TOWN OF EXETER, NEW HAMPSHIRE
TOTAL NITROGEN CONTROL PLAN ANNUAL REPORT FOR 2019

1. BACKGROUND

This 2019 Total Nitrogen Control Plan Annual Report was prepared for the Town of Exeter, New Hampshire in order to comply with the requirements of AOC 13-010, Article IV.E. The AOC stipulates that the following items be addressed:

- The pounds of total nitrogen discharged from the WWTF during the previous calendar year (***refer to Section 2.1 of this annual report***).
- A description of the WWTF operational changes that were implemented during the previous calendar year (***refer to Section 2.2 of this annual report***).
- The status of the development of a total nitrogen NPS and storm water point source accounting system (***refer to Section 2.3 of this annual report***).
- The status of NPDES MS4 activities (***refer to Section 2.4 of this annual report***)
- The status of the development of the non-point source and stormwater point source Nitrogen Control Plan (***refer to Section 2.5 of this annual report***).
- A description and accounting of the activities conducted by the Town as part of its Nitrogen Control Plan (***refer to Section 2.6 of this annual report***); and
- A description of all activities within the Town during the previous year that affect nitrogen loading to the Great Bay Estuary. The annual report shall include sufficient information such that the nitrogen loading change to the watershed associated with these activities can be quantified upon development of the non-point source/point source storm water accounting system (***refer to Section 2.7 of this annual report***).

In addition, this report is intended to support the evaluations that were completed in September 2018 Nitrogen Control Plan and the future evaluations due in December 2023 (Engineering Evaluation), including: documenting total nitrogen, dissolved oxygen, *chlorophyll a* and macroalgae concentration trends in the Squamscott River and downstream waters; documenting non-point source and stormwater point source reduction trends towards allocation targets; and documenting that appropriate mechanisms are in place to ensure continued progress.

2. SUMMARY OF AOC STIPULATED ITEMS

2.1. Total Pounds of Nitrogen Discharged from the WWTF in Previous Calendar Year

Attachment 1 summarizes the total pounds and total tons of nitrogen discharged from the WWTF for the calendar year as well as the annual average total nitrogen value measured at the Squamscott River "GRBCL" sampling location, located just downstream of Newfields WWTF at Chapman's Landing and at the Squamscott River "GRBSQ" sampling location, located at the mouth of the Squamscott River.

2.2. Operational Changes at the WWTF

This year resulted in <u>significant</u> changes at the WWTF as a result of the construction activities over the past several years. The progress and status of the multi-year construction projects are summarized below:

- The WWTF Upgrades (Contract No. 1)

- The new nitrogen removal process went on-line on June 10, 2019. After a few weeks of initial operation, the process was switched to the design basis (Bardenpho) configuration. Effluent TN has been consistently below 8-mg/l since that time. See Exeter WWTF Effluent TN results in **Attachment 1**. The Town and WP have been working closely since start-up to optimize treatment results.
- Partial substantial completion was achieved on August 16, 2019 for timely on Interim Milestone No. 3. This milestone was included for the nitrogen-related WWTF components to meet the AOC Interim Limits.
- Construction was approximately 96% completed through December 31, 2019 and overall substantial completion was achieved on December 31, 2019.

- The Forcemain Upgrades (Contract No. 2)
  - The Bidding Documents were finalized on January 22, 2019.
  - Bid were received on February 25, 2019.
  - Notice to Proceed was issued on April 10, 2019.
  - Partial substantial completion was achieved on October 15, 2019.
  - Construction was approximately 90% completed through December 31, 2019. Final paving will be completed in Spring 2020.

- The Main Pump Station Upgrades (Contract No. 3)
  - The upgraded pump station is on-line and operational (December 2018).
  - Substantial completion was achieved in January 2019.
  - Construction is 100% completed through December 31, 2019.

2.3. Development of Total Nitrogen NPS & Stormwater Point Source Accounting

2.3.1. PTAP Participation

The Town of Exeter has been actively participating in the Great Bay Pollution Tracking and Accounting Pilot Project (PTAPP), which was established by and led by NHDES and EPA, since its inception. PTAPP was originally established to enable coordination on nitrogen tracking and accounting for the Great Bay region. This program was recently renamed to the Great Bay Pollution Tracking and Accounting Project (PTAP). PTAP has made progress towards developing shared approaches and tools within the participant Great Bay communities. PTAP is in the Implementation Phase now. A summary of the 2019 activities is provided below along with the 2019 Exeter PTAP Report found in Attachment 3.

Implementation:

- NHDES contracted with UNH to continue hosting the PTAP database, to continue development of the tracking and accounting system, to develop pollutant hot spot mapping.
- April 12, 2019 Meeting: Discussion of hot spot mapping status, accounting system status and future PTAP funding approaches.
- November 8, 2019 Meeting: Continued discussion of hot spot mapping status,

accounting system status and future PTAP funding approaches. UNH indicated that they will be funding a Lawn Fertilizer expert panel to help fine-tune the tracking and accounting system.

