent measurements are approximately equal to the influent. Possible reasons include: the concentrations measured are relatively low to measure with high precision; normal daily wastewater constituent fluctuations don't allow influent and effluent measurements to match on a consistent basis. EPA Guidance removal data is not available for molybdenum. The removal rate was estimated by using the highest reported EPA Guidance removal efficiencies for other metals. This is a conservative approach protective of biosolids quality (there is no surface water quality standard for molybdenum). Headworks loadings driven by biosolids quality criteria are more stringent when higher removal rates are applied. Although the Town does not intend to land apply biosolids, knowledge of a calculated molybdenum limit may be a useful reference in the event that Town plans change in the future.

MOLYBDENUM REMOVAL EFFICIENCY USED FOR FURTHER EVALUATIONS

Removal %

86%

NICKEL

Dates Sampled	Influent (mg/L)	Final Effluent (mg/L)	Removal Efficiency %
10/5 - 10/9/20	0.0048*	0.0035	27%
		Average Calculated Removal Rate	**27%**

*Influent measurement has been adjusted to account for septage (which was absent from influent sampling location)

OTHER REMOVAL EFFICIENCY DATA

EPA Local Limits Guidance Removal Rate	**42%**

DISCUSSION

The field sampling program nickel concentrations are greater than the analytical reporting limit. As a result, the average nickel removal rate is considered to be valid. EPA Local Limits Guidance default data is also available for nickel. As a result, both the calculated removal rate and EPA Guidance data can be used to determine a removal efficiency range (27 - 42%). As a conservative approach, the efficiency may be considered to fall at the low end of this range (27%) for water quality-based calculations and at the upper end (42%) to estimate a biosolids-based limit.

NICKEL REMOVAL EFFICIENCIES USED FOR FURTHER EVALUATIONS

	Removal %
Water Quality Basis	27%
Biosolids Quality Basis	42%

SELENIUM

Dates Sampled	Influent (mg/L)	Final Effluent (mg/L)	Removal Efficiency %
10/5 - 10/9/20	< 0.0007	< 0.0005	NA
		Average Calculated Removal Rate	**NA**

*Influent measurement has been adjusted to account for septage (which was absent from influent sampling location)

OTHER REMOVAL EFFICIENCY DATA

EPA Local Limits Guidance Removal Rate	**50%**

DISCUSSION

The influent and effluent concentrations reported from the field sampling program are less than the analytical reporting limit. EPA Local Limits Guidance comparative data is available for selenium. As a result, the EPA guidance data is used.

SELENIUM REMOVAL EFFICIENCY USED FOR FURTHER EVALUATIONS

Removal %
50%

SELENIUM

SILVER

Dates Sampled	Influent (mg/L)	Final Effluent (mg/L)	Removal Efficiency %
10/5 - 10/9/20	0.0016*	< 0.0005	> 70%
		Average Calculated Removal Rate	**>70%**

*Influent measurement has been adjusted to account for septage (which was absent from influent sampling location)

OTHER REMOVAL EFFICIENCY DATA

EPA Local Limits Guidance Removal Rate	**75%**

DISCUSSION

The influent silver concentration reported from the field sampling program was greater than the analytical reporting limit, while the effluent was less than the analytical reporting limit. EPA Local Limits Guidance default data is available for silver. As a result, both the calculated removal rate and EPA Guidance data can be used to determine a removal efficiency range (70 - 75%). As a conservative approach, the efficiency may be considered to fall at the low end of this range (70%) for water quality-based calculations and at the upper end (75%) to estimate a biosolids-based limit.

SILVER REMOVAL EFFICIENCY USED FOR FURTHER EVALUATIONS

	Removal %
Water Quality Basis	70%
Biosolids Quality Basis	75%

ZINC

Dates Sampled	Influent (mg/L)	Final Effluent (mg/L)	Removal Efficiency %
10/5 - 10/9/20	0.234*	0.120	49%
		Average Calculated Removal Rate	**49%**

*Influent measurement has been adjusted to account for septage (which was absent from influent sampling location)

OTHER REMOVAL EFFICIENCY DATA

EPA Local Limits Guidance Removal Rate	**79%**

DISCUSSION

The field sampling program concentrations are greater than the analytical reporting limit. As a result, the zinc removal rate is considered to be acceptable for use in the limits calculations. EPA Local Limits Guidance default data is also available for zinc. As a result, both the calculated removal rate and EPA Guidance data can be used to determine a removal efficiency range (49 - 79%). As a conservative approach, the efficiency may be considered to fall at the low end of this range (49%) for water quality-based calculations and at the upper end (79%) to estimate a biosolids-based limit.

ZINC REMOVAL EFFICIENCY USED FOR FURTHER EVALUATIONS

	Removal %
Water Quality Basis	**49%**
Biosolids Quality Basis	**79%**

ZINC

CYANIDE

Dates Sampled	Influent (mg/L)	Final Effluent* (mg/L)	Removal Efficiency %
10/5 - 10/9/20	0.027	< 0.02	> 26%
		Average Calculated Removal Rate	**>26%**

OTHER REMOVAL EFFICIENCY DATA

EPA Local Limits Guidance Removal Rate	**69%**

DISCUSSION

The influent cyanide concentration reported from the field sampling program was greater than the analytical reporting limit, while the effluent was less than the analytical reporting limit. EPA Local Limits Guidance default data is available for cyanide. As a result, both the calculated removal rate and EPA Guidance data can be used to determine a removal efficiency range (26 - 69%). As a conservative approach, the efficiency may be considered to fall at the low end of this range (26%) for water quality-based calculations and at the upper end (69%) to estimate a biosolids-based limit.

CYANIDE REMOVAL EFFICIENCY USED FOR FURTHER EVALUATIONS

	Removal %
Water Quality Basis	**26%**
Biosolids Quality Basis	**69%**

APPENDIX R -
PRIORITY POLLUTANT REMOVAL EFFICIENCIES

Priority Pollutant Removal Efficiencies (%) Through Primary Treatment*

Priority Pollutant	Median	Number of POTWs with Removal Data**
METAL/NONMETAL INORGANICS		
Cadmium	15	6 of 40
Chromium	27	12 of 40
Copper	22	12 of 40
Cyanide	27	12 of 40
Lead	57	1 of 40
Mercury	10	8 of 40
Nickel	14	9 of 40
Silver	20	4 of 40
Zinc	27	12 of 40
ORGANICS		
Benzene	25	8 of 40
Chloroform	14	11 of 40
1,2-trans-Dichloroethylene	36	9 of 40
Ethylbenzene	13	12 of 40
Naphthalene	44	4 of 40
Phenol	8	11 of 40
Butyl benzyl phthalate	62	4 of 40
Di-n-butyl phthalate	36	3 of 40
Diethyl phthalate	56	1 of 40
Tetrachloroethylene	4	12 of 40
1,1,1-Trichloroethane	40	10 of 40
Trichloroethylene	20	12 of 40

* Pollutant removals between POTW influent and primary effluent. From *Fate of Priority Pollutants in Publicly Owned Treatment Works, Volume I* (EPA 440/1-82/303), U.S. Environmental Protection Agency, Washington, D.C., September 1982, p. 61.

** Median removal efficiencies from a data base of removal efficiencies for 40 POTWs. Only POTWs with average influent concentrations exceeding three times each pollutant's detection limit were considered.

Source: U.S. EPA's *Guidance Manual on the Development and Implementation of Local Discharger Limitations Under the Pretreatment Program*, December 1987, p. 3-55.

Priority Pollutant Percent Removal Efficiencies (%) Through Activated Sludge Treatment*

Priority Pollutant	Range	Second Decile	Median	Eight Decile	Number of POTWs with Removal Data
METALS/NONMETAL INORGANICS**					
Arsenic	11-78	31	45	53	5 of 26
Cadmium	25-99	33	67	91	19 of 26
Chromium	25-97	68	82	91	25 of 26
Copper	2-99	67	86	95	26 of 26
Cyanide	3-99	41	69	84	25 of 26
Lead	1-92	39	61	76	23 of 26
Mercury	1-95	50	60	79	20 of 26
Nickel	2-99	25	42	62	23 of 26
Selenium	25-89	33	50	67	4 of 26
Silver	17-95	50	75	88	24 of 26
Zinc	23-99	64	79	88	26 of 26
ORGANICS**					
Anthracene	29-99	44	67	91	5 of 26
Benzene	25-99	50	80	96	18 of 26
Chloroform	17-99	50	67	83	24 of 26
1,2-trans-Dichloroethylene	17-99	50	67	91	17 of 26
Ethylbenzene	25-99	67	86	97	25 of 26
Methylene chloride	2-99	36	62	77	26 of 26
Naphthalene	25-98	40	78	90	16 of 26
Phenanthrene	29-99	37	68	86	6 of 26
Phenol	3-99	75	90	98	19 of 26
Bis (2-ethylhexyl) phthalate	17-99	47	72	87	25 of 26
Butyl benzyl phthalate	25-99	50	67	92	16 of 26
Di-n-butyl phthalate	11-97	39	64	87	19 of 26
Diethyl phthalate	17-98	39	62	90	15 of 26
Pyrene	73-95	76	86	95	2 of 26
Tetrachloroethylene	15-99	50	80	93	26 of 26
Toluene	25-99	80	93	98	26 of 26
1,1,1-Trichloroethane	18-99	75	85	94	23 of 26
Trichloroethylene	20-99	75	89	98	25 of 26

* Pollutant removals between POTW influent and secondary effluent (including secondary clarification). Based on a computer analysis of POTW removal efficiency data (derived from actual POTW influent and effluent sampling data) provided in U.S. EPA's *Fate of Priority Pollutants in Publicly Owned Treatment Works, Volume II* (EPA 440/1-82/303), September 1982.

** For the purpose of deriving removal efficiencies, effluent levels reported as below detection were set equal to the reported detection limits. All secondary activated sludge treatment plants sampled as part of the study were considered.

Source: U.S. EPA's *Guidance Manual on the Development and Implementation of Local Discharger Limitations Under the Pretreatment Program*, December 1987, p. 3-56.

6. MAXIMUM ALLOWABLE INDUSTRIAL LOADINGS FOR METALS AND CYANIDE

As described in EPA's 2004 *Local Limits Development Guidance* document, calculating Maximum Allowable Headworks Loadings (MAHLs) for each pollutant is a three step process that involves the following:

- Calculating WWTF removal efficiencies;
- Calculating Allowable Headworks Loadings (AHLs) for each environmental criterion; and
- Selecting the most restrictive (or lowest) AHL as the MAHL.

WWTF removal efficiencies were calculated in **Section 5** of this document. **Section 3** of this document describes each of the environmental criteria evaluated as part of this study. The next step described in the text that follows is calculating AHLs.

Surface Water-Quality-Based AHLs

As described in **Section 3**, applicable surface water quality standards are promulgated by NHDES in Chapter Env-Wq 1700. Accordingly, the New Hampshire surface water quality standard values presented in **Table 3-1** were used to calculate surface water-quality-based AHLs. In accordance with current NHDES policy, river background concentrations were assumed to be zero.

AHLs based on surface water quality criteria were calculated using the following formula:

$$AHL_{wq} = [\ (Q_{potw} \times DF \times \%Alloc) \times (C_{wq} / 1000) \times 8.34] \div (1 - R_{wwtf})$$

where:

AHL_{wq}	=	AHL based on water quality criteria (lb/day)
C_{wq}	=	Surface water quality standard (ug/L)
DF	=	Dilution Factor (from draft NPDES permit) at permitted flow
%Alloc	=	Percentage of stream capacity allocated to Town (90%, as decimal, per NHDES policy)
Q_{potw}	=	POTW permitted flow rate (MGD)
R_{wwtf}	=	WWTF overall removal efficiency (as decimal)

Surface water-quality-based AHLs developed for this study are presented in **Table 6-1**.

Table 6-1 Allowable Headworks Loadings Based on Surface Water Quality Criteria (1)

POLLUTANT	WWTF OVERALL REMOVAL EFFICIENCY (2)	ACUTE LOADING @ 26 Dilution Factor AND 90% ALLOCATION (lb/day)	CHRONIC LOADING @ 26 Dilution Factor AND 90% ALLOCATION (lb/day)	HUMAN HEALTH LOADING (lb/day) @ 26 Dilution Factor and 90% ALLOCATION	CONTROLLING WATER QUALITY CRITERIA (lb/day)
Antimony	32%	#N/A	#N/A	323	323
Arsenic *	45%	43.2	22.5	0.09	0.09
Cadmium	67%	34.4	8.2	#N/A	8.24
Chromium (III)	59%	8,604	#N/A	#N/A	8,604
Chromium (VI)	59%	925	42.1	#N/A	42.1
Copper	54%	4.34	2.80	750	2.80
Cyanide (T)	26%	0.46	0.46	65	0.46
Lead	24%	100.0	3.9	#N/A	3.86
Mercury	60%	1.82	0.95	0.04	0.04
Molybdenum	86%	#N/A	#N/A	#N/A	#N/A
Nickel	27%	35.3	3.92	2,175	3.92
Selenium	50%	200.1	49.0	2,892	48.99
Silver	70%	2.53	#N/A	73,645	2.53
Zinc	49%	64	57	3,355	57

NOTES:

(1) See Table 3-1 for surface water quality criteria values.

(2) Values developed in Section 5 - Removal Efficiencies of this document.

* = Carcinogen

"#N/A" = Data is not available to support a value for this item

Biosolids Quality-Based AHLs

This report considers sludge quality concerns with respect to two limiting criteria:

- Land application, and
- Hazardous waste designation (applicable to landfilling).

The Town does not presently intend to land apply its sludge. However, to maintain this option, this report does calculate the limits that would be required to achieve this objective.

For sludge to be acceptable for landfilling, it cannot contain metals at concentrations that would result in its characterization as a hazardous waste.

Biosolids Land Application

Protection of sludge quality preserves the Town's option to manage the sludge as biosolids for beneficial reuse. As discussed in **Section 3**, the NHDES sludge standards are equal to or more stringent than EPA's 40 CFR Part 503 Standards and were therefore used as a basis for determining compliance with biosolids quality standards. It is TeTon's understanding that, since the sludge at the Exeter WWTF is currently not being land applied, compliance with the NHDES ceiling limit sludge standards, as presented in **Table 3-2**, is targeted by the Town.

AHLs based on biosolids quality criteria were calculated using the following formula:

$$AHL_{sldg} = [C_{sldgstd} \times P_{sldg}] \div [1{,}000{,}000 \times R_{wwtf}]$$

where:

AHL_{sldg} = AHL based on biosolids quality criteria (lb/day)
$C_{sldgstd}$ = Sludge standard (mg/kg)
P_{sldg} = Average sludge production rate (dry pounds/day)
R_{wwtf} = WWTF overall removal efficiency (as decimal)

The calculated biosolids quality-based AHLs are presented in **Table 6-2A**.

Table 6-2A Allowable Headworks Loadings Based on Land Application of Biosolids

POLLUTANT	WWTF OVERALL REMOVAL EFFICIENCY (1)	40 CFR PART 503.13 TABLE 1 CEILING POLLUTANT CONCENTRATIONS (mg/kg)	40 CFR PART 503.13 TABLE 3 MONTHLY AVERAGE POLLUTANT CONCENTRATIONS (mg/kg)	(NON - EQ) NHDES ENV-WQ 809.03 BIOSOLIDS LIMITS (mg/kg)	NHDES ENV-Wq 809.03 BIOSOLIDS LIMITS LOW METALS (2) (mg/kg)	BIOSOLIDS ALLOWABLE HEADWORKS LOAD (3) (lb/day)
Antimony	32%	#N/A	#N/A	5 (4)	5 (4)	0.032
Arsenic	56%	75	41	32	10	0.117
Cadmium	67%	85	39	14	10	0.043
Chromium (III)	82%	#N/A	#N/A	1,000	160	2.498
Chromium (VI)	82%	#N/A	#N/A	1,000	160	2.498
Copper	86%	4,300	1,500	1,500	1,000	3.572
Cyanide (T)	69%	#N/A	#N/A	510 (4)	510 (4)	1.514
Lead	61%	840	300	300	270	1.007
Mercury	60%	57	17	10	7	0.034
Molybdenum	86%	75	#N/A	35	18	0.083
Nickel	42%	420	420	200	98	0.975
Selenium	50%	100	100	28	18	0.115
Silver	75%	#N/A	#N/A	45 (4)	45 (4)	0.123
Zinc	79%	7,500	2,800	2,500	1,780	6.481

NOTES:

(1) Values developed in Section 5 - Removal Efficiencies of this document.

(2) These limitations would be applied in order to maintain designation of the Town's biosolids as "low-metals."

(3) The NHDES Non-EQ limits were used in calculating the allowable headworks loadings.

(4) Values not published in NHDES Env-Wq 809.03. Used NHDES Class A Guidance Values.

"#N/A" = Data is not available to support a value for this item.

Sludge TCLP Limitations

One objective of local pollutant controls is to avoid triggering a hazardous waste determination of the WWTF's sludge. Toxicity Characteristic Leaching Procedure (TCLP) concerns may be based on a comparison of measured TCLP concentrations of the WWTF's sludge to corresponding TCLP limits, and to match these against the total recoverable metals levels. The TCLP test is intended to simulate how much of a pollutant will "leach" from a material and subsequently be able to be conveyed to groundwater or surface water.

Specific measurements to compare TCLP concentrations with total recoverable metals concentrations in the sludge were completed as part of this project. The ratio of each sludge TCLP measurement to its TCLP limit was calculated. Dividing the sludge's total metals results by this ratio provides an estimate of the maximum metals sludge content before the TCLP limit will be reached. For example, if a ratio is 33 percent, then the present sludge total metals concentration could be expected to be 3 times greater before representing a TCLP concern. Since all TCLP measurements obtained in this project were "less than reporting limit" actual ratios could not be determined and using the above approach and reporting limit values could result in estimated limits that are overly restrictive.

An alternative approach is to estimate the TCLP value when its result is less than the reporting limit. Since the TCLP analytical method dilutes a sample by a factor of 20, the highest possible TCLP result would be the total recoverable sludge concentration (mg/kg) divided by 20, assuming that 100 percent of the metals in the sludge will leach.

However, only a fraction of the metals measured by the "total recoverable metals" test method will actually leach. The US EPA local limits guidance document does not include representative information regarding TCLP-extractable metals as a percent of total metals. As an alternative, this report relies on data published in a Cornell-sponsored 1994 study[2] in which the greatest TCLP-mobile fraction (% of total metals) in dewatered sludge ranged from 0.2% for copper to 11.2% for zinc. The TCLP-mobile fraction table that was part of the Cornell-sponsored study is included as an attachment to this section. As a conservative approach and to provide a margin of safety, a leachability value of 15% was assumed to estimate TCLP values in the following calculation:

[2] Brian K. Richards, John H. Peverly, Tammo S. Steenhuis, and Barry N. Liebowitz, (1997), *Effect of Processing Mode on Trace Elements in Dewatered Sludge Products*, Journal of Environmental Quality, 26:782-788, (http://soilandwater.bee.cornell.edu/publications/RichardsJEQ97.pdf), retrieved on November 2, 2017.

$$TCLP_{value} = C_{sldg\text{-}meas} \div 20 \text{ (TCLP test method dilution factor)} \times 15\%$$

where:

$TCLP_{value}$	=	Estimated sludge TCLP (mg/L)
$C_{sldg\text{-}meas}$	=	Measured sludge concentration (mg/kg)

The results of these calculations are presented in **Table 6-2B**. When these values were less than the actual laboratory results with "less than" values, these estimated values were used in subsequent calculations to avoid overly restrictive limits.

The allowable sludge concentrations based on the TCLP criteria, expressed as total recoverable metals, are then calculated using the following formula, with the results presented in **Table 6-2B**:

$$C_{sldg} = [C_{sldg\text{-}meas}] \div [TCLP_{value} / TCLP_{std}]$$

where:

C_{sldg}	=	Maximum allowable sludge concentration (mg/kg)
$C_{sldg\text{-}meas}$	=	Measured sludge concentration (mg/kg)
$TCLP_{value}$	=	Measured (or estimated) sludge TCLP (mg/L)
$TCLP_{std}$	=	Allowable sludge TCLP (mg/L)

Then the following formula is used to calculate the TCLP-based AHL in **Table 6-2B**:

$$AHL_{tclp} = [C_{sldgstd} \times P_{sldg}] \div [1{,}000{,}000 \times R_{WWTF}]$$

where:

AHL_{tclp}	=	AHL based on sludge TCLP criteria (lb/day)
C_{sldg}	=	Maximum allowable sludge concentration (mg/kg)
P_{sldg}	=	Average sludge production rate (dry pounds/day)
R_{WWTF}	=	WWTF overall removal efficiency (as decimal)

Table 6-2B Allowable Headworks Loadings Based on TCLP Criteria of Sludge

POLLUTANT	WWTF OVERALL REMOVAL EFFICIENCY (1)	TOXICITY CHARACTERISTIC LEACHING PROCEDURE VALUE (mg/L)	MAXIMUM SLUDGE DRY SOLIDS CONCENTRATIONS (1) @15 % LEACHABILITY (mg/kg)	TCLP ALLOWABLE HEADWORKS LOAD (lb/day)
Antimony	32%	#N/A	#N/A	#N/A
Arsenic	56%	5	667	2.4
Cadmium	67%	1	133	0.4
Chromium (III)	82%	5	667	1.7
Chromium (VI)	82%	5	667	1.7
Copper	86%	#N/A	#N/A	#N/A
Cyanide (T)	69%	#N/A	#N/A	#N/A
Lead	61%	5	667	2.2
Mercury	60%	0.2	27	0.1
Molybdenum	86%	#N/A	#N/A	#N/A
Nickel	42%	#N/A	#N/A	#N/A
Selenium	50%	1	133	0.5
Silver	75%	5	667	1.8
Zinc	79%	#N/A	#N/A	#N/A

NOTES: (1) The TCLP procedure allows dividing a total recoverable metals analysis by 20 to determine the maximum theoretical concentration of the metal in its leachate. In practice, actual leachability is much lower. The 15% leachability value is based on a 1994 Cornell University study (see report text for additional discussion).

Process Inhibition-Based AHLs

Inhibition of the biological treatment process is considered as part of the local limits evaluation. In general, the inhibition data presented in Appendix G of EPA's 2004 guidance document were used as default criteria values in this evaluation. A more detailed discussion regarding inhibition values used in this study can be found in **Section 3**.

The EPA guidance document formula for calculating AHLs based on process inhibition criteria is as follows:

$$AHL_{inhib} = [8.34 \times C_{inhib} \times Q_{potw}] \div [1 - R_{prim}]$$

where:

AHL_{inhib} = AHL based on process inhibition criteria (lb/day)
C_{inhib} = Process inhibition standard (mg/L)
Q_{potw} = POTW average flow rate (MGD)
R_{prim} = WWTF primary removal efficiency (as decimal)

However, since there is no primary treatment at the Exeter WWTF ($R_{prim} = 0$), the formula is simplified to the following:

$$AHL_{inhib} = 8.34 \times C_{inhib} \times Q_{potw}$$

Process inhibition-based AHLs developed for this study are presented in **Table 6-3**.

Table 6-3 Allowable Headworks Loadings Based on Process Inhibition

POLLUTANT	WWTF PRIMARY REMOVAL EFFICIENCY (1)	ACTIVATED SLUDGE INHIBITION LEVELS (2) (mg/L)	NITRIFICATION INHIBITION LEVELS (2) (mg/L)	PROCESS INHIBITION HEADWORKS LOAD (3) (lb/day)
Antimony	0%	#N/A	#N/A	#N/A
Arsenic	0%	0.10	1.50	1.47
Cadmium	0%	5.00	5.20	73.57
Chromium (III)	0%	30.00	1.08	15.82
Chromium (VI)	0%	1.00	5.50	14.71
Copper	0%	1.00	0.27	3.90
Cyanide (T)	0%	2.50	0.42	6.18
Lead	0%	3.00	0.50	7.36
Mercury	0%	0.50	#N/A	#N/A
Molybdenum	0%	#N/A	#N/A	#N/A
Nickel	0%	1.75	0.38	5.52
Selenium	0%	#N/A	#N/A	#N/A
Silver	0%	0.25 (4)	0.25 (5)	3.68
Zinc	0%	0.30	0.29	4.27

NOTES:

(1) Primary removal is not currently present at the Exeter WWTF.

(2) Average default value used (if range provided), EPA Local Limits Development Guidance, July 2004, App. G unless otherwise noted.

(3) The most restrictive inhibition value was used in calculating the allowable headworks loading.

(4) Default values, Prelim Version 4 User's Guide (May 1991), Table 3-2, p.14

(5) Default value, EPA Guidance Manual for Preventing Interference at POTWs (Sept. 1987), Table 2-1, p.20

"#N/A" = An applicable inhibition value has not been published

Determination of Maximum Allowable Headworks Loadings (MAHLs)

To determine the MAHL for each pollutant, the lowest (or most restrictive) AHL is selected as the MAHL for that particular pollutant. A 10 percent safety factor is then applied to the MAHL, which is standard practice consistent with NHDES and EPA guidance. This value, which represents 90 percent of the MAHL, is then used in subsequent local limits calculations.

Table 6-4 presents a summary of the Town's calculated AHLs, limiting environmental criteria and designated MAHLs.

Table 6-4 Summary of Allowable Headworks Loadings (AHLs) and MAHLs

POLLUTANT	PROCESS INHIBITION AHL (lb/day)	WATER QUALITY AHL* (lb/day)	LAND APPLICATION AHL (lb/day)	TCLP AHL (lb/day)	W/Biosolids Criteria		W/O Biosolids Criteria (Informational Only)	
					LIMITING FACTOR	MAXIMUM ALLOWABLE HEADWORKS LOADING (1) (lb/day)	LIMITING FACTOR	MAXIMUM ALLOWABLE HEADWORKS LOADING (1) (lb/day)
Antimony	#N/A	322.79	0.03	#N/A	Biosolids	0.03	WQ	322.79
Arsenic	1.47	0.09	0.12	2.44	WQ	0.09	WQ	0.09
Cadmium	73.57	8.24	0.04	0.41	Biosolids	0.04	TCLP	0.41
Chromium (III)	15.82	8604.07	2.50	1.67	TCLP	1.67	TCLP	1.67
Chromium (VI)	14.71	42.06	2.50	1.67	TCLP	1.67	TCLP	1.67
Copper	3.90	2.80	3.57	#N/A	WQ	2.80	WQ	2.80
Cyanide (T)	6.18	0.46	1.51	#N/A	WQ	0.46	WQ	0.46
Lead	7.36	3.86	1.01	2.24	Biosolids	1.01	TCLP	2.24
Mercury	#N/A	0.04	0.03	0.09	Biosolids	0.03	WQ	0.04
Molybdenum	#N/A	#N/A	0.08	#N/A	Biosolids	0.08	#N/A	#NA
Nickel	5.52	3.92	0.98	#N/A	Biosolids	0.98	WQ	3.92
Selenium	#N/A	48.99	0.11	0.55	Biosolids	0.11	TCLP	0.55
Silver	3.68	2.53	0.12	1.82	Biosolids	0.12	TCLP	1.82
Zinc	4.27	57.46	6.48	#N/A	Inhib	4.27	Inhib	4.27

NOTES:

(1) The lowest (or most restrictive) AHL is selected as the MAHL

"#N/A" = Data is not available to support a value for this item.

* Water quality AHL was calculated without accounting for background river concentrations

Determination of Maximum Allowable Industrial Headworks Loadings (MAIHLs)

Uncontrolled Loadings

The WWTF's loadings fall within one of two categories:

- *Uncontrolled (residential locations in Exeter and the satellite community [Stratham] including sanitary wastewater from industrial and commercial locations, infiltration/inflow, and hauled waste); and*
- *Controllable (industrial wastewater).*

Uncontrolled sources represent those over which Exeter does not intend to exercise regulatory control. After calculating MAHLs for each pollutant, loadings from uncontrolled sources must be determined so that they can be deducted to obtain the allowable loadings from industrial sources.

To characterize the Town's uncontrolled sources, two domestic/residential locations and one septage location were sampled during the October 2020 local pollutant controls monitoring program during a period of relatively dry weather.

The Town's WWTF also receives wastewater from one area of industrial activity within the community of Stratham (*i.e.*, Stratham Hill Park). Industrial activity within Stratham is managed as if the sources were within Exeter. Pollutant loading limitations have not been included in an agreement between Exeter and Stratham Hill Park. In the absence of such allocations, the domestic loadings of Stratham Hill Park were included as part of the Exeter domestic calculations (note: Stratham Hill Park gets their water from Exeter and is included in the calculations as Exeter domestic flow).

Infiltration/inflow (I/I) was estimated to contain the same pollutant concentrations as the measured domestic locations, with the exception of cyanide. The Exeter water treatment plant recently switched to using chloramines for disinfection, which may be causing cyanide formation in the collection system. Another possibility is that analytical interference may have caused false positives that may not accurately reflect true cyanide concentrations. There is no reason to believe I/I would contain cyanide and therefore only the actual domestic flow was used to calculate the cyanide background domestic contribution.

The uncontrolled loading calculation for each individual source is as follows:

Loading (lb/day) = Flow (MGD) x Concentration (mg/L) x 8.34

where:

8.34 = 3,785,411 Liters/MG ÷ 453,592 milligrams/pound

Table 6-5 Non-controllable Sources and Loadings Contributing to the POTW

POLLUTANT	DOMESTIC CONTRIBUTIONS MEASURED CONC. (mg/L)	LITERATURE [1] REPORTED CONC. (mg/L)	VALUE USED IN STUDY (mg/L)	FLOWS & LOADINGS [2] (BASELINE: 1.68 MGD) FLOWS (MGD)	LOADING (lb/day)	SEPTAGE CONTRIBUTIONS MEASURED CONC. (mg/L)	LITERATURE [3] REPORTED CONC. (mg/L)	LOADING @ 0.01151 MGD (lb/day)	TOTAL UNREGULATED LOADING (lb/day)
Antimony	<0.0005	#N/A	0.0005	1.68	0.007	0.010	#N/A	0.001	0.008
Arsenic	0.0036 (4)	0.007	0.0036	1.68	0.050	0.407	0.141	0.039	0.089
Cadmium	<0.0005	0.008	0.0005	1.68	0.007	0.009	0.097	0.001	0.008
Chromium (III)	0.0014	0.006	0.0014	1.68	0.019	0.090	0.490 (4)	0.009	0.028
Chromium (VI)	0.0014 (5)	0.034 (5)	0.0014	1.68	0.019	0.090	0.490 (4)	0.009	0.028
Copper	0.0780	0.140	0.0780	1.68	1.093	1.477	4.835	0.142	1.235
Cyanide (T)	0.0370	0.082	0.0370	0.93 (6)	0.288	#N/A	0.469	0.045	0.333
Lead	0.0023	0.058	0.0023	1.68	0.032	0.090	1.210	0.009	0.040
Mercury	<0.0001	0.002	0.0001	1.68	0.001	0.003	0.005	0.000	0.002
Molybdenum	0.0030	#N/A	0.0030	1.68	0.041	0.063	#N/A	0.006	0.047
Nickel	0.0031	0.047	0.0031	1.68	0.043	0.093	0.526	0.009	0.052
Selenium	0.0008	0.004	0.0008	1.68	0.011	0.016	0.100 (7)	0.002	0.012
Silver	<0.0005	0.019	0.0005	1.68	0.007	0.006	0.099	0.001	0.008
Zinc	0.1650	0.231	0.1650	1.68	2.312	8.367	9.971	0.803	3.115

NOTES:

(1) Default values, EPA Local Limits Development Guidance, July 2004, Appendix V.

(2) Wastewater from the satellite community Stratham is accounted for as part of the Exeter flows. Baseline flow includes I/I except for cyanide.

(3) Default values, EPA Local Limits Development Guidance, July 2004, Appendix L.

(4) WWTF influent sampling value used in lieu of domestic value.

(5) Concentrations reported as total chromium.

(6) I/I flow excluded from baseline flows. See Section 6 text for additional details.

(7) Suggested design value; "Septage Treatment and Disposal," EPA-625/6-84-009, Table 3-5.

"#N/A" = Data is not available to support a value for this item.

Calculation of Maximum Allowable Industrial Loadings (MAILs)

The uncontrolled loads are subtracted from 90% of the maximum allowable headworks loadings (MAHLs) to calculate the maximum allowable industrial loadings (MAILs). The 10% safety factor is standard practice consistent with NHDES and EPA guidance. The result of the subtraction represents the allowable mass loadings that may be permitted to industrial sources.

The MAIL calculation is as follows:

$$\text{MAIL (lb/day)} = 0.9 \times \text{MAHL (lb/day)} - \text{Uncontrolled loads (lb/day)}$$

If the MAIL is distributed equally to all industrial wastewater discharges on the basis of flow volume, a "uniform industrial concentration" value can be calculated. A uniform concentration establishes control values that treat all industrial users equally, but without consideration of their differing needs. This equality aspect possesses merit because potential bias or the appearance of bias can be avoided. Whatever approach is used for permitting industrial user pollutant discharges, the uniform concentration value provides a "fair share" baseline value and therefore is calculated.

The uniform industrial concentration calculation is as follows:

$$\text{Conc. (mg/L)} = \frac{\text{MAIL (lb/day}}{[(\text{Industrial Flow (MGD)} + 10\% \text{ Growth Allowance}) \times 8.34]}$$

The MAILs and corresponding uniform industrial concentration values are presented in **Tables 6-6A** (with biosolids criteria) and **6-6B** (without biosolids criteria).

Attachments to this section:

- *Table 6-6A Allocation of Maximum MAHLs – Biosolids Included*
- *Table 6-6B Allocation of Maximum MAHLs – Biosolids Excluded*
- *Cornell TCLP Study Table 4*

Table 6-6A Allocation of Maximum Allowable Headworks Loadings (MAHLs) - Biosolids Included

POLLUTANT	90 % OF MAXIMUM ALLOWABLE HEADWORKS LOADING[1] (lb/day)	UNREGULATED LOADS[2] (lb/day)	EXETER ALLOWABLE INDUSTRIAL LOAD (lb/day)	INDUSTRIAL FLOWS WITH SAFETY FACTOR OF 10% OF TOTAL IU FLOW[3] (MGD)	UNIFORM CONCENTRATION VALUE (UCV) (mg/L)	LIMITING FACTOR
Antimony	0.029	0.008	0.021	0.080	0.032	Biosolids
Arsenic	0.079	0.089	-0.011	0.080	-0.016	WQ
Cadmium	0.039	0.008	0.031	0.080	0.046	Biosolids
Chromium (III)	1.499	0.028	1.471	0.080	2.21	TCLP
Chromium (VI)	1.499	0.028	1.471	0.080	2.21	TCLP
Copper	2.521	1.235	1.287	0.080	1.93	WQ
Cyanide (T)	0.418	0.333	0.085	0.080	0.13	WQ
Lead	0.906	0.040	0.866	0.080	1.30	Biosolids
Mercury	0.031	0.002	0.029	0.080	0.044	Biosolids
Molybdenum	0.075	0.047	0.028	0.080	0.042	Biosolids
Nickel	0.878	0.052	0.825	0.080	1.24	Biosolids
Selenium	0.103	0.012	0.091	0.080	0.14	Biosolids
Silver	0.111	0.008	0.103	0.080	0.16	Biosolids
Zinc	3.841	3.115	0.725	0.080	1.09	Inhib

NOTES:

(1) NHDES policy allows the Town to allocate a maximum of 90 percent of the controlling headworks loading.

(2) From Table 6-5.

(3) The projected year 2025 industrial flow is 0.073 MGD.

Table 6-6B Allocation of Maximum Allowable Headworks Loadings (MAHLs) - Biosolids Excluded

POLLUTANT	90 % OF MAXIMUM ALLOWABLE HEADWORKS LOADING[1] (lb/day)	UNREGULATED LOADS[2] (lb/day)	EXETER ALLOWABLE INDUSTRIAL LOAD (lb/day)	INDUSTRIAL FLOWS WITH SAFETY FACTOR OF 10% OF TOTAL IU FLOW[3] (MGD)	UNIFORM CONCENTRATION VALUE (UCV) (mg/L)	LIMITING FACTOR (EXCLUDING BIOSOLIDS)
Antimony	290.507	0.008	290.499	0.080	437	WQ
Arsenic	0.079	0.089	-0.011	0.080	-0.016	WQ
Cadmium	0.367	0.008	0.359	0.080	0.54	TCLP
Chromium (III)	1.499	0.028	1.471	0.080	2.21	TCLP
Chromium (VI)	1.499	0.028	1.471	0.080	2.21	TCLP
Copper	2.521	1.235	1.287	0.080	1.93	WQ
Cyanide (T)	0.418	0.333	0.085	0.080	0.13	WQ
Lead	2.014	0.040	1.974	0.080	2.97	TCLP
Mercury	0.040	0.002	0.038	0.080	0.057	WQ
Molybdenum	NA	0.047	NA	0.080	NA	#N/A
Nickel	3.525	0.052	3.472	0.080	5.22	WQ
Selenium	0.492	0.012	0.479	0.080	0.72	TCLP
Silver	1.638	0.008	1.631	0.080	2.45	TCLP
Zinc	3.841	3.115	0.725	0.080	1.09	Inhib

NOTES:

(1) NHDES policy allows the Town to allocate a maximum of 90 percent of the controlling headworks loading.

(2) From Table 6-5.

(3) The projected year 2025 industrial flow is 0.073 MGD.

Effect of Processing Mode on Trace Elements in Dewatered Sludge Products

Brian K. Richards[1]*, John H. Peverly[2], Tammo S. Steenhuis[1], and Barry N. Liebowitz[3]

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ABSTRACT

Minimization of the concentration and mobility of trace metals is a primary concern when considering the land application of wastewater sludges. The effects of pelletization/drying, composting, incineration, and N-Viro™ chemical stabilization on composition and mobility of trace metals and P were compared. A single day's production of dewatered anaerobically-digested sludge (Syracuse, NY) was used as the sole initial feedstock so that observed differences would solely be a result of the process used. Processes were carried out in full-scale municipal facilities with the exception of pilot-scale pelletization/drying. Total analysis was determined by inductively-coupled plasma (ICP) spectroscopy. Mobility was measured using the Toxicity Characteristic Leaching Procedure (TCLP).

Analyte concentrations were essentially constant during dewatered sludge production with mean values (mg kg^{-1} total solids) of 5.6 Cd, 10.7 Co, 130 Cr, 587 Cu, 49.7 Mo, 35.8 Ni, 26880 P, 132 Pb, and 545 Zn. Concentrations in dried pellets were similar to the dewatered sludge, but were reduced in composted sludge due to the addition of wood chips. Only Mo exceeded USEPA §503 exceptional quality (EQ) limits in these three products. Concentrations were reduced by dilution in the N-Viro product so that it met all EQ limits. Incineration concentrated all analytes except for Cd and Pb, which experienced volatilization losses.

The TCLP-mobile fraction (percent of total) of all analytes in dewatered sludge was below 3% except for Ni (7.1%), P (6.0%), and Zn (11.2%). Composting slightly increased Cd mobility, but reduced that of Ni and P. Pelletization increased the mobility of Cd (7.9%), Cu (3.8%), Ni (15.4%), and Zn (15%). The N-Viro process substantially increased mobilities of Cu (43%), Mo (50%), and Ni (24%) at elevated pH. Incineration slightly increased mobilities of Cd and Mo, but reduced Ni, P and Zn mobility. While changes in total concentration from the dewatered sludge feedstock followed a predictable pattern, the mode of processing had widely ranging effects on mobilities, from total immobilization on one hand to substantial mobilization on the other. These results, in combination with those of longer term *in situ* studies, can be used to guide the selection of sludge processes to result in the minimization of potential metal and P mobility.

ADDITIONAL KEY WORDS

Sludge, biosolids, composting, pelletization, incineration, N-Viro, TCLP, heavy metals, mobility, extraction

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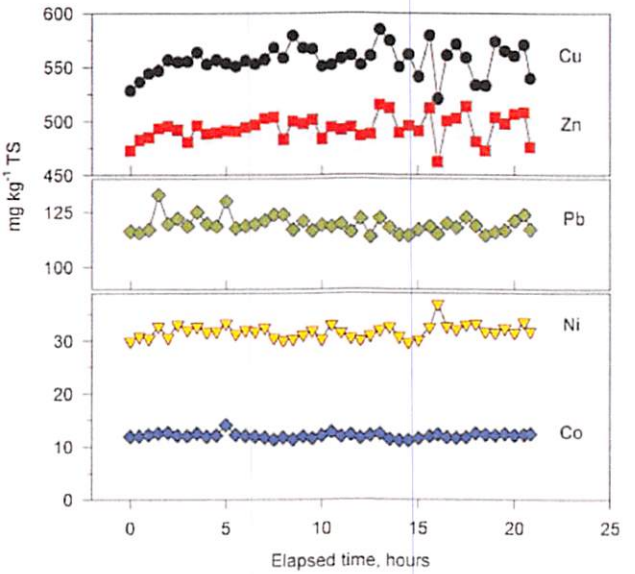
[1] Department of Agricultural & Biological Engineering, Riley-Robb Hall, Cornell University, Ithaca, NY 14853
[2] Department of Agronomy, Purdue University, West Lafayette, IN 47907
[3] New York State Energy Research & Development Authority, Corporate Plaza West, 286 Washington Ave. Ext., Albany, NY 12203.
* Corresponding author. Phone: 607-255-2463; FAX: 607-255-4080; e-mail: bkr2@cornell.edu

Table 4. TCLP-extractable trace metals as percent of total.

	Sludge Product				
Element	Dewatered	Composted	N-Viro	Pellets	Ash
Cd	nd	3.9	6.8	7.9	4.1
Co	nd	0.3	11.2	2.1	0.0
Cr	1.4	1.1	2.4	1.4	0.5
Cu	0.2	2.1	42.9	3.8	1.8
Mo	1.1	1.7	50.3	2.7	4.8
Ni	7.1	4.9	24.2	15.4	4.9
P	6.0	2.4	0.6	0.9	0.5
Pb	0.6	0.1	-	0.1	0.1
Zn	11.2	11.5	nd	15.0	4.1

nd = not detected

Figure 1. Sludge production time series: Cu, Zn, Pb, Ni, and Co analysis (mg kg^{-1}, dry ash preparation) of 30-min grab samples of dewatered sludge, Onondaga County Treatment Plant, May 16, 1994.



7. CONTROLS FOR METALS AND CYANIDE

TeTon recommends that for metals and cyanide, the Town adopt maximum allowable industrial loadings (MAILs) into the Sewer Regulations as enforceable provisions. Biosolids quality to protect for land application of sludge is currently considered in the following recommendations.

Controls are proposed for the following twelve pollutants on the basis that they are present in the WWTF influent, were identified at greater that background concentrations in the collection system, or are likely to be present due to common industrial use:

- Arsenic
- Cadmium
- Copper
- Chromium [III and VI]
- Cyanide
- Lead
- Mercury
- Molybdenum
- Nickel
- Selenium
- Silver
- Zinc

Table 7-1 that follows itemizes the present headworks loading status and percentages of MAHLs for the pollutants evaluated by this study.

Of the remaining pollutants subject to the headworks loading analysis, the following were confirmed to be absent at the POTW or unlikely to be present at levels of concern due to their relatively uncommon use in local industry:

- Antimony
- Beryllium
- Thallium

Controls for these pollutants are not proposed for the Sewer Regulations.

In accordance with EPA guidance, a POTW can consider several approaches to assign regulatory values to its controlled industrial users. After determining the MAILs, the following options were considered for allocating the available loadings to the regulated industrial users:

Table 7-1 Percentages of Maximum Allowable Headworks Loadings (MAHLs)

POLLUTANT	AVERAGE INFLUENT CONCENTRATION (1) (mg/L)	POTW LOADING @ 1.00 MGD (2) (lb/day)	90% OF MAHL w/ biosolids (lb/day)	W/BIOSOLIDS CRITERIA PERCENT OF MAHL (3,4)	90% OF MAHL w/o biosolids (lb/day)	W/O BIOSOLIDS CRITERIA PERCENT OF MAHL (3,4)
Antimony	0.0009	0.0073	0.0290	25.1%	290.5071	0.003%
Arsenic	0.0077	0.0644	0.0789	81.7%	0.0789	81.7%
Cadmium	< 0.0006	0.0049	0.0385	<12.6%	0.3668	<1.3%
Chromium (III)	0.0034	0.0284	1.4985	1.9%	1.4985	1.9%
Chromium (VI)	0.0034	0.0284	1.4985	1.9%	1.4985	1.9%
Copper	0.0675	0.5641	2.5213	22.4%	2.5213	22.4%
Cyanide (T)	0.0270	0.2255	0.4184	53.9%	0.4184	53.9%
Lead	0.0025	0.0209	0.9065	2.3%	2.0144	1.0%
Mercury	< 0.00004	0.0004	0.0307	<1.2%	0.0395	<0.9%
Molybdenum	0.0042	0.0351	0.0750	46.8%	#N/A	#NA
Nickel	0.0048	0.0401	0.8777	4.6%	3.5246	1.1%
Selenium	< 0.0007	0.0055	0.1032	<5.3%	0.4915	<1.1%
Silver	0.0016	0.0137	0.1106	12.4%	1.6384	0.8%
Zinc	0.2339	1.9533	3.8406	50.9%	3.8406	50.9%

NOTES:

(1) Adjusted to account for septage flows that were absent from influent monitoring location.

(2) Loadings represent influent conditions observed during the 2020 local limits sampling program (October 4 - 8, 2020) plus septage sampling completed in April/May 2021.

(3) Reference Table 6-4 for maximum allowable headworks loadings.

(4) NHDES policy limits the Town to using 90% of its MAHL.

Highlighted cells = Controls are recommended to be published in the Sewer Regulations - See also Section 7 text for additional discussion.

1. Uniform Concentration Limits: The MAILs are divided by the total permitted industrial flow and all industrial users must comply with the same concentration value.
2. Contributory Flow Method: Divides the MAILs among only the industrial users that discharge a particular pollutant at greater than background (*i.e.*, domestic) levels. Industrial users are either permitted at this concentration, or tracked/regulated as "not discharging" that pollutant.
3. Basis of Needs / Case-by-Case: Relies on POTW's judgment to determine the allocation of the MAILs to each industrial user, usually with a mass and concentration limit in the permit.

Of the three options evaluated, Option 3 was chosen for Exeter on the basis that it offers the greatest flexibility during permitting-writing efforts and will result in the least amount of compliance-related issues within the regulated community. It should be noted that Option 1 establishes limits based on an "everyone-gets-the-same-share" basis, but can be overly restrictive and does not take into account the differing needs of permitted industries. This "fair-share" model does however have value by providing a reference value that can be used to guide permit-writing decisions. Accordingly, "uniform concentration values" equivalent to uniform concentration limits have been calculated and are recommended for administrative purposes as discussed below.

The MAIL values represent the combined total quantities of pollutant discharges that may be permitted to industrial sources. Exeter will allocate these mass loadings to discharging industrial sources on a case-by-case basis through the permitting process. Uniform concentration values that are numerically equivalent to uniform concentration limits have been developed in this report and are intended to remain separate from the Town's sewer regulations to provide baseline reference values to be used for comparative purposes during permitting. Uniform concentration values allow for regulatory flexibility to adjust for specific economic or operational circumstances where strict imposition of a concentration limit may be disproportionate to the environmental benefit.

Uniform concentration values (as opposed to uniform concentration "limits") also facilitate implementing a State of New Hampshire requirement [Env-Wq 305.05 (c)] that municipalities possess the authority to apply limits on a mass basis. This State regulation is intended to promote implementation of water conservation measures at industrial locations, which could result in metals concentrations that would exceed fixed concentration limits, even when the mass of pollutants from a source remains unchanged. Unpublished uniform concentration values avoid potential enforcement obligations that may come with published concentration limits. This allows the Town to write permits using mass limits with

corresponding concentrations (which may be greater than the uniform concentration values).

To confirm that Exeter's MAILs are not exceeded, all permits for metals discharges will be tracked. A Microsoft® Excel-based spreadsheet entitled *Flow and Loading Tracking Worksheet* has been developed for the pollutants with MAILs. This worksheet is attached at the end of this section to demonstrate how the Town intends to allocate its available capacity for the pollutants with MAILs published in the Sewer Regulations. The *Flow and Loading Tracking Worksheet* includes links to the local pollutant controls calculations for background concentrations, the uniform concentration values, and MAILs.

The *Flow and Loading Tracking Worksheet* is intended to be maintained and updated during the permitting process. On a pollutant-by-pollutant basis, pollutants will either be identified as present (*i.e.*, they are being added by the permittee's activities), or absent. This pollutant-by-pollutant analysis is performed by comparing analytical laboratory results for the industry to the values in **Table 7-2** of this section.

The *Flow and Loading Tracking Worksheet* included as an attachment to this section illustrates a suggested permitting approach, completed by TeTon. Based on completion of this Worksheet for current conditions (February 2021), the Town anticipates that adequate allocation capacity will be available to permit the Town's existing industries at present operating levels.

Table 7-2 Determining Whether a Pollutant is Present

Pollutants	Background Concentrations (mg/L)[1]	Uniform Concentration Value [2] (mg/L)	Present / Absent Threshold [3] (mg/L)	Analytical Reporting Limits[4] (mg/L)
Arsenic	0.004	-0.016 (5)	0.005	<0.0005
Cadmium	<0.0005	0.046	0.001	<0.0005
Chromium (III and VI)	0.0014	2.21	0.002	<0.0005
Copper	0.078	1.93	0.108	<0.0005
Cyanide (T)	0.037	0.13	0.051	<0.02
Lead	0.002	1.30	0.003	<0.0005
Mercury	<0.0001	0.044	0.00014	<0.0001
Molybdenum	0.003	0.042	0.004	<0.0005
Nickel	0.003	1.24	0.004	<0.0005
Selenium	<0.0008	0.14	0.001	<0.0005
Silver	<0.0005	0.16	0.001	<0.0005
Zinc	0.165	1.09	0.23	<0.001

NOTES:

(1) All values in the above table are expressed as milligrams per liter (mg/L).

(2) From Table 6-6A.

(3) This is the concentration that determines if an industry is discharging at greater than background concentrations (i.e., the pollutant is "present"). These values are 38.1% (2 x the relative standard deviation of domestic pollutant concentration measurements, which was considered appropriate for this project) greater than average measured domestic concentrations or the analytical reporting limit, whichever is greater.

(4) Values achieved by Eastern Analytical during the local pollutant controls study.

(5) Best Management Practices (BMPs) will be required to prohibit or limit the addition of arsenic to wastewater discharges as an alternative to enforcement of a numerical value.

If a pollutant is expected to be present, the industry is listed on the *Flow and Loading Tracking Worksheet* under that pollutant along with its permitted discharge information (flow and allowable concentration). For pollutants expected to be present, the allowable concentration written into an industrial user's permit should generally be the lowest possible value that avoids compliance issues (see text below for permitting at concentrations greater than the uniform concentration values). This approach retains pollutant capacity for other sources where it may be needed more. If surplus loading is available for a pollutant, the uniform concentration value can be used to simplify administration. If a permittee is not itemized on the worksheet for a pollutant, it is assumed to be discharging at the background concentration value used for this local pollutant controls study. The industrial flow for non-itemized users is calculated by the worksheet (total industrial flow minus tracked industrial flow). The permitted loadings on a pollutant-by-pollutant basis are tracked. The worksheet displays an updated value for the pounds remaining that may be allocated for each pollutant.

Permitting a discharge at greater than the uniform concentration value is considered to be a "special allocation." If an industrial user requests approval to discharge at a concentration exceeding the uniform concentration value, then the industrial user may be required, at the discretion of Exeter, to determine the potential impact of the discharge of this pollutant and/or to develop a Best Management Practices Plan specifically addressing the pollutant that would exceed the uniform concentration value. This study or plan must be approved by the Town. If the evaluation supports a "special allocation", then the "special allocation" may be incorporated into a permit as a mass or concentration-based permit limit.

Special allocations are subject to the following requirements:

1. Excess capacity must be available (*i.e.*, the MAIL has not been completely allocated).
2. They are applicable only to Exeter's pollutant discharge control values - federal Categorical Pretreatment Standards and the associated requirements cannot be waived.
3. The permitted value is administered as a limit, and exceedances are subject to Exeter's full noncompliance management procedures.
4. The allocation is identified in the permit as a revocable privilege subject to reduction if Exeter's growth diminishes the "excess capacity."
5. Implementation of a Best Management Practices Plan, which may at the discretion of the Town include the following:

- A detailed process flow diagram identifying and characterizing the input of raw materials, the flow of products, and the generation of wastes;
- Estimates of the amounts of waste generated; and
- Best management practices currently implemented and scheduled for implementation to control, reduce or eliminate these wastes.

A flow-chart summarization of the overall permitting strategy is presented in **Table 7-3** attached to this section.

Enforcement Management

The Town's intended policy for compliance determinations will be to manage as violations:

- Any result (mass or concentration) greater than the uniform concentration value in its permit, unless specifically permitted by a "special allocation"
- Any exceedance of a permitted "special allocation" *(i.e.*, concentration or mass limit)
- A discharge that is a slug load
- A discharge if added to the Town's *Flow and Loading Tracking Worksheet* would cause an exceedance of the Town's MAIL
- If an industry is not permitted for a pollutant because it is deemed absent, any value greater than the Town's uniform concentration value (Note: Periodic monitoring is not typically required for pollutants expected to be absent).

The Town will manage as screening level exceedances:

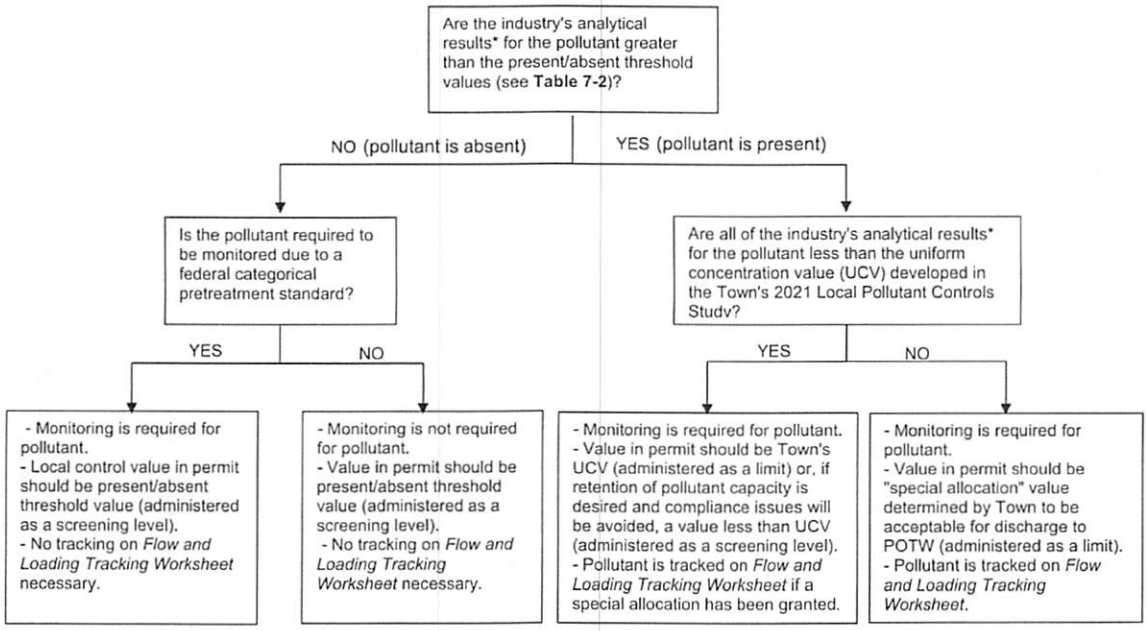
- Any result (mass or concentration) greater than a screening level value in its permit and that is less than would be allowed if the IU was permitted at the uniform concentration value
- If an industry is not permitted for a pollutant because it is deemed absent, any value greater than background concentration and less than the uniform concentration value (Note: Periodic monitoring is not typically required for pollutants expected to be absent).

Attachments to this section:

- *Table 7-3 Determining Permit Limitations, etc.*
- *Flow and Loading Tracking Worksheet*

TABLE 7-3 DETERMINING PERMIT LIMITATIONS, MONITORING, AND POLLUTANT TRACKING REQUIREMENTS

THE FOLLOWING EVALUATION SHOULD BE PERFORMED ON A POLLUTANT-BY-POLLUTANT BASIS FOR EACH PERMIT



*Comparison should be performed on data for at least the two most recent events when the pollutant was analyzed. A best professional judgment should be used when determining whether minor exceedances of the present/absent threshold value should result in a determination that the pollutant is "present."

Flow and Loading Tracking Worksheet

input required calculated value

Total Existing Industrial Flow: 0.060 MGD

Pollutant	Uniform Concentration Value (mg/L)	Allowable Industrial Loading (lb/day)	Pounds Allocated (lb)	Pounds Remaining (lb)	INDUSTRIAL USER INFORMATION				
					Tracked Industries	Average Permitted Industrial Flow (MGD)	Site-Specific Regulatory Concentration[1] (mg/L)	Permitted Loading (lb/day)	Percent of Allowable Industrial Load Used (%)
Arsenic	-0.016	-0.0106	0.0018	0.000				0.0000	NA
								0.0000	NA
					All Other IUs	0.060	0.0036	0.0018	0.0%
					TOTALS:	0.060	0.0036	0.0018	-16.9%
Cadmium	0.05	0.031	0.0002	0.030				0.0000	NA
								0.00000	NA
					All Other IUs	0.060	0.0005	0.0002	0.8%
					TOTALS:	0.060	0.0005	0.0002	0.8%
Chromium	2.2	1.47	0.1178	1.353	Chemtan	0.001673	1.7	0.024	1.6%
					Cobham	0.028104	0.4	0.094	6.4%
								0.000	NA
								0.000	NA
					All Other IUs	0.030	0.001	0.0003	0.0%
					TOTALS:	0.060	0.237	0.1178	8.0%
Copper	1.9	1.29	0.0388	1.248				0.0000	NA
								0.0000	NA
					All Other IUs	0.060	0.078	0.0388	3.0%
					TOTALS:	0.060	0.078	0.0388	3.0%
Cyanide (T)	0.13	0.085	0.0184	0.067				0.000	NA
								0.000	NA
					All Other IUs	0.060	0.037	0.0184	21.5%
					TOTALS:	0.060	0.037	0.0184	21.5%
Lead	1.3	0.866	0.0011	0.865				0.0000	NA
								0.0000	NA
					All Other IUs	0.060	0.002	0.0011	0.1%
					TOTALS:	0.060	0.002	0.0011	0.1%
Mercury	0.044	0.029	0.0000	0.029				0.0000	NA
								0.0000	NA
					All Other IUs	0.060	0.00010	0.0000	0.2%
					TOTALS:	0.060	0.0001	0.0000	0.2%
Molybdenum	0.042	0.028	0.0075	0.020	Cobham	0.028104	0.025	0.0059	21.2%
					OSRAM	0.000700	0.150	0.0009	3.2%
								0.0000	NA
					All Other IUs	0.031	0.003	0.0008	2.7%
					TOTALS:	0.060	0.015	0.0075	27.1%
Nickel	1.24	0.825	0.0366	0.789	Chemtan	0.001673	0.050	0.001	0.1%
					Cobham	0.028104	0.150	0.035	4.3%
								0.000	NA
					All Other IUs	0.030	0.003	0.001	0.1%
					TOTALS:	0.060	0.074	0.037	4.4%
Selenium	0.14	0.091	0.0004	0.091				0.0000	0.0%
								0.0000	0.0%
					All Other IUs	0.060	0.0008	0.0004	0.4%
					TOTALS:	0.060	0.001	0.0004	0.4%
Silver	0.16	0.103	0.0119	0.091	Cobham	0.028104	0.050	0.0117	11.4%
								0.00000	NA
								0.0000	NA
					All Other IUs	0.032	0.0005	0.0001	0.1%
					TOTALS:	0.060	0.0238	0.0119	11.5%
Zinc	1.09	0.725	0.0821	0.643				0.0000	NA
								0.0000	NA
					All Other IUs	0.060	0.165	0.0821	11.3%
					TOTALS:	0.060	0.165	0.0821	11.3%

NOTE: "All Other IUs" are assumed to be discharging at background concentration levels

8. NONCONSERVATIVE POLLUTANT CONTROLS

Nonconservative pollutants are those that may be transformed during transport with wastewater in the collection system. The primary mechanisms include biodegradation, volatilization, chemical reaction with other wastewater constituents, and dilution. Because of this characteristic, a mass balance approach for developing controls as used for metals is not generally appropriate. Differing methodologies are applied for establishing controls, as described below.

Volatile Organic Compounds (VOCs)

VOC controls are based on potential health and safety issues, including personnel exposure to the chemicals, as well as the physical hazard represented by the threat of explosion. EPA regulations specifically prohibit the following:

1. Pollutants that are a fire or explosion hazard in the Publicly Owned Treatment Works (POTW), including, but not limited to, wastestreams with a closed cup flashpoint of less than 140°F or 60°C using test methods specified in 40 CFR 261.21; and
2. Pollutants that result in toxic gases and vapors within the POTW in a quantity that may impact acute worker health and safety.

In addition, NHDES regulations prohibit the following:

1. Discharge of hazardous wastes to the sewer (for VOCs, concentrations exceeding the TCLP values).

Evaluation of worker health issues is based on exposure limits developed by the Occupational Safety and Health Administration (OSHA), the American Conference of Governmental Industrial Hygienists (ACGIH), and the National Institute for Occupational Safety and Health (NIOSH). These exposure limits are periodically updated to reflect new information regarding chemical properties and behaviors.

Published allowable airborne concentrations include:

- OSHA Chronic (TWA) - The time-weighted average (TWA) airborne concentration not to be exceeded in any 8-hour work shift of a 40-hour workweek – also referred to as the permissible exposure limit (PEL);
- ACGIH Chronic (TWA) - The average airborne concentration not to be exceeded in any 8-hour work shift of a 40-hour workweek;

- ACGIH Acute (STEL) - The 15 minute TWA concentration that may not be exceeded; and

- NIOSH (REL-TWA) – The recommended exposure limit (REL) for up to a 10-hour workday during a 40-hour workweek.

The screening level evaluations completed for Exeter's pollutant controls use the more restrictive chronic TWAs as compared to the acute Short-Term Exposure Levels (STELs). Additionally, the most protective OSHA, ACGIH, or NIOSH TWA value was used in this study. This approach is more conservative than EPA's July 2004 *Local Limits Development Guidance*, which suggests using values to ensure that acute health and safety issues are avoided.

The recommended approach for Exeter is based on the OSHA confined space entry standards for general industry (29 CFR 1910.146) that require control of airborne contaminants to below hazardous levels as a precondition for "non-permit confined space" entry [29 CFR Part 1910.146(c)(5)(i)]. If a specific screening level value becomes a compliance issue at an industrial user location, Exeter may consider whether utilization of the less restrictive acute worker health and safety levels (*i.e.,* short-term exposure levels or ceiling concentrations) provides an acceptable margin of safety and the basis for an increased screening level.

In addition to worker exposure concerns, the potential for creating explosive atmospheres is considered. OSHA's hazardous atmosphere definition includes those with a gas in excess of 10 percent of its lower flammable limit (EPA and other organizations use the more common term "lower explosive limit" [LEL]). LEL values are published by OSHA, ACGIH and NIOSH. In general, worker exposure limits are more restrictive as compared to LEL criteria.

To develop a manageable list of VOCs for inclusion in the Sewer Use Ordinance, a group was selected based on those VOCs most likely to be encountered within a typical wastewater collection system (with the exception of a minor chloroform measurement, typically associated with chlorinated municipal water supplies, and minor measurements for toluene and acetone, no VOCs were detected during the local limits monitoring program of October 2020). The published VOC screening levels demonstrate Exeter's objectives and procedures for regulating VOCs. This methodology may be applied for other VOCs on an as-needed basis.

VOC screening levels are calculated based on the tendency of each compound to be released from the wastewater into the air space within the collection system (*i.e.*, volatilize). This calculation uses the Henry's Law Constant, a measure of the compound's equilibrium in water, for each pollutant. Using this procedure, it is possible to estimate the compound's wastewater concentration value that

would trigger atmospheric exceedance of worker exposure limitations and LELs. The lower of these two values (or the TCLP value if lower – see below) is used for the screening level.

These calculations are consistent with EPA's July 2004 *Local Limits Development Guidance* document. A summary of the exposure limits, LELs, Henry's Law Constants, and resulting VOC screening levels is presented in **Table 8-1**. As the screening level results confirm, toxicity issues generally represent the limiting factor in comparison to LEL-based screening levels. The calculations completed are as follows:

For worker exposure (fume toxicity):

$$C_{LVL} = C_{VAP}/H$$

Where:

C_{LVL} = is the discharge screening level (in mg/L)

C_{VAP} = Worker exposure concentration (in mg/m^3)

H = Henry's Law Constant (mg/m^3)/ (mg/L)

For explosivity:

$$C_{LVL} = C_{VAP}/H$$

Where:

C_{LVL} is the discharge screening level in mg/L

H = Henry's Law Constant (mg/m^3)/ (mg/L)

C_{VAP} = LEL x P/RT x 1000 = LEL x 40.87 (at 1 atm and 25°C) x MW

Where:

LEL = 10% of the Lower Explosive Limit, expressed as a decimal

P = total pressure, 1 atmosphere (assumed)

R = ideal gas constant, 0.08206 atm L/mol °K

T = absolute temperature, 298.15°K (equal to 25°C) (assumed)

MW = molecular weight (gm/mol)

TCLP concerns were reviewed as a final step. A VOC present at its TCLP level or greater is considered a hazardous waste. Of the VOCs reviewed for this study, only methyl ethyl ketone (MEK) triggers a limit based on the TCLP criteria and its discharge to the sewer may not equal or exceed its 200 mg/L TCLP value.

Semivolatile Organic Compounds (SVOCs)

SVOCs may represent a potential for worker health issues, but to a lesser degree than VOCs. The tendency for volatilization and release to the air space is significantly less as compared to VOCs. As a result, other concerns such as wastewater treatment process inhibition or maintaining sludge quality become limiting factors, with evaluations completed on an as-needed basis. To evaluate the potential need for SVOC controls for Exeter, sampling at the WWTF influent and effluent was completed for the EPA Method 625 acid and base/neutral compounds (SVOCs) during one of the sampling event days. Phenol, which has a worker exposure level above 1,000 milligrams per liter (mg/L), was reported in the influent at 0.032 mg/L, with less than reporting limit (< 0.001 mg/L) reported in the effluent. The only other SVOC above reporting limits in the influent was 3/4-methylphenol, which does not have a worker exposure limit, at 0.094 mg/L.

Sludge monitoring data for SVOCs is not available and was not obtained during this project effort. The level of evaluation of the WWTF sludge was limited since the Town is not land applying the sludge and doesn't have immediate plans to do so. However, if the Town does decide to consider land application of its sludge, the organics content in the sludge should be investigated further. The text that follows has been provided for informational purposes only based on the limited data available.

Based on results from other New Hampshire communities, a reasonable potential for detectable amounts of 3/4-methylphenol in the biosolids exists. In accordance with NHDES Env-Wq 809 biosolids regulations, specifically 809.03 (e) for Class A biosolids, the Town would need to demonstrate that their biosolids are not a threat to public health, safety, or the environment according to certain risk methodologies in order to obtain sludge quality certification. NHDES Wastewater Engineering Bureau policy is to apply the NHDES Risk Characterization and Management Policy (January 1998, with 2000 through 2013 revisions), which is a risk-based approach to establishing numeric soil standards on the basis of protecting human health and the environment. For Class A sludge designation, the NHDES Sludge Quality Certification program is using guidance values from March 2001 that were distributed as *Table A – NHDES Interim Guidance Values For Assessing Sludge Quality,* which is included as an attachment in **Section 3**. These limitations for phenol and 3/4-methylphenol are 56 mg/kg and 8 mg/kg, respectively.

For this evaluation, it was assumed that 100 percent of the pollutant entering the WWTF would concentrate in the biosolids, and that all of the pollutants received at the WWTF originate from industrial sources.

Based on a 2020 permitted industrial flow of 0.060435 MGD and a biosolids production rate of 2,048 dry pounds per day, the values in the following table were calculated using the following formula:

$$\text{Industrial concentration (mg/L)} = \frac{\text{Biosolids concentration (mg/kg)} \times \text{Dry pounds biosolids produced/day}}{1{,}000{,}000 \times 8.34 \times \text{Removal efficiency} \times \text{Industrial flow (MGD)}}$$

PARAMETER	NHDES GUIDANCE VALUES (mg/kg)	EQUIVALENT INDUSTRIAL CONCENTRATION (mg/L)
phenol	56	0.228
3/4-methylphenol	8	0.033

Since the Town does not have an immediate plan to land apply their sludge, it is recommended that the values above be retained for informational purposes only and not published in the Sewer Regulations. These concentrations represent trigger mechanisms to identify discharges where further regulation may be appropriate. It should be noted that p-Cresol (4-methylphenol), a subset of 3/4-methylphenol, is reportedly (communications from Michael Rainey, NHDES) a naturally occurring by-product of biosolids degradation. However, the guidance value remains in effect regardless of the p-cresol source. Accordingly, regulatory evaluation of industrial discharges containing p-cresol at concentrations exceeding the screening level would need to consider the quantities present in the WWTF's influent as compared to the levels being generated within the treatment process.

Sulfide, Sulfate

EPA's 2004 local limits development document provides no specific numeric guidance on establishing controls for these pollutants. Sulfide in collection systems is primarily due to the anaerobic degradation of sulfate. Hydrogen sulfide may subsequently be released, especially when wastewater pH is 6.0 or lower. Hydrogen sulfide corrodes metals and may be absorbed into moist surfaces and be converted to sulfuric acid, which corrodes concrete and metals. High concentrations of sulfate can cause corrosion by reacting with the calcium aluminate in the cement, forming calcium sulphoaluminate, which can cause concrete to crack. Sulfate infiltrates the pore structure of the concrete and sulfate salts form if drying occurs. Alternating wetting and drying causes the salt crystals to form and expand, damaging the concrete.

The recommended screening levels for sulfate (1,500/150 mg/L) are consistent with concrete association guidelines of 150 mg/L sulfate for Type I concrete and up to 1,500 mg/L for Type II (moderate sulfate resistant cement) concrete. Current design standards for manhole concrete, mortar, and concrete pipe

require Type II cement. Type II cement was introduced in the 1940s and older sewer lines may have been constructed prior to the specification of Type II cement for sewer-related construction. Literature values for sanitary wastewater indicate a usual sulfate range of 20-60 mg/L.

Sulfide controls are calculated using the same methodology as for VOCs and the potential release of hydrogen sulfide. The resulting fume toxicity-based screening level is well below the analytical reporting limit. Therefore, based on historic NHDES guidance, a typical analytical reporting limit (1.0 mg/L) is recommended as the screening level. In practice, atmospheric sulfide monitoring may be requested at the time of wastewater sampling to confirm whether wastewater sulfide concentrations greater than 1.0 mg/L are contributing to air space issues.

Oil & Grease (O&G) (Petroleum and non-petroleum)

EPA's 2004 local limits development document provides limited guidance on establishing numeric limits for O&G. A survey of prevailing practices at other POTWs (internet review, March 2010 by TeTon) indicates ranges of 25 to 500 mg/L for petroleum/non-petroleum O&G respectively. The technical basis for these limits is not documented. An April 1975 EPA document entitled *Treatability of Oil and Grease Discharged to Publicly Owned Treatment Works* calculated a petroleum O&G limit of 100 mg/L, which is not site-specific, and has not been substantiated since that time.

There have been no reported O&G-related incidents of interference or pass-through at the Exeter WWTF. October 2020 influent measurements for petroleum O&G (or total petroleum hydrocarbons), were <5 mg/L, and 50 mg/L for total O&G. A more exhaustive site-specific effort to develop technically-defensible values is not warranted under existing conditions.

TeTon recommends screening levels of 350 mg/L for total O&G (EPA Method 1664 HEM) and 100 mg/L for non-polar (i.e., petroleum) O&G (EPA Method 1664 SGT-HEM) on the basis that these are achievable values using Best Available Technology (well designed, operated, and maintained O&G separators) with capture efficiencies in the 60-90% range, and influent concentrations in the 1,000 – 2,000 mg/L range. EPA Method 1664 HEM will provide results for both petroleum and non-petroleum based O&G, which include relatively non-volatile hydrocarbons, vegetable oils, animal fats, waxes, soaps, greases, and related materials. When permits are written, 1664 HEM should be requested if animal / vegetable-based O&G is likely to be present in the wastewater, while 1664 SGT-HEM should be requested if petroleum-based hydrocarbons are expected.

Since monitoring of O&G interceptor discharges is often logistically difficult, and the sources represent small, intermittent, highly variable flows, O&G controls will in practice be implemented by the enforcement of Best Management Practices (BMPs). The Town's Sewer Regulations include specific BMP requirements for O&G control in Section 1508.3. Section 1507.7 identifies that BMPs "shall be considered local limits and pretreatment standards."

Chloride

EPA's local limits development document provides no specific numeric guidance on establishing controls for chloride. Chloride-based corrosion of concrete is referenced in many literary sources, but without specific numeric values. A value of 1,500 mg/L is recommended on the basis of a corrosion mechanism similar to sulfate to provide a basis for regulatory review.

Biochemical Oxygen Demand (BOD), Total Suspended Solids (TSS)

Screening levels of 272 mg/L for BOD and 313 mg/L for TSS are recommended based on average allowable wastewater loadings for these pollutants. The Exeter WWTF's current annual average design loadings (for the current Phase 1 build) are 4,000 lb/day for BOD and 4,600 lb/day for TSS. For informational purposes, Phase 2 annual average design loadings are 5,000 lb/day and 5,900 lb/day, respectively. The WWTF influent averaged 2,477 lb/day (0.99 MGD x 300 mg/L x 8.34) for BOD and 2,807 lb/day (0.99 MGD x 340 mg/L x 8.34) for TSS during the month of the local limits study (October 2020) based on WWTF operating data.

The WWTF has achieved consistent compliance with NPDES permit limits for BOD and TSS. Accordingly, controls for BOD and TSS are established as screening levels instead of local limits.

The screening level calculation is as follows:

Concentration (mg/L) = Design Loading (lb/day) ÷ [Flow (MGD) x 8.34]

Where:

Flow = 1.76 MGD (flow value used in this study)
8.34 = 3,785,411 L/MG ÷ 453,592 mg/lb

These BOD and TSS screening levels provide a review mechanism for elevated BOD and TSS discharges at a concentration level that is based on equal distribution to all dischargers (industrial and domestic) within Exeter's service area.

Per- and Polyfluoroalkyl Substances (PFAS)

As part of this evaluation, the WWTF influent, effluent and sludge were analyzed in October 2020 for a group of 24 PFAS. This monitoring was completed for informational gathering purposes since no specific regulatory values or guidance applicable to wastewater or sludge have been developed at the time of this evaluation. However, it is TeTon's understanding that NHDES is currently in the process of developing standards for sludge quality certification purposes and the need for PFAS controls will need to be looked at in the future.

In July 2020, New Hampshire signed into law legislation that set maximum contaminant levels for drinking water (MCLs) for four types of PFAS: PFOA (12 parts per trillion, ppt), PFNA (11 ppt), PFHxS (18 ppt), and PFOS (15 ppt). Results from the sampling performed as part of this evaluation indicated effluent results for these four regulated PFAS that were below the drinking water MCLs, except PFOA, which was reported at 13 ppt. Results of the WWTF's influent indicated results of PFOA at 21 ppt, with < 2.1 ppt being reported for the remaining three regulated substances (note that two sets of influent results were reported, with one set having high detection limits due to suspected interference, while the other resulted in lower detection limits, but is flagged as being prepped or analyzed out of hold time).

None of the results appear to indicate any significant concern. The Town's new 2022 NPDES permit includes quarterly monitoring and reporting of the WWTF influent, effluent, and sludge for the four PFAS listed above. No effluent limitations are included in the NPDES permit. The Town should also keep an eye out for future regulatory or guidance values that may warrant future PFAS monitoring and a closer look at the need for specific PFAS controls.

Nitrogen

As described in **Section 3** of this document, EPA's November 2020 Great Bay Total Nitrogen General Permit includes a 106 lb/day total nitrogen rolling seasonal average limit from April 1 – October 31 that is applicable to Exeter's WWTF discharge.

Actual WWTF influent total nitrogen during the October 2020 local limits sampling program was 64 mg/L at a flow of 0.99 MGD (528 lb/day). Actual WWTF effluent total nitrogen during the local limits sampling program was 5.1 mg/L at 0.99 MGD (42 lb/day). Weekly WWTF effluent sampling from April 1 – October 31, 2020 indicates a seasonal average total nitrogen loading of 58 lb/day.

To assess options for nitrogen management, TeTon modeled nitrogen as a conservative pollutant using a traditional local limits methodology, and using the same spreadsheet model. A removal efficiency of 92% was calculated by comparing actual influent and effluent total nitrogen concentrations during the local limits sampling, and an MAHL (with the 10% safety factor included) of 1,192 lb/day was developed. However, since only limited site-specific influent and effluent total nitrogen data exists and this value exceeds the WWTF's Phase 1 design loading for TKN of 655 lb/day, TeTon recommends utilizing the 655 lb/day design value as the MAHL.

The 655 lb/day value is equivalent to 44.6 mg/L for the WWTF influent at an average flow of 1.76 MGD. Several options exist for developing a regulatory strategy to maintain compliance with this objective.

Option 1 is to use the uniform influent concentration of 44.6 mg/L (29.4 lb/day) as the industrial screening level, providing all sources to the WWTF with the same baseline.

Option 2 would be to continue with a traditional local limits methodology – use the 655 lb/day design load MAHL, subtract the projected domestic loading (599 lb/day), leaving approximately 56 lb/day, or 84 mg/L at 0.080 MGD of industrial flow.

Based on a review of TKN values from current industrial users, a uniform screening level of 44.6 mg/L would occasionally be exceeded. From a loading perspective, it's important to note that the TKN loading from the Town's current permitted industrial users is approximately 16 lb/day based on monitoring from 2015 – 2020.

With the current seasonal average WWTF effluent total nitrogen loading at only approximately 55 percent of the allowable 106 lb/day limit, Option 1 doesn't appear to be a reasonable approach and could be overly restrictive. Therefore, TeTon recommends utilizing 84 mg/L (Option 2) as a TKN screening level to determine if additional concern for a specific source should be directed. For administrative purposes, exceedance of the screening level may be acceptable as long as the WWTF effluent is less than 90% of the total nitrogen 106 lb/day limit (*i.e.*, 95.4 lb/day). Consideration should also be given to the headworks load as compared to the design loading of 655 lb/day TKN.

pH

For pH, an allowable range of 5.5 to 11.5 is proposed. The upper pH range value of 11.5 is selected on the basis of avoiding discharge of wastewater that could be classified as a hazardous waste (*i.e.*, pH greater than or equal to 12.5) with a margin of safety. Elevated pH discharges are not usually associated with adverse effects to the collection system. However, a discharge that causes the influent of the WWTF to exceed 8.0 S.U. could interfere with the treatment process if the biological system is not acclimated to elevated pH levels. Therefore, the industrial discharge of elevated pH wastewater is limited to quantities that could not reasonably result in levels greater than 8.0 S.U. at the WWTF influent. The lower pH value of 5.5 S.U. is greater than the federal prohibited discharge standard and was selected with consideration of the Town's use of pumping stations and force mains. This is intended to provide a margin of safety to minimize the release of hydrogen sulfide, which more favorably occurs when wastewater pH is less than 5.0 S.U.

Implementation

Screening levels are concentration-based values that, if exceeded, represent a potential to compromise worker safety, create flammability or chemical reactivity conditions in the collection system, or result in operational issues such as excessive organic/solids loadings. In most cases, the potential adverse impacts are dependent on site-specific wastewater collection system conditions, including available dilution, temperature, pH, and ventilation.

Exceedance of a screening level should trigger an investigative response from the Town, unlike exceedance of a limit, which must initiate an enforcement response. The potential impact of a discharge that exceeds a screening level value usually warrants administrative review or investigation, which is different than the compliance-based strategy for mass or concentration-based limits. Investigation of a screening level exceedance should include an evaluation of the related site-specific conditions that affect the behavior of the specific pollutant *e.g.*, temperature, pH, sewer construction, ventilation, other toxic gases present, and dilution by other wastestreams). Accordingly, follow-up actions in response to a screening level exceedance are determined on a case-by-case basis.