2.4. Status of NPDES MS4 Activities

The Town submitted an MS4 Annual Report, which summarizes the activities untaken during the permit year for compliance with permit conditions outlined in the 2017 Small MS4 General Permit, on September 30, 2019.

Additionally, Wright-Pierce was retained to assist with conducting Stormwater Management Program development workshops, development of written procedures for Good Housekeeping and Site Plan Review, updating the Town's IDDE plan and updating the existing Stormwater Pollution Prevention Plan (SWPPP) for the Safety Complex and Transfer Station for compliance with the 2017 NH Small MS4 General Permit.

2.5. Status of NPS and Stormwater Point Source Nitrogen Control Plan

The Town completed and submitted its 2018 Nitrogen Control Plan in accordance with the AOC. The Nitrogen Control Plan integrated and built upon the point source and non-point source content that was developed in the Wastewater Facilities Plan (WP, March 2015) and the WISE Report (Geosyntec, et.al., December 2015). The Nitrogen Control Plan implementation items are summarized in Section 2.5 below. The Town is securing funding through the annual appropriations process to continue with implementation items.

Other Nitrogen Control Plan related activities that the Town completed this year include:

- In 2018 UNH Cooperative Extension and Sea Grant presented to the Planning Board and Conservation Commission the 2016 TNC Update to Land Conservation Plan for Coastal Communities that includes water quality functions of pollutant attenuation/flood protection/etc. in the prioritization for land protection. As a result of this, the Town applied for an assistance grant with UNH Cooperative Extension and SeaGrant. The Natural Resource Planner presented this opportunity to the Select Board, Conservation Commission, and Sustainability Advisory Committee in 2019. This presentation included the distribution (and follow-up web posting) of Exeter-relevant climate-related reports which include those important for stormwater pollution and N control. The Town was awarded the assistance grant and has spent the summer/fall working with Amanda Stone and Lisa Wise of UNH to develop a board/staff outreach event for spring 2020 to create a 1-pager on these documents and educate them how they could be used in their respective roles.
- In February 2019, the volunteer organization "The Sustainability Office Advocates" hosted a film festival that featured a variety of films including "What We Have in Its Place", a film on the removal of Exeter's Dam. Panel discussions throughout the day included representatives from the Conservation Commission, Planning Board, and Exeter TV.

- In August 2019, the Rockingham Planning Commission led a public walking tour in collaboration with the Exeter Conservation Commission along the Exeter Water Trail, an interactive walk to educate about watersheds, wetlands, stormwater, and the tidal river that leads to the Great Bay. Interactive signage from this is included as **Attachment 5.**
- In October 2019, the Piscataqua Great Bay Waterkeeper presented to the River Study Advisory Committee on her work to improve the conditions of Great Bay.
- The Natural Resource Planner continued to conduct the NHDES Volunteer River Assessment Program (VRAP) protocols testing water quality in Exeter's rivers twice a month from May through September in town with a team of volunteers. This year marks the 2nd year the Town sent out a call for volunteers and this year the Town received assistance from 7 volunteers (versus a maximum of 4 in prior years). The 2019 Exeter River Watershed VRAP data results from May 31st to August 30th are included in **Attachment 7.**
- The Town's "Healthy Lawns Clean Water" Facebook page has 155 followers. The page shares information related to stormwater impact, water quality, and environmentally friendly lawn care techniques and has an average reach of about 15-30 posts per week.
- Water Quality Friendly Lawn Care magnets were handed out at the Town Clerk's window since March 2019. Approximately 70 were handed out.
- The Natural Resource Planner continued the Coop Middle School 8th grade science class project in 2019. This project involved 2 separate visits to the CMS. The first visit explained the function of storm drains/catch basins and outfalls, stormwater pollution and the importance of wetlands and their upland buffers for water quality. During this first visit, the students visited two wetlands on the CMS property, one being a natural well buffered wetland and the other a stormwater pond with little to no buffer and a direct storm drain outlet. The students then worked with their teacher to develop a hypothesis about water quality. The Natural Resource Planner then returned for a second visit with water meters and the students tested samples from each wetland for pH, turbidity, specific conductance, and dissolved oxygen and they test their theories. Bill Campbell and Carlos Guindon (two conservation commission members) assisted with these visits.
- The Natural Resource Planner participated in an interview with a UNH researcher on land conservation within the floodplain.

2.6. Description and Accounting of the Activities Conducted by the Town as part of its Nitrogen Control Plan

The Nitrogen Control Plan implementation items are described in Section 6 of the Nitrogen Control Plan and are outlined below.

- Complete WWTF Upgrades: On-going, as described above.
- Complete Main Pump Station Upgrades: Completed in 2019.
- Complete Forcemain Upgrades: Completed in 2019, except final paving.
- WWTF Operational Strategies: On-going, as described above.