Attachment to this section:

- *Table 8-1 – Determination of Worker Exposure and Explosivity Screening Levels*

Table 8-1 Determination of worker exposure and explosivity screening levels

POLLUTANT	EXPOSURE LIMITS (mg/cubic meter)			10% of LEL (% BY VOLUME)	MOLECULAR WEIGHT (grams/mol)	CVAP (mg/m^3)	HENRY'S LAW CONSTANT ($(mg/m^3)/(mg/L)$)	SCREENING LEVELS (mg/L)	
	ACGIH TLV-TWA[1]	OSHA PEL - TWA[1]	NIOSH REL-TWA[1]					EXPLOSIVITY	FUME TOXICITY
Acetone	1,186	2,400	590	0.25%	58	5,927	1.59	3,735	372
Acrylonitrile	-	4.34	2.17	0.30%	53.1	6,511	4.5	1,447	0.482
Benzene [2]	1.6	3.19	0.319	0.13%	78.11	4,150	227	18	0.001
2-Butoxyethanol	120.75	240	24	0.11%	118.17	5,313	0.085	81,202	367
Carbon disulfide	31	62.2	3	0.10%	76.14	3,112	413	8	0.007
Chlorobenzene	46.1	346	-	0.13%	112.6	5,983	152	39	0.304
Chloroform [2]	49	240 [C]	9.78 [4]	NA	119.39	NA	150	NA	0.065
1,4-Dichlorobenzene	60	450.75	10.2	0.25%	147	15,021	99	152.4	0.103
1,1-Dichloroethane	-	400	400	0.54%	99	21,851	229	95	1.74
1,2-Dichloroethane	-	203	4	0.62%	99	25,088	47.4	529	0.08
trans 1,2-Dichloroethylene	793	790	790	0.56%	98.95	22,191	384	58	2.06
1,2-Dichloropropane	347	350	-	0.34%	112.99	15,702	115	137	3.0
1,3-Dichloropropene	-	-	5	0.53%	111	24,045	724	33	0.01
Di-isobutylketone (DIBK)	145	290	145	0.08%	142.3	4,653	18.2	256	8.0
Ethylbenzene	435	435	435	0.10%	106.16	4,339	322	13	1.35
Fluorotrichloromethane	5,620	5,620	5,620	NA	137.4	NA	4,498	NA	1.25
Formaldehyde [2]	0.37	0.9	0.02	0.70%	30	8,583	0.013	641,884	1.47
Hexachloroethane (PCA) [2]	9.68	9.68	9.68	NA	237	NA	159	NA	0.06
Hydrogen sulfide	-	28	14 [C]	0.40%	34.1	5,575	409	14	0.03
Methyl ethyl ketone (MEK)	590	590	590	0.19%	72.1	5,599	2,360	2,373	250
Methyl isobutyl ketone (MIBK)	205	410	205	0.14%	100.16	5,731	5.84	1,016	36
Methyl tert-butyl ether (MTBE)	144.2	-	-	NA	88.15	NA	26.25	NA	5.5

Table 8-1 Determination of worker exposure and explosivity screening levels

POLLUTANT	EXPOSURE LIMITS (mg/cubic meter)			10% of LEL (% BY VOLUME)	MOLECULAR WEIGHT (grams/mol)	CVAP (mg/m^3)	HENRY'S LAW CONSTANT (mg/m^3)/(mg/L)	SCREENING LEVELS (mg/L)	
	ACGIH TLV-TWA[1]	OSHA PEL - TWA[1]	NIOSH REL-TWA[3]					EXPLOSIVITY	FUME TOXICITY
Methylene chloride [2]	174	87	-	1.20%	84.94	41,661	90	465	1.0
Tetrachloroethylene (PCE)	170	678	-	NA	165.85	NA	752	NA	0.23
Toluene	188	750	375	0.13%	92.13	4,782	271	18	0.69
1,2,4-Trichlorobenzene	-	-	37	0.25%	181.4	18,536	58	319.2	0.84
1,1,1-Trichloroethane (TCA)	1,900	1,900	1,900	0.75%	133.42	40,899	703	58	2.7
Trichloroethene	269	535	134[2]	0.60%	131.4	42,985	421	102	0.32
Vinyl chloride	-	2.6	-	0.36%	62.5	9,196	1,108	8.3	0.002
Xylenes	434	435	435	0.09%	106.16	3,905	313	12	1.4

NOTES:

(1) ACGIH TLV-TWA levels are vapor phase concentrations to which nearly all workers may be repeatedly exposed, over an 8-hour workday and a 40-hour work week without adverse effect.

(2) Indicates a suspected human carcinogen.

(3) NIOSH Recommended Exposure Limit (REL) - TWA for up to a 10-hour workday during a 40-hour work week

(4) Short-Term Exposure Limit (STEL). TWA not available.

(C) OSHA Ceiling: the maximum concentration to which one should be exposed.
OSHA TWA: Time-weighted average is associated with an exposure interval of 8 hours.
Fume Toxicity screening levels are based on the more restrictive of the OSHA, NIOSH or ACGIH exposure limitations.
CVAP = The vapor phase concentration (mg/m^3) that is equivalent to 10 percent of the LEL concentration.
Henry's Law Constants are in the units (mg/m^3)/(mg/L), generally for the temperature 25°C.
"NA" = not applicable

9. MASS BALANCE

A mass balance model provides a tool for assessing the quality of information available to and utilized by the Town in the development of its local pollutant controls. Ideally, the domestic and industrial pollutant loadings (for conservative pollutants) will approximate the loadings observed at the WWTF. The WWTF influent loadings should approximate the loadings of the facility's outputs (biosolids and effluent). In practice, the accuracy of sampling and measurement methods, especially near analytical reporting limits, and the often significant variations in wastewater discharge quality on an hourly, daily and seasonal basis introduce a moderate level of error that limits the use of this mass balance as an accounting tool, especially in the absence of large quantities of analytical data. However, this effort remains valuable as a tool for identifying significant discrepancies that would warrant concern, adjustments to estimates, or additional investigation.

A review of the mass balance spreadsheet, which is attached, indicates WWTF influent loadings are generally comparable (± 30%) to known sources where most measurements were greater than reporting limits. The one notable exception is silver. Results during the October 2020 local limits monitoring event indicated significantly more silver received at the WWTF influent than could be accounted for from known sources to the WWTF. However, a comparison of the WWTF's influent silver loading to the facility's outputs (sludge plus effluent) indicates similar amounts. This analysis points to the potential for an unidentified source of silver from known sources (i.e., industries, dental facilities, domestic, or septage).

As noted above, a balance was also completed comparing WWTF influent loadings to the facility's outputs (sludge plus effluent). Deviations for those metals where most measurements were greater than reporting limits as a percentage of influent range from negative (-)150 percent (more is leaving the WWTF than entering) to positive (+)26 percent, with an average deviation of (-)61 percent. One possible explanation for the variability is that the sludge production rate was based on a 12-month period (April 2020 through March 2021) while the influent data was obtained during a much shorter one week period (in October 2020). Additionally, sludge results were based solely on a 1-day sampling event without any other historical sludge monitoring data for comparison purposes. In five cases the mass of metals in the sludge exceeded the mass entering the WWTF, an obvious contradiction. Since the sludge results are not directly related to the local limits calculations, a possible inaccuracy in the sludge-related evaluations would not be expected to impact the conclusions of this report. Ongoing monitoring events at the WWTF should be evaluated to determine if adjustments to this model are needed.

Attachment to this section:

- *Mass Balance Spreadsheet*

Average Reported & Measured Concentrations (mg/L)

Exeter SU Sources	Process AVG MGD	Sampled AVG MGD	Days/ Year	MGY	Arsenic	Antimony	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Zinc	Cyanide
Chemtan	0.001673	0.000200	365	0.07	0.003	#N/A	#N/A	0.001	0.410	0.009	0.001	0.0000	0.005	0.023	0.002	0.001	#N/A	0.044	0.01
Exeter Hospital	0.004950	0.036029	365	13.15	0.001	#N/A	#N/A	0.000	0.002	0.058	0.001	0.0000	0.005	0.004	0.002	0.000	#N/A	0.095	0.01
Cobham	0.028104	0.009600	260	2.50	0.001	#N/A	#N/A	0.001	0.072	0.029	0.001	0.0002	0.001	0.013	0.001	0.018	#N/A	0.018	0.03
OSRAM	0.000700	0.000700	260	0.18	0.100	#N/A	0.010	0.010	0.010	0.047	0.005	0.0001	0.048	0.010	0.100	0.010	#N/A	0.140	#N/A
Linct	0.020340	0.010720	365	3.91	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
PEA Power Plant	0.004568	0.002385	365	0.87	#N/A	#N/A	#N/A	#N/A	0.010	0.160	0.050	0.0020	0.010	0.010	#N/A	#N/A	#N/A	0.010	#N/A
Total Exeter Industries Tied to POTW	0.060435	0.059834		20.68															

Average Reported & Measured Concentrations (mg/L)

Exeter Sources	Flow MGD	Percent of Total	MGY	Arsenic	Antimony	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Zinc	Cyanide
Industries	0.060	6.0%	21.77	0.002	0.000	0.0006	0.0005	0.012	0.060	0.003	0.00013	0.004	0.005	0.002	0.002	0.000	0.091	0.015
Infiltration/Inflow*	0.000	0.0%	0.00	0.004	0.001	0.0005	0.0005	0.001	0.078	0.002	0.00010	0.003	0.003	0.001	0.001	0.001	0.165	0.037
Domestic Sources	0.919	92.8%	335.38	0.004	0.001	0.0005	0.0005	0.001	0.078	0.002	0.00010	0.003	0.003	0.001	0.001	0.001	0.165	0.037
Septage	0.0115	1.162%	4.200	0.407	0.010	0.0051	0.0086	0.090	1.477	0.090	0.0033	0.063	0.093	0.016	0.006	0.005	8.367	0.000
Exeter Source Totals	0.99	100.0%	361.35	0.009	0.001	0.0006	0.0006	0.003	0.093	0.003	0.000139	0.004	0.004	0.001	0.001	0.001	0.256	0.035
POTW Influent (OCT 2020)	0.99		361.35	0.004	0.001	0.0005	0.0005	0.003	0.053	0.002	0.000010	0.004	0.004	0.001	0.002	0.001	0.150	0.027

			Arsenic	Antimony	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Zinc	Cyanide
Treatment Plant Influent	0.99	361.35	0.004	0.001	0.0005	0.0005	0.003	0.0530	0.002	0.00001	0.004	0.004	0.001	0.002	0.001	0.150	0.027
WWTF Dewatered Sludge (ppm - dry basis) (2020)		374 tons	11.0	1.6	0.5	1.0	28.0	510.0	19.0	0.56000	10.0	19.0	4.8	3.9	0.5	770.0	2.5
(less plant effluent)	0.99	361.35	0.003	0.001	0.0005	0.0005	0.001	0.0310	0.002	0.00001	0.006	0.004	0.001	0.001	0.001	0.120	0.020

* It was believed to be predominantly absent during the October 2020 local limits sampling event and therefore flow was set to zero.

Contributions - Pounds per Year

Exeter IU Sources	Arsenic	Antimony	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Zinc	Cyanide
Chemtan	0.002	0.0003	0.0003	0.0003	0.250	0.005	0.001	0.00001	0.003	0.014	0.001	0.0003	0.0003	0.026	0.003
Exeter Hospital	0.110	0.0548	0.0548	0.0329	0.219	6.361	0.066	0.00110	0.548	0.417	0.219	0.0329	0.0548	10.419	0.548
Cobham	0.021	0.0104	0.0104	0.0208	1.499	0.604	0.021	0.00416	0.021	0.271	0.021	0.3747	0.0104	0.375	0.572
OSRAM	0.152	0.0008	0.0152	0.0152	0.015	0.071	0.008	0.00015	0.070	0.015	0.152	0.0152	0.0008	0.213	0.055
Lindt	0.135	0.0163	0.0163	0.0163	0.044	2.545	0.073	0.00326	0.096	0.101	0.024	0.0163	0.0163	5.384	1.191
PEA Power Plant	0.030	0.0036	0.0036	0.0036	0.073	1.307	0.363	0.01452	0.073	0.073	0.005	0.0036	0.0036	0.073	0.265
Total Exeter Industries Tied to POTW	0.449	0.086	0.101	0.089	2.100	10.894	0.531	0.0232	0.811	0.890	0.423	0.443	0.086	16.490	2.64

Yellow highlighted cells = Values are calculated based on analytical reporting limits - actual values are lower

Exeter Sources	Arsenic	Antimony	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Zinc	Cyanide
Industries	0.45	0.09	0.10	0.09	2.10	10.89	0.53	0.02	0.81	0.89	0.42	0.44	0.09	16.49	2.64
Infiltration/Inflow *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Domestic Sources	11.61	1.40	1.40	1.40	3.78	218.17	6.29	0.28	8.25	8.67	2.10	1.40	1.40	461.52	102.09
Septage	14.24	0.35	0.18	0.30	3.16	51.72	3.14	0.12	2.20	3.25	0.55	0.21	0.18	293.07	0.00
Exeter Source Totals	**26.3**	**1.8**	**1.7**	**1.8**	**9.0**	**280.8**	**10.0**	**0.4**	**11.3**	**12.8**	**3.1**	**2.1**	**1.7**	**771.1**	**104.7**
POTW Influent (OCT 2020)	10.8	2.3	1.5	1.5	7.5	159.7	4.8	0.030	10.8	11.8	1.5	4.8	1.5	452.0	81.4
Plus Septage	14.2	0.4	0.2	0.3	3.2	51.7	3.1	0.1	2.2	3.2	0.6	0.2	0.2	293.1	0.0
Total POTW Influent	**25.1**	**2.7**	**1.7**	**1.8**	**10.7**	**211.4**	**8.0**	**0.15**	**13.0**	**15.0**	**2.1**	**5.0**	**1.7**	**745.1**	**81.4**
% accounted for (Total influent+source totals):	105%	69%	100%	99%	84%	133%	125%	286%	86%	85%	149%	41%	99%	103%	129%
Target (70% - 130%) met?	Met	Not Met	Met	Met	Met	Not Met	Met	Not Met	Met	Met	Not Met	Not Met	Met	Met	Met
Treatment Plant Influent + Septage	**25.1**	**2.7**	**1.7**	**1.8**	**10.7**	**211.4**	**8.0**	**0.1**	**13.0**	**15.0**	**2.1**	**5.0**	**1.7**	**745.1**	**81.4**
(less POTW sludge)	8.2	1.2	0.4	0.7	19.4	381.2	14.2	0.4	7.5	14.2	3.6	2.9	0.4	575.6	1.9
(less plant effluent)	10.2	1.8	1.5	1.5	4.2	93.4	5.7	0.03	17.5	10.5	1.5	1.5	1.5	361.6	60.3
Unaccounted for	6.6	-0.3	-0.2	-0.4	-13.0	-263.2	-12.0	-0.3	-11.9	-9.8	-3.0	0.6	-0.2	-192.1	19.2
Difference (as % of influent)	26%	-11%	-12%	-24%	-121%	-124%	-150%	-216%	-91%	-65%	-147%	12%	-12%	-26%	24%

	Arsenic	Antimony	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Zinc	Cyanide
% Removal as ((inf-eff)/influent)	59%	33%	11%	17%	61%	56%	28%	79%	-34%	30%	27%	70%	10%	51%	26%
% Removal as (sludge/influent)	33%	45%	22%	41%	182%	180%	178%	295%	57%	95%	174%	58%	22%	77%	2.3%

* I/I was not directly sampled and believed to be predominantly absent during the October 2020 local limits sampling event and therefore I/I flow was set to zero.

10. APPENDICES

References

EPA Local Limits Development Guidance – July 2004
http://www.epa.gov/npdes/pubs/final_local_limits_guidance.pdf

NHDES Administrative Rules
https://www.des.nh.gov/rules-and-regulatory

Attachments to this section:

- *Analytical Laboratory Reports*

Eastern Analytical, Inc.

professional laboratory and drilling services

Steve Dalton
Exeter, Town of
Town Office, 13 Newfields Road
Exeter, NH 03833-2792

Subject: Laboratory Report

Eastern Analytical, Inc. ID: 216893
Client Identification: Exeter Local Limits
Date Received: 10/9/2020

Dear Mr. Dalton:

Enclosed please find the laboratory report for the above identified project. All analyses were performed in accordance with our QA/QC Program. Unless otherwise stated, holding times, preservation techniques, container types, and sample conditions adhered to EPA Protocol. Samples which were collected by Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures. Eastern Analytical, Inc. certifies that the enclosed test results meet all requirements of NELAP and other applicable state certifications. Please refer to our website at www.easternanalytical.com for a copy of our NELAP certificate and accredited parameters.

The following standard abbreviations and conventions apply to all EAI reports:

Solid samples are reported on a dry weight basis, unless otherwise noted
< : "less than" followed by the reporting limit
> : "greater than" followed by the reporting limit
%R : % Recovery

Eastern Analytical Inc. maintains certification in the following states: Connecticut (PH-0492), Maine (NH005), Massachusetts (M-NH005), New Hampshire/NELAP (1012), Rhode Island (269), Vermont (VT1012) and New York (12072).

The following information is contained within this report: Sample Conditions summary, Analytical Results/Data, Quality Control data (if requested) and copies of the Chain of Custody. This report may not be reproduced except in full, without the the written approval of the laboratory.

If you have any questions regarding the results contained within, please feel free to directly contact me or the chemist(s) who performed the testing in question. Unless otherwise requested, we will dispose of the sample (s) 30 days from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

Lorraine Olashaw — Lorraine Olashaw, Lab Director

10.16.20 — Date

10 — # of pages (excluding cover letter)

SAMPLE CONDITIONS PAGE

EAI ID#: **216893**

Client: **Exeter, Town of**

Client Designation: **Exeter Local Limits**

Temperature upon receipt (°C): 3.2 **Received on ice or cold packs (Yes/No): Y**

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date Received	Date/Time Sampled		Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
216893.01	DOM1	10/9/20	10/8/20	13:37	aqueous		Adheres to Sample Acceptance Policy
216893.02	DOM2	10/9/20	10/8/20	13:23	aqueous		Adheres to Sample Acceptance Policy
216893.03	COMM	10/9/20	10/8/20	13:51	aqueous		Adheres to Sample Acceptance Policy
216893.04	Influent Composite	10/9/20	10/9/20	07:45	aqueous		Adheres to Sample Acceptance Policy
216893.05	Effluent Composite	10/9/20	10/9/20	08:00	aqueous		Adheres to Sample Acceptance Policy
216893.06	Septage Composite	10/9/20	10/9/20	08:10	aqueous		Adheres to Sample Acceptance Policy
216893.07	Blank	10/9/20	9/23/20	10:50	aqueous		Adheres to Sample Acceptance Policy

Samples were properly preserved and the pH measured when applicable unless otherwise noted. Analysis of solids for pH, Flashpoint, Ignitability, Paint Filter, Corrosivity, Conductivity and Specific Gravity are reported on an "as received" basis.
Immediate analyses, pH, Total Residual Chlorine, Dissolved Oxygen and Sulfite, performed at the laboratory were run outside of the recommended 15 minute hold time.
All results contained in this report relate only to the above listed samples.
References include:
1) EPA 600/4-79-020, 1983
2) Standard Methods for Examination of Water and Wastewater, 20th, 21st, 22nd & 23rd Edition or noted Revision year.
3) Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB
4) Hach Water Analysis Handbook, 4th edition, 1992

LABORATORY REPORT

EAI ID#: **216893**

Client: **Exeter, Town of**

Client Designation: **Exeter Local Limits**

Sample ID:	COMM
Lab Sample ID:	216893.03
Matrix:	aqueous
Date Sampled:	10/8/20
Date Received:	10/9/20
Units:	ug/L
Date of Analysis:	10/12/20
Analyst:	SG
Method:	624.1
Dilution Factor:	1
Chloromethane	< 2
Vinyl chloride	< 1
Bromomethane	< 2
Chloroethane	< 2
Trichlorofluoromethane	< 2
Acrolein	< 50
Acetone	59
1,1-Dichloroethene	< 0.5
Methylene chloride	< 1
Acrylonitrile	< 50
Methyl-t-butyl ether(MTBE)	< 1
trans-1,2-Dichloroethene	< 1
Vinyl acetate	< 10
1,1-Dichloroethane	< 1
cis-1,2-Dichloroethene	< 1
2-Butanone(MEK)	< 10
Chloroform	7
1,1,1-Trichloroethane	< 1
Carbon tetrachloride	< 1
Benzene	< 1
1,2-Dichloroethane	< 1
Trichloroethene	< 1
1,2-Dichloropropane	< 1
Bromodichloromethane	< 0.5
2-Chloroethylvinylether	< 2
4-Methyl-2-pentanone(MIBK)	< 10
cis-1,3-Dichloropropene	< 0.5
Toluene	< 1
trans-1,3-Dichloropropene	< 0.5
1,1,2-Trichloroethane	< 1
2-Hexanone	< 10
Tetrachloroethene	< 1
Dibromochloromethane	< 1
Chlorobenzene	< 1
Ethylbenzene	< 1
mp-Xylene	< 1
o-Xylene	< 1
Styrene	< 1
Bromoform	< 2
1,1,2,2-Tetrachloroethane	< 1
1,3-Dichlorobenzene	< 1
1,4-Dichlorobenzene	1.4
1,2-Dichlorobenzene	< 1
4-Bromofluorobenzene (surr)	103 %R
1,2-Dichlorobenzene-d4 (surr)	102 %R
Toluene-d8 (surr)	98 %R

LABORATORY REPORT

EAI ID#: **216893**

Client: **Exeter, Town of**
Client Designation: **Exeter Local Limits**

Sample Notes/Deviations:

A composite of 5 discrete grab samples was created in the laboratory prior to analysis.

Deviations from the Report:
COMM Parameter: acrolein Date of Analysis: 10/9/2020 Dilution Factor: 1

LABORATORY REPORT

EAI ID#: **216893**

Client: **Exeter, Town of**
Client Designation: **Exeter Local Limits**

Client Sample ID:	COMM
Lab Sample ID:	216893.03
Matrix:	aqueous
Date Sampled:	10/8/20
Date Received:	10/9/20
Units:	ug/L
Date of Extraction/Prep:	
Date of Analysis:	10/12/20
Analyst:	SG
Method:	624.1
Dilution Factor:	1

TENTATIVELY IDENTIFIED COMPOUND	RETENTION TIME	ESTIMATED CONCENTRATION
Methanethiol	3.155	4.01 ug/L
Cyclotetrasiloxane, octamethyl-	11.456	241.37 ug/L
Cyclohexene, 1-methyl-4-(1-methylethenyl)-	13.383	5.70 ug/L

LABORATORY REPORT

EAI ID#: **216893**

Client: **Exeter, Town of**

Client Designation: **Exeter Local Limits**

Sample ID:	DOM1	DOM2	COMM
Lab Sample ID:	216893.01	216893.02	216893.03
Matrix:	aqueous	aqueous	aqueous
Date Sampled:	10/8/20	10/8/20	10/8/20
Date Received:	10/9/20	10/9/20	10/9/20
Units:	mg/L	mg/L	mg/L
Date of Extraction/Prep:	10/14/20	10/14/20	10/14/20
Date of Analysis:	10/14/20	10/14/20	10/14/20
Analyst:	JLB	JLB	JLB
Method:	1664B	1664B	1664B
Dilution Factor:	1	1	1
Oil & Grease (HEM)	68	71	39
TPH(SGTHEM)	< 7	< 7	< 7

LABORATORY REPORT

EAI ID#: **216893**

Client: **Exeter, Town of**

Client Designation: **Exeter Local Limits**

Sample ID:	DOM1	DOM2	COMM		Analysis			
				Units	Date	Time	Method	Analyst
Lab Sample ID:	216893.01	216893.02	216893.03					
Matrix:	aqueous	aqueous	aqueous					
Date Sampled:	10/8/20	10/8/20	10/8/20					
Date Received:	10/9/20	10/9/20	10/9/20					
Solids Suspended	170	320	310	mg/L	10/13/20	11:20	2540D-11	KJD
Nitrate/Nitrite-N	< 0.5	< 0.5	< 0.5	mg/L	10/09/20	16:29	353.2	ATA
Cyanide Total	0.040	0.033	0.032	mg/L	10/13/20	14:31	ASTM D7511	KD
Ammonia-N	56	47	56	mg/L	10/13/20	13:29	TM NH3-001	SEL
TKN	87	67	69	mg/L	10/14/20	13:08	4500N$_{org}$C/N	SEL
Total Nitrogen	87	67	69	mg/L	10/14/20	13:38	CALC	SEL
BOD	370	390	260	mg/L	10/09/20	15:37	5210B-11	KJD

Samples composited at lab on 10/9/2020.

LABORATORY REPORT

EAI ID#: **216893**

Client: **Exeter, Town of**

Client Designation: **Exeter Local Limits**

Sample ID:	DOM1	DOM2	COMM	Influent Composite					
Lab Sample ID:	216893.01	216893.02	216893.03	216893.04					
Matrix:	aqueous	aqueous	aqueous	aqueous					
Date Sampled:	10/8/20	10/8/20	10/8/20	10/9/20	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Date Received:	10/9/20	10/9/20	10/9/20	10/9/20					
Antimony	< 0.0005	< 0.0005	0.00057	0.00077	AqTot	mg/L	10/12/20	200.8	DS
Arsenic	0.0036	0.0047	0.0033	0.0036	AqTot	mg/L	10/12/20	200.8	DS
Beryllium	< 0.0005	< 0.0005	< 0.0005	< 0.0005	AqTot	mg/L	10/12/20	200.8	DS
Cadmium	< 0.0005	< 0.0005	< 0.0005	< 0.0005	AqTot	mg/L	10/12/20	200.8	DS
Chromium	0.0012	0.0015	0.020	0.0025	AqTot	mg/L	10/12/20	200.8	DS
Copper	0.084	0.072	0.062	0.053	AqTot	mg/L	10/12/20	200.8	DS
Lead	0.0023	0.0022	0.0029	0.0016	AqTot	mg/L	10/12/20	200.8	DS
Mercury	< 0.0001	< 0.0001	< 0.0001	< 0.0001	AqTot	mg/L	10/12/20	200.8	DS
Molybdenum	0.0019	0.0040	0.0046	0.0036	AqTot	mg/L	10/12/20	200.8	DS
Nickel	0.0032	0.0030	0.010	0.0039	AqTot	mg/L	10/12/20	200.8	DS
Selenium	< 0.0005	0.0010	0.00095	< 0.0005	AqTot	mg/L	10/12/20	200.8	DS
Silver	< 0.0005	< 0.0005	0.0081	0.0016	AqTot	mg/L	10/12/20	200.8	DS
Thallium	< 0.0005	< 0.0005	< 0.0005	< 0.0005	AqTot	mg/L	10/12/20	200.8	DS
Zinc	0.13	0.20	0.12	0.15	AqTot	mg/L	10/12/20	200.8	DS

Sample ID:	Effluent Composite	Septage Composite	Blank					
Lab Sample ID:	216893.05	216893.06	216893.07					
Matrix:	aqueous	aqueous	aqueous					
Date Sampled:	10/9/20	10/9/20	9/23/20	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Date Received:	10/9/20	10/9/20	10/9/20					
Antimony	0.00059	0.038	< 0.0005	AqTot	mg/L	10/12/20	200.8	DS
Arsenic	0.0034	0.40	< 0.0005	AqTot	mg/L	10/12/20	200.8	DS
Beryllium	< 0.0005	< 0.005	< 0.0005	AqTot	mg/L	10/12/20	200.8	DS
Cadmium	< 0.0005	0.031	< 0.0005	AqTot	mg/L	10/12/20	200.8	DS
Chromium	0.0014	0.27	< 0.0005	AqTot	mg/L	10/12/20	200.8	DS
Copper	0.031	14	< 0.0005	AqTot	mg/L	10/12/20	200.8	DS
Lead	0.0019	0.45	< 0.0005	AqTot	mg/L	10/12/20	200.8	DS
Mercury	< 0.0001	0.017	< 0.0001	AqTot	mg/L	10/12/20	200.8	DS
Molybdenum	0.0058	0.23	< 0.0005	AqTot	mg/L	10/12/20	200.8	DS
Nickel	0.0035	0.53	< 0.0005	AqTot	mg/L	10/12/20	200.8	DS
Selenium	< 0.0005	0.12	< 0.0005	AqTot	mg/L	10/12/20	200.8	DS
Silver	< 0.0005	0.058	< 0.0005	AqTot	mg/L	10/12/20	200.8	DS
Thallium	< 0.0005	< 0.005	< 0.0005	AqTot	mg/L	10/12/20	200.8	DS
Zinc	0.12	32	< 0.001	AqTot	mg/L	10/12/20	200.8	DS

CHAIN-OF-CUSTODY RECORD

216893
EXENH

Sample IDs	Date/Time Composites need start and stop dates/times	Matrix	Parameters and Sample Notes	# of containers
DOM1	10/6/20 0750 – 10/8/20 1337	aqueous; Grab or (Comp)	AqTot/BOD/TSS/TN/TKN/NO3NO2/NH3/OG1664/TPH1664/CyanT 10/6/20 0750 10/8/20 0752 10/6/20 1038 10/8/20 1045 10/6/20 1346 10/8/20 1337 Circle preservative/s: HCL HNO3 H2SO4 NaOH MEOH Na2S2O3 ICE	15
☐ Sampler confirms ID and parameters are accurate				Dissolved Sample Field Filtered ☐
DOM2	10/6/20 0729 – 10/8/20 1323	aqueous; Grab or (Comp)	AqTot/BOD/TSS/TN/TKN/NO3NO2/NH3/OG1664/TPH1664/CyanT 10/6/20 0729 10/8/20 10/6/20 1026 10/8/20 10/6/20 1337 10/8/20 Circle preservative/s: HCL ~~HNO3 H2SO4 NaOH MEOH Na2S2O3~~ ICE	15
☐ Sampler confirms ID and parameters are accurate				Dissolved Sample Field Filtered ☐
COMM	10/6/20 0803 – 10/8/20 1357	aqueous; Grab or (Comp)	AqTot/V624/VTIC15/BOD/TSS/TN/TKN/NO3NO2/NH3/OG1664/TPH1664/CyanT 10/6/20 0803 10/8/20 0807 10/6/20 1053 10/8/20 1100 10/6/20 1358 10/8/20 1357 Circle preservative/s: HCL HNO3 H2SO4 NaOH MEOH Na2S2O3 ICE	24
☐ Sampler confirms ID and parameters are accurate				Dissolved Sample Field Filtered ☐

Please ensure this auto COC is accurate, adheres to permit or sampling requirements for this sampling event, and modify as necessary.

EAI Project ID 5576
Project Name Exeter Local Limits
State NH
Client (Pro Mgr) Steve Dalton
Customer Exeter, Town of
Address Town Office, 13 Newfields Road
City Exeter NH 03833-2792
Phone 778-0591 Fax 772-4709
Email: sdalton@exeternh.gov
Direct 603-773-6168

Results Needed by: Preferred date _____
Notes:

2-day time-weighted composite samples - 3 grabs per day, composite into one analysis/location

QC deliverables
☒ A ☐ A+ ☐ B ☐ B+ ☐ C ☐ MA MCP

ReportingOptions
☐ HC
☒ EDD PDF
☒ EDD email
☒ PDF prelim, NO FAX
☐ e-mail Login Confirmation
☐ NO FAX
☐ Partial FAX
☒ PDF Invoice
☐ EQUIS

PO# 4335-309
Quote#: 1017873
Temp 3.4°C
Ice Y ☒ N ☐

Samples Collected by: NL

Relinquished by	Date/Time	Received by
[signature]	10.9.20 1230	[signature]
[signature]	10/9/2020 1400	[signature]

CHAIN-OF-CUSTODY RECORD

26893
EXENH

Sample IDs	Date/Time Composites need start and stop dates/times	Matrix	Parameters and Sample Notes	# of containers
DOM1	10/6/20 0750 TBD 10/8/20 1337	aqueous Grab or (Comp)	AqTot/ICPMets.Sb.As.Be.Cd.Cr.Cu.Ni.Pb.Se.Ag.Tl.Zn.Hg.Mo 10/6/20 0750 10/8/20 0752 10/6/20 1038 10/8/20 1045 10/6/20 1346 10/8/20 1337	6
☐ Sampler confirms ID and parameters are accurate			Circle preservative/s: HCL (HNO3) H2SO4 NaOH MEOH Na2S2O3 (ICE)	Dissolved Sample Field Filtered ☐
DOM2	10/6/20 0729 10/8/20 1323.	aqueous Grab or (Comp)	AqTot/ICPMets.Sb.As.Be.Cd.Cr.Cu.Ni.Pb.Se.Ag.Tl.Zn.Hg.Mo 10/6/20 0729 10/8/20 0734 10/6/20 1026 10/8/20 1030 10/6/20 1337 10/8/20 1323	6
☐ Sampler confirms ID and parameters are accurate			Circle preservative/s: HCL (HNO3) H2SO4 NaOH MEOH Na2S2O3 (ICE)	Dissolved Sample Field Filtered ☐
COMM	10/6/20 0803 10/8/20 1351	aqueous Grab or (Comp)	AqTot/ICPMets.Sb.As.Be.Cd.Cr.Cu.Ni.Pb.Se.Ag.Tl.Zn.Hg.Mo 10/6/20 0803 10/8/20 0807 10/6/20 1053 10/8/20 1100 10/6/20 1358 10/8/20 1351	6
☐ Sampler confirms ID and parameters are accurate			Circle preservative/s: HCL (HNO3) H2SO4 NaOH MEOH Na2S2O3 (ICE)	Dissolved Sample Field Filtered ☐
~~DOM Duplicate~~	~~10/6/20~~ ~~10/8/20~~	aqueous Grab or (Comp)	~~AqTot/ICPMets.Sb.As.Be.Cd.Cr.Cu.Ni.Pb.Se.Ag.Tl.Zn.Hg.Mo~~ 10/6/20 10/8/20	2
☐ Sampler confirms ID and parameters are accurate			Circle preservative/s: HCL (HNO3) H2SO4 NaOH MEOH Na2S2O3 (ICE)	Dissolved Sample Field Filtered ☐

Please ensure this auto COC is accurate, adheres to permit or sampling requirements for this sampling event, and modify as necessary.

EAI Project ID 5576
Project Name Exeter Local Limits
State NH
Client (Pro Mgr) Steve Dalton
Customer Exeter, Town of
Address Town Office, 13 Newfields Road
City Exeter NH 03833-2792
Phone 778-0591 Fax 772-4709
Email: sdalton@exeternh.gov
Direct 603-773-6168

Results Needed by: Preferred date _____
Notes:

2-day composite samples- 3 grabs per day, composite into one analysis/location

QC deliverables
☒ A ☐ A+ ☐ B ☐ B+ ☐ C ☐ MA MCP

ReportingOptions
☐ HC
☒ EDD PDF
☒ EDD email
☒ PDF prelim, NO FAX
☐ e-mail Login Confirmation
☐ NO FAX
☐ Partial FAX
☒ PDF Invoice
☐ EQUIS

PO# 4335-309
Quote#: 1017873
Temp 32 °C
Ice Y☒ N☐

Samples Collected by: NR

Relinquished by	Date/Time	Received by
	10-9-20 0930	
	10/9/2020 1420	

CHAIN-OF-CUSTODY RECORD

Z16893
EXENH 10

Sample IDs	Date/Time Composites need start and stop dates/times	Matrix	Parameters and Sample Notes	# of containers
Influent Composite	10/5/20 0714 10/9/20 0745	aqueous Grab or (Comp)	AqTot/ICPMets.Sb.As.Be.Cd.Cr.Cu.Ni.Pb.Se.Ag.Tl.Zn.Hg.Mo 10/4-5 0800-0714 10/7-8 0845-0845 10/5-6 0800-0800 10/8-9 0845-0745 10/6-7 0900-0800	6
☐ Sampler confirms ID and parameters are accurate			Circle preservative/s: HCL (HNO) H_2SO_4 NaOH MEOH $Na_2S_2O_3$ (ICE)	Dissolved Sample Field Filtered ☐
Effluent Composite	10/5/20 0800 10/9/20 0500	aqueous Grab or (Comp)	AqTot/ICPMets.Sb.As.Be.Cd.Cr.Cu.Ni.Pb.Se.Ag.Tl.Zn.Hg.Mo 10/4-5 0800-0800 10/7-8 0800-0800 10/5-6 0800-0800 10/8-9 0800-0800 10/6-7 0800-0800	6
☐ Sampler confirms ID and parameters are accurate			Circle preservative/s: HCL (HNO) H_2SO_4 NaOH MEOH $Na_2S_2O_3$ (ICE)	Dissolved Sample Field Filtered ☐
Septage Composite	10/5/20 1259 10/9/20 0810	aqueous Grab or (Comp)	AqTot/ICPMets.Sb.As.Be.Cd.Cr.Cu.Ni.Pb.Se.Ag.Tl.Zn.Hg.Mo 10/5 -1259 10/7 1115 10/9 0810 10/6 1005 10/8 1257	6
☐ Sampler confirms ID and parameters are accurate			Circle preservative/s: HCL (HNO) H_2SO_4 NaOH MEOH $Na_2S_2O_3$ (ICE)	Dissolved Sample Field Filtered ☐
Blank	9/23/20 1050	aqueous (Grab) or Comp	AqTot/ICPMets.Sb.As.Be.Cd.Cr.Cu.Ni.Pb.Se.Ag.Tl.Zn.Hg.Mo	1
☐ Sampler confirms ID and parameters are accurate			Circle preservative/s: HCL (HNO) H_2SO_4 NaOH MEOH $Na_2S_2O_3$ (ICE)	Dissolved Sample Field Filtered ☐

Please ensure this auto COC is accurate, adheres to permit or sampling requirements for this sampling event, and modify as necessary.

EAI Project ID 5576
Project Name Exeter Local Limits
State NH
Client (Pro Mgr) Steve Dalton
Customer Exeter, Town of
Address Town Office, 13 Newfields Road
City Exeter NH 03833-2792
Phone 778-0591 Fax 772-4709
Email: sdalton@exeternh.gov
Direct 603-773-6168

Results Needed by: Preferred date _____
Notes:

Inf/Eff 5-day flow-proportional composites

Septage composite (equal) of grabs collected daily.

QC deliverables
☒ A ☐ A+ ☐ B ☐ B+ ☐ C ☐ MA MCP

ReportingOptions
☐ HC
☒ EDD PDF
☒ EDD email
☒ PDF prelim, NO FAX
☐ e-mail Login Confirmation
☐ NO FAX
☐ Partial FAX
☒ PDF invoice
☐ EQUIS

PO# 4335-309
Quote#: 1017873
Temp 5.0 °C
Ice Y ☒ N ☐

Samples Collected by: NR

Relinquished by	Date/Time	Received by
	10-9-20 1330	
	10/9/2020 1400	

Relinquished by | Date/Time | Received by

Eastern Analytical, Inc.

professional laboratory and drilling services

Steve Dalton
Exeter, Town of
Town Office, 13 Newfields Road
Exeter , NH 03833-2792

Subject: Laboratory Report

Eastern Analytical, Inc. ID: 216846
Client Identification: Exeter Local Limits
Date Received: 10/8/2020

Dear Mr. Dalton :

Enclosed please find the laboratory report for the above identified project. All analyses were performed in accordance with our QA/QC Program. Unless otherwise stated, holding times, preservation techniques, container types, and sample conditions adhered to EPA Protocol. Samples which were collected by Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures. Eastern Analytical, Inc. certifies that the enclosed test results meet all requirements of NELAP and other applicable state certifications. Please refer to our website at www.easternanalytical.com for a copy of our NELAP certificate and accredited parameters.

The following standard abbreviations and conventions apply to all EAI reports:

Solid samples are reported on a dry weight basis, unless otherwise noted
< : "less than" followed by the reporting limit
> : "greater than" followed by the reporting limit
%R : % Recovery

Eastern Analytical Inc. maintains certification in the following states: Connecticut (PH-0492), Maine (NH005), Massachusetts (M-NH005), New Hampshire/NELAP (1012), Rhode Island (269), Vermont (VT1012) and New York (12072).

The following information is contained within this report: Sample Conditions summary, Analytical Results/Data, Quality Control data (if requested) and copies of the Chain of Custody. This report may not be reproduced except in full, without the the written approval of the laboratory.

If you have any questions regarding the results contained within, please feel free to directly contact me or the chemist(s) who performed the testing in question. Unless otherwise requested, we will dispose of the sample (s) 30 days from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

Lorraine Olashaw — Lorraine Olashaw, Lab Director

10.19.20 — Date

13 — # of pages (excluding cover letter)

SAMPLE CONDITIONS PAGE

EAI ID#: **216846**

Client: **Exeter, Town of**

Client Designation: **Exeter Local Limits**

Temperature upon receipt (°C): 2.9 **Received on ice or cold packs (Yes/No): Y**

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date Received	Date/Time Sampled	Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
216846.01	Influent Composite	10/8/20	10/7/20 13:30	aqueous		Adheres to Sample Acceptance Policy
216846.02	Effluent Composite	10/8/20	10/7/20 13:37	aqueous		Adheres to Sample Acceptance Policy
216846.03	Influent Dup Comp	10/8/20	10/7/20 10:45	aqueous		Adheres to Sample Acceptance Policy

Samples were properly preserved and the pH measured when applicable unless otherwise noted. Analysis of solids for pH, Flashpoint, Ignitability, Paint Filter, Corrosivity, Conductivity and Specific Gravity are reported on an "as received" basis.
Immediate analyses, pH, Total Residual Chlorine, Dissolved Oxygen and Sulfite, performed at the laboratory were run outside of the recommended 15 minute hold time.
All results contained in this report relate only to the above listed samples.
References include:
1) EPA 600/4-79-020, 1983
2) Standard Methods for Examination of Water and Wastewater, 20th, 21st, 22nd & 23rd Edition or noted Revision year.
3) Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB
4) Hach Water Analysis Handbook, 4th edition, 1992

LABORATORY REPORT

EAI ID#: **216846**

Client: **Exeter, Town of**

Client Designation: **Exeter Local Limits**

Sample ID:	Influent Composite	Effluent Composite	Influent Dup Comp
Lab Sample ID:	216846.01	216846.02	216846.03
Matrix:	aqueous	aqueous	aqueous
Date Sampled:	10/7/20	10/7/20	10/7/20
Date Received:	10/8/20	10/8/20	10/8/20
Units:	ug/L	ug/L	ug/L
Date of Analysis:	10/9/20	10/9/20	10/9/20
Analyst:	SG	SG	SG
Method:	624.1	624.1	624.1
Dilution Factor:	1	1	1
Chloromethane	< 2	< 2	< 2
Vinyl chloride	< 1	< 1	< 1
Bromomethane	< 2	< 2	< 2
Chloroethane	< 2	< 2	< 2
Trichlorofluoromethane	< 2	< 2	< 2
Acrolein	< 50	< 50	< 50
Acetone	**210**	< 10	**170**
1,1-Dichloroethene	< 0.5	< 0.5	< 0.5
Methylene chloride	< 1	< 1	< 1
Acrylonitrile	< 50	< 50	< 50
Methyl-t-butyl ether(MTBE)	< 1	< 1	< 1
trans-1,2-Dichloroethene	< 1	< 1	< 1
Vinyl acetate	< 10	< 10	< 10
1,1-Dichloroethane	< 1	< 1	< 1
cis-1,2-Dichloroethene	< 1	< 1	< 1
2-Butanone(MEK)	< 10	< 10	< 10
Chloroform	**2.6**	< 1	**2.4**
1,1,1-Trichloroethane	< 1	< 1	< 1
Carbon tetrachloride	< 1	< 1	< 1
Benzene	< 1	< 1	< 1
1,2-Dichloroethane	< 1	< 1	< 1
Trichloroethene	< 1	< 1	< 1
1,2-Dichloropropane	< 1	< 1	< 1
Bromodichloromethane	< 0.5	< 0.5	< 0.5
2-Chloroethylvinylether	< 2	< 2	< 2
4-Methyl-2-pentanone(MIBK)	< 10	< 10	< 10
cis-1,3-Dichloropropene	< 0.5	< 0.5	< 0.5
Toluene	**2.2**	< 1	**2.2**
trans-1,3-Dichloropropene	< 0.5	< 0.5	< 0.5
1,1,2-Trichloroethane	< 1	< 1	< 1
2-Hexanone	< 10	< 10	< 10
Tetrachloroethene	< 1	< 1	< 1
Dibromochloromethane	< 1	< 1	< 1
Chlorobenzene	< 1	< 1	< 1
Ethylbenzene	< 1	< 1	< 1
mp-Xylene	< 1	< 1	< 1
o-Xylene	< 1	< 1	< 1
Styrene	< 1	< 1	< 1
Bromoform	< 2	< 2	< 2
1,1,2,2-Tetrachloroethane	< 1	< 1	< 1
1,3-Dichlorobenzene	< 1	< 1	< 1
1,4-Dichlorobenzene	**4.6**	1	**5.7**
1,2-Dichlorobenzene	< 1	< 1	< 1
4-Bromofluorobenzene (surr)	**103 %R**	**103 %R**	**104 %R**
1,2-Dichlorobenzene-d4 (surr)	**102 %R**	**102 %R**	**103 %R**
Toluene-d8 (surr)	**100 %R**	**101 %R**	**99 %R**

LABORATORY REPORT

EAI ID#: **216846**

Client: **Exeter, Town of**

Client Designation: **Exeter Local Limits**

Sample Notes/Deviations:

Due to the presence of headspace in the sample at the time of receipt, the values reported may not accurately reflect the concentration in the sample.