- Implement Stormwater Control Measures: On-going through annual funding appropriations.
- Implement Leaf Litter and Organic Waste Collection Program: On-going.
- Implement Shoreland Protection and Land Conservation: On-going.
- Develop Preliminary Storm Drain Asset Management Plan: Will develop in 2019 to 2020.
- Removal of Great Dam: Completed in 2016.
- Implement Tracking and Accounting: Completed and on-going.
- Implement Fertilizer Regulations: Completed; Town will evaluate whether further revisions are appropriate.
- Implement Site Plan and Subdivision Regulations: Completed in 2018, as described above.
- Monitor Water Quality: The Nitrogen Control Plan (Appendix B) collected the available monitoring data. New data from NHDES was collected and saved for future review/interpretation. New VRAP data was collected and saved for future review/interpretation.
- Review EPA Water Quality Monitoring Data: New data from EPA from 2018 and 2019 was collected and saved for future review/interpretation.
- Coordinate with NHDES/Watershed Allocation: Exeter will continue to coordinate with NHDES on this matter.
- Submit AOC Engineering Evaluation: This report is due in September 2024. No specific activity on this report was completed in 2018.

2.7. Description of activities conducted which affect nitrogen in the Great Bay Estuary

Numerous activities were conducted in Town which affects nitrogen in the Great Bay Estuary. The activities are described below and are organized by municipal department.

2.7.1. Coordination between Departments

As noted above, the Town is required to develop a total nitrogen tracking and accounting system as a part of the AOC. There are three departments that are responsible for managing, monitoring and/or approving activities which impact the total nitrogen load – either increasing or decreasing – to the Great Bay Estuary. The Planning Department is primarily responsible for new developments (e.g., buildings, private roads, etc.), the Building Department is primarily responsible for monitoring the status of construction of development (e.g., housing, commercial, etc.) and the Public Works Department is primarily responsible for public infrastructure (e.g., WWTF, public roads, sewers, storm drains, etc.). The table below summarizes the responsibility for tracking.

Status of "Primary Areas of Responsibility Tracking"

Public Works Department	Planning and Building Departments
WWTF activities and upgrades	New and modified septic systems
Changes in Infiltration/Inflow	New and modified private WWTFs
Changes in impervious cover (public)	New connections to the sewer system
Changes in stormwater BMPs (public)	Changes in stormwater BMPs (private)
Changes in turf management (public)	Changes in turf management (private)

Public Works Department	Planning and Building Departments
Changes in ordinances (e.g., stormwater)	Changes in ordinances (e.g., zoning)
Maintenance and mapping of infrastructure	Conversion of existing landscape
Facilities Planning	Changes in impervious cover (development)
Industrial Pre-treatment program	
Grease trap program	

2.7.2. Planning and Building Departments

The Building Department issued a total of 9 Certificates of Occupancy for parcels which had development/re-development. Only 2 of these parcels resulted in impact to total nitrogen. Two Town projects (WWTF and Main Pump Station Upgrades) projects also impacted total nitrogen. In summary, these parcels resulted in approximately 297,029 square feet of new impervious area and 5 new sewer connections. Of the 10 parcels with new impervious area, 5 included Best Management Practices (BMPs, such as a rain garden, detention basin, and infiltration storage tanks) that addressed approximately 66,820 square feet of the total impervious area. The Building Department also issued approvals for the construction of 2 new septic systems and the reconstruction of 9 septic systems. The Nitrogen Tracking Summary as well as PTAP reports for developments which have received a certificate of occupancy are included as **Attachment 2**. Numerous projects were submitted through the PTAP web-based tool in 2019; however, none of the projects were issued certificates of occupancy in 2019. Therefore, no PTAP development reports are included in this TN Annual Report.

In addition, the Building Department enacted regulation that will require all projects that are submitted to the Exeter Planning Board to include a BMP Operations & Maintenance manual to the Exeter Department of Public Works (DPW). The DPW is continuing to track private CB cleanings and street sweeping.

The Planning and Building Departments hosted a Spring Rain Barrel event. Rain barrels were available for residents to purchase (12 sold in 2019). All rain barrels were distributed with Healthy Lawns Clean Water Magnet which have five easy steps for water-quality friendly lawn care.

The Town adopted an amendment to its fertilizer regulations to further define application of fertilizer in March 2019. Previously fertilizer use was prohibited. The ordinance was amended to set different standards for residential and commercial lawns versus heavy use sports turf fields. The revision adopted a 100’ setback from the Town’s protected shoreland district within which fertilizer is prohibited and requires slow-release nitrogen and phosphorous free fertilizer at regulated rates in all other areas of the Town. This amendment was applied to give more oversight and more restriction to fertilizer usage in the Town.

2.7.3. Department of Public Works

The Department of Public Works conducted the following efforts in 2019:

- PTAP Reports for all Public Works activities are included as **Attachment 3**.
- MS4 Annual Report is included as **Attachment 4**.
- Continued outreach and education through the following efforts are included in **Attachment 5.**
  - "Think Blue Exeter" program website.
  - "Sump Pump Removal Program" – A letter was distributed to members of the town that gave 5 years warning for when all sump pumps must be removed. This program is still on going.
  - "Septic Smart" program informative display in town offices and pamphlets.
  - "What's Flushable?" NHDES program pamphlets.
  - "Every Drop Pet Waste" pledges were posted out at 3 trailheads (Raynes, Oaklands, HS) where pet waste stations are located (see below). Residents can log a pledge to pick up their pet waste and it is tracked by the Piscataqua Region Estuaries Partnership Every Drop program. 4 Exeter residents submitted a pledge.
  - Postings made on the Town of Exeter, NH Public Works Facebook page.
- Continued their "Pet Waste" initiative through the continued upkeep of pet waste stations. There are 19 pet waste stations available throughout the Town for use by the public (see **Attachment 6**).
- New wastewater treatment plant came on-line in June 2019.
- Two new force mains from the Main Pump Station to the new WWTF installed and put into operation in July 2019.
- One new drinking water main installed from end of Swasey Parkway to DPW and in-service in October.
- DPW well taken out of service in October 2019.
- Inspected 50 Town grease traps for condition and compliance.
- Hired one new full-time Operator (Grade-3 license) and one new senior operator (Grade-4 license) at the WWTF for a total of 5 operators.
- Hired one water/sewer maintenance tech for a total of two techs.
- Hired one water/sewer assistant manager.
- Exeter WWTF hosted the NWPCA Winter Meeting.
- Continued street sweeping and catch basin cleaning programs. Approximately 1,598 miles of streets were swept and a total of 118 catch basins were cleaned.
- Installed 3 media box filtration (Bio-filtration) units on Lincoln Street.
- Replaced 1,530 linear feet of existing 8 and 12-inch sewer main and 990 linear feet of 6-inch sewer services.
- Approximately 43,630 linear feet of sanitary sewer were jetted, and 17,230 linear feet of sanitary sewer were televised. Duke's Root Control performed root control on 12 streets equaling 5,000 feet of sewer main treatment in June 2019.
- Approximately 714 linear feet of 15 and 18-inch pipe and one manhole were identified as needing rehabilitation for I/I back in 2018 and the pipe and manhole

were rehabilitated in 2019. Approximately 335 feet of 8-inch vitreous clay on a cross country line from Penn Lane to Brentwood Road, 1,432 feet of 12-inch vitreous clay pipe on Front Street from Carroll Street to Lincoln, and four manholes (located on Carroll, Union, School, and Webster) were identified as needing rehabilitation for I/I in 2019.

- The Director of Public Works participated in Piscataqua Region Estuarine Partnership (PREP) Management Committee quarterly meetings:
  - March 19, 2019 at the Seacoast Science Center in Rye, NH.
  - June 11, 2019 at the Kittery Town Office.
  - September 17, 2019 at the Portsmouth Public Library.
  - December 10, 2019 at NextEra Energy in Seabrook, NH.
- The Director of Public Works co-chaired PREP Monitoring Collaborative meetings on March 28, 2019 at GBNERR in Greenland, NH and on September 25, 2019 at the Kittery Community Center.
- The Director of Public Works attended a meeting on November 18, 2019 and participated in a conference call on November 26, 2019 on the future of program management and hosting for the Pollutant Tracking and Accounting Program (PTAP).
- One operator obtained Grade-1 wastewater treatment license.
- Two operators obtained Level-1 collection system licenses.
- Water/Sewer Assistant Manager attended/graduated from the NHDES Water/Sewer Managers School.
- 7 public works personnel were awarded Culvert Maintainer Certifications.
- All Highway Department snow plow drivers received their "Green Pro Snow Certification".
- Prior to first snow fall, all salt spreaders were calibrated.
- In addition to the certifications listed above, all public works employees and Operators enrolled in classes and were awarded certifications to stay up to date with their licenses.
- All catch basins/drains to the Squamscott River were stenciled or verified stenciled "Drains to River".
- Each Town resident was permitted to have up to twelve bags of leaves picked up for free in the Spring and Fall of 2019, and they were able to drop leaves off at the Exeter transfer station. The leaves were composted, and residents are allowed to use the compost for lawn/garden fertilization.
- Each Town resident was permitted to have one Christmas Tree picked up for free in the Winter of 2019.

LIST OF ATTACHMENTS

Attachment 1: Exeter WWTF Annual Total Nitrogen Load Table and Figures
Attachment 2: Exeter Nitrogen Tracking Summary Table
Attachment 3: Exeter PTAP Reports
Attachment 4: MS4 Annual Report
Attachment 5: Education & Outreach Flyers
Attachment 6: Pet Waste Station Location Map
Attachment 7: 2019 VRAP Data