Influent Composite, Effluent Composite: A composite of 3 discrete grab samples was created in the laboratory prior to analysis.

Influent Dup Comp: A composite of 2 discrete grab samples was created in the laboratory prior to analysis.

LABORATORY REPORT

EAI ID#: **216846**

Client: **Exeter, Town of**

Client Designation: **Exeter Local Limits**

Client Sample ID:	Influent Composite
Lab Sample ID:	216846.01
Matrix:	aqueous
Date Sampled:	10/7/20
Date Received:	10/8/20
Units:	ug/L
Date of Extraction/Prep:	
Date of Analysis:	10/9/20
Analyst:	SG
Method:	624.1
Dilution Factor:	1

TENTATIVELY IDENTIFIED COMPOUND	RETENTION TIME	ESTIMATED CONCENTRATION
Methanethiol	3.155	18.00 ug/L
Dimethyl sulfide	4.429	3.49 ug/L
Cyclotetrasiloxane, octamethyl-	11.455	272.59 ug/L

LABORATORY REPORT

EAI ID#: **216846**

Client: **Exeter, Town of**

Client Designation: **Exeter Local Limits**

Client Sample ID:	Effluent Composite
Lab Sample ID:	216846.02
Matrix:	aqueous
Date Sampled:	10/7/20
Date Received:	10/8/20
Units:	ug/L
Date of Extraction/Prep:	
Date of Analysis:	10/9/20
Analyst:	SG
Method:	624.1
Dilution Factor:	1

TENTATIVELY IDENTIFIED COMPOUND	RETENTION TIME	ESTIMATED CONCENTRATION
Cyclotetrasiloxane, octamethyl-	11.455	242.05 ug/L

LABORATORY REPORT

EAI ID#: **216846**

Client: **Exeter, Town of**
Client Designation: **Exeter Local Limits**

Client Sample ID:	Influent Dup Comp
Lab Sample ID:	216846.03
Matrix:	aqueous
Date Sampled:	10/7/20
Date Received:	10/8/20
Units:	ug/L
Date of Extraction/Prep:	
Date of Analysis:	10/9/20
Analyst:	SG
Method:	624.1
Dilution Factor:	1

TENTATIVELY IDENTIFIED COMPOUND	RETENTION TIME	ESTIMATED CONCENTRATION
Methanethiol	3.155	15.67 ug/L
Cyclotetrasiloxane, octamethyl-	11.456	254.73 ug/L
Cyclohexanol, 5-methyl-2-(1-methylethyl)-	15.718	2.54 ug/L

LABORATORY REPORT

EAI ID#: 216846

Client: **Exeter, Town of**

Client Designation: **Exeter Local Limits**

Sample ID:	Influent Composite	Effluent Composite
Lab Sample ID:	216846.01	216846.02
Matrix:	aqueous	aqueous
Date Sampled:	10/7/20	10/7/20
Date Received:	10/8/20	10/8/20
Units:	ug/L	ug/L
Date of Extraction/Prep:	10/13/20	10/13/20
Date of Analysis:	10/13/20	10/13/20
Analyst:	JMR	JMR
Method:	625.1	625.1
Dilution Factor:	10	1
alpha-Terpineol	< 50	< 5
Phenol	32	< 1
2-Chlorophenol	< 10	< 1
2,4-Dichlorophenol	< 10	< 1
2,4,5-Trichlorophenol	< 10	< 1
2,4,6-Trichlorophenol	< 10	< 1
Pentachlorophenol	< 50	< 5
2-Nitrophenol	< 50	< 5
4-Nitrophenol	< 50	< 5
2,4-Dinitrophenol	< 100	< 10
2-Methylphenol	< 10	< 1
3/4-Methylphenol	94	< 1
2,4-Dimethylphenol	< 50	< 5
4-Chloro-3-methylphenol	< 10	< 1
4,6-Dinitro-2-methylphenol	< 50	< 5
Benzoic Acid	< 500	< 50
N-Nitrosodimethylamine	< 10	< 1
n-Nitroso-di-n-propylamine	< 5	< 0.5
n-Nitrosodiphenylamine	< 10	< 1
bis(2-Chloroethyl)ether	< 10	< 1
bis(2-chloroisopropyl)ether	< 10	< 1
bis(2-Chloroethoxy)methane	< 10	< 1
1,3-Dichlorobenzene	< 10	< 1
Acetophenone	< 100	< 10
1,4-Dichlorobenzene	< 10	< 1
1,2-Dichlorobenzene	< 10	< 1
1,2,4-Trichlorobenzene	< 10	< 1
2-Chloronaphthalene	< 10	< 1
4-Chlorophenyl-phenylether	< 10	< 1
4-Bromophenyl-phenylether	< 10	< 1
Hexachloroethane	< 10	< 1
Hexachlorobutadiene	< 10	< 1
Hexachlorocyclopentadiene	< 50	< 5
Hexachlorobenzene	< 10	< 1
4-Chloroaniline	< 10	< 1
2,3-Dichloroaniline	< 10	< 1
2-Nitroaniline	< 50	< 5
3-Nitroaniline	< 50	< 5
4-Nitroaniline	< 50	< 5
Aniline	< 10	< 1
Benzyl alcohol	< 100	< 10
Nitrobenzene	< 10	< 1
Isophorone	< 10	< 1
2,4-Dinitrotoluene	< 20	< 2
2,6-Dinitrotoluene	< 20	< 2
Benzidine (estimated)	< 50	< 5
3,3'-Dichlorobenzidine	< 10	< 1

LABORATORY REPORT

EAI ID#: **216846**

Client: **Exeter, Town of**

Client Designation: **Exeter Local Limits**

Sample ID:	Influent Composite	Effluent Composite
Lab Sample ID:	216846.01	216846.02
Matrix:	aqueous	aqueous
Date Sampled:	10/7/20	10/7/20
Date Received:	10/8/20	10/8/20
Units:	ug/L	ug/L
Date of Extraction/Prep:	10/13/20	10/13/20
Date of Analysis:	10/13/20	10/13/20
Analyst:	JMR	JMR
Method:	625.1	625.1
Dilution Factor:	10	1
Pyridine	< 50	< 5
Azobenzene	< 10	< 1
Carbazole	< 10	< 1
Dimethylphthalate	< 10	< 1
Diethylphthalate	< 50	< 5
Di-n-butylphthalate	< 50	< 5
Butylbenzylphthalate	< 50	< 5
bis(2-Ethylhexyl)phthalate	< 50	< 5
Di-n-octylphthalate	< 50	< 5
Dibenzofuran	< 10	< 1
Naphthalene	< 10	< 1
2-Methylnaphthalene	< 10	< 1
1-Methylnaphthalene	< 10	< 1
Acenaphthylene	< 10	< 1
Acenaphthene	< 10	< 1
Fluorene	< 10	< 1
Phenanthrene	< 10	< 1
Anthracene	< 10	< 1
Fluoranthene	< 10	< 1
Pyrene	< 10	< 1
Benzo[a]anthracene	< 10	< 1
Chrysene	< 10	< 1
Benzo[b]fluoranthene	< 10	< 1
Benzo[k]fluoranthene	< 10	< 1
Benzo[a]pyrene	< 10	< 1
Indeno[1,2,3-cd]pyrene	< 10	< 1
Dibenz[a,h]anthracene	< 10	< 1
Benzo[g,h,i]perylene	< 10	< 1
n-Decane	< 50	< 5
n-Octadecane	< 50	< 5
2-Fluorophenol (surr)	38 %R	34 %R
Phenol-d6 (surr)	30 %R	26 %R
2,4,6-Tribromophenol (surr)	91 %R	85 %R
Nitrobenzene-D5 (surr)	69 %R	62 %R
2-Fluorobiphenyl (surr)	77 %R	64 %R
p-Terphenyl-D14 (surr)	87 %R	78 %R

Influent Composite: Detection limits elevated due to sample matrix causing internal standard and/or surrogate failure in undiluted analysis.

LABORATORY REPORT

EAI ID#: **216846**

Client: **Exeter, Town of**
Client Designation: **Exeter Local Limits**

Client Sample ID:	Influent Composite
Lab Sample ID:	216846.01
Matrix:	aqueous
Date Sampled:	10/7/20
Date Received:	10/8/20
Units:	ug/L
Date of Extraction/Prep:	10/13/20
Date of Analysis:	10/13/20
Analyst:	JMR
Method:	625.1
Dilution Factor:	10

TENTATIVELY IDENTIFIED COMPOUND	RETENTION TIME	ESTIMATED CONCENTRATION
Unknown	7.75	480
Tetradecanoic acid	8.67	550
Unknown	9.09	210
n-Hexadecanoic acid	9.56	4900
Unknown	9.64	180
1-Hexadecanol	9.99	170
9-Octadecenoic acid, (E)-	10.24	4200
Octadecanoic acid	10.33	3000
9,12-Octadecadienoic acid (Z,Z)-	10.38	240
Unknown	10.42	240
Unknown	11.09	210
Unknown	13.49	280
Unknown	15.34	500
Cholesterol	15.59	740
Unknown	17.02	170

LABORATORY REPORT

EAI ID#: **216846**

Client: **Exeter, Town of**
Client Designation: **Exeter Local Limits**

Client Sample ID:	Effluent Composite
Lab Sample ID:	216846.02
Matrix:	aqueous
Date Sampled:	10/7/20
Date Received:	10/8/20
Units:	ug/L
Date of Extraction/Prep:	10/13/20
Date of Analysis:	10/13/20
Analyst:	JMR
Method:	625.1
Dilution Factor:	1

TENTATIVELY IDENTIFIED COMPOUND	RETENTION TIME	ESTIMATED CONCENTRATION
Unknown	1.89	2.00
Unknown	5.49	2.60
Unknown	7.92	2.20
Unknown	9.44	4.20
Unknown	9.49	2.90
Tetradecanoic acid	10.26	3.00
Unknown	16.34	3.30

LABORATORY REPORT

EAI ID#: **216846**

Client: **Exeter, Town of**

Client Designation: **Exeter Local Limits**

Sample ID:	Influent Composite	Effluent Composite
Lab Sample ID:	216846.01	216846.02
Matrix:	aqueous	aqueous
Date Sampled:	10/7/20	10/7/20
Date Received:	10/8/20	10/8/20
Units:	mg/L	mg/L
Date of Extraction/Prep:	10/9/20	10/9/20
Date of Analysis:	10/9/20	10/9/20
Analyst:	JLB	JLB
Method:	1664B	1664B
Dilution Factor:	1	1
Oil & Grease (HEM)	**50**	< 5
TPH(SGTHEM)	< 5	< 5

LABORATORY REPORT

EAI ID#: **216846**

Client: **Exeter, Town of**

Client Designation: **Exeter Local Limits**

Sample ID:	Influent Composite	Effluent Composite	Units	Analysis Date	Time	Method	Analyst
Lab Sample ID:	216846.01	216846.02					
Matrix:	aqueous	aqueous					
Date Sampled:	10/7/20	10/7/20					
Date Received:	10/8/20	10/8/20					
Solids Suspended	340	< 5	mg/L	10/13/20	10:55	2540D-11	KJD
Nitrate/Nitrite-N	< 0.5	3.9	mg/L	10/09/20	15:03	353.2	ATA
Cyanide Total	0.027	< 0.02	mg/L	10/13/20	13:58	ASTM D7511	KD
Ammonia-N	50	0.074	mg/L	10/13/20	11:36	TM NH3-001	SEL
TKN	64	1.2	mg/L	10/14/20	13:03	4500N_{org}C/N	SEL
Total Nitrogen	64	5.1	mg/L	10/14/20	13:38	CALC	SEL
BOD	300	< 6	mg/L	10/09/20	14:09	5210B-11	KJD

Samples composited at lab on 10/8/2020.

CHAIN-OF-CUSTODY RECORD

216846

13

Sample IDs	Date/Time Composites need start and stop dates/times	Matrix	Parameters and Sample Notes	# of containers
Influent Composite	10/7/2020 0815-1330	aqueous Grab or (Comp)	AqTot/V624/VTIC15/BOD/TSS/TN/TKN/NO3NO2/NH3/OG1664/TPH1664/CyanT/E625/ETIC15 Grabs 0815/1045/1330	30
☐ Sampler confirms ID and parameters are accurate			Circle preservative/s: (HCl) HNO, (H,SO,) (NaOH) MEOH Na,S,O, (ICE)	Dissolved Sample Field Filtered ☐
Effluent Composite	10/7/2020 0752-1337	aqueous Grab or (Comp)	AqTot/V624/VTIC15/BOD/TSS/TN/TKN/NO3NO2/NH3/OG1664/TPH1664/CyanT/E625/ETIC15 Grabs e 0752/1045/1337	30
☐ Sampler confirms ID and parameters are accurate			Circle preservative/s: (HCl) HNO, (H,SO,) (NaOH) MEOH Na,S,O, (ICE)	Dissolved Sample Field Filtered ☐
Influent Dup Comp	10/7/2020 0815-1045	aqueous Grab or (Comp)	AqTot/V624/VTIC15 Grabs e 0815/1045	6
☐ Sampler confirms ID and parameters are accurate			Circle preservative/s: (HCl) HNO, H,SO, NaOH MEOH Na,S,O, (ICE)	Dissolved Sample Field Filtered ☐

Please ensure this auto COC is accurate, adheres to permit or sampling requirements for this sampling event, and modify as necessary.

EAI Project ID 5576
Project Name Exeter Local Limits
State NH
Client (Pro Mgr) Steve Dalton
Customer Exeter, Town of
Address Town Office, 13 Newfields Road
City Exeter NH 03833-2792
Phone 778-0591 Fax 772-4709
Email: sdalton@exeternh.gov
Direct 603-773-6168

Results Needed by: Preferred date _____
Notes:

Composite consists of 3 grabs composited equally.
Lab composite O&G, VOCs.

QC deliverables
☒ A ☐ A+ ☐ B ☐ B+ ☐ C ☐ MA MCP

ReportingOptions
☐ HC ☐ NO FAX
☒ EDD PDF ☐ Partial FAX
☒ EDD email ☒ PDF Invoice
☒ PDF prelim, NO FAX ☐ EQUIS
☐ e-mail Login Confirmation

PO# 4335-309
Quote#: 1017873
Temp 2.9 °C
Ice Y (N)

Samples Collected by: NL+JH

Relinquished by	Date/Time	Received by
	10/8/2020 1230	
	10/8/2020 1515	

Eastern Analytical, Inc.

professional laboratory and drilling services

Steve Dalton
Exeter, Town of
Town Office, 13 Newfields Road
Exeter, NH 03833-2792

Subject: Laboratory Report

Eastern Analytical, Inc. ID: 216845
Client Identification: Exeter Local Limits
Date Received: 10/8/2020

Dear Mr. Dalton:

Enclosed please find the laboratory report for the above identified project. All analyses were performed in accordance with our QA/QC Program. Unless otherwise stated, holding times, preservation techniques, container types, and sample conditions adhered to EPA Protocol. Samples which were collected by Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures. Eastern Analytical, Inc. certifies that the enclosed test results meet all requirements of NELAP and other applicable state certifications. Please refer to our website at www.easternanalytical.com for a copy of our NELAP certificate and accredited parameters.

The following standard abbreviations and conventions apply to all EAI reports:

Solid samples are reported on a dry weight basis, unless otherwise noted
< : "less than" followed by the reporting limit
> : "greater than" followed by the reporting limit
%R : % Recovery

Eastern Analytical Inc. maintains certification in the following states: Connecticut (PH-0492), Maine (NH005), Massachusetts (M-NH005), New Hampshire/NELAP (1012), Rhode Island (269), Vermont (VT1012) and New York (12072).

The following information is contained within this report: Sample Conditions summary, Analytical Results/Data, Quality Control data (if requested) and copies of the Chain of Custody. This report may not be reproduced except in full, without the the written approval of the laboratory.

If you have any questions regarding the results contained within, please feel free to directly contact me or the chemist(s) who performed the testing in question. Unless otherwise requested, we will dispose of the sample (s) 30 days from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

Lorraine Olashaw — Lorraine Olashaw, Lab Director

10.20.20 — Date

3 — # of pages (excluding cover letter)

SAMPLE CONDITIONS PAGE

EAI ID#: **216845**

Client: **Exeter, Town of**

Client Designation: **Exeter Local Limits**

Temperature upon receipt (°C): 4.1 **Received on ice or cold packs (Yes/No): Y**

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date Received	Date/Time Sampled		Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
216845.01	Influent Composite	10/8/20	10/8/20	8:15	aqueous		PFCS samples received at sub lab above temperature, customer will resample.
216845.02	Effluent Composite	10/8/20	10/8/20	8:00	aqueous		PFCS samples received at sub lab above temperature, customer will resample.
216845.03	Sludge	10/8/20	10/7/20	8:45	solid	19.2	Adheres to Sample Acceptance Policy PFCS samples received at sub lab above temperature, customer will resample.

Samples were properly preserved and the pH measured when applicable unless otherwise noted. Analysis of solids for pH, Flashpoint, Ignitability, Paint Filter, Corrosivity, Conductivity and Specific Gravity are reported on an "as received" basis.
Immediate analyses, pH, Total Residual Chlorine, Dissolved Oxygen and Sulfite, performed at the laboratory were run outside of the recommended 15 minute hold time.
All results contained in this report relate only to the above listed samples.
References include:
1) EPA 600/4-79-020, 1983
2) Standard Methods for Examination of Water and Wastewater, 20th, 21st, 22nd & 23rd Edition or noted Revision year.
3) Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB
4) Hach Water Analysis Handbook, 4th edition, 1992

LABORATORY REPORT

EAI ID#: **216845**

Client: **Exeter, Town of**

Client Designation: **Exeter Local Limits**

Sample ID:	Sludge
Lab Sample ID:	216845.03
Matrix:	solid
Date Sampled:	10/7/20
Date Received:	10/8/20

		Analytical Matrix	Units	Date of Analysis	Method	Analyst
Antimony	1.6	SolTotDry	mg/kg	10/12/20	6020	DS
Arsenic	11	SolTotDry	mg/kg	10/12/20	6020	DS
Beryllium	< 0.5	SolTotDry	mg/kg	10/12/20	6020	DS
Cadmium	0.99	SolTotDry	mg/kg	10/12/20	6020	DS
Chromium	26	SolTotDry	mg/kg	10/12/20	6020	DS
Copper	510	SolTotDry	mg/kg	10/12/20	6020	DS
Lead	19	SolTotDry	mg/kg	10/12/20	6020	DS
Mercury	0.58	SolTotDry	mg/kg	10/12/20	6020	DS
Molybdenum	10	SolTotDry	mg/kg	10/12/20	6020	DS
Nickel	19	SolTotDry	mg/kg	10/12/20	6020	DS
Selenium	4.8	SolTotDry	mg/kg	10/12/20	6020	DS
Silver	3.9	SolTotDry	mg/kg	10/12/20	6020	DS
Thallium	< 0.5	SolTotDry	mg/kg	10/12/20	6020	DS
Zinc	770	SolTotDry	mg/kg	10/12/20	6020	DS
Arsenic	< 0.5	TCLPsolid	mg/L	10/13/20	6020	DS
Barium	< 0.5	TCLPsolid	mg/L	10/13/20	6020	DS
Cadmium	< 0.1	TCLPsolid	mg/L	10/13/20	6020	DS
Chromium	< 0.1	TCLPsolid	mg/L	10/13/20	6020	DS
Lead	< 0.5	TCLPsolid	mg/L	10/13/20	6020	DS
Mercury	< 0.01	TCLPsolid	mg/L	10/13/20	6020	DS
Selenium	< 0.1	TCLPsolid	mg/L	10/13/20	6020	DS
Silver	< 0.1	TCLPsolid	mg/L	10/13/20	6020	DS

CHAIN-OF-CUSTODY RECORD

216845

Sample IDs	Date/Time Composites need start and stop dates/times	Matrix	Parameters and Sample Notes	# of containers
Influent Composite	10/7/2020 0815 to 10/8/2020 0815	aqueous Grab or (Comp)	AqTot/PFCSSubLL	2
☐ Sampler confirms ID and parameters are accurate			*Circle preservative/s:* HCL HNO, H_2SO_4, NaOH MEOH $Na_2S_2O_3$ (ICE)	Dissolved Sample Field Filtered ☐
Effluent Composite	10/7/2020 0800 to 10/8/2020 0800	aqueous Grab or (Comp)	AqTot/PFCSSubLL	2
☐ Sampler confirms ID and parameters are accurate			*Circle preservative/s:* HCL HNO, H_2SO_4, NaOH MEOH $Na_2S_2O_3$ (ICE)	Dissolved Sample Field Filtered ☐
Sludge	10/7/2020 0845	solid Grab or (Comp)	SolTotDry/PFCSSubLL/ICPMets.Sb.As.Be.Cd.Cr.Cu.Ni.Pb.Se.Ag.Tl.Zn.Hg.Mo TCLPsolid/ICPMets.As.Ba.Cd.Cr.Pb.Se.Ag.Hg	2
☐ Sampler confirms ID and parameters are accurate			*Circle preservative/s:* HCL HNO, H_2SO_4, NaOH MEOH $Na_2S_2O_3$ (ICE)	Dissolved Sample Field Filtered ☐

Please ensure this auto COC is accurate, adheres to permit or sampling requirements for this sampling event, and modify as necessary.

EAI Project ID 5576
Project Name Exeter Local Limits
State NH
Client (Pro Mgr) Steve Dalton
Customer Exeter, Town of
Address Town Office, 13 Newfields Road
City Exeter NH 03833-2792
Phone 778-0591 Fax 772-4709
Email: sdalton@exeternh.gov
Direct 603-773-6168

Results Needed by: Preferred date _____
Notes:

Inf/Eff flow-proportional composites.
Sludge composite of 8 sub-samples.
Subcontract PFAS to EurofinsLancaster 24 compound list.

Please mix sludge sample in laboratory.

QC deliverables
☒ A ☐ A+ ☐ B ☐ B+ ☐ C ☐ MA MCP

ReportingOptions
☐ HC
☒ EDD PDF
☒ EDD email
☒ PDF prelim, NO FAX
☐ e-mail Login Confirmation
☐ NO FAX
☐ Partial FAX
☒ PDF Invoice
☐ EQUIS

PO# 4335-309
Quote#: 1017873
Temp 4.1 °C
Ice Y ☒ N ☐

Samples Collected by: JG, TC, EAI

Relinquished by	Date/Time	Received by
	10/8/2020 1500	
Relinquished by	Date/Time	Received by

Eastern Analytical, Inc.

professional laboratory and drilling services

Joshua Scotton
Exeter, Town of
Town Office, 13 Newfields Road
Exeter , NH 03833-2792

Subject: Laboratory Report

Eastern Analytical, Inc. ID: 220066
Client Identification: END OF DISINFECTION
Date Received: 12/15/2020

Dear Mr. Scotton :

Enclosed please find the laboratory report for the above identified project. All analyses were performed in accordance with our QA/QC Program. Unless otherwise stated, holding times, preservation techniques, container types, and sample conditions adhered to EPA Protocol. Samples which were collected by Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures. Eastern Analytical, Inc. certifies that the enclosed test results meet all requirements of NELAP and other applicable state certifications. Please refer to our website at www.easternanalytical.com for a copy of our NELAP certificate and accredited parameters.

The following standard abbreviations and conventions apply to all EAI reports:

Solid samples are reported on a dry weight basis, unless otherwise noted
< : "less than" followed by the reporting limit
> : "greater than" followed by the reporting limit
%R : % Recovery

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The following information is contained within this report: Sample Conditions summary, Analytical Results/Data, Quality Control data (if requested) and copies of the Chain of Custody. This report may not be reproduced except in full, without the the written approval of the laboratory.

If you have any questions regarding the results contained within, please feel free to directly contact me or the chemist(s) who performed the testing in question. Unless otherwise requested, we will dispose of the sample (s) 30 days from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

Lorraine Olashaw

Lorraine Olashaw, Lab Director

12.23.20

Date

5

# of pages (excluding cover letter)

SAMPLE CONDITIONS PAGE

EAI ID#: **220066**

Client: **Exeter, Town of**

Client Designation: **END OF DISINFECTION**

Temperature upon receipt (°C): 0.3 **Received on ice or cold packs (Yes/No): Y**

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date Received	Date/Time Sampled	Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
220066.01	EFFBOD	12/15/20	12/15/20 0:00	aqueous		Adheres to Sample Acceptance Policy
220066.02	INFBOD	12/15/20	12/15/20 0:00	aqueous		Adheres to Sample Acceptance Policy
220066.03	EFFTN	12/15/20	12/15/20 0:00	aqueous		Adheres to Sample Acceptance Policy
220066.04	TC1	12/15/20	12/15/20 8:15	sludge	21.0	Adheres to Sample Acceptance Policy

Samples were properly preserved and the pH measured when applicable unless otherwise noted. Analysis of solids for pH, Flashpoint, Ignitability, Paint Filter, Corrosivity, Conductivity and Specific Gravity are reported on an "as received" basis.
Immediate analyses, pH, Total Residual Chlorine, Dissolved Oxygen and Sulfite, performed at the laboratory were run outside of the recommended 15 minute hold time.
All results contained in this report relate only to the above listed samples.
References include:
1) EPA 600/4-79-020, 1983
2) Standard Methods for Examination of Water and Wastewater, 20th, 21st, 22nd & 23rd Edition or noted Revision year.
3) Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB
4) Hach Water Analysis Handbook, 4th edition, 1992

LABORATORY REPORT

EAI ID#: **220066**

Client: **Exeter, Town of**
Client Designation: **END OF DISINFECTION**

Sample ID:	EFFBOD	INFBOD
Lab Sample ID:	220066.01	220066.02
Matrix:	aqueous	aqueous
Date Sampled:	12/15/20	12/15/20
Date Received:	12/15/20	12/15/20

			Analysis			
	Units	Date	Time	Method	Analyst
BOD	mg/L	12/16/20	11:06	5210B-11	RB
BOD	< 6	150				

Sample ID:	EFFTN
Lab Sample ID:	220066.03
Matrix:	aqueous
Date Sampled:	12/15/20
Date Received:	12/15/20

		Analysis			
	Units	Date	Time	Method	Analyst
Nitrate/Nitrite-N	mg/L	12/15/20	14:39	353.2	ATA
TKN	mg/L	12/21/20	14:12	4500N_{org}C/NH3D	SEL
Total Nitrogen	mg/L	12/21/20	15:33	CALC	SEL
Nitrate/Nitrite-N	4.4					
TKN	1.2					
Total Nitrogen	5.6					

LABORATORY REPORT

EAI ID#: **220066**

Client: **Exeter, Town of**
Client Designation: **END OF DISINFECTION**

Sample ID:	TC1
Lab Sample ID:	220066.04
Matrix:	sludge
Date Sampled:	12/15/20
Date Received:	12/15/20

		Analysis			
	Units	Date	Time	Method	Analyst
Cyanide Total	mg/kg	12/18/20	9:15	9010/9014	KD

TC1: The matrix spike and matrix spike duplicate for Cyanide Total associated with this sample exhibited recovery outside the acceptance criteria. All other batch QC was in control.

Analyst RB
Method 5210B-11
LCS QCLimits 84 - 115 ✓

Raw Data BOD

EAI ID#	Sample ID	QC ID	Parent	Raw Data	DF	Report Value	Units	Date/Time Analyzed	AnMa
20066.01 ✓	EFFBOD			2.656	1	< 6 ✓	mg/L	12/16/2020 11:06	AqTo
20066.02 ✓	INFBOD			148.05	1	150 ✓	mg/L	12/16/2020 10:37	AqTo
20081.03	Millhouse Eff - Afte			.668	1	< 3	mg/L	12/16/2020 9:09	AqTo
20081.04	Millhouse Inf -			334.8	1	330	mg/L	12/16/2020 9:25	AqTo
20086.01	NCES/Leachate			204.6	1	200	mg/L	12/16/2020 12:24	AqTo
20090.01	001E			4.666	1	< 6	mg/L	12/16/2020 10:55	AqTo
20090.02	JM1			62.595	1	63	mg/L	12/16/2020 10:57	AqTo
20091.01	Millipore			31.121	1	31	mg/L	12/16/2020 8:55	AqTo
20091.02	Millipore			58.13	1	58	mg/L	12/16/2020 10:48	AqTo
20106.01	Final Effluent			3.076	1	< 6	mg/L	12/16/2020 12:44	AqTo
20122.01	Effluent			7.636	1	7.6	mg/L	12/16/2020 16:33	AqTo
20130.01	Discharge #1			1.898	1	< 3	mg/L	12/16/2020 16:59	AqTo
20131.01	Influent			234	1	230	mg/L	12/16/2020 16:36	AqTo
20131.02	Effluent			10.246	1	10	mg/L	12/16/2020 16:41	AqTo
20132.01	001E			3.616	1	< 6	mg/L	12/16/2020 16:46	AqTo
20132.02	EQT			7545.33333	1	7500	mg/L	12/16/2020 16:50	AqTo
20133.01	Effluent			12.046	1	12	mg/L	12/16/2020 17:03	AqTo
20144.01	Groveland Main St			129	1	130	mg/L	12/16/2020 17:07	AqTo
20145.01	Groveland Main St			157.5	1	160	mg/L	12/16/2020 17:10	AqTo
20121.01	Effluent Out			1108.5	1	1100	mg/L	12/16/2020 16:52	AqTo
20123.01	Effluent Weekly			19.644	1	20	mg/L	12/16/2020 16:27	AqTo
20163.01	Effluent			408.91	1	410	mg/L	12/16/2020 17:43	AqTo
20161.01	Effluent			13.276	1	13	mg/L	12/16/2020 17:33	AqTo
20161.02	Influent			160.8	1	160	mg/L	12/16/2020 17:38	AqTo
20151.01	Influent			187.8	1	190	mg/L	12/16/2020 17:14	AqTo
20151.02	Primary Effluent			53.25	1	53	mg/L	12/16/2020 17:20	AqTo
20151.03	Final Effluent			5.566	1	< 6	mg/L	12/16/2020 17:24	AqTo
20159.01	Influent			240	1	240	mg/L	12/16/2020 18:02	AqTo
20159.02	Effluent			6.357	1	6.4	mg/L	12/16/2020 17:27	AqTo
20157.01	Influent			144.375	1	140	mg/L	12/16/2020 17:50	AqTo
20157.02	Effluent			6.0045	1	6	mg/L	12/16/2020 17:56	AqTo
20165.01	Influent			222	1	220	mg/L	12/16/2020 18:05	AqTo
20165.02	Effluent			36.08	1	36	mg/L	12/16/2020 18:10	AqTo
20168.02	Effluent			3.233	1	3.2	mg/L	12/16/2020 18:22	AqTo
20168.03	Influent			196.8	1	200	mg/L	12/16/2020 18:16	AqTo
20169.01	Effluent to Town			2427	1	2400	mg/L	12/16/2020 18:24	AqTo
.3744e+10		BlnkA121620BOD1		-.06	1	< 3 ✓	mg/L	12/16/2020 10:23	AqTo
.3744e+10		LCSaA121620BOD1	63744222353.	407.3	1	410 (102 %R) ✓	mg/L	12/16/2020 10:25	AqTo
.3744e+10		LCSDA121620BOD1	63744222353.	392.3	1	390 (98 %R) (4 RPD) ✓	mg/L	12/16/2020 10:27	AqTo
.3744e+10		DuplA121620BOD1	220066.02	138	1	140 (7 RPD)	mg/L	12/16/2020 10:42	AqTo

Page 1 of 1

CHAIN-OF-CUSTODY RECORD

220066

BOLD FIELDS REQUIRED. PLEASE CIRCLE REQUESTED ANALYSIS.

SAMPLE I.D.	SAMPLING DATE / TIME *IF COMPOSITE, INDICATE BOTH START & FINISH DATE / TIME	MATRIX (SEE BELOW)	GRAB/*COMPOSITE	VOC	SVOC	TCLP METALS	INORGANICS	# OF CONTAINERS	NOTES HEOH VIAL #
EFFBOD	000 000 12.14.20 - 12.15.20	WW	C				CBOD ✓	1	
INFBOD	000 000 12.14.20 - 12.15.20	WW	C				CBOD ✓	1	
EFFTN	000 000 12.14.20 - 12.15.20	WW	C				NH3 ✓	1	
TC1	12.15.20 0815	W	G				TOTAL COLIFORM ✓	1	

MATRIX: A-AIR; S-SOIL; GW-GROUND WATER; SW-SURFACE WATER; DW-DRINKING WATER; WW-WASTE WATER

PRESERVATIVE: H-HCL; H-HNO$_3$; S-H$_2$SO$_4$; Na-NaOH; H-HEOH

PROJECT MANAGER: JOSH SCOTTON

COMPANY: TOWN OF EXETER WWTF

ADDRESS: 13 NEW FIELDS RD

CITY: EXETER STATE: NH ZIP: 03833

PHONE: 603-773-6168 EXT:

FAX:

E-MAIL: jscotton@exeternh.gov

SITE NAME: END OF DISINFECTION

PROJECT #:

STATE: (NH) MA ME VT OTHER:

REGULATORY PROGRAM: NPDES: RGP POTW STORMWATER OR GWP, OIL FIXED, BROWNFIELD OR OTHER:

QUOTE #: PO #:

DATE NEEDED:

QA/QC REPORTING LEVEL: A B C OR MA MCP

REPORTING OPTIONS PRELIMS: YES OR NO

ELECTRONIC OPTIONS: E-MAIL PDF EQUIS EXCEL

TEMP. 0.3 °C ICE? (YES) NO

SAMPLER(S): JH | CH

RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:
[signature]	12.15.20		[signature] 1140
[signature]	12/15/20	1300	[signature]

METALS: 8 RCRA 13 PP Fe, Mn Pb, Cu

OTHER METALS:

SAMPLES FIELD FILTERED? ☐ YES ☑ NO

NOTES: (IE: SPECIAL DETECTION LIMITS, BILLING INFO, IF DIFFERENT)

SITE HISTORY:

SUSPECTED CONTAMINATION:

FIELD READINGS:

Eastern Analytical, Inc.
professional laboratory and drilling services
25 CHENELL DRIVE | CONCORD, NH 03301 | TEL: 603.228.0525 | 1.800.287.0525 | E-MAIL: CUSTOMERSERVICE@EASTERNANALYTICAL.COM | WWW.EASTERNANALYTICAL.COM

(WHITE: ORIGINAL GREEN: PROJECT MANAGER)

Eastern Analytical, Inc.

professional laboratory and drilling services

Joshua Scotton
Exeter, Town of
Town Office, 13 Newfields Road
Exeter , NH 03833-2792

Laboratory Report for:

Eastern Analytical, Inc. ID: 225614
Client Identification: Exeter Local Limits
Date Received: 5/4/2021

Enclosed are the analytical results per the Chain of Custody for sample(s) in the referenced project. All analyses were performed in accordance with our QA/QC Program, NELAP and other applicable state requirements. All quality control criteria was within acceptance criteria unless noted on the report pages. Results are for the exclusive use of the client named on this report and will not be released to a third party without consent.

The following information is contained within this report: Sample Conditions summary, Analytical Results/Data, Quality Control data (if requested) and copies of the Chain of Custody. This report may not be reproduced except in full, without the written approval of the laboratory.

The following standard abbreviations and conventions apply to all EAI reports:

< : "less than" followed by the reporting limit
> : "greater than" followed by the reporting limit
%R : % Recovery

Certifications:
Eastern Analytical, Inc. maintains certification in the following states: Connecticut (PH-0492), Maine (NH005), Massachusetts (M-NH005), New Hampshire/NELAP (1012), Rhode Island (269), Vermont (VT1012), New York (12072), West Virginia (9910C) and Alabama (41620). Please refer to our website at www.easternanalytical.com for a copy of our certificates and accredited parameters.

References:

- EPA 600/4-79-020, 1983
- Standard Methods for Examination of Water and Wastewater, 20th, 21st, 22nd & 23rd edition or noted revision year.
- Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB
- Hach Water Analysis Handbook, 4th edition, 1992

If you have any questions regarding the results contained within, please feel free to contact customer service. Unless otherwise requested, we will dispose of the sample(s) 6 weeks from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

Lorraine Olashaw — 5.10.21 — 3

Lorraine Olashaw, Lab Director | Date | # of pages (excluding cover letter)

SAMPLE CONDITIONS PAGE

EAI ID#: **225614**

Client: **Exeter, Town of**

Client Designation: **Exeter Local Limits**

Temperature upon receipt (°C): 1.7 **Received on ice or cold packs (Yes/No): Y**

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date Received	Date/Time Sampled		Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
225614.01	Septage 001	5/4/21	4/28/21	11:26	aqueous		Adheres to Sample Acceptance Policy
225614.02	Septage 002	5/4/21	4/29/21	10:05	aqueous		Adheres to Sample Acceptance Policy
225614.03	Septage 003	5/4/21	5/3/21	10:51	aqueous		Adheres to Sample Acceptance Policy

All results contained in this report relate only to the above listed samples.