Attachment 1

Exeter WWTF Annual Total Nitrogen Load Table and Figures

EXETER WWTF - TOTAL ANNUAL NITROGEN LOAD TO SQUAMSCOTT RIVER																
															GRBCL	GRBSQ
WWTF EFFLUENT - TOTAL ANNUAL NITROGEN LOAD															Squamscott R.	Squamscott R.
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Load	Load	Total Nitrogen	Inorganic Nitrogen
	(lbs/mn)	(lbs/mn)	(lbs/mn)	(lbs/mn)	(lbs/mn)	(lbs/mn)	(lbs/mn)	(lbs/mn)	(lbs/mn)	(lbs/mn)	(lbs/mn)	(lbs/mn)	(lbs/yr)	(tons/yr)	(mg/l)	(mg/l)
Days per month	31	28	31	30	31	30	31	31	30	31	30	31			NHDES	NERRS
Past Years																
2003-2008	-	-	-	-	-	-	-	-	-	-	-	-	85,400	42.7	0.77	-
2009-2011	-	-	-	-	-	-	-	-	-	-	-	-	83,600	41.8	0.71	-
2012	8,457	7,830	9,303	8,151	11,590	7,633	4,338	2,235	2,312	6,349	6,222	11,745	86,164	43.1	0.83	0.26
2013	10,700	9,082	13,913	8,681	9,029	12,500	10,852	7,165	3,971	5,203	8,611	11,270	110,976	55.5	0.82	0.39
2014	10,198	8,321	9,439	6,754	6,643	6,803	6,680	8,014	4,565	5,037	10,906	12,981	96,342	48.2	0.68	0.37
2015	10,441	8,630	13,638	12,249	7,454	12,009	10,911	9,024	6,667	6,980	6,644	8,713	113,359	56.7	0.88	0.35
2016	10,751	10,554	11,538	8,765	8,714	6,858	9,769	6,856	2,645	6,070	9,799	13,340	105,658	52.8	0.74	0.37
2017	15,725	11,922	10,346	13,973	12,885	11,578	12,042	10,431	7,350	10,082	11,141	10,989	138,465	69.2	0.64	0.46
2018	15,401	11,972	12,855	13,344	8,780	9,659	10,252	5,786	5,647	8,217	12,241	9,572	123,725	61.9	0.74	0.33
2019	10,880	11,874	14,348	12,418	12,276	10,416	3,296	1,707	1,833	2,116	1,808	4,473	87,446	43.7	not available	not available

Previous Year (2018)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
Monthly Avg Flow (mgd)	1.72	1.99	2.26	2.45	1.72	1.31	1.43	1.87	1.73	1.84	3.29	2.31	-	-
Avg TN Conc. on Sample Day (mg/l)	34.6	25.0	22.5	21.5	19.4	27.8	26.6	12.0	12.5	17.2	15.3	15.8	-	-
Avg TN Load on Sample Day (lb/d)	497	440	405	450	288	340	344	186	196	266	396	313	-	-
Load - Flow Basis	15,395	11,625	13,155	13,187	8,632	9,117	9,840	5,805	5,414	8,187	12,602	9,442	-	-
Load - Load Basis	15,407	12,320	12,555	13,500	8,928	10,200	10,664	5,766	5,880	8,246	11,880	9,703	-	-
Load - Average	15,401	11,972	12,855	13,344	8,780	9,659	10,252	5,786	5,647	8,217	12,241	9,572	123,725	61.9

Current Year (2019)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
Monthly Avg Flow (mgd)	1.92	1.88	2.24	1.71	1.77	1.60	1.27	1.24	1.22	1.26	1.38	2.09	-	-
Avg TN Conc. on Sample Day (mg/l)	22.0	27.5	25.8	26.2	27.0	26.3	9.8	5.5	5.8	6.4	5.2	8.1	-	-
Avg TN Load on Sample Day (lb/d)	349	417	443	454	393	344	109	53.4	63.0	69.3	60.5	147	-	-
Load - Flow Basis	10,942	12,071	14,963	11,216	12,370	10,513	3,214	1,758	1,776	2,083	1,801	4,379	-	-
Load - Load Basis	10,819	11,676	13,733	13,620	12,183	10,320	3,379	1,655	1,890	2,148	1,815	4,566	-	-
Load - Average	10,880	11,874	14,348	12,418	12,276	10,416	3,296	1,707	1,833	2,116	1,808	4,473	87,446	43.7

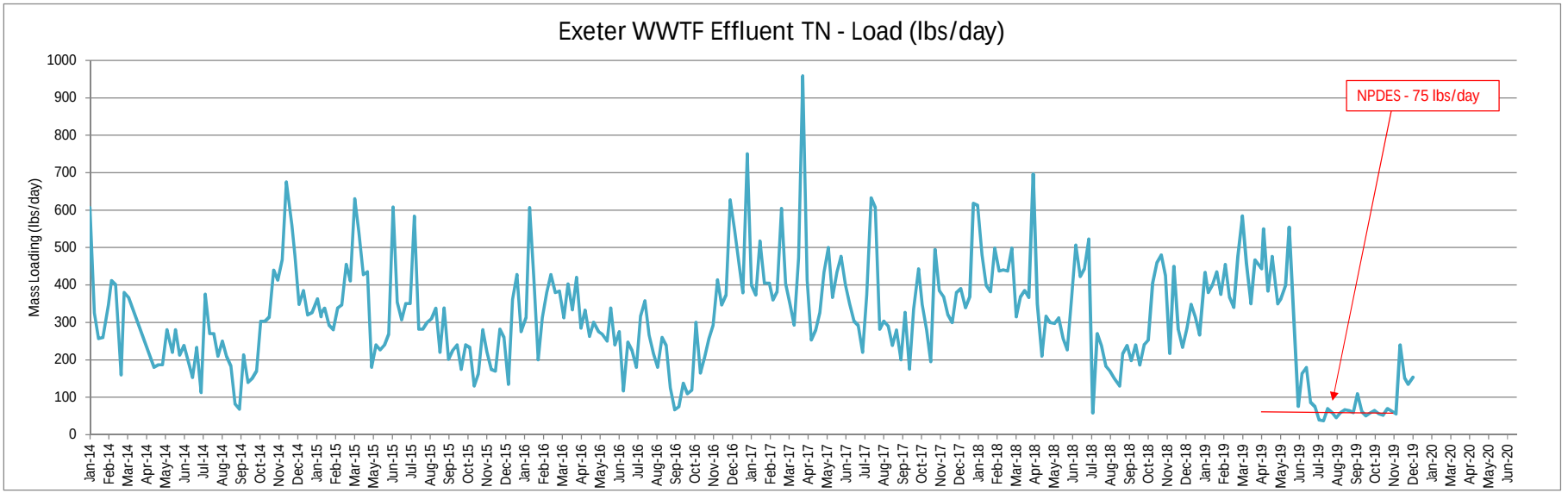
NOTES:

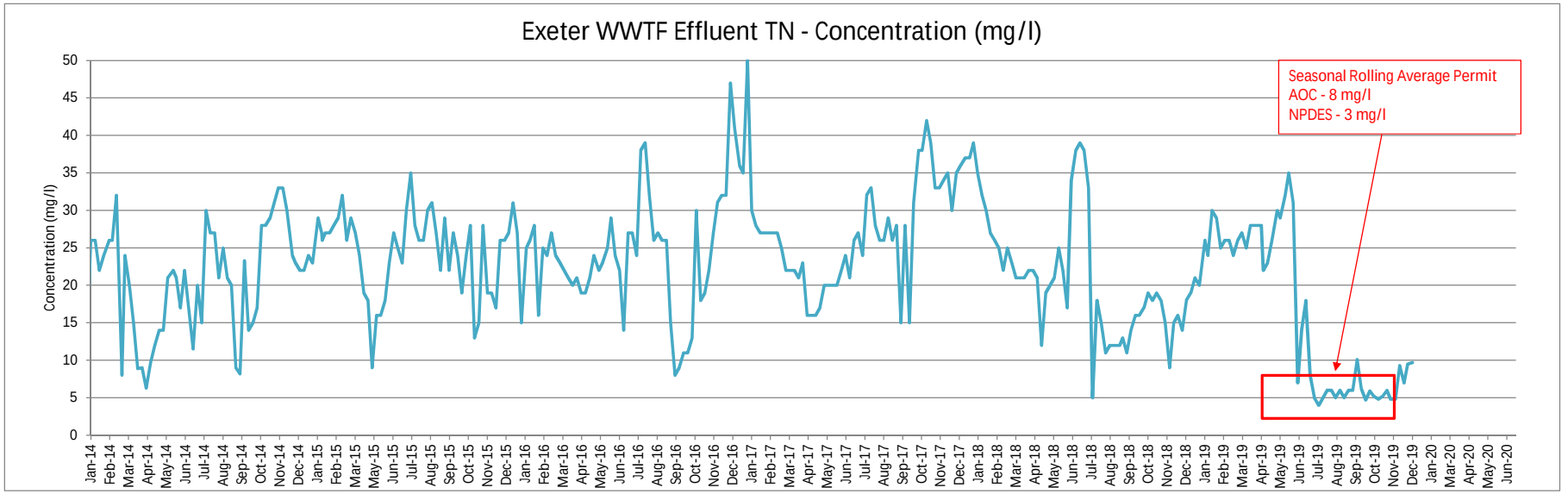
1. Red font indicates data from effluent composite sampler, TN measured directly. Multiple sampling days are averaged (2013 data to present)
2. Per the 2009 NHDES document, "Numeric Nutrient Criteria for the Great Bay Estuary," for days with multiple samples, the highest Squamscott River TN value was utilized.
3. Monthly Avg Flow is taken from Town Monthly MORs from the average of column "EFF Total" (Column H)
4. Avg TN Load on Sample Day calculated by calculating the load on each sample day and taking the average of the sample days (TN EFF mg/L * Flow EFF Total (MGD) * 8.345 lb/gal.
5. Sample location is identified as GRBCL, located just downstream of the Newfields Wastewater Treatment Facility.

SOURCES:

1. 2003-2011 WWTF TN Loading values are from the 2012 Environmental Data Report (PREP).
2. The 2003-2013 Squamscott River TN Concentration values are derived from the UNH Jackson Estuarine Laboratory Tidal Water Quality Monitoring Program.
3. The 2014 Squamscott River TN Concentration value was derived from the UNH Tidal Water Quality Monitoring Program and samples were taken at the Chapmans Landing on the Squamscott River.
4. The 2015 Squamscott River TN Concentration values are derived from the 2015 Great Bay Watershed Quality Monitoring Program.
5. GRBSQ TN is the average of the" NH4 plus NO2/NO3" monthly grab samples collected through the NERRS program.