Unless otherwise noted:

- *Hold times, preservation, container types, and sample conditions adhered to EPA Protocol.*
- *Solid samples are reported on a dry weight basis, unless otherwise noted. pH/Corrosivity, Flashpoint, Ignitability, Paint Filter, Conductivity and Specific Gravity are always reported on an "as received" basis.*
- *Analysis of pH, Total Residual Chlorine, Dissolved Oxygen and Sulfite were performed at the laboratory outside of the recommended 15 minute hold time.*
- *Samples collected by Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures.*

LABORATORY REPORT

EAI ID#: **225614**

Client: **Exeter, Town of**

Client Designation: **Exeter Local Limits**

Sample ID:	Septage 001	Septage 002	Septage 003					
Lab Sample ID:	225614.01	225614.02	225614.03					
Matrix:	aqueous	aqueous	aqueous					
Date Sampled:	4/28/21	4/29/21	5/3/21					
Date Received:	5/4/21	5/4/21	5/4/21	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Antimony	< 0.005	< 0.005	0.020	AqTot	mg/L	5/6/21	200.8	DS
Arsenic	0.26	0.23	0.73	AqTot	mg/L	5/6/21	200.8	DS
Beryllium	< 0.005	< 0.005	0.0053	AqTot	mg/L	5/6/21	200.8	DS
Cadmium	0.0062	0.0057	0.014	AqTot	mg/L	5/6/21	200.8	DS
Chromium	0.027	0.024	0.22	AqTot	mg/L	5/6/21	200.8	DS
Copper	0.73	2.3	1.4	AqTot	mg/L	5/6/21	200.8	DS
Lead	0.036	0.043	0.19	AqTot	mg/L	5/6/21	200.8	DS
Mercury	0.0025	0.0024	0.0051	AqTot	mg/L	5/6/21	200.8	DS
Molybdenum	0.067	0.028	0.093	AqTot	mg/L	5/6/21	200.8	DS
Nickel	0.056	0.072	0.15	AqTot	mg/L	5/6/21	200.8	DS
Selenium	0.0050	0.0053	0.037	AqTot	mg/L	5/6/21	200.8	DS
Silver	< 0.005	< 0.005	0.0081	AqTot	mg/L	5/6/21	200.8	DS
Thallium	< 0.005	< 0.005	< 0.005	AqTot	mg/L	5/6/21	200.8	DS
Zinc	6.4	6.7	12	AqTot	mg/L	5/6/21	200.8	DS

Eastern Analytical, Inc. CHAIN-OF-CUSTODY RECORD

225614

EAENH

3

Sample IDs	Date/Time *Composites need start and stop dates/times*	Matrix	Parameters and Sample Notes	# of containers
Septage 001	4/28/21 1126	aqueous Grab or Comp	AqTot/ICPMets.Sb.As.Be.Cd.Cr.Cu.Ni.Pb.Se.Ag.Tl.Zn.Hg.Mo	1
☐ Sampler confirms ID and parameters are accurate			*Circle preservative/s:* HCL HNO, H_2SO_4, NaOH MEOH $Na_2S_2O_3$ ICE	Dissolved Sample Field Filtered ☐
Septage 002	4/29/21 1005	aqueous Grab or Comp	AqTot/ICPMets.Sb.As.Be.Cd.Cr.Cu.Ni.Pb.Se.Ag.Tl.Zn.Hg.Mo	1
☐ Sampler confirms ID and parameters are accurate			*Circle preservative/s:* HCL HNO, H_2SO_4, NaOH MEOH $Na_2S_2O_3$ ICE	Dissolved Sample Field Filtered ☐
Septage 003	5/3/21 1651	aqueous Grab or Comp	AqTot/ICPMets.Sb.As.Be.Cd.Cr.Cu.Ni.Pb.Se.Ag.Tl.Zn.Hg.Mo	1
☐ Sampler confirms ID and parameters are accurate			*Circle preservative/s:* HCL HNO, H_2SO_4, NaOH MEOH $Na_2S_2O_3$ ICE	Dissolved Sample Field Filtered ☐

Please ensure this auto COC is accurate, adheres to permit or sampling requirements for this sampling event, and modify as necessary.

EAI Project ID 5576
Project Name Exeter Local Limits
State NH
Client (Pro Mgr) Joshua Scotton
Customer Exeter, Town of
Address Town Office, 13 Newfields Road
City Exeter NH 03833-2792
Phone 778-0591 Fax 772-4709
Email: jscotton@exeternh.gov
Direct 603-773-6168 / 603

Results Needed by: Preferred date _____
Notes:

QC deliverables
☒ A ☐ A+ ☐ B ☐ B+ ☐ C ☐ MA MCP

ReportingOptions
☐ HC ☐ NO FAX
☒ EDD PDF ☐ Partial FAX
☒ EDD email ☒ PDF Invoice
☒ PDF prelim, NO FAX ☐ EQUIS
☐ e-mail Login Confirmation

PO# 4335-309
Quote#: 1017873
Temp 1.7 °C
Ice Y ☒ N ☐

Samples Collected by: Josh Scotton

Relinquished by	Date/Time	Received by
[signature]	5-4-21 10:30	[signature]
[signature]	5-4-21 14:25	[signature]

Relinquished by Date/Time Received by

Eastern Analytical, Inc.
professional laboratory and drilling services

Steve Dalton
Exeter, Town of
Town Office, 13 Newfields Road
Exeter NH 03833-2792

Subject: Laboratory Report

Eastern Analytical, Inc. ID: 218229
Client Identification: Exeter Local Limits
Date Received: 11/4/2020

Report revision/reissue: Revision, replaces report dated 12/8/2020.

Revision information: Per client request, the subcontractor's report has been amended to include both sets of data.

Dear Mr. Dalton :

Enclosed please find the laboratory report for the above identified project. All analyses were performed in accordance with our QA/QC Program. Unless otherwise stated, holding times, preservation techniques, container types, and sample conditions adhered to EPA Protocol. Samples which were collected by Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures. Eastern Analytical, Inc. certifies that the enclosed test results meet all requirements of NELAP and other applicable state certifications. Please refer to our website at www.eailabs.com for a copy of our NELAP certificate and accredited parameters.

The following standard abbreviations and conventions apply to all EAI reports:

Solid samples are reported on a dry weight basis, unless otherwise noted
< : "less than" followed by the reporting limit
> : "greater than" followed by the reporting limit
%R : % Recovery

Eastern Analytical Inc. maintains certification in the following states: Connecticut (PH-0492), Maine (NH005), Massachusetts (M-NH005), New Hampshire/NELAP (1012), Rhode Island (269) and Vermont (VT1012).

The following information is contained within this report: Sample Conditions summary, Analytical Results/Data, Quality Control data (if requested) and copies of the Chain of Custody. This report may not be reproduced except in full, without the the written approval of the laboratory.

If you have any questions regarding the results contained within, please feel free to directly contact me or the chemist(s) who performed the testing in question. Unless otherwise requested, we will dispose of the sample(s) 30 days from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

Lorraine Olashaw

Lorraine Olashaw, Lab Director

Date: 2.17.21

# of pages (excluding cover letter): 25

SAMPLE CONDITIONS PAGE

EAI ID#: **218229**

Client: **Exeter, Town of**

Client Designation: **Exeter Local Limits**

Temperature upon receipt (°C): 5.8 **Received on ice or cold packs (Yes/No): Y**

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date Received	Date/Time Sampled	Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
218229.01	Influent Composite	11/4/20	11/4/20 14:28	aqueous		Adheres to Sample Acceptance Policy

Samples were properly preserved and the pH measured when applicable unless otherwise noted. Analysis of solids for pH, Flashpoint, Ignitability, Paint Filter, Corrosivity, Conductivity and Specific Gravity are reported on an "as received" basis.
Immediate analyses, pH, Total Residual Chlorine, Dissolved Oxygen and Sulfite, performed at the laboratory were run outside of the recommended 15 minute hold time.
All results contained in this report relate only to the above listed samples.
References include:
1) EPA 600/4-79-020, 1983
2) Standard Methods for Examination of Water and Wastewater, 20th, 21st, 22nd & 23rd Edition or noted Revision year.
3) Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB
4) Hach Water Analysis Handbook, 4th edition, 1992

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-20516-1
Client Project/Site: 218229
Revision: 1

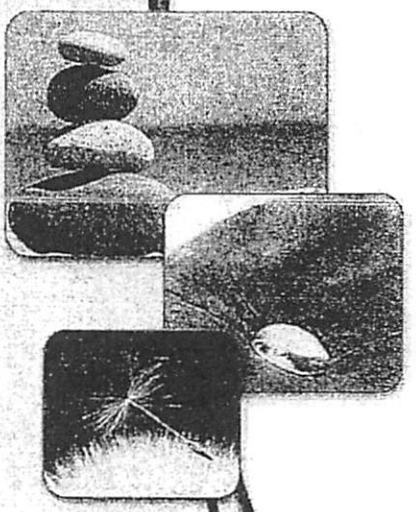
For:
Eastern Analytical
25 Chenell Drive
Concord, New Hampshire 03301

Attn: Customer Service

John Cady

Authorized for release by:
2/17/2021 2:19:41 PM

John Cady, Senior Project Manager
(832)763-8082
John.Cady@Eurofinset.com



Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

John Cady
Senior Project Manager
2/17/2021 2:19:41 PM

Table of Contents

Definitions/Glossary

Client: Eastern Analytical
Project/Site: 218229

Job ID: 410-20516-1

Qualifiers

LCMS

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*1	LCS/LCSD RPD exceeds control limits.
*5	Isotope dilution analyte is outside acceptance limits.
H	Sample was prepped or analyzed beyond the specified holding time

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-20516-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-20516-1

Comments
No additional comments.

Revision
The report being provided is a revision of the original report sent on 12/7/2020. The report (revision 1) is being revised due to the client's request to report both sets of data.

Receipt
The sample was received on 11/12/2020 10:23 AM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.6° C.

LCMS
Method PFC_IDA: The sample injection standard peak areas in the following sample: Influent Composite (410-20516-1) are outsi of the QC limits for both the initial extraction and the re-extraction. The values here are from both extractions of the sample.

Method PFC_IDA: The recovery for a target analyte(s) in the laboratory control spike sample associated with the following sample: Influent Composite (410-20516-1) were outside the QC acceptance limits. The following action was taken: This sample was re-extracted outside the required holding time and the recovery for a target analyte(s) in the laboratory control spike sample(s) is within the QC acceptance limits.The recovery for the labeled isotope(s) in the laboratory control spike sample associated with the following sample: Influent Composite (410-20516-1) were outside the QC acceptance limits. The following action was taken: This sample(s) was re-extracted outside the required holding time and the recovery for the labeled isotope(s) in the re-extracted laboratory control spike sample(s) were within the QC acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Eastern Analytical
Project/Site: 218229

Job ID: 410-20516-1

Client Sample ID: Influent Composite

Lab Sample ID: 410-20516-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid - RE	2.3	H	2.1	0.53	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid - RE	21	H	2.1	0.53	ng/L	1		537 (modified)	Total/NA
Perfluorobutanoic acid - RE	5.7	H	5.3	2.1	ng/L	1		537 (modified)	Total/NA
6:2 Fluorotelomer sulfonic acid - RE	21	H	5.3	2.1	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: Influent Composite

Lab Sample ID: 410-20516-1

Date Collected: 11/04/20 14:28
Date Received: 11/12/20 10:23

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	<20		20	5.0	ng/L		11/16/20 11:20	11/18/20 03:32	1
Perfluoroheptanoic acid	<20		20	5.0	ng/L		11/16/20 11:20	11/18/20 03:32	1
Perfluorooctanoic acid	<20		20	5.0	ng/L		11/16/20 11:20	11/18/20 03:32	1
Perfluorononanoic acid	<20		20	5.0	ng/L		11/16/20 11:20	11/18/20 03:32	1
Perfluorodecanoic acid	<20		20	5.0	ng/L		11/16/20 11:20	11/18/20 03:32	1
Perfluorotridecanoic acid	<20	*1	20	5.0	ng/L		11/16/20 11:20	11/18/20 03:32	1
Perfluorotetradecanoic acid	<20		20	5.0	ng/L		11/16/20 11:20	11/18/20 03:32	1
Perfluorobutanesulfonic acid	<20		20	5.0	ng/L		11/16/20 11:20	11/18/20 03:32	1
Perfluorohexanesulfonic acid	<20		20	5.0	ng/L		11/16/20 11:20	11/18/20 03:32	1
Perfluorooctanesulfonic acid	<20		20	5.0	ng/L		11/16/20 11:20	11/18/20 03:32	1
NEtFOSAA	<30		30	5.0	ng/L		11/16/20 11:20	11/18/20 03:32	1
NMeFOSAA	<20		20	6.0	ng/L		11/16/20 11:20	11/18/20 03:32	1
Perfluoropentanesulfonic acid	<20		20	5.0	ng/L		11/16/20 11:20	11/18/20 03:32	1
Perfluoroheptanesulfonic acid	<20		20	5.0	ng/L		11/16/20 11:20	11/18/20 03:32	1
Perfluorononanesulfonic acid	<20	*1	20	5.0	ng/L		11/16/20 11:20	11/18/20 03:32	1
Perfluorodecanesulfonic acid	<20	*1	20	5.0	ng/L		11/16/20 11:20	11/18/20 03:32	1
Perfluorooctanesulfonamide	<20		20	5.0	ng/L		11/16/20 11:20	11/18/20 03:32	1
Perfluorobutanoic acid	<50		50	20	ng/L		11/16/20 11:20	11/18/20 03:32	1
Perfluoropentanoic acid	<20		20	5.0	ng/L		11/16/20 11:20	11/18/20 03:32	1
Perfluoroundecanoic acid	<20		20	5.0	ng/L		11/16/20 11:20	11/18/20 03:32	1
Perfluorododecanoic acid	<20		20	5.0	ng/L		11/16/20 11:20	11/18/20 03:32	1
6:2 Fluorotelomer sulfonic acid	<50		50	20	ng/L		11/16/20 11:20	11/18/20 03:32	1
8:2 Fluorotelomer sulfonic acid	<30		30	9.9	ng/L		11/16/20 11:20	11/18/20 03:32	1
4:2 Fluorotelomer sulfonic acid	<20		20	5.0	ng/L		11/16/20 11:20	11/18/20 03:32	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-4:2 FTS	118		20 - 187	11/16/20 11:20	11/18/20 03:32	1
M2-8:2 FTS	87		34 - 182	11/16/20 11:20	11/18/20 03:32	1
M2-6:2 FTS	135		29 - 189	11/16/20 11:20	11/18/20 03:32	1
13C5 PFHxA	59		31 - 142	11/16/20 11:20	11/18/20 03:32	1
13C4 PFHpA	72		30 - 144	11/16/20 11:20	11/18/20 03:32	1
13C8 PFOA	72		49 - 127	11/16/20 11:20	11/18/20 03:32	1
13C9 PFNA	90		47 - 136	11/16/20 11:20	11/18/20 03:32	1
13C6 PFDA	71		47 - 128	11/16/20 11:20	11/18/20 03:32	1
13C7 PFUnA	68		40 - 135	11/16/20 11:20	11/18/20 03:32	1
13C2-PFDoDA	51		28 - 136	11/16/20 11:20	11/18/20 03:32	1
13C2 PFTeDA	38		10 - 144	11/16/20 11:20	11/18/20 03:32	1
13C3 PFBS	66		19 - 178	11/16/20 11:20	11/18/20 03:32	1
13C3 PFHxS	62		32 - 145	11/16/20 11:20	11/18/20 03:32	1
13C8 PFOS	75		49 - 126	11/16/20 11:20	11/18/20 03:32	1
d3-NMeFOSAA	86		32 - 151	11/16/20 11:20	11/18/20 03:32	1
d5-NEtFOSAA	79		37 - 164	11/16/20 11:20	11/18/20 03:32	1
13C8 FOSA	48		10 - 143	11/16/20 11:20	11/18/20 03:32	1
13C4 PFBA	67		41 - 132	11/16/20 11:20	11/18/20 03:32	1
13C5 PFPeA	71		33 - 155	11/16/20 11:20	11/18/20 03:32	1

Method: 537 (modified) - Fluorinated Alkyl Substances - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	2.3	H	2.1	0.53	ng/L		11/20/20 11:01	11/24/20 06:43	1
Perfluoroheptanoic acid	<2.1	H	2.1	0.53	ng/L		11/20/20 11:01	11/24/20 06:43	1

Client Sample ID: Influent Composite
Date Collected: 11/04/20 14:28
Date Received: 11/12/20 10:23

Lab Sample ID: 410-20516-1
Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances - RE (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid	**21**	H	2.1	0.53	ng/L		11/20/20 11:01	11/24/20 06:43	1
Perfluorononanoic acid	<2.1	H	2.1	0.53	ng/L		11/20/20 11:01	11/24/20 06:43	1
Perfluorodecanoic acid	<2.1	H	2.1	0.53	ng/L		11/20/20 11:01	11/24/20 06:43	1
Perfluorotridecanoic acid	<2.1	H	2.1	0.53	ng/L		11/20/20 11:01	11/24/20 06:43	1
Perfluorotetradecanoic acid	<2.1	H	2.1	0.53	ng/L		11/20/20 11:01	11/24/20 06:43	1
Perfluorobutanesulfonic acid	<2.1	H	2.1	0.53	ng/L		11/20/20 11:01	11/24/20 06:43	1
Perfluorohexanesulfonic acid	<2.1	H	2.1	0.53	ng/L		11/20/20 11:01	11/24/20 06:43	1
Perfluorooctanesulfonic acid	<2.1	H	2.1	0.53	ng/L		11/20/20 11:01	11/24/20 06:43	1
NEtFOSAA	<3.2	H	3.2	0.53	ng/L		11/20/20 11:01	11/24/20 06:43	1
NMeFOSAA	<2.1	H	2.1	0.64	ng/L		11/20/20 11:01	11/24/20 06:43	1
Perfluoropentanesulfonic acid	<2.1	H	2.1	0.53	ng/L		11/20/20 11:01	11/24/20 06:43	1
Perfluoroheptanesulfonic acid	<2.1	H	2.1	0.53	ng/L		11/20/20 11:01	11/24/20 06:43	1
Perfluorononanesulfonic acid	<2.1	H	2.1	0.53	ng/L		11/20/20 11:01	11/24/20 06:43	1
Perfluorodecanesulfonic acid	<2.1	H	2.1	0.53	ng/L		11/20/20 11:01	11/24/20 06:43	1
Perfluorooctanesulfonamide	<2.1	H	2.1	0.53	ng/L		11/20/20 11:01	11/24/20 06:43	1
Perfluorobutanoic acid	**5.7**	H	5.3	2.1	ng/L		11/20/20 11:01	11/24/20 06:43	1
Perfluoropentanoic acid	<2.1	H	2.1	0.53	ng/L		11/20/20 11:01	11/24/20 06:43	1
Perfluoroundecanoic acid	<2.1	H	2.1	0.53	ng/L		11/20/20 11:01	11/24/20 06:43	1
Perfluorododecanoic acid	<2.1	H	2.1	0.53	ng/L		11/20/20 11:01	11/24/20 06:43	1
6:2 Fluorotelomer sulfonic acid	**21**	H	5.3	2.1	ng/L		11/20/20 11:01	11/24/20 06:43	1
8:2 Fluorotelomer sulfonic acid	<3.2	H	3.2	1.1	ng/L		11/20/20 11:01	11/24/20 06:43	1
4:2 Fluorotelomer sulfonic acid	<2.1	H	2.1	0.53	ng/L		11/20/20 11:01	11/24/20 06:43	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*118*		*20 - 187*	*11/20/20 11:01*	*11/24/20 06:43*	*1*
M2-8:2 FTS	*112*		*34 - 182*	*11/20/20 11:01*	*11/24/20 06:43*	*1*
M2-6:2 FTS	*135*		*29 - 189*	*11/20/20 11:01*	*11/24/20 06:43*	*1*
13C5 PFHxA	*76*		*31 - 142*	*11/20/20 11:01*	*11/24/20 06:43*	*1*
13C4 PFHpA	*86*		*30 - 144*	*11/20/20 11:01*	*11/24/20 06:43*	*1*
13C8 PFOA	*92*		*49 - 127*	*11/20/20 11:01*	*11/24/20 06:43*	*1*
13C9 PFNA	*99*		*47 - 136*	*11/20/20 11:01*	*11/24/20 06:43*	*1*
13C6 PFDA	*81*		*47 - 128*	*11/20/20 11:01*	*11/24/20 06:43*	*1*
13C7 PFUnA	*90*		*40 - 135*	*11/20/20 11:01*	*11/24/20 06:43*	*1*
13C2-PFDoDA	*89*		*28 - 136*	*11/20/20 11:01*	*11/24/20 06:43*	*1*
13C2 PFTeDA	*75*		*10 - 144*	*11/20/20 11:01*	*11/24/20 06:43*	*1*
13C3 PFBS	*166*		*19 - 178*	*11/20/20 11:01*	*11/24/20 06:43*	*1*
13C3 PFHxS	*93*		*32 - 145*	*11/20/20 11:01*	*11/24/20 06:43*	*1*
13C8 PFOS	*86*		*49 - 126*	*11/20/20 11:01*	*11/24/20 06:43*	*1*
d3-NMeFOSAA	*75*		*32 - 151*	*11/20/20 11:01*	*11/24/20 06:43*	*1*
d5-NEtFOSAA	*88*		*37 - 164*	*11/20/20 11:01*	*11/24/20 06:43*	*1*
13C8 FOSA	*57*		*10 - 143*	*11/20/20 11:01*	*11/24/20 06:43*	*1*
13C4 PFBA	*93*		*41 - 132*	*11/20/20 11:01*	*11/24/20 06:43*	*1*
13C5 PFPeA	*149*		*33 - 155*	*11/20/20 11:01*	*11/24/20 06:43*	*1*

Isotope Dilution Summary

Client: Eastern Analytical
Project/Site: 218229

Job ID: 410-20516-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M242FTS (20-187)	M282FTS (34-182)	M262FTS (29-189)	13C5PHA (31-142)	C4PFHA (30-144)	C8PFOA (49-127)	C9PFNA (47-136)	C6PFDA (47-128)
410-20516-1	Influent Composite	118	87	135	59	72	72	80	71
410-20516-1 - RE	Influent Composite	118	112	135	76	86	92	99	81
LCS 410-66458/2-A	Lab Control Sample	80	93	89	78	75	83	83	78
LCS 410-68619/2-A	Lab Control Sample	83	109	94	101	95	104	104	98
LCSD 410-66458/3-A	Lab Control Sample Dup	82	73	92	84	80	81	72	57
LCSD 410-68619/3-A	Lab Control Sample Dup	78	90	90	85	85	95	100	93
MB 410-66458/1-A	Method Blank	76	84	92	75	74	82	78	78
MB 410-68619/1-A	Method Blank	80	103	99	92	91	103	103	97

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	13C7PUA (40-135)	PFDoDA (28-136)	PFTDA (10-144)	C3PFBS (19-178)	C3PFHS (32-145)	C8PFOS (49-126)	d3NMFOS (32-151)	d5NEFOS (37-164)
410-20516-1	Influent Composite	68	51	38	66	62	75	86	79
410-20516-1 - RE	Influent Composite	90	89	75	166	93	86	75	88
LCS 410-66458/2-A	Lab Control Sample	88	98	75	73	76	79	79	84
LCS 410-68619/2-A	Lab Control Sample	104	105	94	87	99	97	97	104
LCSD 410-66458/3-A	Lab Control Sample Dup	43	21 *5	1 *5	73	68	55	51	47
LCSD 410-68619/3-A	Lab Control Sample Dup	92	89	81	81	84	88	87	92
MB 410-66458/1-A	Method Blank	79	83	64	65	72	73	69	78
MB 410-68619/1-A	Method Blank	95	98	81	84	91	91	100	94

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFOSA (10-143)	PFBA (41-132)	PFPeA (33-165)					
410-20516-1	Influent Composite	48	67	71					
410-20516-1 - RE	Influent Composite	57	93	149					
LCS 410-66458/2-A	Lab Control Sample	69	78	81					
LCS 410-68619/2-A	Lab Control Sample	76	99	98					
LCSD 410-66458/3-A	Lab Control Sample Dup	22	82	83					
LCSD 410-68619/3-A	Lab Control Sample Dup	60	90	90					
MB 410-66458/1-A	Method Blank	63	73	73					
MB 410-68619/1-A	Method Blank	65	94	102					

Surrogate Legend

M242FTS = M2-4:2 FTS
M282FTS = M2-8:2 FTS
M262FTS = M2-6:2 FTS
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFDoDA = 13C2-PFDoDA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
PFOSA = 13C8 FOSA

Isotope Dilution Summary

Client: Eastern Analytical
Project/Site: 218229

Job ID: 410-20516-1

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 410-66458/1-A
Matrix: Water
Analysis Batch: 66860

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 66458

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	<2.0		2.0	0.50	ng/L		11/16/20 11:20	11/18/20 00:07	1
Perfluoroheptanoic acid	<2.0		2.0	0.50	ng/L		11/16/20 11:20	11/18/20 00:07	1
Perfluorooctanoic acid	<2.0		2.0	0.50	ng/L		11/16/20 11:20	11/18/20 00:07	1
Perfluorononanoic acid	<2.0		2.0	0.50	ng/L		11/16/20 11:20	11/18/20 00:07	1
Perfluorodecanoic acid	<2.0		2.0	0.50	ng/L		11/16/20 11:20	11/18/20 00:07	1
Perfluorotridecanoic acid	<2.0		2.0	0.50	ng/L		11/16/20 11:20	11/18/20 00:07	1
Perfluorotetradecanoic acid	<2.0		2.0	0.50	ng/L		11/16/20 11:20	11/18/20 00:07	1
Perfluorobutanesulfonic acid	<2.0		2.0	0.50	ng/L		11/16/20 11:20	11/18/20 00:07	1
Perfluorohexanesulfonic acid	<2.0		2.0	0.50	ng/L		11/16/20 11:20	11/18/20 00:07	1
Perfluorooctanesulfonic acid	<2.0		2.0	0.50	ng/L		11/16/20 11:20	11/18/20 00:07	1
NEtFOSAA	<3.0		3.0	0.50	ng/L		11/16/20 11:20	11/18/20 00:07	1
NMeFOSAA	<2.0		2.0	0.60	ng/L		11/16/20 11:20	11/18/20 00:07	1
Perfluoropentanesulfonic acid	<2.0		2.0	0.50	ng/L		11/16/20 11:20	11/18/20 00:07	1
Perfluoroheptanesulfonic acid	<2.0		2.0	0.50	ng/L		11/16/20 11:20	11/18/20 00:07	1
Perfluorononanesulfonic acid	<2.0		2.0	0.50	ng/L		11/16/20 11:20	11/18/20 00:07	1
Perfluorodecanesulfonic acid	<2.0		2.0	0.50	ng/L		11/16/20 11:20	11/18/20 00:07	1
Perfluorooctanesulfonamide	<2.0		2.0	0.50	ng/L		11/16/20 11:20	11/18/20 00:07	1
Perfluorobutanoic acid	<5.0		5.0	2.0	ng/L		11/16/20 11:20	11/18/20 00:07	1
Perfluoropentanoic acid	<2.0		2.0	0.50	ng/L		11/16/20 11:20	11/18/20 00:07	1
Perfluoroundecanoic acid	<2.0		2.0	0.50	ng/L		11/16/20 11:20	11/18/20 00:07	1
Perfluorododecanoic acid	<2.0		2.0	0.50	ng/L		11/16/20 11:20	11/18/20 00:07	1
6:2 Fluorotelomer sulfonic acid	<5.0		5.0	2.0	ng/L		11/16/20 11:20	11/18/20 00:07	1
8:2 Fluorotelomer sulfonic acid	<3.0		3.0	1.0	ng/L		11/16/20 11:20	11/18/20 00:07	1
4:2 Fluorotelomer sulfonic acid	<2.0		2.0	0.50	ng/L		11/16/20 11:20	11/18/20 00:07	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*76*		*20 - 187*	*11/16/20 11:20*	*11/18/20 00:07*	*1*
M2-8:2 FTS	*84*		*34 - 182*	*11/16/20 11:20*	*11/18/20 00:07*	*1*
M2-6:2 FTS	*92*		*29 - 189*	*11/16/20 11:20*	*11/18/20 00:07*	*1*
13C5 PFHxA	*75*		*31 - 142*	*11/16/20 11:20*	*11/18/20 00:07*	*1*
13C4 PFHpA	*74*		*30 - 144*	*11/16/20 11:20*	*11/18/20 00:07*	*1*
13C8 PFOA	*82*		*49 - 127*	*11/16/20 11:20*	*11/18/20 00:07*	*1*
13C9 PFNA	*78*		*47 - 136*	*11/16/20 11:20*	*11/18/20 00:07*	*1*
13C6 PFDA	*78*		*47 - 128*	*11/16/20 11:20*	*11/18/20 00:07*	*1*
13C7 PFUnA	*79*		*40 - 135*	*11/16/20 11:20*	*11/18/20 00:07*	*1*
13C2-PFDoDA	*83*		*28 - 136*	*11/16/20 11:20*	*11/18/20 00:07*	*1*
13C2 PFTeDA	*64*		*10 - 144*	*11/16/20 11:20*	*11/18/20 00:07*	*1*
13C3 PFBS	*65*		*19 - 178*	*11/16/20 11:20*	*11/18/20 00:07*	*1*
13C3 PFHxS	*72*		*32 - 145*	*11/16/20 11:20*	*11/18/20 00:07*	*1*
13C8 PFOS	*73*		*49 - 126*	*11/16/20 11:20*	*11/18/20 00:07*	*1*
d3-NMeFOSAA	*69*		*32 - 151*	*11/16/20 11:20*	*11/18/20 00:07*	*1*
d5-NEtFOSAA	*78*		*37 - 164*	*11/16/20 11:20*	*11/18/20 00:07*	*1*
13C8 FOSA	*63*		*10 - 143*	*11/16/20 11:20*	*11/18/20 00:07*	*1*
13C4 PFBA	*73*		*41 - 132*	*11/16/20 11:20*	*11/18/20 00:07*	*1*
13C5 PFPeA	*73*		*33 - 155*	*11/16/20 11:20*	*11/18/20 00:07*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 410-66458/2-A
Matrix: Water
Analysis Batch: 66860

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 66458

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorohexanoic acid	25.6	29.6		ng/L		116	66 - 137
Perfluoroheptanoic acid	25.6	31.0		ng/L		121	66 - 141
Perfluorooctanoic acid	25.6	27.7		ng/L		108	65 - 136
Perfluorononanoic acid	25.6	27.4		ng/L		107	65 - 140
Perfluorodecanoic acid	25.6	29.3		ng/L		114	63 - 137
Perfluorotridecanoic acid	25.6	29.4		ng/L		115	58 - 148
Perfluorotetradecanoic acid	25.6	30.0		ng/L		117	64 - 141
Perfluorobutanesulfonic acid	22.6	24.5		ng/L		108	65 - 132
Perfluorohexanesulfonic acid	24.2	23.3		ng/L		96	60 - 128
Perfluorooctanesulfonic acid	24.5	23.2		ng/L		95	51 - 126
NEtFOSAA	25.6	27.1		ng/L		106	54 - 134
NMeFOSAA	25.6	35.5		ng/L		139	58 - 143
Perfluoropentanesulfonic acid	24.0	27.3		ng/L		114	71 - 136
Perfluoroheptanesulfonic acid	24.4	27.2		ng/L		112	67 - 135
Perfluorononanesulfonic acid	24.6	26.4		ng/L		107	67 - 137
Perfluorodecanesulfonic acid	24.7	26.4		ng/L		107	61 - 134
Perfluorooctanesulfonamide	25.6	31.1		ng/L		122	55 - 130
Perfluorobutanoic acid	25.6	30.1		ng/L		118	62 - 156
Perfluoropentanoic acid	25.6	25.7		ng/L		100	72 - 139
Perfluoroundecanoic acid	25.6	26.3		ng/L		103	62 - 138
Perfluorododecanoic acid	25.6	24.6		ng/L		96	63 - 140
6:2 Fluorotelomer sulfonic acid	24.3	28.1		ng/L		116	57 - 137
8:2 Fluorotelomer sulfonic acid	24.5	26.7		ng/L		109	56 - 140
4:2 Fluorotelomer sulfonic acid	23.9	26.2		ng/L		110	59 - 130

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
M2-4:2 FTS	*80*		*20 - 187*
M2-8:2 FTS	*93*		*34 - 182*
M2-6:2 FTS	*89*		*29 - 189*
13C5 PFHxA	*78*		*31 - 142*
13C4 PFHpA	*75*		*30 - 144*
13C8 PFOA	*83*		*49 - 127*
13C9 PFNA	*83*		*47 - 136*
13C6 PFDA	*78*		*47 - 128*
13C7 PFUnA	*88*		*40 - 135*
13C2-PFDoDA	*98*		*28 - 136*
13C2 PFTeDA	*75*		*10 - 144*
13C3 PFBS	*73*		*19 - 178*
13C3 PFHxS	*76*		*32 - 145*
13C8 PFOS	*79*		*49 - 126*
d3-NMeFOSAA	*79*		*32 - 151*
d5-NEtFOSAA	*84*		*37 - 164*
13C8 FOSA	*69*		*10 - 143*
13C4 PFBA	*78*		*41 - 132*
13C5 PFPeA	*81*		*33 - 155*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 410-66458/3-A
Matrix: Water
Analysis Batch: 66860

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 66458

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorohexanoic acid	25.6	29.5		ng/L		115	66 - 137	0	30
Perfluoroheptanoic acid	25.6	28.8		ng/L		113	66 - 141	7	30
Perfluorooctanoic acid	25.6	26.5		ng/L		104	65 - 136	4	30
Perfluorononanoic acid	25.6	26.0		ng/L		102	65 - 140	5	30
Perfluorodecanoic acid	25.6	27.2		ng/L		106	63 - 137	7	30
Perfluorotridecanoic acid	25.6	7.38	*1	ng/L		29	58 - 146	120	30
Perfluorotetradecanoic acid	25.6	26.5		ng/L		103	64 - 141	12	30
Perfluorobutanesulfonic acid	22.6	23.3		ng/L		103	65 - 132	5	30
Perfluorohexanesulfonic acid	24.2	23.4		ng/L		96	60 - 128	0	30
Perfluorooctanesulfonic acid	24.5	21.3		ng/L		87	51 - 126	8	30
NEtFOSAA	25.6	26.6		ng/L		104	54 - 134	2	30
NMeFOSAA	25.6	29.5		ng/L		115	58 - 143	18	30
Perfluoropentanesulfonic acid	24.0	25.8		ng/L		107	71 - 136	6	30
Perfluoroheptanesulfonic acid	24.4	24.2		ng/L		99	67 - 135	12	30
Perfluorononanesulfonic acid	24.6	18.2	*1	ng/L		74	67 - 137	37	30
Perfluorodecanesulfonic acid	24.7	9.85	*1	ng/L		40	61 - 134	91	30
Perfluorooctanesulfonamide	25.6	30.3		ng/L		118	55 - 130	3	30
Perfluorobutanoic acid	25.6	29.4		ng/L		115	62 - 156	3	30
Perfluoropentanoic acid	25.6	25.9		ng/L		101	72 - 139	1	30
Perfluoroundecanoic acid	25.6	25.2		ng/L		98	62 - 138	4	30
Perfluorododecanoic acid	25.6	23.5		ng/L		92	63 - 140	4	30
6:2 Fluorotelomer sulfonic acid	24.3	27.5		ng/L		113	57 - 137	2	30
8:2 Fluorotelomer sulfonic acid	24.5	24.4		ng/L		100	56 - 140	9	30
4:2 Fluorotelomer sulfonic acid	23.9	26.0		ng/L		109	59 - 130	1	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
M2-4:2 FTS	*82*		*20 - 187*
M2-8:2 FTS	*73*		*34 - 182*
M2-6:2 FTS	*92*		*29 - 189*
13C5 PFHxA	*84*		*31 - 142*
13C4 PFHpA	*80*		*30 - 144*
13C8 PFOA	*81*		*49 - 127*
13C9 PFNA	*72*		*47 - 136*
13C6 PFDA	*57*		*47 - 128*
13C7 PFUnA	*43*		*40 - 135*
13C2-PFDoDA	*21*	*5	*28 - 136*
13C2 PFTeDA	*1*	*5	*10 - 144*
13C3 PFBS	*73*		*19 - 178*
13C3 PFHxS	*68*		*32 - 145*
13C8 PFOS	*55*		*49 - 126*
d3-NMeFOSAA	*51*		*32 - 151*
d5-NEtFOSAA	*47*		*37 - 164*
13C8 FOSA	*22*		*10 - 143*
13C4 PFBA	*82*		*41 - 132*
13C5 PFPeA	*83*		*33 - 155*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 410-68619/1-A
Matrix: Water
Analysis Batch: 69454

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 68619

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	<2.0		2.0	0.50	ng/L		11/20/20 11:01	11/24/20 03:22	1
Perfluoroheptanoic acid	<2.0		2.0	0.50	ng/L		11/20/20 11:01	11/24/20 03:22	1
Perfluorooctanoic acid	<2.0		2.0	0.50	ng/L		11/20/20 11:01	11/24/20 03:22	1
Perfluorononanoic acid	<2.0		2.0	0.50	ng/L		11/20/20 11:01	11/24/20 03:22	1
Perfluorodecanoic acid	<2.0		2.0	0.50	ng/L		11/20/20 11:01	11/24/20 03:22	1
Perfluorotridecanoic acid	<2.0		2.0	0.50	ng/L		11/20/20 11:01	11/24/20 03:22	1
Perfluorotetradecanoic acid	<2.0		2.0	0.50	ng/L		11/20/20 11:01	11/24/20 03:22	1
Perfluorobutanesulfonic acid	<2.0		2.0	0.50	ng/L		11/20/20 11:01	11/24/20 03:22	1
Perfluorohexanesulfonic acid	<2.0		2.0	0.50	ng/L		11/20/20 11:01	11/24/20 03:22	1
Perfluorooctanesulfonic acid	<2.0		2.0	0.50	ng/L		11/20/20 11:01	11/24/20 03:22	1
NEtFOSAA	<3.0		3.0	0.50	ng/L		11/20/20 11:01	11/24/20 03:22	1
NMeFOSAA	<2.0		2.0	0.60	ng/L		11/20/20 11:01	11/24/20 03:22	1
Perfluoropentanesulfonic acid	<2.0		2.0	0.50	ng/L		11/20/20 11:01	11/24/20 03:22	1
Perfluoroheptanesulfonic acid	<2.0		2.0	0.50	ng/L		11/20/20 11:01	11/24/20 03:22	1
Perfluorononanesulfonic acid	<2.0		2.0	0.50	ng/L		11/20/20 11:01	11/24/20 03:22	1
Perfluorodecanesulfonic acid	<2.0		2.0	0.50	ng/L		11/20/20 11:01	11/24/20 03:22	1
Perfluorooctanesulfonamide	<2.0		2.0	0.50	ng/L		11/20/20 11:01	11/24/20 03:22	1
Perfluorobutanoic acid	<5.0		5.0	2.0	ng/L		11/20/20 11:01	11/24/20 03:22	1
Perfluoropentanoic acid	<2.0		2.0	0.50	ng/L		11/20/20 11:01	11/24/20 03:22	1
Perfluoroundecanoic acid	<2.0		2.0	0.50	ng/L		11/20/20 11:01	11/24/20 03:22	1
Perfluorododecanoic acid	<2.0		2.0	0.50	ng/L		11/20/20 11:01	11/24/20 03:22	1
6:2 Fluorotelomer sulfonic acid	<5.0		5.0	2.0	ng/L		11/20/20 11:01	11/24/20 03:22	1
8:2 Fluorotelomer sulfonic acid	<3.0		3.0	1.0	ng/L		11/20/20 11:01	11/24/20 03:22	1
4:2 Fluorotelomer sulfonic acid	<2.0		2.0	0.50	ng/L		11/20/20 11:01	11/24/20 03:22	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*80*		*20 - 187*	*11/20/20 11:01*	*11/24/20 03:22*	*1*
M2-8:2 FTS	*103*		*34 - 182*	*11/20/20 11:01*	*11/24/20 03:22*	*1*
M2-6:2 FTS	*99*		*29 - 189*	*11/20/20 11:01*	*11/24/20 03:22*	*1*
13C5 PFHxA	*92*		*31 - 142*	*11/20/20 11:01*	*11/24/20 03:22*	*1*
13C4 PFHpA	*91*		*30 - 144*	*11/20/20 11:01*	*11/24/20 03:22*	*1*
13C8 PFOA	*103*		*49 - 127*	*11/20/20 11:01*	*11/24/20 03:22*	*1*
13C9 PFNA	*103*		*47 - 136*	*11/20/20 11:01*	*11/24/20 03:22*	*1*
13C6 PFDA	*97*		*47 - 128*	*11/20/20 11:01*	*11/24/20 03:22*	*1*
13C7 PFUnA	*95*		*40 - 135*	*11/20/20 11:01*	*11/24/20 03:22*	*1*
13C2-PFDoDA	*98*		*28 - 136*	*11/20/20 11:01*	*11/24/20 03:22*	*1*
13C2 PFTeDA	*81*		*10 - 144*	*11/20/20 11:01*	*11/24/20 03:22*	*1*
13C3 PFBS	*84*		*19 - 178*	*11/20/20 11:01*	*11/24/20 03:22*	*1*
13C3 PFHxS	*91*		*32 - 145*	*11/20/20 11:01*	*11/24/20 03:22*	*1*
13C8 PFOS	*91*		*49 - 126*	*11/20/20 11:01*	*11/24/20 03:22*	*1*
d3-NMeFOSAA	*100*		*32 - 151*	*11/20/20 11:01*	*11/24/20 03:22*	*1*
d5-NEtFOSAA	*94*		*37 - 164*	*11/20/20 11:01*	*11/24/20 03:22*	*1*
13C8 FOSA	*65*		*10 - 143*	*11/20/20 11:01*	*11/24/20 03:22*	*1*
13C4 PFBA	*94*		*41 - 132*	*11/20/20 11:01*	*11/24/20 03:22*	*1*
13C5 PFPeA	*102*		*33 - 155*	*11/20/20 11:01*	*11/24/20 03:22*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 410-68619/2-A
Matrix: Water
Analysis Batch: 69454