Wright-Pierce, 17 January 2020





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Attachment 2

Exeter Nitrogen Tracking Summary Table

EXETER NITROGEN TRACKING SUMMARY TABLE
TOTAL NITROGEN CONTROL PLAN ANNUAL REPORT FOR 2019
Wright-Pierce, 20 December 2019

Category		Wastewater									Stormwater		Land Use						
Parcel	Address	Zoning District	Residential, Commercial, Municipal or Industrial	Sewered Parcel	Septic System Type	Septic System <200m from Surface Water	Septic System Install Year	Rebuilt, New or No Change?	Permitted Bedrooms for Septic System	Design Flow (GPD)	Structural BMPs Installed	Non-Structural BMPs Installed	Land Converted to Turf/Grass (SF)	Forest Removed (SF)	Wetlands Filled (SF)	Existing Impervious Cover Removed (SF)	New Impervious Cover Created (SF)	Amount of New Impervious Cover that is Disconnected (SF)	Land Converted to Agriculture Fields / Pastures (SF)
063-068-0000	3 Spruce Street	R-2	Residential	Y	-	-	-	-	-	-	-	-	-	-	-	-	800	-	-
070-115-0000	191 High Street	R-2	Commercial	Y	-	-	-	-	-	-	-	-	-	-	-	-	1,425	-	-
101-004-0000	1A Powder Mill Road	R-1	Residential	N	Adv EnviroSeptic[1]	Y	2018	Rebuild + Change	4	675	-	-	-	-	-	-	1,008	-	-
047-008-0000	7 Willey Creek	C-3	Residential	Y	-	-	-	-	-	6,400	5	-	103,672	135,035	240	-	31,603	31,603	-
071-072-0000	6 Rosewood Court	R-2	Residential	Y	-	-	-	-	-	300	1	-	-	3,900	-	-	3,900	-	-
070-107-0000	201 High Street	R-2	Residential	Y	-	-	-	-	-	400	-	-	-	1,950	-	-	1,950	-	-
072-080-0000	48 Franklin Street	R-2	Residential	Y	-	-	-	-	-	-	1	-	-	-	-	-	276	-	-
053-003-0000	374 Water Street	R1	Residential	Y	-	-	-	-	-	400	-	-	-	-	-	-	-	-	-
069-003-0000	61 Acadia Lane	PP	Residential	Y	-	-	-	-	-	7400	8	2	-	35,400	-	-	35,400	35,400	-
101-015-0000	140 Kingston Road	R-1	Residential	N	Stone & Pipe	N	2019	Rebuild	3	450	-	-	-	-	-	-	-	-	-
061-004-0000	58 Brentwood Road	R-1	Residential	N	Stone & Pipe	Y	2019	Rebuild	4	600	-	-	-	-	-	-	-	-	-
038-007-0000	23 Newfields Road	RU	Residential	N	EnviroSeptic	N	2019	Rebuild	4	600	-	-	-	-	-	-	-	-	-
075-017-0007	13 Blackford Drive	R-1	Residential	N	Stone & Pipe	N	2019	Rebuild	4	600	-	-	-	-	-	-	-	-	-
032-003-0000	7 Redberry Road	R-1	Residential	N	Adv EnviroSeptic[1]	N	2019	Rebuild	3	450	-	-	-	-	-	-	-	-	-
057-010-0000	4 Dolloff Farm Drive	R-1	Residential	N	Stone & Pipe	N	2019	Rebuild	4	600	-	-	-	-	-	-	-	-	-
056-001-0000	18 Garrison Lane	R-1	Residential	N	EnviroSeptic[1]	Y	2019	Rebuild	4	600	-	-	-	-	-	-	-	-	-
018-004-0001	8 Oakland Road	R-1	Residential	N	EnviroSeptic[1]	Y	2019	Rebuild	3	675	-	-	-	-	-	-	-	-	-
064-044-0000	279 Water Street	R-5	Municipal	Y	-	-	-	-	-	-	-	-	-	-	-	-	3,050	3,050	-
049-015-0000	13 Newfields Road	R-1	Municipal	Y	-	-	-	-	-	-	1	2	-	-	-	-	217,000	206,250	-
Totals									**33**	**20,150**	**16**	**4**	**103,672**	**176,285**	**240**	**0**	**296,412**	**276,303**	**0**

Key:	
	Unknown
-	None
#	Known

[1] Neither EniviroSeptic system reports to effectively remove Nitrogen.

Attachment 3

Exeter PTAP Reports

Exeter Municipal Report (2019-01-01 - 2019-12-31)