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 68619

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorohexanoic acid	25.6	25.4		ng/L		99	66 - 137
Perfluoroheptanoic acid	25.6	28.8		ng/L		112	66 - 141
Perfluorooctanoic acid	25.6	24.9		ng/L		97	65 - 136
Perfluorononanoic acid	25.6	25.7		ng/L		101	65 - 140
Perfluorodecanoic acid	25.6	23.9		ng/L		93	63 - 137
Perfluorotridecanoic acid	25.6	24.8		ng/L		97	58 - 146
Perfluorotetradecanoic acid	25.6	26.0		ng/L		101	64 - 141
Perfluorobutanesulfonic acid	22.6	22.3		ng/L		98	65 - 132
Perfluorohexanesulfonic acid	24.2	20.4		ng/L		84	60 - 128
Perfluorooctanesulfonic acid	24.5	19.6		ng/L		80	51 - 126
NEtFOSAA	25.6	25.1		ng/L		98	54 - 134
NMeFOSAA	25.6	29.5		ng/L		115	58 - 143
Perfluoropentanesulfonic acid	24.0	24.2		ng/L		101	71 - 136
Perfluoroheptanesulfonic acid	24.4	22.0		ng/L		90	67 - 135
Perfluorononanesulfonic acid	24.6	24.3		ng/L		99	67 - 137
Perfluorodecanesulfonic acid	24.7	24.8		ng/L		101	61 - 134
Perfluorooctanesulfonamide	25.6	26.4		ng/L		103	55 - 130
Perfluorobutanoic acid	25.6	25.7		ng/L		101	62 - 156
Perfluoropentanoic acid	25.6	24.3		ng/L		95	72 - 139
Perfluoroundecanoic acid	25.6	24.6		ng/L		96	62 - 138
Perfluorododecanoic acid	25.6	22.2		ng/L		87	63 - 140
6:2 Fluorotelomer sulfonic acid	24.3	25.7		ng/L		106	57 - 137
8:2 Fluorotelomer sulfonic acid	24.5	24.7		ng/L		101	56 - 140
4:2 Fluorotelomer sulfonic acid	23.9	24.0		ng/L		100	59 - 130

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
M2-4:2 FTS	*83*		*20 - 187*
M2-8:2 FTS	*109*		*34 - 182*
M2-6:2 FTS	*94*		*29 - 189*
13C5 PFHxA	*101*		*31 - 142*
13C4 PFHpA	*95*		*30 - 144*
13C8 PFOA	*104*		*49 - 127*
13C9 PFNA	*104*		*47 - 136*
13C6 PFDA	*98*		*47 - 128*
13C7 PFUnA	*104*		*40 - 135*
13C2-PFDoDA	*105*		*28 - 136*
13C2 PFTeDA	*94*		*10 - 144*
13C3 PFBS	*87*		*19 - 178*
13C3 PFHxS	*99*		*32 - 145*
13C8 PFOS	*97*		*49 - 126*
d3-NMeFOSAA	*97*		*32 - 151*
d5-NEtFOSAA	*104*		*37 - 164*
13C8 FOSA	*76*		*10 - 143*
13C4 PFBA	*99*		*41 - 132*
13C5 PFPeA	*98*		*33 - 155*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 410-68619/3-A
Matrix: Water
Analysis Batch: 69454

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 68619

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorohexanoic acid	25.6	27.8		ng/L		109	66 - 137	9	30
Perfluoroheptanoic acid	25.6	28.5		ng/L		111	66 - 141	1	30
Perfluorooctanoic acid	25.6	23.9		ng/L		93	65 - 136	4	30
Perfluorononanoic acid	25.6	24.8		ng/L		97	65 - 140	3	30
Perfluorodecanoic acid	25.6	23.3		ng/L		91	63 - 137	2	30
Perfluorotridecanoic acid	25.6	25.3		ng/L		99	58 - 148	2	30
Perfluorotetradecanoic acid	25.6	26.8		ng/L		105	64 - 141	3	30
Perfluorobutanesulfonic acid	22.8	23.7		ng/L		105	65 - 132	6	30
Perfluorohexanesulfonic acid	24.2	21.5		ng/L		89	60 - 128	5	30
Perfluorooctanesulfonic acid	24.5	20.5		ng/L		84	51 - 126	4	30
NEtFOSAA	25.6	26.9		ng/L		105	54 - 134	7	30
NMeFOSAA	25.6	27.9		ng/L		109	58 - 143	5	30
Perfluoropentanesulfonic acid	24.0	24.4		ng/L		101	71 - 136	1	30
Perfluoroheptanesulfonic acid	24.4	24.5		ng/L		101	67 - 135	11	30
Perfluorononanesulfonic acid	24.6	27.0		ng/L		110	67 - 137	11	30
Perfluorodecanesulfonic acid	24.7	26.1		ng/L		106	61 - 134	5	30
Perfluorooctanesulfonamide	25.6	26.0		ng/L		102	55 - 130	2	30
Perfluorobutanoic acid	25.6	26.1		ng/L		102	62 - 156	1	30
Perfluoropentanoic acid	25.6	25.2		ng/L		98	72 - 139	4	30
Perfluoroundecanoic acid	25.6	23.8		ng/L		93	62 - 138	3	30
Perfluorododecanoic acid	25.6	25.1		ng/L		98	63 - 140	13	30
6:2 Fluorotelomer sulfonic acid	24.3	25.3		ng/L		104	57 - 137	1	30
8:2 Fluorotelomer sulfonic acid	24.5	29.0		ng/L		118	56 - 140	16	30
4:2 Fluorotelomer sulfonic acid	23.9	23.1		ng/L		97	59 - 130	4	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
M2-4:2 FTS	*78*		*20 - 187*
M2-8:2 FTS	*90*		*34 - 182*
M2-6:2 FTS	*90*		*29 - 189*
13C5 PFHxA	*85*		*31 - 142*
13C4 PFHpA	*85*		*30 - 144*
13C8 PFOA	*95*		*49 - 127*
13C9 PFNA	*100*		*47 - 136*
13C6 PFDA	*93*		*47 - 128*
13C7 PFUnA	*92*		*40 - 135*
13C2-PFDoDA	*89*		*28 - 136*
13C2 PFTeDA	*81*		*10 - 144*
13C3 PFBS	*81*		*19 - 178*
13C3 PFHxS	*84*		*32 - 145*
13C8 PFOS	*88*		*49 - 126*
d3-NMeFOSAA	*87*		*32 - 151*
d5-NEtFOSAA	*92*		*37 - 164*
13C8 FOSA	*60*		*10 - 143*
13C4 PFBA	*90*		*41 - 132*
13C5 PFPeA	*90*		*33 - 155*

QC Association Summary

Client: Eastern Analytical
Project/Site: 218229

Job ID: 410-20516-1

LCMS

Prep Batch: 66458

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-20516-1	Influent Composite	Total/NA	Water	T-WI14355 r12	
MB 410-66458/1-A	Method Blank	Total/NA	Water	T-WI14355 r12	
LCS 410-66458/2-A	Lab Control Sample	Total/NA	Water	T-WI14355 r12	
LCSD 410-66458/3-A	Lab Control Sample Dup	Total/NA	Water	T-WI14355 r12	

Analysis Batch: 66860

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-20516-1	Influent Composite	Total/NA	Water	537 (modified)	66458
MB 410-66458/1-A	Method Blank	Total/NA	Water	537 (modified)	66458
LCS 410-66458/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	66458
LCSD 410-66458/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	66458

Prep Batch: 68619

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-20516-1 - RE	Influent Composite	Total/NA	Water	T-WI14355 r12	
MB 410-68619/1-A	Method Blank	Total/NA	Water	T-WI14355 r12	
LCS 410-68619/2-A	Lab Control Sample	Total/NA	Water	T-WI14355 r12	
LCSD 410-68619/3-A	Lab Control Sample Dup	Total/NA	Water	T-WI14355 r12	

Analysis Batch: 69454

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-20516-1 - RE	Influent Composite	Total/NA	Water	537 (modified)	68619
MB 410-68619/1-A	Method Blank	Total/NA	Water	537 (modified)	68619
LCS 410-68619/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	68619
LCSD 410-68619/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	68619

Lab Chronicle

Client: Eastern Analytical
Project/Site: 218229

Job ID: 410-20516-1

Client Sample ID: Influent Composite

Date Collected: 11/04/20 14:28
Date Received: 11/12/20 10:23

Lab Sample ID: 410-20516-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	T-WI14355 r12			66458	11/18/20 11:20	S7AC	ELLE
Total/NA	Analysis	537 (modified)		1	66860	11/18/20 03:32	OLN7	ELLE
Total/NA	Prep	T-WI14355 r12	RE		68619	11/20/20 11:01	S7AC	ELLE
Total/NA	Analysis	537 (modified)	RE	1	69454	11/24/20 06:43	UUV6	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Eastern Analytical
Project/Site: 218229

Job ID: 410-20516-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
New Hampshire	NELAP	273019	01-01-21

Method Summary

Client: Eastern Analytical
Project/Site: 218229

Job ID: 410-20516-1

Method	Method Description	Protocol	Laboratory
T-WI14355 r12	SOP T-PFAS-WI14355 Rev.12	ELLE - Lancaster	ELLE
T-WI14355 r12	T-PFAS-WI14355 Revision 12	ELLE - Lancaster	ELLE

Protocol References:

ELLE - Lancaster = Eurofins Lancaster, Facility Standard Operating Procedure.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Eastern Analytical
Project/Site: 218229

Job ID: 410-20516-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-20516-1	Influent Composite	Water	11/04/20 14:28	11/12/20 10:23	

13

CHAIN-OF-CUSTODY REC(

410-20516-Chain of Custody

Eastern Analytical, Inc.
professional laboratory and drilling services

EAI ID# 218229 Page 1

Sample Notes

Sample ID	Date Sampled	Matrix	aParameters
Influent Composite	11/4/2020 14:28	aqueous	Subcontract - Perfluorinated Compounds EPA 537

EAI ID#: 218229 Project State: NH

Project ID: 6576

Company: Lancaster Labs aka Eurofins

Address: 2425 New Holland Pike PO

Address: Lancaster, PA 17601

Account #: 11730

Phone #: 717-656-2300

Results Needed: Preferred Date: Standard

RUSH Due Date: _____

QC Deliverables

☒ A ☐ A+ ☐ B ☐ B+ ☐ C ☐ MA MCP

Notes about project:

Email login confirmation, pdf of results and invoice to customerservice@easternanalytical.com.

Flow-proportional composite (11/3 - 11/4)

24 compound list - Same as EAI # 217569

PO #: 53675 EAI ID# 218229

Data Deliverable (circle)

Excel NH EMD EQuIS ME EGAD

Call prior to analyzing, if RUSH charges will be applied.

Samples Collected by: _____

Relinquished by _____ Date/Time 11/12/20 1600 Received by _____

Relinquished by _____ Date/Time 11/12/20 1023 Received by _____

Eastern Analytical, Inc. 25 Chenell Dr. Concord, NH 03301 Phone: (603)228-0525 1-800-287-0525 customerservice@easternanalytical.com

As a subcontract lab to EAI, you will defend, indemnify and hold Eastern Analytical, Inc., its officers, employees, and agents harmless from and against any and all liability, loss, expense or claims for injury or damages arising out of the performance against this chain of custody but only in proportion to and to the extent such liability, loss, expense, or claims for injury or damages are caused by or result from the negligent or intentional acts or omissions of you as a subcontract lab, your officers, agents or employees

2/17/2021 (Rev. 1)

23

Login Sample Receipt Checklist

Client: Eastern Analytical

Job Number: 410-20516-1

Login Number: 20516
List Number: 1
Creator: Rivera-Santa, Julissa

List Source: Eurofins Lancaster Laboratories Env

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	N/A	

CHAIN-OF-CUSTODY RECORD

218229

EXENH 25

Sample IDs	Date/Time *Composites need start and stop dates/times*	Matrix	Parameters and Sample Notes	# of containers
Influent Composite	11/03-04/2020 14:28	aqueous Grab or Comp	AqTot/PFCSSubLL	2

☑ Sampler confirms ID and parameters are accurate *Circle preservative/s:* HCL HNO$_3$ H$_2$SO$_4$ NaOH MEOH Na$_2$S$_2$O$_3$ ICE Dissolved Sample Field Filtered ☐

Please ensure this auto COC is accurate, adheres to permit or sampling requirements for this sampling event, and modify as necessary.

EAI Project ID 5576
Project Name Exeter Local Limits
State NH
Client (Pro Mgr) Steve Dalton
Customer Exeter, Town of
Address Town Office, 13 Newfields Road
City Exeter NH 03833-2792
Phone 778-0591 Fax 772-4709
Email: sdalton@exeternh.gov
Direct 603-773-6168

Results Needed by: Preferred date _____
Notes:

Inf flow-proportional composites.

Subcontract PFAS to EurofinsLancaster 24 compound list.

QC deliverables
☒ A ☐ A+ ☐ B ☐ B+ ☐ C ☐ MA MCP

ReportingOptions
☐ HC
☒ EDD PDF
☒ EDD email
☒ PDF prelim, NO FAX
☐ e-mail Login Confirmation
☐ NO FAX
☐ Partial FAX
☒ PDF Invoice
☐ EQUIS

PO# 4335-309
Quote#: 1017873
Temp 5.6°C
ICE Y N

Samples Collected by: JL/EA1

Relinquished by	Date/Time	Received by
[signature]	11/04/2020 1615	[signature]
Relinquished by	Date/Time	Received by

Eastern Analytical, Inc.

professional laboratory and drilling services

Steve Dalton
Exeter, Town of
Town Office, 13 Newfields Road
Exeter , NH 03833-2792

Subject: Laboratory Report

Eastern Analytical, Inc. ID:	217569
Client Identification:	Exeter Local Limits
Date Received:	10/23/2020

Dear Mr. Dalton :

Enclosed please find the report of analysis for the above identified project.
As discussed, analyses were subcontracted and are listed as follows:

Analysis:	Subcontract - PFAS EPA 537mod (24 Compounds)
Subcontractor Lab:	Eurofins / Lancaster Laboratories

A complete copy of the report is attached. This report may not be reproduced except in full, without the written approval of the laboratory.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

Lorraine Olashaw, Lab Director — 11.24.20 (Date) — 11 (# of pages (excluding cover letter))

SAMPLE CONDITIONS PAGE

EAI ID#: **217569**

Client: **Exeter, Town of**

Client Designation: **Exeter Local Limits**

Temperature upon receipt (°C): 5.8 **Received on ice or cold packs (Yes/No): Y**

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date Received	Date/Time Sampled	Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
217569.01	Effluent Composite	10/23/20	10/23/20 08:00	aqueous		Adheres to Sample Acceptance Policy
217569.02	Sludge	10/23/20	10/23/20 08:20	solid		Adheres to Sample Acceptance Policy

Samples were properly preserved and the pH measured when applicable unless otherwise noted. Analysis of solids for pH, Flashpoint, Ignitability, Paint Filter, Corrosivity, Conductivity and Specific Gravity are reported on an "as received" basis.
Immediate analyses, pH, Total Residual Chlorine, Dissolved Oxygen and Sulfite, performed at the laboratory were run outside of the recommended 15 minute hold time.
All results contained in this report relate only to the above listed samples.
References include:
1) EPA 600/4-79-020, 1983
2) Standard Methods for Examination of Water and Wastewater, 20th, 21st, 22nd & 23rd Edition or noted Revision year.
3) Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB
4) Hach Water Analysis Handbook, 4th edition, 1992

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-18662-1
Client Project/Site: 2117569

For:
Eastern Analytical
25 Chenell Drive
Concord, New Hampshire 03301

Attn: Customer Service

Authorized for release by:
11/22/2020 10:27:49 PM

Dorothy Coplan, Project Manager
(717)556-4611
Dorothy.Coplan@eurofinset.com

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

Dorothy Coplan
Project Manager
11/22/2020 10:27:49 PM

Table of Contents

Definitions/Glossary

Client: Eastern Analytical
Project/Site: 2117569

Job ID: 410-18662-1

Qualifiers

LCMS

Qualifier	Qualifier Description
*5	Isotope dilution analyte is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-18662-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-18662-1

Receipt
The samples were received on 10/29/2020 9:02 AM; the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.9°C

LCMS
Method PFC_IDA: Reporting limits were raised for the following sample: Effluent Composite (410-18662-1) due to limited sample volume.

Method PFC_IDA: he recovery for the labeled isotope(s) in the following sample: Sludge (410-18662-2) is outside the QC acceptance limits. Since the recovery is high and the native analyte is not detected in the sample, the data is reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Eastern Analytical
Project/Site: 2117569

Job ID: 410-18662-1

Client Sample ID: Effluent Composite — Lab Sample ID: 410-18662-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid	24		3.7	0.92	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid	3.8		3.7	0.92	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid	13		3.7	0.92	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid	12		3.7	0.92	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid	4.8		3.7	0.92	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid	24		3.7	0.92	ng/L	1		537 (modified)	Total/NA

Client Sample ID: Sludge — Lab Sample ID: 410-18662-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
NEtFOSAA	9.2		5.1	0.51	ng/g	1	¤	537 IDA	Total/NA
NMeFOSAA	9.1		5.1	0.51	ng/g	1	¤	537 IDA	Total/NA
Perfluorodecanoic acid	8.7		1.5	0.51	ng/g	1	¤	537 IDA	Total/NA
Perfluorododecanoic acid	2.7		1.5	0.51	ng/g	1	¤	537 IDA	Total/NA
Perfluorohexanoic acid	1.8		1.5	0.51	ng/g	1	¤	537 IDA	Total/NA
Perfluorooctanesulfonic acid	17		1.5	0.51	ng/g	1	¤	537 IDA	Total/NA
Perfluorooctanoic acid	4.1		1.5	0.51	ng/g	1	¤	537 IDA	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Eastern Analytical
Project/Site: 2117569

Job ID: 410-18662-1

Client Sample ID: Effluent Composite
Date Collected: 10/23/20 08:00
Date Received: 10/29/20 09:02

Lab Sample ID: 410-18662-1
Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	24		3.7	0.92	ng/L		10/29/20 19:08	10/30/20 14:25	1
Perfluoroheptanoic acid	3.8		3.7	0.92	ng/L		10/29/20 19:08	10/30/20 14:25	1
Perfluorooctanoic acid	13		3.7	0.92	ng/L		10/29/20 19:08	10/30/20 14:25	1
Perfluorononanoic acid	<3.7		3.7	0.92	ng/L		10/29/20 19:08	10/30/20 14:25	1
Perfluorodecanoic acid	<3.7		3.7	0.92	ng/L		10/29/20 19:08	10/30/20 14:25	1
Perfluorotridecanoic acid	<3.7		3.7	0.92	ng/L		10/29/20 19:08	10/30/20 14:25	1
Perfluorotetradecanoic acid	<3.7		3.7	0.92	ng/L		10/29/20 19:08	10/30/20 14:25	1
Perfluorobutanesulfonic acid	12		3.7	0.92	ng/L		10/29/20 19:08	10/30/20 14:25	1
Perfluorohexanesulfonic acid	<3.7		3.7	0.92	ng/L		10/29/20 19:08	10/30/20 14:25	1
Perfluorooctanesulfonic acid	4.8		3.7	0.92	ng/L		10/29/20 19:08	10/30/20 14:25	1
NEtFOSAA	<5.5		5.5	0.92	ng/L		10/29/20 19:08	10/30/20 14:25	1
NMeFOSAA	<3.7		3.7	1.1	ng/L		10/29/20 19:08	10/30/20 14:25	1
Perfluoropentanesulfonic acid	<3.7		3.7	0.92	ng/L		10/29/20 19:08	10/30/20 14:25	1
Perfluoroheptanesulfonic acid	<3.7		3.7	0.92	ng/L		10/29/20 19:08	10/30/20 14:25	1
Perfluorononanesulfonic acid	<3.7		3.7	0.92	ng/L		10/29/20 19:08	10/30/20 14:25	1
Perfluorodecanesulfonic acid	<3.7		3.7	0.92	ng/L		10/29/20 19:08	10/30/20 14:25	1
Perfluorooctanesulfonamide	<3.7		3.7	0.92	ng/L		10/29/20 19:08	10/30/20 14:25	1
Perfluorobutanoic acid	<9.2		9.2	3.7	ng/L		10/29/20 19:08	10/30/20 14:25	1
Perfluoropentanoic acid	24		3.7	0.92	ng/L		10/29/20 19:08	10/30/20 14:25	1
Perfluoroundecanoic acid	<3.7		3.7	0.92	ng/L		10/29/20 19:08	10/30/20 14:25	1
Perfluorododecanoic acid	<3.7		3.7	0.92	ng/L		10/29/20 19:08	10/30/20 14:25	1
6:2 Fluorotelomer sulfonic acid	<9.2		9.2	3.7	ng/L		10/29/20 19:08	10/30/20 14:25	1
8:2 Fluorotelomer sulfonic acid	<5.5		5.5	1.8	ng/L		10/29/20 19:08	10/30/20 14:25	1
4:2 Fluorotelomer sulfonic acid	<3.7		3.7	0.92	ng/L		10/29/20 19:08	10/30/20 14:25	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*111*		*20 - 187*	*10/29/20 19:08*	*10/30/20 14:25*	*1*
M2-8:2 FTS	*85*		*34 - 182*	*10/29/20 19:08*	*10/30/20 14:25*	*1*
M2-6:2 FTS	*115*		*29 - 189*	*10/29/20 19:08*	*10/30/20 14:25*	*1*
13C5 PFHxA	*72*		*31 - 142*	*10/29/20 19:08*	*10/30/20 14:25*	*1*
13C4 PFHpA	*80*		*30 - 144*	*10/29/20 19:08*	*10/30/20 14:25*	*1*
13C8 PFOA	*76*		*49 - 127*	*10/29/20 19:08*	*10/30/20 14:25*	*1*
13C9 PFNA	*90*		*47 - 136*	*10/29/20 19:08*	*10/30/20 14:25*	*1*
13C6 PFDA	*77*		*47 - 128*	*10/29/20 19:08*	*10/30/20 14:25*	*1*
13C7 PFUnA	*80*		*40 - 135*	*10/29/20 19:08*	*10/30/20 14:25*	*1*
13C2-PFDoDA	*79*		*28 - 136*	*10/29/20 19:08*	*10/30/20 14:25*	*1*
13C2 PFTeDA	*64*		*10 - 144*	*10/29/20 19:08*	*10/30/20 14:25*	*1*
13C3 PFBS	*97*		*19 - 178*	*10/29/20 19:08*	*10/30/20 14:25*	*1*
13C3 PFHxS	*70*		*32 - 145*	*10/29/20 19:08*	*10/30/20 14:25*	*1*
13C8 PFOS	*77*		*49 - 126*	*10/29/20 19:08*	*10/30/20 14:25*	*1*
d3-NMeFOSAA	*85*		*32 - 151*	*10/29/20 19:08*	*10/30/20 14:25*	*1*
d5-NEtFOSAA	*87*		*37 - 164*	*10/29/20 19:08*	*10/30/20 14:25*	*1*
13C8 FOSA	*34*		*10 - 143*	*10/29/20 19:08*	*10/30/20 14:25*	*1*
13C4 PFBA	*77*		*41 - 132*	*10/29/20 19:08*	*10/30/20 14:25*	*1*
13C5 PFPeA	*97*		*33 - 155*	*10/29/20 19:08*	*10/30/20 14:25*	*1*

Client: Eastern Analytical
Project/Site: 2117569

Job ID: 410-18662-1

Client Sample ID: Sludge
Date Collected: 10/23/20 08:20
Date Received: 10/29/20 09:02

Lab Sample ID: 410-18662-2
Matrix: Solid
Percent Solids: 19.5

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4:2 Fluorotelomer sulfonic acid	<5.1		5.1	1.5	ng/g	☼	11/10/20 11:38	11/12/20 11:34	1
6:2 Fluorotelomer sulfonic acid	<5.1		5.1	1.5	ng/g	☼	11/10/20 11:38	11/12/20 11:34	1
8:2 Fluorotelomer sulfonic acid	<7.7		7.7	1.5	ng/g	☼	11/10/20 11:38	11/12/20 11:34	1
NEtFOSAA	9.2		5.1	0.51	ng/g	☼	11/10/20 11:38	11/12/20 11:34	1
NMeFOSAA	9.1		5.1	0.51	ng/g	☼	11/10/20 11:38	11/12/20 11:34	1
Perfluorobutanesulfonic acid	<5.1		5.1	1.0	ng/g	☼	11/10/20 11:38	11/12/20 11:34	1
Perfluorobutanoic acid	<5.1		5.1	2.1	ng/g	☼	11/10/20 11:38	11/12/20 11:34	1
Perfluorodecanesulfonic acid	<1.5		1.5	0.51	ng/g	☼	11/10/20 11:38	11/12/20 11:34	1
Perfluorodecanoic acid	8.7		1.5	0.51	ng/g	☼	11/10/20 11:38	11/12/20 11:34	1
Perfluorododecanoic acid	2.7		1.5	0.51	ng/g	☼	11/10/20 11:38	11/12/20 11:34	1
Perfluoroheptanesulfonic acid	<1.5		1.5	0.51	ng/g	☼	11/10/20 11:38	11/12/20 11:34	1
Perfluoroheptanoic acid	<1.5		1.5	0.51	ng/g	☼	11/10/20 11:39	11/12/20 11:34	1
Perfluorohexanesulfonic acid	<1.5		1.5	0.51	ng/g	☼	11/10/20 11:39	11/12/20 11:34	1
Perfluorohexanoic acid	1.8		1.5	0.51	ng/g	☼	11/10/20 11:39	11/12/20 11:34	1
Perfluorononanesulfonic acid	<1.5		1.5	0.51	ng/g	☼	11/10/20 11:38	11/12/20 11:34	1
Perfluorononanoic acid	<1.5		1.5	0.51	ng/g	☼	11/10/20 11:38	11/12/20 11:34	1
Perfluorooctanesulfonamide	<1.5		1.5	0.51	ng/g	☼	11/10/20 11:38	11/12/20 11:34	1
Perfluorooctanesulfonic acid	17		1.5	0.51	ng/g	☼	11/10/20 11:38	11/12/20 11:34	1
Perfluorooctanoic acid	4.1		1.5	0.51	ng/g	☼	11/10/20 11:38	11/12/20 11:34	1
Perfluoropentanesulfonic acid	<1.5		1.5	0.51	ng/g	☼	11/10/20 11:38	11/12/20 11:34	1
Perfluoropentanoic acid	<1.5		1.5	0.51	ng/g	☼	11/10/20 11:38	11/12/20 11:34	1
Perfluorotetradecanoic acid	<1.5		1.5	0.51	ng/g	☼	11/10/20 11:38	11/12/20 11:34	1
Perfluorotridecanoic acid	<1.5		1.5	0.51	ng/g	☼	11/10/20 11:38	11/12/20 11:34	1
Perfluoroundecanoic acid	<1.5		1.5	0.51	ng/g	☼	11/10/20 11:38	11/12/20 11:34	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*187*	*5	*10 - 169*	*11/10/20 11:38*	*11/12/20 11:34*	*1*
M2-6:2 FTS	*226*	*5	*10 - 182*	*11/10/20 11:38*	*11/12/20 11:34*	*1*
M2-8:2 FTS	*152*		*10 - 178*	*11/10/20 11:38*	*11/12/20 11:34*	*1*
13C2 PFTeDA	*54*		*10 - 138*	*11/10/20 11:38*	*11/12/20 11:34*	*1*
13C3 PFBS	*121*		*23 - 130*	*11/10/20 11:38*	*11/12/20 11:34*	*1*
13C4 PFBA	*85*		*12 - 137*	*11/10/20 11:38*	*11/12/20 11:34*	*1*
13C4 PFHpA	*91*		*15 - 139*	*11/10/20 11:38*	*11/12/20 11:34*	*1*
13C5 PFPeA	*105*		*12 - 135*	*11/10/20 11:38*	*11/12/20 11:34*	*1*
13C8 PFOA	*88*		*21 - 133*	*11/10/20 11:38*	*11/12/20 11:34*	*1*
13C8 PFOS	*85*		*31 - 130*	*11/10/20 11:38*	*11/12/20 11:34*	*1*
d3-NMeFOSAA	*59*		*10 - 172*	*11/10/20 11:38*	*11/12/20 11:34*	*1*
d5-NEtFOSAA	*52*		*10 - 176*	*11/10/20 11:38*	*11/12/20 11:34*	*1*
13C3 PFHxS	*84*		*24 - 136*	*11/10/20 11:38*	*11/12/20 11:34*	*1*
13C5 PFHxA	*90*		*11 - 138*	*11/10/20 11:38*	*11/12/20 11:34*	*1*
13C6 PFDA	*73*		*21 - 134*	*11/10/20 11:38*	*11/12/20 11:34*	*1*
13C7 PFUnA	*41*		*15 - 138*	*11/10/20 11:38*	*11/12/20 11:34*	*1*
13C8 FOSA	*47*		*25 - 135*	*11/10/20 11:38*	*11/12/20 11:34*	*1*
13C2-PFDoDA	*48*		*28 - 126*	*11/10/20 11:38*	*11/12/20 11:34*	*1*
13C9 PFNA	*103*		*15 - 145*	*11/10/20 11:38*	*11/12/20 11:34*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	80.5		1.0	1.0	%			11/03/20 09:30	1
Percent Solids	19.5		1.0	1.0	%			11/03/20 09:30	1

Isotope Dilution Summary

Client: Eastern Analytical
Project/Site: 2117569

Job ID: 410-18662-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water — **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M242FTS (20-187)	M282FTS (34-182)	M262FTS (29-189)	13C5PHA (31-142)	C4PFHA (30-144)	C8PFOA (49-127)	C9PFNA (47-136)	C6PFDA (47-128)
410-18662-1	Effluent Composite	111	85	115	72	80	76	90	77
LCS 410-60147/2-A	Lab Control Sample	77	78	87	77	79	86	85	81
MB 410-60147/1-A	Method Blank	64	77	74	73	70	76	80	75

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	13C7PUA (40-135)	PFDoDA (28-136)	PFTDA (10-144)	C3PFBS (19-178)	C3PFHS (32-145)	C8PFOS (49-126)	d3NMFOS (32-161)	d5NEFOS (37-164)
410-18662-1	Effluent Composite	80	79	84	97	70	77	85	87
LCS 410-60147/2-A	Lab Control Sample	85	81	79	79	79	78	91	86
MB 410-60147/1-A	Method Blank	81	73	71	68	70	71	83	78

		Percent Isotope Dilution Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	PFOSA (10-143)	PFBA (41-132)	PFPeA (33-155)
410-18662-1	Effluent Composite	34	77	97
LCS 410-60147/2-A	Lab Control Sample	52	83	84
MB 410-60147/1-A	Method Blank	61	76	78

Surrogate Legend

M242FTS = M2-4:2 FTS
M282FTS = M2-8:2 FTS
M262FTS = M2-6:2 FTS
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFDoDA = 13C2-PFDoDA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
PFOSA = 13C8 FOSA
PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA

Method: 537 IDA - EPA 537 Isotope Dilution

Matrix: Solid — **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M242FTS (10-169)	M262FTS (10-182)	M282FTS (10-178)	PFTDA (10-138)	C3PFBS (23-130)	PFBA (12-137)	C4PFHA (16-139)	PFPeA (12-135)
410-18662-2	Sludge	187 *5	228 *5	152	54	121	85	91	105
LCS 410-64262/2-B	Lab Control Sample	103	90	93	72	94	92	91	96
LCSD 410-64262/3-B	Lab Control Sample Dup	98	85	79	65	90	88	92	93
MB 410-64262/1-B	Method Blank	108	101	106	68	99	94	94	102

Isotope Dilution Summary

Client: Eastern Analytical
Project/Site: 2117569

Job ID: 410-18662-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Matrix: Solid

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID.	C8PFOA (21-133)	C8PFOS (31-130)	d3NMFOS (10-172)	d5NEFOS (10-176)	C3PFHS (24-136)	13C5PHA (11-138)	C6PFDA (21-134)	13C7PUA (15-138)
410-18662-2	Sludge	88	85	59	52	84	90	73	41
LCS 410-64262/2-B	Lab Control Sample	103	91	83	80	98	104	84	94
LCSD 410-64262/3-B	Lab Control Sample Dup	98	83	81	76	94	100	90	89
MB 410-64262/1-B	Method Blank	103	86	93	95	99	105	102	110

		Percent Isotope Dilution Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	PFOSA (25-135)	PFDoDA (28-126)	C9PFNA (16-145)
410-18662-2	Sludge	47	48	103
LCS 410-64262/2-B	Lab Control Sample	75	84	92
LCSD 410-64262/3-B	Lab Control Sample Dup	83	81	79
MB 410-64262/1-B	Method Blank	86	95	93

Surrogate Legend

M242FTS = M2-4:2 FTS
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
PFBA = 13C4 PFBA
C4PFHA = 13C4 PFHpA
PFPeA = 13C5 PFPeA
C8PFOA = 13C8 PFOA
C8PFOS = 13C8 PFOS
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
C3PFHS = 13C3 PFHxS
13C5PHA = 13C5 PFHxA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFOSA = 13C8 FOSA
PFDoDA = 13C2-PFDoDA
C9PFNA = 13C9 PFNA

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 410-60147/1-A
Matrix: Water
Analysis Batch: 60406

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 60147

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid	<2.0		2.0	0.50	ng/L		10/29/20 19:08	10/30/20 12:17	1
Perfluorodecanoic acid	<2.0		2.0	0.50	ng/L		10/29/20 19:08	10/30/20 12:17	1
NEtFOSAA	<3.0		3.0	0.50	ng/L		10/29/20 19:08	10/30/20 12:17	1
NMeFOSAA	<2.0		2.0	0.60	ng/L		10/29/20 19:08	10/30/20 12:17	1
Perfluoroheptanoic acid	<2.0		2.0	0.50	ng/L		10/29/20 19:08	10/30/20 12:17	1
Perfluorohexanesulfonic acid	<2.0		2.0	0.50	ng/L		10/29/20 19:08	10/30/20 12:17	1
Perfluorohexanoic acid	<2.0		2.0	0.50	ng/L		10/29/20 19:08	10/30/20 12:17	1
Perfluorononanoic acid	<2.0		2.0	0.50	ng/L		10/29/20 19:08	10/30/20 12:17	1
Perfluoroheptanesulfonic acid	<2.0		2.0	0.50	ng/L		10/29/20 19:08	10/30/20 12:17	1
Perfluorononanesulfonic acid	<2.0		2.0	0.50	ng/L		10/29/20 19:08	10/30/20 12:17	1
Perfluorooctanesulfonic acid	<2.0		2.0	0.50	ng/L		10/29/20 19:08	10/30/20 12:17	1
Perfluorodecanesulfonic acid	<2.0		2.0	0.50	ng/L		10/29/20 19:08	10/30/20 12:17	1
Perfluorooctanoic acid	<2.0		2.0	0.50	ng/L		10/29/20 19:08	10/30/20 12:17	1
Perfluorooctanesulfonamide	<2.0		2.0	0.50	ng/L		10/29/20 19:08	10/30/20 12:17	1
Perfluoropentanesulfonic acid	<2.0		2.0	0.50	ng/L		10/29/20 19:08	10/30/20 12:17	1
Perfluorobutanoic acid	<5.0		5.0	2.0	ng/L		10/29/20 19:08	10/30/20 12:17	1
Perfluoropentanoic acid	<2.0		2.0	0.50	ng/L		10/29/20 19:08	10/30/20 12:17	1
Perfluorotetradecanoic acid	<2.0		2.0	0.50	ng/L		10/29/20 19:08	10/30/20 12:17	1
Perfluorotridecanoic acid	<2.0		2.0	0.50	ng/L		10/29/20 19:08	10/30/20 12:17	1
Perfluoroundecanoic acid	<2.0		2.0	0.50	ng/L		10/29/20 19:08	10/30/20 12:17	1
Perfluorododecanoic acid	<2.0		2.0	0.50	ng/L		10/29/20 19:08	10/30/20 12:17	1
6:2 Fluorotelomer sulfonic acid	<5.0		5.0	2.0	ng/L		10/29/20 19:08	10/30/20 12:17	1
8:2 Fluorotelomer sulfonic acid	<3.0		3.0	1.0	ng/L		10/29/20 19:08	10/30/20 12:17	1
4:2 Fluorotelomer sulfonic acid	<2.0		2.0	0.50	ng/L		10/29/20 19:08	10/30/20 12:17	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*64*		*20 - 187*	*10/29/20 19:08*	*10/30/20 12:17*	*1*
M2-6:2 FTS	*74*		*29 - 189*	*10/29/20 19:08*	*10/30/20 12:17*	*1*
M2-8:2 FTS	*77*		*34 - 182*	*10/29/20 19:08*	*10/30/20 12:17*	*1*
13C2 PFTeDA	*71*		*10 - 144*	*10/29/20 19:08*	*10/30/20 12:17*	*1*
13C3 PFBS	*68*		*19 - 178*	*10/29/20 19:08*	*10/30/20 12:17*	*1*
13C4 PFHpA	*70*		*30 - 144*	*10/29/20 19:08*	*10/30/20 12:17*	*1*
13C8 PFOA	*76*		*49 - 127*	*10/29/20 19:08*	*10/30/20 12:17*	*1*
13C8 PFOS	*71*		*49 - 126*	*10/29/20 19:08*	*10/30/20 12:17*	*1*
d3-NMeFOSAA	*83*		*32 - 151*	*10/29/20 19:08*	*10/30/20 12:17*	*1*
d5-NEtFOSAA	*78*		*37 - 164*	*10/29/20 19:08*	*10/30/20 12:17*	*1*
13C3 PFHxS	*70*		*32 - 145*	*10/29/20 19:08*	*10/30/20 12:17*	*1*
13C4 PFBA	*76*		*41 - 132*	*10/29/20 19:08*	*10/30/20 12:17*	*1*
13C5 PFHxA	*73*		*31 - 142*	*10/29/20 19:08*	*10/30/20 12:17*	*1*
13C5 PFPeA	*78*		*33 - 155*	*10/29/20 19:08*	*10/30/20 12:17*	*1*
13C6 PFDA	*75*		*47 - 128*	*10/29/20 19:08*	*10/30/20 12:17*	*1*
13C7 PFUnA	*81*		*40 - 135*	*10/29/20 19:08*	*10/30/20 12:17*	*1*
13C8 FOSA	*61*		*10 - 143*	*10/29/20 19:08*	*10/30/20 12:17*	*1*
13C2-PFDoDA	*73*		*28 - 136*	*10/29/20 19:08*	*10/30/20 12:17*	*1*
13C9 PFNA	*80*		*47 - 136*	*10/29/20 19:08*	*10/30/20 12:17*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 410-60147/2-A
Matrix: Water
Analysis Batch: 60406

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 60147

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanesulfonic acid	22.6	21.4		ng/L		94	65 - 132
Perfluorodecanoic acid	25.6	24.9		ng/L		97	63 - 137
NEtFOSAA	25.6	27.5		ng/L		107	54 - 134
NMeFOSAA	25.6	28.9		ng/L		113	58 - 143
Perfluoroheptanoic acid	25.6	26.9		ng/L		105	66 - 141
Perfluorohexanesulfonic acid	24.2	22.0		ng/L		91	60 - 128
Perfluorohexanoic acid	25.6	25.0		ng/L		97	66 - 137
Perfluorononanoic acid	25.6	25.3		ng/L		99	65 - 140
Perfluoroheptanesulfonic acid	24.4	24.6		ng/L		101	67 - 135
Perfluorononanesulfonic acid	24.6	24.5		ng/L		100	67 - 137
Perfluorooctanesulfonic acid	24.5	21.4		ng/L		88	51 - 126
Perfluorodecanesulfonic acid	24.7	24.7		ng/L		100	61 - 134
Perfluorooctanoic acid	25.6	24.4		ng/L		95	65 - 136
Perfluorooctanesulfonamide	25.6	24.7		ng/L		96	55 - 130
Perfluoropentanesulfonic acid	24.0	25.1		ng/L		105	71 - 138
Perfluorobutanoic acid	25.6	25.0		ng/L		98	62 - 156
Perfluoropentanoic acid	25.6	24.7		ng/L		96	72 - 139
Perfluorotetradecanoic acid	25.6	26.6		ng/L		104	64 - 141
Perfluorotridecanoic acid	25.6	30.3		ng/L		119	58 - 148
Perfluoroundecanoic acid	25.6	25.6		ng/L		100	62 - 138
Perfluorododecanoic acid	25.6	27.1		ng/L		106	63 - 140
6:2 Fluorotelomer sulfonic acid	24.3	23.3		ng/L		96	57 - 137
8:2 Fluorotelomer sulfonic acid	24.5	26.7		ng/L		109	56 - 140
4:2 Fluorotelomer sulfonic acid	23.9	24.3		ng/L		102	59 - 130

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
M2-4:2 FTS	*77*		*20 - 187*
M2-6:2 FTS	*87*		*29 - 189*
M2-8:2 FTS	*78*		*34 - 182*
13C2 PFTeDA	*79*		*10 - 144*
13C3 PFBS	*79*		*19 - 178*
13C4 PFHpA	*79*		*30 - 144*
13C8 PFOA	*86*		*49 - 127*
13C8 PFOS	*78*		*49 - 126*
d3-NMeFOSAA	*91*		*32 - 151*
d5-NEtFOSAA	*86*		*37 - 164*
13C3 PFHxS	*79*		*32 - 145*
13C4 PFBA	*83*		*41 - 132*
13C5 PFHxA	*77*		*31 - 142*
13C5 PFPeA	*84*		*33 - 155*
13C8 PFDA	*81*		*47 - 128*
13C7 PFUnA	*85*		*40 - 135*
13C8 FOSA	*52*		*10 - 143*
13C2-PFDoDA	*81*		*28 - 136*
13C9 PFNA	*85*		*47 - 136*

Method: 537 IDA - EPA 537 Isotope Dilution

Lab Sample ID: MB 410-64262/1-B
Matrix: Solid
Analysis Batch: 65190

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 64262

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid	<1.0		1.0	0.20	ng/g		11/10/20 11:38	11/12/20 11:02	1
Perfluorodecanoic acid	<0.30		0.30	0.10	ng/g		11/10/20 11:38	11/12/20 11:02	1
NEtFOSAA	<1.0		1.0	0.10	ng/g		11/10/20 11:38	11/12/20 11:02	1
NMeFOSAA	<1.0		1.0	0.10	ng/g		11/10/20 11:38	11/12/20 11:02	1
Perfluoroheptanoic acid	<0.30		0.30	0.10	ng/g		11/10/20 11:38	11/12/20 11:02	1
Perfluorohexanesulfonic acid	<0.30		0.30	0.10	ng/g		11/10/20 11:38	11/12/20 11:02	1
Perfluorohexanoic acid	<0.30		0.30	0.10	ng/g		11/10/20 11:38	11/12/20 11:02	1
Perfluorononanoic acid	<0.30		0.30	0.10	ng/g		11/10/20 11:38	11/12/20 11:02	1
Perfluoroheptanesulfonic acid	<0.30		0.30	0.10	ng/g		11/10/20 11:38	11/12/20 11:02	1
Perfluorononanesulfonic acid	<0.30		0.30	0.10	ng/g		11/10/20 11:38	11/12/20 11:02	1
Perfluorooctanesulfonic acid	<0.30		0.30	0.10	ng/g		11/10/20 11:38	11/12/20 11:02	1
Perfluorodecanesulfonic acid	<0.30		0.30	0.10	ng/g		11/10/20 11:38	11/12/20 11:02	1
Perfluorooctanoic acid	<0.30		0.30	0.10	ng/g		11/10/20 11:38	11/12/20 11:02	1
Perfluorooctanesulfonamide	<0.30		0.30	0.10	ng/g		11/10/20 11:38	11/12/20 11:02	1
Perfluoropentanesulfonic acid	<0.30		0.30	0.10	ng/g		11/10/20 11:38	11/12/20 11:02	1
Perfluorobutanoic acid	<1.0		1.0	0.40	ng/g		11/10/20 11:38	11/12/20 11:02	1
Perfluoropentanoic acid	<0.30		0.30	0.10	ng/g		11/10/20 11:38	11/12/20 11:02	1
Perfluorotetradecanoic acid	<0.30		0.30	0.10	ng/g		11/10/20 11:38	11/12/20 11:02	1
Perfluorotridecanoic acid	<0.30		0.30	0.10	ng/g		11/10/20 11:38	11/12/20 11:02	1
Perfluoroundecanoic acid	<0.30		0.30	0.10	ng/g		11/10/20 11:38	11/12/20 11:02	1
Perfluorododecanoic acid	<0.30		0.30	0.10	ng/g		11/10/20 11:38	11/12/20 11:02	1
6:2 Fluorotelomer sulfonic acid	<1.0		1.0	0.30	ng/g		11/10/20 11:38	11/12/20 11:02	1
8:2 Fluorotelomer sulfonic acid	<1.5		1.5	0.30	ng/g		11/10/20 11:38	11/12/20 11:02	1
4:2 Fluorotelomer sulfonic acid	<1.0		1.0	0.30	ng/g		11/10/20 11:38	11/12/20 11:02	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*108*		*10 - 169*	*11/10/20 11:38*	*11/12/20 11:02*	*1*
M2-6:2 FTS	*101*		*10 - 182*	*11/10/20 11:38*	*11/12/20 11:02*	*1*
M2-8:2 FTS	*106*		*10 - 178*	*11/10/20 11:38*	*11/12/20 11:02*	*1*
13C2 PFTeDA	*68*		*10 - 138*	*11/10/20 11:38*	*11/12/20 11:02*	*1*
13C3 PFBS	*99*		*23 - 130*	*11/10/20 11:38*	*11/12/20 11:02*	*1*
13C4 PFHpA	*94*		*15 - 139*	*11/10/20 11:38*	*11/12/20 11:02*	*1*
13C8 PFOA	*103*		*21 - 133*	*11/10/20 11:38*	*11/12/20 11:02*	*1*
13C8 PFOS	*86*		*31 - 130*	*11/10/20 11:38*	*11/12/20 11:02*	*1*
d3-NMeFOSAA	*93*		*10 - 172*	*11/10/20 11:38*	*11/12/20 11:02*	*1*
d5-NEtFOSAA	*95*		*10 - 176*	*11/10/20 11:38*	*11/12/20 11:02*	*1*
13C3 PFHxS	*99*		*24 - 136*	*11/10/20 11:38*	*11/12/20 11:02*	*1*
13C4 PFBA	*94*		*12 - 137*	*11/10/20 11:38*	*11/12/20 11:02*	*1*
13C5 PFHxA	*105*		*11 - 138*	*11/10/20 11:38*	*11/12/20 11:02*	*1*
13C5 PFPeA	*102*		*12 - 135*	*11/10/20 11:38*	*11/12/20 11:02*	*1*
13C6 PFDA	*102*		*21 - 134*	*11/10/20 11:38*	*11/12/20 11:02*	*1*
13C7 PFUnA	*110*		*15 - 138*	*11/10/20 11:38*	*11/12/20 11:02*	*1*
13C8 FOSA	*86*		*25 - 135*	*11/10/20 11:38*	*11/12/20 11:02*	*1*
13C2-PFDoDA	*95*		*28 - 126*	*11/10/20 11:38*	*11/12/20 11:02*	*1*
13C9 PFNA	*93*		*15 - 145*	*11/10/20 11:38*	*11/12/20 11:02*	*1*

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-64262/2-B
Matrix: Solid
Analysis Batch: 65190

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 64262

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanesulfonic acid	22.1	20.4		ng/g		92	62 - 137
Perfluorodecanoic acid	25.0	22.6		ng/g		90	62 - 142
NEtFOSAA	25.0	22.0		ng/g		88	50 - 140
NMeFOSAA	25.0	25.2		ng/g		101	53 - 149
Perfluoroheptanoic acid	25.0	25.0		ng/g		100	61 - 151
Perfluorohexanesulfonic acid	23.6	19.2		ng/g		81	57 - 135
Perfluorohexanoic acid	25.0	25.1		ng/g		101	61 - 147
Perfluorononanoic acid	25.0	22.7		ng/g		91	62 - 148
Perfluoroheptanesulfonic acid	23.8	22.0		ng/g		92	67 - 138
Perfluorononanesulfonic acid	24.0	23.8		ng/g		99	63 - 143
Perfluorooctanesulfonic acid	23.9	18.8		ng/g		79	48 - 134
Perfluorodecanesulfonic acid	24.1	21.1		ng/g		88	60 - 142
Perfluorooctanoic acid	25.0	21.0		ng/g		84	62 - 144
Perfluorooctanesulfonamide	25.0	23.6		ng/g		94	52 - 132
Perfluoropentanesulfonic acid	23.5	21.0		ng/g		89	65 - 145
Perfluorobutanoic acid	25.0	23.2		ng/g		93	50 - 185
Perfluoropentanoic acid	25.0	22.3		ng/g		89	69 - 144
Perfluorotetradecanoic acid	25.0	23.0		ng/g		92	60 - 147
Perfluorotridecanoic acid	25.0	20.9		ng/g		83	57 - 152
Perfluoroundecanoic acid	25.0	20.4		ng/g		82	62 - 144
Perfluorododecanoic acid	25.0	23.0		ng/g		92	60 - 147
6:2 Fluorotelomer sulfonic acid	23.7	22.1		ng/g		93	53 - 137
8:2 Fluorotelomer sulfonic acid	24.0	21.3		ng/g		89	60 - 147
4:2 Fluorotelomer sulfonic acid	23.4	20.8		ng/g		89	55 - 132

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
M2-4:2 FTS	*103*		*10 - 169*
M2-6:2 FTS	*90*		*10 - 182*
M2-8:2 FTS	*83*		*10 - 178*
13C2 PFTeDA	*72*		*10 - 138*
13C3 PFBS	*94*		*23 - 130*
13C4 PFHpA	*91*		*15 - 139*
13C8 PFOA	*103*		*21 - 133*
13C8 PFOS	*91*		*31 - 130*
d3-NMeFOSAA	*83*		*10 - 172*
d5-NEtFOSAA	*80*		*10 - 176*
13C3 PFHxS	*96*		*24 - 136*
13C4 PFBA	*92*		*12 - 137*
13C5 PFHxA	*104*		*11 - 138*
13C5 PFPeA	*96*		*12 - 135*
13C6 PFDA	*84*		*21 - 134*
13C7 PFUnA	*94*		*15 - 138*
13C8 FOSA	*75*		*25 - 135*
13C2-PFDoDA	*84*		*28 - 126*
13C9 PFNA	*92*		*15 - 145*

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCSD 410-64262/3-B
Matrix: Solid
Analysis Batch: 65190

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 64262

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorobutanesulfonic acid	22.1	21.3		ng/g		97	62 - 137	5	30
Perfluorodecanoic acid	25.0	22.1		ng/g		88	62 - 142	3	30
NEtFOSAA	25.0	20.8		ng/g		83	60 - 140	6	30
NMeFOSAA	25.0	24.7		ng/g		99	53 - 149	2	30
Perfluoroheptanoic acid	25.0	25.7		ng/g		103	61 - 151	3	30
Perfluorohexanesulfonic acid	23.6	19.5		ng/g		82	57 - 135	2	30
Perfluorohexanoic acid	25.0	24.4		ng/g		97	61 - 147	3	30
Perfluorononanoic acid	25.0	23.0		ng/g		92	62 - 148	1	30
Perfluoroheptanesulfonic acid	23.8	21.5		ng/g		90	67 - 138	2	30
Perfluorononanesulfonic acid	24.0	23.8		ng/g		99	63 - 143	0	30
Perfluorooctanesulfonic acid	23.9	18.3		ng/g		77	48 - 134	3	30
Perfluorodecanesulfonic acid	24.1	22.0		ng/g		91	60 - 142	4	30
Perfluorooctanoic acid	25.0	22.2		ng/g		89	62 - 144	5	30
Perfluorooctanesulfonamide	25.0	22.7		ng/g		91	52 - 132	4	30
Perfluoropentanesulfonic acid	23.5	22.1		ng/g		94	65 - 145	5	30
Perfluorobutanoic acid	25.0	23.7		ng/g		95	50 - 185	2	30
Perfluoropentanoic acid	25.0	22.5		ng/g		90	69 - 144	1	30
Perfluorotetradecanoic acid	25.0	21.2		ng/g		85	60 - 147	8	30
Perfluorotridecanoic acid	25.0	21.0		ng/g		84	57 - 152	1	30
Perfluoroundecanoic acid	25.0	22.4		ng/g		90	62 - 144	10	30
Perfluorododecanoic acid	25.0	23.2		ng/g		93	60 - 147	1	30
6:2 Fluorotelomer sulfonic acid	23.7	23.2		ng/g		98	53 - 137	5	30
8:2 Fluorotelomer sulfonic acid	24.0	23.4		ng/g		98	60 - 147	9	30
4:2 Fluorotelomer sulfonic acid	23.4	19.7		ng/g		84	55 - 132	5	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
M2-4:2 FTS	*98*		*10 - 169*
M2-6:2 FTS	*85*		*10 - 182*
M2-8:2 FTS	*79*		*10 - 178*
13C2 PFTeDA	*65*		*10 - 138*
13C3 PFBS	*90*		*23 - 130*
13C4 PFHpA	*92*		*15 - 139*
13C8 PFOA	*98*		*21 - 133*
13C8 PFOS	*83*		*31 - 130*
d3-NMeFOSAA	*81*		*10 - 172*
d5-NEtFOSAA	*76*		*10 - 176*
13C3 PFHxS	*94*		*24 - 136*
13C4 PFBA	*88*		*12 - 137*
13C5 PFHxA	*100*		*11 - 138*
13C5 PFPeA	*93*		*12 - 135*
13C8 PFDA	*90*		*21 - 134*
13C7 PFUnA	*89*		*15 - 139*
13C8 FOSA	*83*		*25 - 135*
13C2-PFDoDA	*81*		*28 - 126*
13C9 PFNA	*79*		*15 - 145*

QC Association Summary

Client: Eastern Analytical
Project/Site: 2117569

Job ID: 410-18662-1

LCMS

Prep Batch: 60147

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-18662-1	Effluent Composite	Total/NA	Water	T-W14355 r12	
MB 410-60147/1-A	Method Blank	Total/NA	Water	T-W14355 r12	
LCS 410-60147/2-A	Lab Control Sample	Total/NA	Water	T-W14355 r12	

Analysis Batch: 60406

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-18662-1	Effluent Composite	Total/NA	Water	537 (modified)	60147
MB 410-60147/1-A	Method Blank	Total/NA	Water	537 (modified)	60147
LCS 410-60147/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	60147

Prep Batch: 64262

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-18662-2	Sludge	Total/NA	Solid	EPA 537 (Mod)	
MB 410-64262/1-B	Method Blank	Total/NA	Solid	EPA 537 (Mod)	
LCS 410-64262/2-B	Lab Control Sample	Total/NA	Solid	EPA 537 (Mod)	
LCSD 410-64262/3-B	Lab Control Sample Dup	Total/NA	Solid	EPA 537 (Mod)	

Cleanup Batch: 64264

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-18662-2	Sludge	Total/NA	Solid	Extract Aliquot	64262
MB 410-64262/1-B	Method Blank	Total/NA	Solid	Extract Aliquot	64262
LCS 410-64262/2-B	Lab Control Sample	Total/NA	Solid	Extract Aliquot	64262
LCSD 410-64262/3-B	Lab Control Sample Dup	Total/NA	Solid	Extract Aliquot	64262

Analysis Batch: 65190

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-18662-2	Sludge	Total/NA	Solid	537 IDA	64264
MB 410-64262/1-B	Method Blank	Total/NA	Solid	537 IDA	64264
LCS 410-64262/2-B	Lab Control Sample	Total/NA	Solid	537 IDA	64264
LCSD 410-64262/3-B	Lab Control Sample Dup	Total/NA	Solid	537 IDA	64264

General Chemistry

Analysis Batch: 61473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-18662-2	Sludge	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Eastern Analytical
Project/Site: 2117569

Job ID: 410-18662-1

Client Sample ID: Effluent Composite
Date Collected: 10/23/20 08:00
Date Received: 10/29/20 09:02

Lab Sample ID: 410-18662-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	T-W14355 r12			60147	10/29/20 19:08	QLP7	ELLE
Total/NA	Analysis	537 (modified)		1	60406	10/30/20 14:25	OXB7	ELLE

Client Sample ID: Sludge
Date Collected: 10/23/20 08:20
Date Received: 10/29/20 09:02

Lab Sample ID: 410-18662-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	61473	11/03/20 09:30	UVJN	ELLE

Client Sample ID: Sludge
Date Collected: 10/23/20 08:20
Date Received: 10/29/20 09:02

Lab Sample ID: 410-18662-2
Matrix: Solid
Percent Solids: 19.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	EPA 537 (Mod)			64262	11/10/20 11:38	W5MU	ELLE
Total/NA	Cleanup	Extract Aliquot			64264	11/10/20 11:43	W5MU	ELLE
Total/NA	Analysis	537 IDA		1	65190	11/12/20 11:34	OXB7	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Eastern Analytical
Project/Site: 2117569

Job ID: 410-18662-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New Hampshire	NELAP	273019	01-10-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Method Summary

Client: Eastern Analytical
Project/Site: 2117569

Job ID: 410-18662-1

Method	Method Description	Protocol	Laboratory
537 IDA	EPA 537 Isotope Dilution	EPA	ELLE
T-WI14355 r12	SOP T-PFAS-WI14355 Rev.12	ELLE - Lancaster	ELLE
Moisture	Percent Moisture	EPA	ELLE
EPA 537 (Mod)	EPA 537 Isotope Dilution	EPA	ELLE
Extract Aliquot	Preparation, Extract Aliquot	None	ELLE
T-WI14355 r12	T-PFAS-WI14355 Revision 12	ELLE - Lancaster	ELLE

Protocol References:

ELLE - Lancaster = Eurofins Lancaster, Facility Standard Operating Procedure.

EPA = US Environmental Protection Agency

None = None

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Eastern Analytical
Project/Site: 2117569

Job ID: 410-18662-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-18662-1	Effluent Composite	Water	10/23/20 08:00	10/29/20 09:02	
410-18662-2	Sludge	Solid	10/23/20 08:20	10/29/20 09:02	

CHAIN-OF-CUSTODY RECORD

410-19552 Chain of Custody

Eastern Analytical, Inc.
Professional laboratory and drilling services

ID# 217569 Page 1

Sample ID	Date Sampled	Matrix	aParameters	Sample Notes
Effluent Composite	10/23/2020 08:00	aqueous	Subcontract - Perfluorinated Compounds EPA 537	
Sludge	10/23/2020 08:20	solid	Subcontract - Perfluorinated Compounds EPA 537	

EAI ID# 217569 Project State: NH
Project ID: 5576

Company Lancaster Labs aka Eurofins
Address 2425 New Holland Pike PO
Address Lancaster, PA 17601
Account # 11730
Phone # 717-656-2300

Results Needed: Preferred Date: Standard
RUSH Due Date: _____

QC Deliverables
☒A ☐A+ ☐B ☐B+ ☐C ☐MA MCP

Notes about project:
Email login confirmation, pdf of results and invoice to customerservice@easternanalytical.com.
Inf/Eff flow-proportional composites.
Sludge composite of 8 sub-samples.
Subcontract PFAS to EurofinsLancaster 24 compound list.
Please mix sludge sample in laboratory

PO #:53572 EAI ID# 217569

Data Deliverable (circle)
Excel NH EMD EQuIS ME EGAD

Call prior to analyzing, if RUSH charges will be applied.

Samples Collected by:

Relinquished by	Date/Time	Received by
	10/28/20 1600	
	10/29/20 9:02	
Relinquished by	Date/Time	Received by

Login Sample Receipt Checklist

Client: Eastern Analytical

Job Number: 410-18662-1

Login Number: 18662
List Number: 1
Creator: Rivera, Tatiana

List Source: Eurofins Lancaster Laboratories Env

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	N/A	

Eastern Analytical, Inc. CHAIN-OF-CUSTODY RECORD **217569**

EXENH 24

Sample IDs	Date/Time *Composites need start and stop dates/times*	Matrix	Parameters and Sample Notes	# of containers
Influent Composite	*N/A	aqueous Grab or Comp	AqTot/PFCSSubLL * Autosampler did not get any sample	0
☒ Sampler confirms ID and parameters are accurate			*Circle preservative/s:* HCL HNO$_3$ H$_2$SO$_4$ NaOH MEOH Na$_2$S$_2$O$_3$ ICE	Dissolved Sample Field Filtered ☐
Effluent Composite	10/22-10/23/2020 0800-0800	aqueous Grab or Comp	AqTot/PFCSSubLL	2
☒ Sampler confirms ID and parameters are accurate			*Circle preservative/s:* HCL HNO$_3$ H$_2$SO$_4$ NaOH MEOH Na$_2$S$_2$O$_3$ ICE	Dissolved Sample Field Filtered ☐
Sludge	10/23/2020 0820	solid Grab or Comp	SolTotDry/PFCSSubLL * sample is layered, needs homogenization @ lab	1
☒ Sampler confirms ID and parameters are accurate			*Circle preservative/s:* HCL HNO$_3$ H$_2$SO$_4$ NaOH MEOH Na$_2$S$_2$O$_3$ ICE	Dissolved Sample Field Filtered ☐

Please ensure this auto COC is accurate, adheres to permit or sampling requirements for this sampling event, and modify as necessary.

EAI Project ID 5576
Project Name Exeter Local Limits
State NH
Client (Pro Mgr) Steve Dalton
Customer Exeter, Town of
Address Town Office, 13 Newfields Road
City Exeter NH 03833-2792
Phone 778-0591 Fax 772-4709
Email: sdalton@exeternh.gov
Direct 603-773-6168

Results Needed by: Preferred date _____
Notes:

Inf/Eff flow-proportional composites.
Sludge composite of 8 sub-samples.
Subcontract PFAS to EurofinsLancaster 24 compound list.

QC deliverables
☒ A ☐ A+ ☐ B ☐ B+ ☐ C ☐ MA MCP

ReportingOptions
☐ HC ☐ NO FAX
☒ EDD PDF ☐ Partial FAX
☒ EDD email ☒ PDF Invoice
☒ PDF prelim, NO FAX ☐ EQUIS
☐ e-mail Login Confirmation

PO# 4335-309
Quote#: 1017873

Temp 28 °C
Ice ☒ Y ☐ N ☐

Samples Collected by: EAI FS-TC

Relinquished by	Date/Time	Received by
	10/23/2020 1230	
Relinquished by	Date/Time	Received by

PART Env-Wq 305 PRETREATMENT OF INDUSTRIAL WASTEWATER

NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES

CHAPTER Env-Wq 300 SURFACE WATER PROTECTION

PART Env-Wq 305 PRETREATMENT OF INDUSTRIAL WASTEWATER

Statutory Authority: RSA 485-A:4, XV; RSA 485-A:5; RSA 485-A:6, VI

REVISION NOTE:

Document #10381, effective 8-1-13, readopted with amendments and renumbered former Part Env-Ws 904 titled "Standards for Pretreatment of Industrial Wastewater" under a new subtitle as Part Env-Wq 305 titled "Pretreatment of Industrial Wastewater". The redesignation from subtitle Env-Ws to subtitle Env-Wq was done pursuant to a rules reorganization plan for Department rules approved by the Director of the Office of Legislative Services on 9-7-05.

Document #10381 replaces all prior filings for rules formerly in Env-Ws 904. The prior filings for rules in former Env-Ws 904 include the following documents:

#2240, eff 12-31-82
#2851, eff 9-21-84; EXPIRED 9-21-90
#6373, eff 11-16-96
#8203, INTERIM, eff 11-16-04
#8328, eff 4-23-05

Env-Wq 305.01 Purpose. The purpose of these standards is to implement RSA 485-A:4, XV and RSA 485-A:5 so as to prevent the indirect discharge of pollutants to a publicly-owned treatment works (POTW) that would:

(a) Pass through, interfere with, or otherwise be incompatible with the safe and successful performance, operation, and maintenance of the POTW;

(b) Cause the POTW to violate any water quality standards specified in Env-Wq 1700; or

(c) Adversely impact sludge quality and prevent its use or disposal as other than a hazardous waste.

Source. (See Revision Note at part heading for Env-Wq 305) #10381, eff 8-1-13

Env-Wq 305.02 Applicability. These rules shall apply to the discharge of industrial wastes, as defined in RSA 485-A:2, VI, to a POTW.

Source. (See Revision Note at part heading for Env-Wq 305) #10381, eff 8-1-13

Env-Wq 305.03 Definitions. As used herein the following terms shall have the following meanings:

(a) "Department" means the New Hampshire department of environmental services.

(b) "Domestic septage" means either liquid or solid material removed from a septic tank, cesspool, or similar containment area that receives only domestic sewage.

(c) "Domestic sewage" means sewage comprised of waste and wastewater from household or commercial operations, that:

(1) Contains no industrial waste; and

(2) Is discharged to or otherwise enters a treatment works.

(d) "Fume toxicity screening level" means that concentration of a pollutant in water that, under equilibrium conditions, a confined environment, and a standard temperature, would cause the concentration of the pollutant in the air over that water to exceed the exposure limit.

(e) "Headworks" means that portion of a wastewater treatment plant that first receives the total influent flow for initial treatment.

(f) "Headworks loading limit" means the maximum allowable quantity of pollutants at the headworks of a wastewater treatment plant when the following constraints are considered:

(1) Water quality standards for the receiving water;

(2) Discharge permit limits;

(3) Inhibition of biological treatment processes;

(4) Sludge criteria;

(5) Corrosive destruction of the POTW;

(6) Air quality limitations; and

(7) Worker safety.

(g) "Indirect discharge" means the introduction of pollutants into a POTW from any non-domestic sources.

(h) "Indirect discharger" means a facility that discharges waste, as defined in RSA 485-A:2, XVI, alone or in combination with domestic sewage to a POTW.

(i) "Industrial waste" means "industrial waste" as defined in RSA 485-A:2, VI, as reprinted in Appendix B.

(j) "Interference" means an indirect discharge that, alone or in conjunction with indirect discharge(s) from other sources:

(1) Inhibits or disrupts the POTW's treatment processes or operations, or its processing, use, or disposal of sludge in compliance with applicable statutes and rules;

(2) Is a cause of a violation of any requirements of the POTW's federal or state discharge permit; or

(3) Prevents sewage sludge use or disposal in compliance with the following statutory provisions and rules or permits issued thereunder:

a. Env-Sw 100 et seq. relative to solid waste management;

b. Env-A 100 et seq. relative to air pollution control;

c. The General Pretreatment Regulations For Existing and New Sources of Pollution, 40 CFR 403;

d. The Federal Toxic Substances Control Act;

e. The Federal Marine Protection, Research and Sanctuaries Act; and

f. Env-Wq 800 and 40 CFR 503 relative to use or disposal of sewage sludge.

(k) "Local limit" means a pollutant quantity specified in a municipal sewer ordinance that numerically limits the amount of each specified pollutant that can be discharged to the POTW by an indirect discharger.

(*l*) "Medical/infectious waste" means "medical/infectious waste" as defined in RSA 125-N:2, VIII, as reprinted in Appendix B.

(m) "Municipal sewer use ordinance" means that set of ordinances, bylaws, or regulations duly adopted by the governing body of the municipality relating to the POTW and all appurtenant structures, including any pretreatment facilities as are required for the proper maintenance and operation of the foregoing enumerated facilities.

(n) "Municipality" means, for the purposes of these rules, any state, county, city, town, district, governmental subdivision of the state, or any other public entity, other than federal agencies, responsible for the operation and maintenance of the treatment works.

(o) "Other wastes" means other wastes as defined in RSA 485-A:2, VIII, as reprinted in Appendix B.

(p) "Pass through" means a discharge to a POTW in quantities or concentrations that, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's federal and/or state discharge permit.

(q) "Person" means person as defined in RSA 485-A:2, IX, as reprinted in Appendix B.

(r) "Pharmaceutical waste" means a prescription drug, as defined in RSA 318:1, XVII, or a nonprescription or proprietary medicine, as defined in RSA 318:1, XVIII, that is no longer suitable for its intended purpose or is otherwise being discarded.

(s) "Pretreatment" means the application of physical, chemical, or biological processes, either singly or in combination, to reduce the amount of pollutants in or alter the nature of the pollutant property in a waste prior to discharge into a POTW.

(t) "Publicly owned treatment works (POTW)" means a treatment works that is owned by a municipality.

(u) "Radiological waste" means radioactive waste as regulated by RSA 125-F.

(v) "Sewage" means "sewage" as defined in RSA 485-A:2, X, as reprinted in Appendix B.

(w) "Significant Indirect Discharger" means an indirect discharger that meets one or more of the following criteria:

(1) Is subject to national categorical pretreatment standards under 40 CFR 403.6;

(2) Discharges an average of 10,000 gallons per day or more of process wastewater;

(3) Discharges a process wastewater that contributes 5 percent or more of the hydraulic or organic loading to the wastewater treatment plant;

(4) Discharges medical/infectious waste, pharmaceutical waste, or radiological waste if such a discharge has been designated by the municipality as having a reasonable potential for adversely affecting the POTW's operation or performance or for violating any pretreatment standard or requirement; or

(5) Is designated as such by the municipality as having a reasonable potential for adversely affecting the POTW's operation or performance or for violating any pretreatment standard or requirement.

(x) "Sludge" means "sludge" as defined in RSA 485-A:2, XI-a, as reprinted in Appendix B.

(y) "Sludge toxicity" means the degree to which a sludge has a toxic effect on living organisms.

(z) "Surface waters of the state" means "surface waters of the state" as defined in RSA 485-A:2, XIV, as reprinted in Appendix B.

(aa) "Treatment works" means any device or system used in the collection, storage, treatment, recycling, or reclamation of sewage or industrial waste and includes all collection sewers, interceptor sewers, pumping stations, treatment and appurtenant facilities essential to the operation of an entire system.

(ab) "Upset" means "upset" as defined in RSA 485-A:2, XVIII, as reprinted in Appendix B.

(ac) "Waste" means "waste" as defined in RSA 485-A:2, XVI, as reprinted in Appendix B.

(ad) "Wastewater treatment plant" means "wastewater treatment plant" as defined in RSA 485-A:2, XVI-a, as reprinted in Appendix B.

(ae) "Winnipesaukee River Basin Program (WRBP)" means the wastewater collection system and treatment facilities established and operated under RSA 485-A:45-54.

Source. (See Revision Note at part heading for Env-Wq 305) #10381, eff 8-1-13

Env-Wq 305.04 Municipal Sewer Use Ordinance. Subject to Env-Wq 305.07, in order to be approvable pursuant to Env-Wq 305.08 a municipal sewer use ordinance or revisions thereto shall include the following minimum pretreatment standards and related provisions applicable to indirect dischargers:

(a) Local limits as specified in Env-Wq 305.05;

(b) Fume toxicity, explosivity, and ignitability screening levels when necessary for the protection of personnel or sewer structures;

(c) A requirement that wastes introduced into a POTW by any person shall not:

(1) Interfere with the safety, operation, maintenance, or performance of the POTW;

(2) Have an adverse effect on the receiving stream;

(3) Prevent disposal of sludge in the manner used by the POTW; or

(4) Otherwise endanger life, limb, public property, or constitute a nuisance;

(d) A prohibition on diluting any waste stream to meet required limits;

(e) A list of wastes prohibited to be discharged to the POTW, which shall include as a minimum the items listed in Env-Wq 305.06;

(f) A provision or provisions by which the municipality may require a discharger to:

(1) Install and maintain monitoring and sampling equipment;

(2) Keep records of monitoring and sampling data, including quality assurance/ quality control records for a period of at least 5 years from the date of the measuring, sampling, or report, which period shall be extended through the duration of any enforcement action; and

(3) Submit records upon written request to local or state officials;

(g) A space for documentation that the local authority has adopted the sewer use ordinance, including adoption date and signatures of adopting officials;

(h) A requirement that an indirect discharge of wastewater shall only be allowed to a sewer connected to the POTW;

(i) A requirement that all newly-connected discharges shall be in compliance with pretreatment standards prior to connection to the POTW;

(j) A requirement that each significant indirect discharger obtain a discharge permit in accordance with Env-Wq 305.10 through Env-Wq 305.16, as applicable, prior to discharging any industrial waste to the POTW, provided that the ordinance may include the provisions of Env-Wq 305.19 or Env-Wq 305.20, or both, to allow the permitting authority to allow certain discharges of limited duration without a permit;

(k) A requirement that any discharge permit issued shall include the conditions identified in Env-Wq 305.17(b);

(*l*) A requirement that any dental practice that is required by Env-Wq 306 to have an amalgam separator properly install and maintain the separator; and

(m) A requirement that grease interceptors be installed and maintained in accordance with local and state codes and requirements and that maintenance records be periodically provided to the POTW.

Source. (See Revision Note at part heading for Env-Wq 305) #10381, eff 8-1-13

Env-Wq 305.05 Local Limits. The municipality shall develop local limits as follows:

(a) Local limits shall specifically meet the headworks loading limit and reflect the design and operational capabilities of the POTW;

(b) Specific numerical limits shall be required on constituents contained in waste if the inclusion of such limits is necessary to meet applicable federal and state law;

(c) Local limits shall be established on a mass basis to allow indirect dischargers to reduce water use; and

(d) Local limits shall be reevaluated and revised as necessary no less than every 5 years from adoption.

Source. (See Revision Note at part heading for Env-Wq 305) #10381, eff 8-1-13

Env-Wq 305.06 Prohibited Wastes. The list of prohibited wastes required by Env-Wq 305.04(e) shall include the following:

(a) Any waste containing any pollutant in a concentration that is likely to cause corrosive or structural damage to the POTW, and in no case any waste having a pH lower than 5.0 or higher than 12.0;

(b) Solid or viscous pollutants in any amount that is likely to cause obstruction to the flow in the POTW or result in interference with the proper operation of the POTW;

(c) Any pollutant, including oxygen demanding pollutants, released in a discharge at a flow rate or pollutant concentration or quantity that is likely to cause interference with the POTW operations, constitute a hazard to humans or animals, create a public nuisance, exceed any national categorical pretreatment standard, or cause pass through;

(d) Any waste that contains a concentration or quantity of any pollutant such that the introduction of the waste to a POTW is likely to cause a treatment process upset and subsequent loss of treatment ability;

(e) Any waste that contains heat in an amount that is likely to inhibit biological activity in a POTW resulting in an interference, and in no case heat in such quantities that the temperature of the influent at the POTW exceeds 40°C, equivalent to 104°F;

(f) Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin in an amount that is likely to cause interference or pass through;

(g) Pollutants that result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that is likely to cause worker health and safety problems;

(h) Any trucked or hauled pollutants, except at discharge points designated by the POTW;

(i) Any medical/infectious waste or radiological waste designated by the municipality as having a reasonable potential for adversely affecting the POTW's operation or performance or for violating any pretreatment standard or requirement;

(j) Any wastewater that is likely to cause the POTW's effluent or sludge to fail a toxicity test;

(k) Any hazardous waste listed or designated by the department under Env-Hw 400; and

(l) Any pharmaceutical waste, except for such pharmaceutical wastes as are required by federal law to be disposed of by flushing into a municipal sewer system.

Source. (See Revision Note at part heading for Env-Wq 305) #10381, eff 8-1-13

Env-Wq 305.07 Alternate Provisions. A municipality may omit an element required by Env-Wq 305.04 from its municipal sewer use ordinance, or may include alternate or additional elements in its municipal sewer use ordinance, only if:

(a) The municipality obtains a waiver pursuant to Env-Wq 305.09; or

(b) The municipality includes, as part of its submittal pursuant to Env-Wq 305.08, an explanation of:

(1) Why the element was omitted; and

(2) How the resulting municipal sewer use ordinance supports the purpose and intent of the industrial pretreatment requirements as expressed in RSA 485-A and Env-Wq 305.

Source. (See Revision Note at part heading for Env-Wq 305) #10381, eff 8-1-13

Env-Wq 305.08 Approval of Municipal Sewer Use Ordinance.

(a) Each municipality shall submit its sewer use ordinance or any revisions thereto to the department for approval before adoption.

(b) Within 60 days of receipt of a sewer use ordinance from a municipality, the department shall review the ordinance for conformity with Env-Wq 305.04.

(c) The department shall approve the sewer use ordinance if it determines that:

(1) The ordinance contains all of the elements required by Env-Wq 305.04 or alternate provisions provided in accordance with Env-Wq 305.07; and

(2) The ordinance does not contain any provisions that are less stringent than the elements required by Env-Wq 305.04.

(d) The department shall notify the municipality of its approval or disapproval of the sewer use ordinance in writing. If the ordinance is not approved, the written notification shall include the reasons for disapproval.

(e) Within 60 days of adopting the approved sewer use ordinance, the municipality shall send to the department:

(1) A copy of the adopted ordinance; or

(2) A copy of the signature page together with a certification that no changes were made to the department-approved ordinance prior to adoption.

Source. (See Revision Note at part heading for Env-Wq 305) #10381, eff 8-1-13

Env-Wq 305.09 Waivers.

(a) Waivers to the pretreatment standards set forth in a sewer use ordinance approved by the department shall be granted by the department only in accordance with this section.

(b) All requests for waiver approval shall be submitted to the department by the municipality and shall be in writing.

(c) All waiver requests shall include the following information:

(1) A full explanation of why a waiver is necessary, with supporting information and calculations;

(2) A full explanation of how the granting of the waiver is consistent with the purpose of RSA 485-A as set forth in RSA 485-A:1;

(3) A technical analysis of the effects of the proposed discharge on the POTW, relative to:

a. Performance and effluent quality;

b. Operation and maintenance;

c. Safety and health of workers;

d. Pass through; and

e. Sludge use or disposal; and

(4) Any other information that the person requesting the waiver believes is relevant to the waiver request.

(d) The department shall review the waiver request within 60 days of receipt. If the request does not contain all of the information specified in (c), above, or if the information is otherwise insufficient to allow the department to make an informed decision, the department shall request additional information.

(e) The department shall grant the waiver if the information submitted by the applicant demonstrates that:

(1) The alternatives proposed are at least equivalent to the specific requirements contained in the rule; or

(2) The alternatives proposed are adequate to ensure that the purpose of RSA 485-A is met and the result provides equivalent or better protection of the POTW and the receiving waters.

(f) The department shall notify the municipality of its decision in writing. If the waiver request is denied, the written decision shall specifically state the reasons for the denial.

Source. (See Revision Note at part heading for Env-Wq 305) #10381, eff 8-1-13

Env-Wq 305.10 Industrial Wastewater Discharge Request.

(a) Subject to (b), below, the owner of an indirect discharger from which industrial waste is or will be discharged to a POTW that has its wastewater treatment plant located in New Hampshire shall apply for approval of the discharge in accordance with this section prior to discharging any industrial waste, increasing

the volume of the industrial wastewater flow, or changing any characteristics of the discharge, such as pollutant concentration or characteristics, if such discharge:

(1) Is from a significant indirect discharger;

(2) Could cause interference with the POTW;

(3) Could have an adverse affect on the receiving stream or otherwise endanger public or private safety or property; or

(4) Could constitute a nuisance by affecting qualities not specifically regulated, such as odor or the color of the discharge.

(b) The requirements of (a), above, shall not apply if the discharge request is submitted in accordance with Env-Wq 305.11, Env-Wq 305.19, or Env-Wq 305.20.

(c) A complete discharge request shall:

(1) Include the information specified in Env-Wq 305.12 and Env-Wq 305.13 on a form obtained from the department or provided by the municipality; and

(2) Be signed by the applicant as specified in Env-Wq 305.14.

(d) The applicant shall submit the complete, signed discharge request as specified in Env-Wq 305.15 or Env-Wq 305.16, as applicable.

Source. (See Revision Note at part heading for Env-Wq 305) #10381, eff 8-1-13

Env-Wq 305.11 Discharge Request Submission, Processing, and Approvals: WRBP. Any applicant having an existing or proposed discharge to the WRBP shall comply with the applicable requirements of Env-Wq 1200.

Source. (See Revision Note at part heading for Env-Wq 305) #10381, eff 8-1-13

Env-Wq 305.12 Discharge Request Form: Municipal Portion. The municipality shall complete the first part of the discharge request form by providing:

(a) The name of the municipality;

(b) The name of the applicant;

(c) Whether the requested permit is for a new discharge or a modified discharge;

(d) Prior flow volume, if any;

(e) Proposed flow volume and total flow volume to be discharged; and

(f) The printed or typed name and title of the individual authorized by the governing body of the municipality to sign discharge requests as specified in Env-Wq 305.14(a).

Source. (See Revision Note at part heading for Env-Wq 305) #10381, eff 8-1-13

Env-Wq 305.13 Discharge Request Form: Applicant Portion. The applicant shall provide the following information on or with the applicant portion of the discharge request form:

(a) The name, street address, and mailing address of the indirect discharger;

(b) The name, position, and daytime telephone number of a responsible individual at the indirect discharger, such as a plant manager, plant engineer, president, or vice president of the company, who has been authorized by the indirect discharger to certify the permit application as specified in Env-Wq 305.14(b);

(c) The North American Industry Classification System (NAICS) code of the indirect discharger and, if available, the SIC code(s);

(d) Whether the indirect discharger is subject to national categorical standards, and if so, which standards;

(e) Information on the proposed flow, including the estimated average, minimum, maximum and total daily flow for domestic discharges and each process discharge and the time and duration of those discharges;

(f) A schematic of the proposed treatment process;

(g) The name, company, and license number of the chemical, civil, sanitary, or environmental professional engineer (PE) authorized to work in New Hampshire under RSA 310-A who prepared the treatment system plans and specifications, if plans and specifications are being submitted for review;

(h) If applicable, plans, specifications, and operation and maintenance procedures for new or modified treatment facilities at the indirect discharger, stamped by the PE identified pursuant to (g), above;

(i) A schematic diagram showing the production process, including the origin of each waste stream;

(j) A list of pollutants expected to be present in the discharge and the anticipated quantity of each, based on:

(1) Analyses of the waste stream(s) to be discharged, in which case test results shall be submitted with the discharge permit request; or

(2) Knowledge of the process that produces the wastewater;

(k) Information on the toxicity and treatability of the pollutants proposed to be discharged, as available from manufacturer's testing, safety, and data publications;

(*l*) A map showing the location within the municipality of the indirect discharger with respect to the POTW;

(m) A listing of all chemicals used at the indirect discharger that will be or could be discharged, such as production chemicals, degreasers, and cleaning solvents;

(n) A description and location diagram of all sampling locations at the indirect discharger;

(o) A brief narrative describing those measures taken or planned to reduce water usage and implement pollution prevention techniques, if any, such as:

(1) Flow restrictors;

(2) Countercurrent rinses;

(3) Recycling of non-contact cooling water;

(4) Chemical substitutions; and

(5) Pollutant source reduction; and

(p) A list of all environmental permits held by or for the indirect discharger.

Source. (See Revision Note at part heading for Env-Wq 305) #10381, eff 8-1-13

Env-Wq 305.14 Signatures and Certifications.

(a) The individual authorized by the governing body of the municipality to sign discharge requests shall sign and date the discharge application. Such signature shall constitute certification that the proposal meets with the approval of all local authorities having jurisdiction over the request.

(b) The responsible individual identified pursuant to Env-Wq 305.13(b) shall sign and date the discharge application. Such signature shall constitute certification that:

(1) The application and all attachments were prepared under the responsible individual's direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted;

(2) Based on inquiry by the responsible individual of the individual or individuals who manage the system, or those individuals directly responsible for gathering the information, the information submitted is true, accurate, and complete to the best of the responsible individual's knowledge and belief; and

(3) The responsible individual is aware that there are significant penalties for submitting false information, including the possibility of criminal prosecution under RSA 641:3 for knowing violations.

Source. (See Revision Note at part heading for Env-Wq 305) #10381, eff 8-1-13

Env-Wq 305.15 Discharge Request Submission: Local Treatment.

(a) This section shall apply to the processing of discharge requests where the municipality in which the applicant is located owns and operates the POTW that will receive and treat the discharge.

(b) The applicant shall submit the completed, signed discharge request to the municipality.

(c) Upon receipt of a discharge request, the municipality shall evaluate the proposed discharge and the ability of the POTW to accommodate the discharge based on information submitted by the applicant.

(d) No municipality shall allocate or accept for treatment more than 90 percent of the headworks loading limits of its POTW.

(e) The municipality shall not approve the discharge request unless the proposed discharge meets all applicable requirements of these rules and all applicable local pretreatment programs and sewer use ordinances.

(f) If the municipality approves the discharge request, an authorized official of the municipality shall:

(1) Sign the discharge request as specified in Env-Wq 305.14(a); and

(2) Forward the discharge request to the department.

Source. (See Revision Note at part heading for Env-Wq 305) #10381, eff 8-1-13

Env-Wq 305.16 Discharge Request Submission: Remote Treatment.

(a) This section shall apply to the processing of discharge applications where the POTW that will receive and treat the discharge (host POTW) is not owned and operated by the municipality in which the applicant is located (satellite municipality), other than discharges that are subject to Env-Wq 305.11.

(b) The applicant shall submit the completed, signed discharge request to the satellite municipality. The satellite municipality may request the applicant to submit 2 copies of the completed discharge request form.

(c) Upon receipt of a discharge request, the satellite municipality shall:

(1) Evaluate the proposed discharge for compliance with locally-applicable requirements; and

(2) Approve the discharge request if the proposed discharge meets all locally-applicable requirements.

(d) If the municipality approves the discharge request, an authorized official of the municipality shall:

(1) Sign the discharge request as specified in Env-Wq 305.14(a); and

(2) Forward the discharge request to the department and to the host POTW.

(e) Upon receipt of a discharge request, the host POTW shall evaluate the proposed discharge and the ability of the POTW to accommodate the discharge based on information submitted by the applicant.

(f) No host POTW shall allocate or accept for treatment more than 90 percent of the headworks loading limits of its POTW.

(g) The host POTW shall not approve the discharge request unless the proposed discharge meets all applicable requirements of these rules and all applicable local pretreatment programs and sewer use ordinances.

(h) If the host POTW decides to accept the discharge, the host community shall submit a completed Host Community Acknowledgement, dated 05-28-13, as reprinted in Appendix D, to the department.

Source. (See Revision Note at part heading for Env-Wq 305) #10381, eff 8-1-13

Env-Wq 305.17 Discharge Application Processing.

(a) Upon receipt of a completed, signed discharge request and, if applicable, a completed, signed Host POTW Acknowledgement Form, the department shall review the request. The department shall approve the request subject to the conditions listed in (b), below, if the information submitted demonstrates that:

(1) The proposed discharge meets all applicable requirements of these rules and all applicable local pretreatment programs and sewer use ordinances; and

(2) If applicable, the host POTW has agreed to accept the discharge.

(b) The department's approval of a discharge request shall be subject to the following conditions:

(1) The indirect discharger shall fully comply with the applicable sewer use ordinance;

(2) The indirect discharger shall fully comply with all applicable federal, state and local pretreatment standards and requirements;

(3) The indirect discharger shall not add any water or other liquid to the effluent so as to reduce the concentration of pollutants by increasing the volume of effluent as a substitute for any pretreatment necessary to maintain compliance;

(4) The indirect discharger shall not make changes to any processes that contribute to the wastewater discharge that would increase the amount of flow, change the characteristics of the pollutants discharged, or increase the concentration of any pollutant without prior approval by the

department through the submission of a new industrial wastewater discharge request in accordance with Env-Wq 305.10;

(5) The approval shall be based on and apply only to the subject discharge request and all associated plans and supporting information as submitted in the completed, signed discharge request; and

(6) The approval shall become void if the discharge approved does not begin within one year from the date of approval.

(c) Upon receipt of notification from the department that the discharge request is approved, the municipality in which the applicant is located shall issue a discharge permit to the indirect discharger.

Source. (See Revision Note at part heading for Env-Wq 305) #10381, eff 8-1-13

Env-Wq 305.18 Discharge Permits. The discharge permit for significant indirect dischargers issued pursuant to Env-Wq 305.17(c) shall contain the following provisions:

(a) Indirect discharger name, street address, mailing address, and daytime telephone number;

(b) Dates of issuance and expiration;

(c) The general and specific prohibitions from the sewer use ordinance that apply to the discharge;

(d) A list of pollutants, allowable parameters, and discharge limits;

(e) Identification of applicable EPA categorical standards;

(f) A list of pollutants to be monitored and the monitoring requirements applicable thereto;

(g) Sampling frequency, techniques, and locations;

(h) Reporting requirements;

(i) Inspection requirements;

(j) Notification requirements, including for:

(1) Slug loading;

(2) Spills, bypasses, and upsets;

(3) Changes in volume or characteristics of the discharge for which a permit revision is not required; and

(4) Permit violations.

(k) Record keeping requirements;

(l) Applicable definitions and special conditions from the sewer use ordinance;

(m) Applicable civil and criminal penalties for violations;

(n) Notification requirements prior to any new or increased discharge;

(o) A requirement to submit a complete new application at a specified frequency, which shall be not less than once every five years; and

(p) A requirement to provide a copy of the permit to the department, if the department so requests.

Source. (See Revision Note at part heading for Env-Wq 305) #10381, eff 8-1-13

Env-Wq 305.19 Discharge Permits Not Required for New Technology Trials. A discharge request and permit shall not be required for a trial of a new technology provided that:

(a) The trial will not last longer than 4 months; and

(b) No discharge from the indirect discharger at which the trial is occurring is likely to cause a violation of:

(1) The indirect discharger's existing discharge permit from the municipality; or

(2) Any requirements of the municipality's sewer use ordinance or any other applicable state, federal, or local requirements.

Source. (See Revision Note at part heading for Env-Wq 305) #10381, eff 8-1-13

Env-Wq 305.20 Approval of Special Discharges of Limited Duration.

(a) Any person proposing to discharge, as a one-time or otherwise limited duration discharge, waters or wastes to the public sewers that contain the substances or possess the characteristics enumerated in Env-Wq 305.06, or that exceed any applicable national categorical pretreatment standard, local limit or local prohibited waste, or that might otherwise have a deleterious effect on the POTW or its processes or equipment or on the POTW's receiving waters, or that might otherwise create a hazard to life or constitute a public nuisance, shall request permission from the POTW prior to discharging the waters or waste.

(b) To request permission to discharge, the person shall provide the following information:

(1) The nature of the waters or wastes to be discharged;

(2) The estimated duration of the discharge; and

(3) The anticipated start of the discharge.

(c) If necessary to fully characterize the proposed discharge, the person shall provide:

(1) The discharge peak rate and volume over a specified time period;

(2) Chemical analyses of the proposed discharge;

(3) A line diagram of the production process showing the origin of each waste stream;

(4) A listing of all chemicals used in the facility which could be discharged to the sewer;

(5) A plot plan of sewers on the user's property showing sewer and pretreatment facility location;

(6) Details of wastewater pretreatment facilities; and

(7) Details of systems established by the user to prevent and control the losses of materials through spills to the public sewer or storm drain.

(d) The POTW shall deny the request unless it determines that the proposed discharge:

(1) Is not likely to cause a significant adverse impact to receiving waters or to the POTW, community or POTW personnel;

(2) Is not likely to create a hazard to life or constitute a public nuisance; and

(3) Could be treated to alleviate the adverse impact.

(e) If the POTW determines that the criteria specified in (d), above, are met, the POTW shall grant the request, subject to any conditions as are necessary to minimize any adverse impact, such as restricting the rate or timing of discharge or requiring pretreatment of the discharge.

(f) If the POTW accepts the discharge but determines that the discharge will cause the community or POTW to incur additional expenses as a result of the discharge, the POTW may require the person to pay the added cost of handling and treating the wastes as a condition of allowing the discharge.

Source. (See Revision Note at part heading for Env-Wq 305) #10381, eff 8-1-13

Env-Wq 305.21 Reporting. In order to demonstrate compliance with RSA 485-A:5, III, each municipality shall provide the following to the department no less frequently than once every 5 years:

(a) A copy of its current sewer use ordinance if it has been revised without department approval subsequent to any previous submittal to the department or a certification that no changes have been made;

(b) A current list of all significant indirect dischargers to the POTW that includes the following information for each significant indirect discharger:

(1) Name and address;

(2) The name and daytime telephone number of a contact person;

(3) Products manufactured;

(4) Industrial processes used;

(5) Existing pretreatment processes; and

(6) Discharge permit status.

(c) A list of all permitted indirect dischargers; and

(d) A certification that the municipality is strictly enforcing its sewer use ordinance and all discharge permits it has issued.

Source. (See Revision Note at part heading for Env-Wq 305) #10381, eff 8-1-13

Appendix A

Rule Section(s)	State Statute(s) Implemented
Env-Wq 305 (see also specific sections listed below)	RSA 485-A:4, XV; RSA 485-A:5
Env-Wq 305.09	RSA 541-A:22, IV
Env-Wq 305.10	RSA 485-A:4, VI, IX-a, IX-b, IX-c
Env-Wq 305.11	RSA 485-A:45-54
Env-Wq 305.12 - Env-Wq 305.16	RSA 485-A:4, VI, IX-a, IX-b, IX-c
Env-Wq 305.17	RSA 485-A:4, IX-c

APPENDIX B: STATUTORY DEFINITIONS

RSA 125-N:2

VIII. "Medical/infectious waste" means any solid waste that is generated in the diagnosis, treatment, or immunization of human beings or animals, in research pertaining thereto, or in the production or testing of biologicals. Medical/infectious waste does not include any hazardous waste regulated under RSA 147-A.

RSA 482-A:2

X. "Wetlands" means an area that is inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal conditions does support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

RSA 485-A:2

I-a. "Certificate" means a certificate of competency issued by the department stating that the operator has met the particular requirements established by the department for certification at each level of operation.

I-b. "Certification committee" means those persons designated by the commissioner, and those persons elected by the New Hampshire Water Pollution Control Association to serve as the review committee for certification of wastewater treatment plant operators.

VI. "Industrial waste" means any liquid, gaseous or solid waste substance resulting from any process of industry, manufacturing trade or business or from development of any natural resources.

VII-a. "Operator" means:

(a) The individual who has full responsibility for the daily operation of a wastewater treatment plant or a pollution control facility;

(b) The individual normally responsible for the operations shift; or

(c) Individuals who perform important operating functions.

VIII. "Other wastes" means garbage, municipal refuse, decayed wood, sawdust, shavings, bark, lime, ashes, offal, oil, tar, chemicals and other substances other than sewage or industrial wastes, and any other substance harmful to human, animal, fish or aquatic life.

IX. "Person" means any municipality, governmental subdivision, public or private corporation, individual, partnership, or other entity.

IX-a. "Septage" means material removed from septic tanks, cesspools, holding tanks, or other sewage treatment storage units, excluding sewage sludge from public treatment works and industrial waste and any other sludge.

X. "Sewage" means the water-carried waste products from buildings, public or private, together with such groundwater infiltration and surface water as may be present.

XI-a. "Sludge" means the solid or semisolid material produced by water and wastewater treatment processes, excluding domestic septage; provided, however, sludge which is disposed of at solid waste facilities permitted by the department shall be considered solid waste and regulated under RSA 149-M.

XIV. "Surface waters of the state" means perennial and seasonal streams, lakes, ponds, and tidal waters within the jurisdiction of the state, including all streams, lakes, or ponds bordering on the state, marshes, water courses, and other bodies of water, natural or artificial.

XVI. "Waste" means industrial waste and other wastes.

XVI-a. "Wastewater treatment plant" means the treatment facility or group of treatment devices which treats domestic or combined domestic and industrial wastewater through alteration, alone or in combination, of the physical, chemical, or bacteriological quality of the wastewater and which dewaters and handles sludge removed from the wastewater.

XVII. "Bypass" means the intentional diversion of waste streams from any portion of the wastewater facilities.

XVIII. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with permit effluent limitations because of factors beyond the reasonable control of the permittee.

XIX. "Wastewater facilities" means the structures, equipment, and processes required to collect, convey, and treat domestic and industrial wastes, and dispose of the effluent and sludge.

Appendix C: Statutory Provisions Cited

RSA 485-A:5-a Operator Certification Required. – The department shall certify operators of wastewater treatment plants. Wastewater treatment plants shall be operated only by certified operators.

RSA 485-A:6 Rulemaking. – The commissioner shall adopt rules, under RSA 541-A, after public hearing, relative to:

XI. The minimum qualifications for and certification of operators of pollution control facilities.

XI-b. Certification of operators of wastewater treatment plants and revocation and suspension of such certificates as provided in RSA 485-A:7-d.

RSA 485-A:7-a Application; Special Fund. –

I. Any operator of a wastewater treatment plant seeking certification or to increase his level of certification shall file an application with the certification committee at least 6 weeks prior to the next examination date on a form provided by the department.

II. All applications shall be accompanied by a $50 fee to cover department expenses for conducting the certification program. All fees shall be deposited with the state treasurer and deposited in a special nonlapsing wastewater plant operator certification fund to be used by the department for the administration of this subdivision and for the operation of the department-owned Wastewater Plant Operator Training Center.

III. Any applicant failing the examination shall be allowed one retest at the same certification level at no additional cost to the applicant.

RSA 485-A:7-b Examinations. – The department shall prepare written examinations to determine the knowledge, ability, and judgment of operators. Such examinations shall be administered in accordance with rules adopted by the department pursuant to RSA 485-A:6.

RSA 485-A:7-c Issuance of Certificates. –

I. Upon satisfactory completion by an applicant of the established requirements, the department shall issue to the applicant a suitable certificate designating the applicant's competency. The certificate shall indicate the level of operation for which the operator is qualified. The certificate shall remain in effect for 2 years from the date of issuance.

II. Certificates shall be renewed biennially and shall be accompanied by a $50 renewal fee, which shall be deposited pursuant to RSA 485-A:7-a, II. If the renewal fee is not submitted within 90 days of the certificate's expiration date, the certified individual's name shall be removed from the current status and the certificate shall be deemed expired. The department shall charge a late fee of 50 percent of the renewal fee in addition to the renewal fee if the renewal is late.

III. Certificates may be issued, upon payment of the $50 fee, without examination, for a comparable classification to any person actively seeking employment in New Hampshire who holds a certificate issued by the appropriate certification agency of any federal, state, interstate, territorial, or other jurisdiction if, in the judgment of the committee, the certification requirements of the jurisdiction granting such certification do not conflict with the department's rules and are not less stringent than rules adopted under this subdivision. The fee shall be deposited pursuant to RSA 485-A:7-a, II.

RSA 485-A:7-d Revocation. – The department may suspend or revoke the certificate of an operator under rules adopted pursuant to RSA 485-A:6.

RSA 486:9 Operator Certification. – The operators of pollution control facilities shall be certified as to their qualifications and ability to operate said facilities in accordance with rules adopted by the commissioner under RSA 541-A.

RSA 486:10 Rulemaking. – The commissioner may adopt rules under RSA 541-A relative to treatment of wastes by or from industrial and nonindustrial recipients of waste treatment services to establish:

III. Certification criteria for pollution control facilities operators.

RSA 641:3 Unsworn Falsification. – A person is guilty of a misdemeanor if:

I. He or she makes a written or electronic false statement which he or she does not believe to be true, on or pursuant to a form bearing a notification authorized by law to the effect that false statements made therein are punishable; or

II. With a purpose to deceive a public servant in the performance of his or her official function, he or she:

(a) Makes any written or electronic false statement which he or she does not believe to be true; or

(b) Knowingly creates a false impression in a written application for any pecuniary or other benefit by omitting information necessary to prevent statements therein from being misleading; or

(c) Submits or invites reliance on any writing which he or she knows to be lacking in authenticity; or

(d) Submits or invites reliance on any sample, specimen, map, boundary mark, or other object which he or she knows to be false.

III. No person shall be guilty under this section if he or she retracts the falsification before it becomes manifest that the falsification was or would be exposed.

APPENDIX D: HOST POTW ACKNOWLEDGEMENT FORM

HOST POTW ACKNOWLEDGEMENT

Industrial Waste Indirect Discharge Request (IDR)

Instructions:

1. Satellite Municipality shall provide IDR copy to Host POTW concurrent with submission to NH DES.
2. Host POTW to provide this form within 10 days of receipt of IDR form from Satellite Municipality.
3. IDR will not be approved by NH DES until this completed form is received.

Please provide the following information:

Host POTW _____

Satellite Municipality _____

IDR
- Industry _____
- Date _____
- Other _____

Date of IDR Receipt by Host POTW _____

Please put "X" in one block:

No Comment

Comments (See below and/or attachments)

_____

_____

_____

● Signature - Host POTW:

By _____ Title _____ Date _____

Send to : Industrial Pretreatment Supervisor
NH DES Water Division
PO Box 95
Concord, NH 03302-0095

05-28-13

Boards & Committees Policies & Procedures

MEMORANDUM

TO: Exeter Select Board
CC: Russ Dean, Town Manager
Melissa Roy, Assistant Town Manager/HR Director

FROM: Lovey Roundtree Oliff, Exeter Select Board
Niko Papakonstantis, Exeter Select Board, Chair

DATE: November 30, 2022

One of the ongoing initiatives of the Exeter Select Board is a comprehensive review of the town's Boards and Committees. Selectwoman Lovey Roundtree Oliff and Selectman Niko Papakonstantis volunteered to accept the charge of this review and make recommendations to the Select Board. After several strategy meetings, in addition to a peer review of other municipalities of similar population and budget to assist in developing a best practice in Exeter, a draft was reviewed by the Select Board at the October 18, 2021 Select Board meeting. This is a revised draft based on the comments and suggestions of the entire Board at the November 21, 2022 Select Board meeting. Additionally, we encourage ongoing discussion regarding recruitment and retention.

- **TERM LIMITS:**

Currently, all members of Boards and Committees in Exeter are appointed by the Select Board except where in contradiction with NH law (Planning Board, Heritage Commission, Conservation Commission) where the NH RSA's provide for the method appointment and composition. Most appointments are made for finite terms. The exceptions include the Energy Committee and Human Services Funding. Terms for each Board and Committee member are staggered. The Select Board annually reviews all expiring terms prior to April 30, and votes to re-appoint those members whose terms are expiring.

- **The recommendation** is to continue this process. Further, a peer review of similar-like municipalities in New Hampshire found that there is no practice of limiting the number of terms one may serve. This includes land-use Boards, as well as committees. It is recommended that the Town of Exeter NOT adopt a policy of limiting the number of terms one may serve. However, it may be worth investigating a two-term rotation between regular voting members and alternates. This obviously is not applicable to Boards/Committees to which members are elected at Town Meeting.

- **VACANCIES:**
- When a permanent voting member either resigns, is removed, or opts not to seek re-appointment thus creating an open permanent position, **the recommendation** is that the alternate with the most seniority be appointed to the open permanent position, unless that individual wishes to remain an alternate, or, there is an issue with attendance. Further, any new candidates wishing to volunteer would be appointed to the open alternate position.

- **NEW MEMBER APPOINTEE ORIENTATION:**

Currently, no formal orientation process is in place for new committee and board members.

- **The recommendation** is that all new appointees to a Town of Exeter Board or Committee undergo an orientation within the first thirty (30) days of their appointment. It is suggested that the Assistant Town Manager/HR Director conduct the orientation which will include an introduction to the Board/Committee Chair, dedicated town staff to the Board/Committee, and the respective Select Board representative to the Board/Committee. Additionally, training will be provided on RSA 91-A; town policies and procedures; and conflict of interest matters. Newly elected Chairs to Boards/Committees should also be provided with training on Robert's Rules of Conduct.

- **GOALS AND OBJECTIVES:**

To optimize meeting times and functionality, **the recommendation** is a goals and objectives process for Boards and Committees:

- Annually, by June 30 of each year, it is suggested that the Chair of each Board/Committee submit written goals and objectives to the Select Board. These goals will be determined by a majority vote from the respective Board/Committee members. The Select Board representative will monitor whether the goals are being met, either quarterly or bi-annually, and will report back to the Select Board. The exceptions to this are the Planning Board, Zoning Board of Appeals, Historic District Commission, and the Budget Recommendations Committee, respectively.
- Promote collaboration between Committees. As written in the Master Plan "develop a more frequent official, regular system of interdepartmental meetings to review current initiatives and workload in each department and potential efficiencies that could occur by combining efforts."
- Bi-annual meeting of all committees and boards.
- Mission statements and committee charges should be reviewed and revised as necessary.

- **COMMITTEE MEMBERSHIP**
- **The recommendation** is that the Select Board review the list of Committees annually and may vote to consolidate or discontinue any Committee, as well as revise the number of members to better ensure a quorum.

- **MEETING FREQUENCY:**

It is suggested that each Board/Committee determine the frequency by which they meet. The Planning Board excluded (this Board meets twice a month), only rarely should a Committee need to meet more than once a month. Some Advisory Committees may determine that every other month or quarterly is prudent.

- **ATTENDANCE:**

The Select Board adopted an attendance policy that states that "Committee members that fail to attend at least 60% of the meetings in any calendar year may forfeit their membership and be subject to removal by the Select Board. The Chair of each Committee shall, in January, forward an annual report of member attendance to the Select Board for review." **The recommendation is for this policy to continue.**

Tax Abatements, Veterans Credits & Exemptions

List for Select Board meeting December 5, 2022

Abatements

Map/Lot/Unit	Location	Amount	Tax Year
111-5-30	30 Green Gate	173.88	2022
104-79-957	900E Maid Marion	4.93	2022
104-79-1000	1000 Camelot	17.90	2022

Solar Exemption

Map/Lot/Unit	Location	Amount	Tax Year
21-20	10 Half Penny Ln	20,500	2023

Permits & Approvals

Correspondence

Town of Exeter

Russ Dean <rdean@exeternh.gov>

Fwd: Strong support for Single Use Plastic Ban

1 message

Niko Papakonstantis <npapakonstantis@exeternh.gov> Thu, Dec 1, 2022 at 12:04 PM
To: Russ Dean <rdean@exeternh.gov>

For the packet

--------- Forwarded message ---------
From: **Denise Short** <deniseshort@gmail.com>
Date: Mon, Nov 21, 2022 at 4:05 PM
Subject: Strong support for Single Use Plastic Ban
To: <NPapakonstantis@exeternh.gov>, mcowan@exeternh.gov <mcowan@exeternh.gov>, loliff@exeternh.gov <loliff@exeternh.gov>, nbelanger@exeternh.gov <nbelanger@exeternh.gov>, jgilman@exeternh.gov <jgilman@exeternh.gov>

Exeter Select Board:
I was planning on attending tonight's Select Board meeting but in case I cannot, please receive my wholehearted support for banning of single-use plastics ordinance. What an opportunity for the town to lead the way in this critical aspect of sustainability. How lucky are we to have support and education and information to make this possible. Of course it seems daunting as most environmental actions often do--the whole issue with environmental action is that it takes many many individual actions to create the momentum for change. Know that if the town adopts this ordinance it will have a wonderful ripple effect with individual citizen action as well.

Thank you for your leadership and please support this ordinance as wholeheartedly as you can!

Sincerely,

Denise Short
4 Sanborn Street
Exeter NH 03833

Town of Exeter

Russ Dean <rdean@exeternh.gov>

Fwd: Support of single use plastics ordinance

1 message

Niko Papakonstantis <npapakonstantis@exeternh.gov> Thu, Dec 1, 2022 at 12:04 PM
To: Russ Dean <rdean@exeternh.gov>

For the packet

--------- Forwarded message ---------
From: **EILEEN FLOCKHART** <hartflock@comcast.net>
Date: Mon, Nov 21, 2022 at 4:24 PM
Subject: Support of single use plastics ordinance
To: npapakonstantis@exeternh.gov <npapakonstantis@exeternh.gov>, Julie Gilman <jgilman@exeternh.gov>, Molly Cowan <molly.cowannh@gmail.com>, Lovey Oliff <lovey.oliff@gmail.com>, Nancy Belanger <nbelanger411@gmail.com>

Dear Selectboard members

Reading all the news and science lately about how much of our plastic does not even remotely get recycled and how much is being pelletized, distributed in oceans and waters and even enters the bodies of all, especially our children.....

whatever we can do as a town to restrict use of unnecessary plastic bottles and all sorts of packaging will be perhaps a small step, but even so an important one.

I urge your support!!
thanks for all the work you do
Eileen Flockhart

Town of Exeter

Russ Dean <rdean@exeternh.gov>

single-use plastic ban

2 messages

Jennifer Martel <jmartel@gmail.com> Mon, Nov 21, 2022 at 7:39 PM
To: Niko Papakonstantis <npapakonstantis@exeternh.gov>, Molly Cowan <mcowan@exeternh.gov>, loliff@exeternh.gov, "nbelanger@exeternh.gov" <nbelanger@exeternh.gov>
Cc: Russell Dean <rdean@exeternh.gov>, jgilman@exeternh.gov

Dear Select Board,
I am writing today to register my support for the single-use plastic ban on Town property. Single-use plastics are wasteful and unnecessary. Too often they wind up in our public spaces and waterways where they can break down into microplastics that permeate the environment. While this is a huge problem that a single town can not solve, we need to be on the right side of history here and join the many towns that have banned single-use plastics. I commend the Sustainability Advisory Committee for presenting you with a well-written, thoughtfully-considered article, and I hope that you will vote to adopt it.
Thank you for your continued service to our community!
Sincerely,
Jen Martel
23 Wood Ridge Lane

Niko Papakonstantis <npapakonstantis@exeternh.gov> Thu, Dec 1, 2022 at 12:05 PM
To: Russ Dean <rdean@exeternh.gov>

For the packet
[Quoted text hidden]

Russ Dean <rdean@exeternh.gov>

Fwd: Support for Single Use Plastic Ordinance

1 message

Niko Papakonstantis <npapakonstantis@exeternh.gov> Thu, Dec 1, 2022 at 12:05 PM
To: Russ Dean <rdean@exeternh.gov>

For the packet

--------- Forwarded message ---------
From: **Jenn Brackett** <jennbrackett@comcast.net>
Date: Mon, Nov 21, 2022 at 3:41 PM
Subject: Support for Single Use Plastic Ordinance
To: <loliff@exeternh.gov>, <NPapakonstantis@exeternh.gov>, <mcowan@exeternh.gov>, <jgilman@exeternh.gov>, <nbelanger@exeternh.gov>
CC: <kmurphy@exeternh.gov>, chetana & stephen <everestviewlodge@gmail.com>

Dear Exeter Select Board,

First off, thank you so much for the many steps you have taken over these past few years that helped put public health first in Exeter throughout the pandemic. My immunocompromised family has greatly benefited from your efforts. We appreciate you and respect the hard choices you have had to make.

I am writing today in support of the Single Use Plastic Ordinance being put forth by the Exeter Sustainability Advisory Committee. Thank you to Kristen Murphy, Chetana Parmar, and the members of SAC for your work on this!

Back in 2018, I was one of the original community folks who formed the Sustainability Office Advocates (SOA) of Exeter. We were able to get a warrant article passed in 2019 to establish an Office of Sustainability for our town. Citizens overwhelming voted in favor of it and sent as a clear message that Exeter citizens feel passionately about sustainability.

This Single Use Plastic Ordinance is another powerful initiative that is in keeping with what the voters gave a resounding YES to back in 2019. Bringing this impactful sustainability practice to Exeter is another positive step forward in creating a more resilient and sustainable future for our Town.

Please approve next steps in turning this ordinance into a reality.

Warm regards,

Jennifer Brackett Piskovitz
22 Forest St
Exeter

Jennifer Brackett Piskovitz
.....
she / her
.....
visual + graphic designer
.....
JBrackett Creative LLC
.....
+1 603 778 7173

Town of Exeter

Russ Dean <rdean@exeternh.gov>

Fwd: Single use plastics ban all in Exeter

1 message

Niko Papakonstantis <npapakonstantis@exeternh.gov> Thu, Dec 1, 2022 at 12:06 PM
To: Russ Dean <rdean@exeternh.gov>

For the packet

--------- Forwarded message ---------
From: **Nancy Belanger** <nbelanger@exeternh.gov>
Date: Tue, Nov 22, 2022 at 9:29 AM
Subject: Fwd: Single use plastics ban all in Exeter
To: Niko Papakonstantis <npapakonstantis@exeternh.gov>

Good Morning,

Would you please put this email in our next meeting packet!

Thank you,

Nancy

--------- Forwarded message ---------
From: **Diana Papageorge** <dianapapageorge@gmail.com>
Date: Mon, Nov 21, 2022 at 5:18 PM
Subject: Single use plastics ban all in Exeter
To: <nbelanger@exeternh.gov>

Hi Nancy,

I am not able to attend to tonight's meeting about this, but I am 100 percent behind the town getting behind banning the use of single use plastics - and I understand the transition can take some time, but feel it is important for the future of our planet and our children that we all make whatever sacrifice there might be to ensure sustainability.

Thanks for your time!

Diana Papageorge

--
Nancy A. Belanger

COMCAST

November 18, 2022

Board of Selectmen
Town of Exeter
10 Front Street
Exeter, NH 03833

RE: Important Information—Price Changes

Dear Chairman and Members of the Board:

At Comcast, we are always committed to delivering the entertainment and services that matter most to our customers in your community, as well as exciting experiences they won't find anywhere else. We are also focused on making our network stronger in order to meet our customers' current needs and future demands. As we continue to invest in our network, products, and services, the cost of doing business rises. Rising programming costs, most notably for broadcast TV and sports, continue to be the biggest factors driving price increases. While we absorb some of these costs, these fee increases affect service pricing. As a result, starting December 20, 2022, prices for certain services and fees will be increasing, including the Broadcast TV Fee and the Regional Sports Network Fee.

Enclosed are the notices customers will receive within their bill starting November 20, 2022. We know you may have questions about these changes. If I can be of any further assistance, please don't hesitate to contact me via email at **Thomas_Somers@comcast.com**.

Sincerely,

Jay Somers

Jay Somers, Sr. Manager
Government & Regulatory Affairs

Enclosures: Customer Notices

xfinity

Important information regarding your Xfinity services and pricing

Effective December 20, 2022

Xfinity TV	Current	New
Broadcast TV Fee	$24.95	$27.25
Regional Sports Fee	$11.85	$12.00
Franchise Costs		
Concord	$0.37	$0.42
Hampstead	$1.01	$1.08
Nashua	$0.17	$0.19
Pembroke	$0.13	$0.15
Plaistow	$0.77	$0.87
Seabrook	$0.25	$0.27
Choice TV Select	$32.50	$37.50
Choice TV Select - with TV Box	$41.00	$47.50
Service to Additional TV with TV Adapter	$8.50	$10.00
TV Box and Remote	$8.50	$10.00
HD TV Box and Remote Limited Basic	$8.50	$10.00

Pay-Per-View and On Demand Subscription Services	Current	New
Acorn TV On Demand	$5.99	$6.99

Installation	Current	New
In-Home Service Visit - After Initial Installation of Service	$70.00	$100.00

Xfinity Internet	Current	New
Modem Rental	$14.00	$15.00

Allenstown, Concord, Exeter, Goffstown, Hampstead, Manchester, Nashua, Pembroke, Plaistow, Salem, Seabrook, Somersworth, Stratham, NH

87732000 (0810,1260,1290,1370,1380,1500,1550,1580,1610,1620,1630,1800,1820)

P457AL23

Important Information – Price Changes
December 20, 2022
Additional Information

In addition to the price changes listed in the attached general **Important Information Regarding Xfinity Services and Pricing**, customers subscribing to the services below will receive a bill message regarding the pricing change to their service.

Bill Message Text:
"In addition to the price changes listed on the general Important Information Regarding Xfinity Services and Pricing, on December 20, 2022, the price of [package or service name from below] will increase from $XX.XX to $XX.XX per month. Prices exclude taxes and fees."

SERVICES NO LONGER AVAILABLE FOR NEW SUBSCRIPTIONS	Current	New
Digital Preferred Tier	$17.95	$20.00
Choice Limited TV	$30.00	$35.00
Digital Preferred Package	$85.22	$87.27
Digital Preferred Tier with Showtime	$29.95	$32.00
Digital Preferred Tier with The Movie Channel	$29.95	$32.00
Digital Preferred Tier with Cinemax	$29.95	$32.00
Digital Preferred Tier With HBO Max	$32.94	$34.99
Choice Triple Play	$99.99	$100.99
Standard+ More Triple Play	$130.99	$131.99
Select+ More Triple Play	$159.99	$160.99
Signature+ More Triple Play	$189.99	$190.99
Super+ More Triple Play	$199.99	$201.99
Preferred Triple Play (MDU)	$117.99	$120.99
Preferred Extra Triple Play	$129.99	$132.99
Select Triple Play	$149.99	$151.99
Signature Triple Play	$169.99	$171.99
Super Triple Play	$199.99	$201.99
HD Extra Bundle	$162.99	$165.99
HD Plus Triple Play	$187.99	$190.99
Value Plus Triple Play	$142.99	$145.99
MultiLatino Ultra Triple Play	$162.99	$165.99
MultiLatino Ultra Bundle	$162.99	$165.99
MultiLatino Ultra HD Triple Play	$172.99	$175.99
MultiLatino HD Ultra Plus	$192.99	$195.99
MultiLatino Ultra Plus	$192.99	$195.99
Extra XF Bundle	$154.99	$157.99
Preferred XF Bundle	$167.99	$170.99

SERVICES NO LONGER AVAILABLE FOR NEW SUBSCRIPTIONS Cont.	Current	New
Standard+ Double Play	$110.99	$114.99
Select+ Double Play	$139.99	$141.99
Signature+ Double Play	$169.99	$171.99
Super+ Double Play	$189.99	$191.99
Preferred & Internet Pkg (MDU)	$91.89	$94.89
Economy Double Play	$99.99	$102.99
Select Double Play	$119.99	$122.99
Signature Double Play	$139.99	$142.99
Super Double Play	$169.99	$172.99
Blast! Plus Double Play with HBO Max	$109.99	$112.99
Internet Pro Plus Double Play with HBO Max	$94.99	$97.99
Internet Pro Plus Double Play with Showtime	$91.99	$94.99
Premier Double Play with Performance Pro Int	$189.99	$192.99
Internet Plus Latino Double Play	$87.99	$90.99
Internet Plus Double Play with Showtime	$81.99	$84.99
Blast! Extra Double Play	$92.99	$95.99
Blast! Plus Double Play	$102.99	$105.99
Preferred Double Play	$151.99	$154.99
Multilatino Double Play	$136.99	$139.99
Internet Plus Double Play with HBO	$87.99	$90.99
Preferred Latino Double Play	$169.99	$172.99
Performance Internet	$64.95	$67.00
Gigabit Pro Internet	$299.95	$300.00
Gigabit x2 Internet	$129.95	$130.00
Performance Starter Internet	$59.95	$65.00
Desi Pack	$29.99	$32.99
Modem Rental	$14.00	$15.00

Starter Latino Triple Play	$149.99	$152.99
Multilatino Total HD Triple Play	$217.99	$220.99
HD Preferred XF Bundle	$177.99	$180.99
HD Preferred Plus XF Bundle	$197.99	$200.99
HD Premier Sports Bundle	$222.99	$225.99
HD Premier XF Bundle	$222.99	$225.99
HD Complete XF Bundle	$241.99	$244.99
Preferred Latino Triple Play	$167.99	$170.99
Preferred Extra Latino Triple Play	$177.99	$180.99
Economy Plus Latino Triple Play	$142.99	$145.99
HD Preferred Extra XF Bundle	$194.99	$197.99
Basic Pro Triple Play	$112.99	$115.99
Economy Pro Triple Play	$120.99	$123.99
Preferred Plus Triple Play (MDU)	$139.99	$142.99
HD Preferred Triple Play (MDU)	$127.99	$130.99
HD Preferred Plus Triple Play (MDU)	$149.99	$152.99
Choice Double Play	$89.99	$90.99

MyTV Choice Get Started	$24.27	$26.32
MyTV Choice Get Started with One Theme Pack	$34.27	$36.32
MyTV Choice Get Started with Two Theme Packs	$44.27	$46.32
MyTV Choice Get Started with Three Theme Packs	$54.27	$56.32
MyTV Choice Get Started Plus	$42.27	$44.32
MyTV Choice Get Started Plus with One Theme Pack	$52.27	$54.32
MyTV Choice Get Started with Two Theme Packs	$62.27	$64.32
MyTV Choice	$109.99	$114.49
MyTV Choice With One Theme Pack	$119.99	$122.99
MyTV Choice With Two Theme Packs	$129.99	$132.99
MyTV Choice With Three Theme Pack	$139.99	$142.99
MyTV Choice With Four Theme Packs	$149.99	$152.99
MyTV Choice Plus	$126.99	$129.99
MyTV Choice Plus With One Theme Pack	$136.99	$139.99
MyTV Choice Plus With Two Theme Packs	$146.99	$149.99
MyTV Choice Plus With Three Theme Packs	$156.99	$159.99

Important Information - Price Changes
December 20, 2022
Additional Information Continued

SERVICES NO LONGER AVAILABLE FOR NEW SUBSCRIPTIONS	Current	New
PREMIER TIER W/SPORTS	$ 59.95	$ 62.00
DIGITAL PREMIER TIER WITH SPORTS	$ 63.95	$ 66.00
DIGITAL PREMIER TIER	$ 64.95	$ 67.00
TOTAL PREMIUM	$ 64.95	$ 67.00
INTERNET + LIMITED BASIC	$ 94.69	$ 96.74
PERFORMANCE INTERNET & VOICE	$ 109.90	$ 111.95
DIGITAL PREMIER WITH SPORTS AND 4 PREMIUM CHANNELS	$ 127.22	$ 129.27
DOUBLE PLAY BUNDLE WITH BLAST! INTERNET & VOICE	$ 129.90	$ 131.95
PREFERRED DOUBLE PLAY WITH UNLIMITED VOICE	$ 130.17	$ 132.22
DIGITAL PREMIER WITH SPORTS AND 5 PREMIUM CHANNELS	$ 131.22	$ 133.27
DIGITAL PREMIER PACKAGE WITH 5 PREMIUM CHANNELS	$ 132.22	$ 134.27
EXTRA XF DOUBLE PLAY	$ 132.22	$ 134.27

CDFA
COMMUNITY DEVELOPMENT FINANCE AUTHORITY

November 10, 2022

Russell Dean, Town Manager
Town of Exeter
10 Front Street
Exeter, NH 03833

Re: Exeter: Community Center Rehabilitation Project

Dear Mr. Dean:

On November 3, 2022, the Community Development Advisory Committee of the New Hampshire Community Development Finance Authority (CDFA), after an extensive application review period, finalized its funding decisions for the Community Development Block Grant (CDBG) Housing and Public Facilities and CDBG-CV Public Facilities – 1st Round 2022. Your application for the Community Center Rehabilitation project was approved by the CDFA Advisory Committee with certain contingencies, one of which was "Sufficient funds are available and allocated by HUD".

This CDBG-CV Public Facilities funding round was highly competitive, with the amount of funding requested exceeding the amount available to award. It is with regret that I inform you that although the project scored adequately, there were several other projects which attained higher scores, and therefore CDFA is unable to fund your application due to insufficient funds.

We encourage you to consider applying again in a future CDBG round if your project meets eligibility requirements. Please feel free to contact Mollie Kaylor at mkaylor@nhcdfa.org if you have any questions regarding the Administrative Review Procedure or if you wish to discuss this matter further.

Sincerely,

Katherine Easterly Martey
Executive Director

KEM/ms

Town Manager's Office
NOV 23 2022
Received

Month

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	Select Board 7:00 pm Nowak	Sustainability Advisory 7 pm Wheelwright		Facilities Advisory 4:30 pm Wheelwright Communications 6:30 pm Wheelwright		
	Comm. Power Agg. 6:00 pm Library	Arts & Culture 6:30 pm Wheelwright Conservation Comm. 7:00 pm Nowak	Energy Committee 3:30 pm Wheelwright	Planning Board 7:00 pm Nowak	Housing Advisory 8:30 am Nowak	
	Select Board 7:00 pm Nowak	ZBA 7:00 pm Nowak	Heritage Comm. 7:00 pm Nowak	River Advisory 3:00 pm Nowak Histroric District 7:00 pm Nowak		
		Recreation Advisory 7:00 pm Nowak LAST TUESDAY OF MONTH		Planning Board 7:00 pm Nowak		
		NO REGULARLY SCHEDULED MEETINGS Swasey Parkway Trustees Exeter Housing Authority E911 Water & Sewer Advisory Committee Trustees of the Trust Trustees of the Robinson Fund				