Land Use Conversion Table

Soils		Existing Conditions			Future Conditions			Report of Origin
Hydrologic Group	Acres	Land Use Type	Acres	Impervious and/or Paved Surfaces Acres	Land Use Type	Acres	Impervious and/or Paved Surfaces Acres	
B	1.25	Forest	1.25	0.00	Open Space	1.25	0.00	TIF Road Development Plans
B	1.11	Forest	1.11	0.00	Transportation (roads/parking lots)	1.11	1.11	
B	0.08	Forest	0.08	0.00	Disturbed	0.08	0.00	
B	0.09	Disturbed	0.09	0.00	Transportation (roads/parking lots)	0.09	0.09	
C	0.02	Forest	0.02	0.00	Open Space	0.02	0.00	
B	1.20	Forest	1.20	0.00	Transportation (roads/parking lots)	1.20	1.20	Tif Road Development Plans
B	0.06	Open Space	0.06	0.00	Transportation (roads/parking lots)	0.06	0.06	Town of Exeter, NH Utility Extension Project on Epping Road
C/D	0.28	Forest	0.09	0.00	Transportation (roads/parking lots)	0.09	0.09	
		Open Space	0.19	0.00	Transportation (roads/parking lots)	0.19	0.19	
Not Specified	0.00	Not Specified	0.00	0.00	Not Specified	0.00	0.00	DPW Maintenance 2018
Not Specified	0.00	Not Specified	0.00	0.00	Not Specified	0.00	0.00	DPW Maintenance MS4 permit Y2 activities 7/1/19-6/30/20
Not Specified	0.00	Not Specified	0.00	0.00	Not Specified	0.00	0.00	Exeter Municipal Report 2019 activities

Soils		Existing Conditions			Future Conditions			Report of Origin
B	2.52	Forest	2.43	0.00	Open Space	1.25	0.00	Ray Farm
					Transportation (roads/parking lots)	1.11	1.11	
					Disturbed	0.08	0.00	
		Disturbed	0.09	0.00	Transportation (roads/parking lots)	0.09	0.09	
C	0.02	Forest	0.02	0.00	Open Space	0.02	0.00	
C	1.48	Commercial/Institutional	1.48	0.73	Commercial/Institutional	1.48	0.76	18 Hampton Road, Exeter, NH
B	0.52	Commercial/Institutional	0.52	0.00	Commercial/Institutional	0.52	0.29	Wayside Drive Dental Office
B/C	11.70	Forest	11.70	0.00	Commercial/Institutional	11.70	4.60	Unitil/NH Electric Operations DOC - Seacoast Region
Totals	**20.33**		**20.33**	**0.73**		**20.34**	**9.59**	

Land Use Change Summary Table

Land Use	Existing Conditions (acres)		Future Conditions (acres)		Change (acres)	
	Total	**IC**	**Total**	**IC**	**Total**	**IC**
Commercial/Institutional	2	0.73	13.7	5.65	11.7	4.92
Disturbed	0.18	0	0.16	0	-0.02	0
Forest	17.9	0	0	0	-17.9	0
Open Space	0.25	0	2.54	0	2.29	0
Transportation (roads/parking lots)	0	0	3.94	3.94	3.94	3.94
Totals	**20.33**	**0.73**	**20.34**	**9.59**	**0.01**	**8.86**

Impervious Cover Management Table

Structural BMP	Impervious Cover Managed	Runoff Volume Storage at Design Capacity (ft^3)	Design Storm Depth (")	Infiltration Rate (in/hr)	Report of Origin
Bio-filtration	1.02	25507.00	2.0	0.27	TIF Road Development Plans
Bio-filtration	0.33	4587.00	2.0	0.27	
Bio-filtration	0.11	3435.00	2.0	0.27	
Bio-filtration	1.02	25507.00	2.0	0.27	Tif Road Development Plans
Bio-filtration	0.33	4587.00	2.0	0.27	
Bio-filtration	0.11	3435.00	2.0	0.27	
Not Specified	0.00	0.00	0.0	Not Specified	Ray Farm
Not Specified	0.00	0.00	0.1	0	Town of Exeter, NH Utility Extension Project on Epping Road
Extended Dry Detention Pond	0.50	4695.00	2.0	0	18 Hampton Road, Exeter, NH
Infiltration Trench	0.16	230.00	0.5	0.52	DPW Maintenance 2018
Not Specified	0.00	0.00	0.1	Not Specified	DPW Maintenance MS4 permit Y2 activities 7/1/19-6/30/20
Bio-filtration	0.10	182.00	0.5	0.52	Exeter Municipal Report 2019 activities
Bio-filtration	0.20	363.00	0.5	0.52	
Bio-filtration	1.20	2178.00	0.5	0.52	
Infiltration/Surface Infiltration	0.03	560.00	1.0	8.27	Wayside Drive Dental Office
Infiltration Trench	0.26	1987.00	1.5	8.27	
Wet Ponds	4.55	43694.00	1.0	0	Unitil/NH Electric Operations DOC - Seacoast Region
Total Impervious Cover (acres)	**0**				
Total Management (acres)	**9.92**				
Effective Impervious Cover (acres)	**-9.92**				

BMP List Table

Structural BMP	Infiltration Rate (in/hr)	Impervious Cover Managed	Design Storm Depth (")	Instance Count
Bio-filtration				
	0.52	1.5	1.5	3
	0.27	2.92	12	6
Extended Dry Detention Pond				
	0	0.5	2	1
Infiltration/Surface Infiltration				
	8.27	0.03	1	1
Infiltration Trench				
	8.27	0.26	1.5	1
	0.52	0.16	0.5	1
Wet Ponds				
	0	4.55	1	1
Not Specified				
	0	0	0.1	1
	Not Specified	0	0.1	2

BMP Summary Table

Structural BMP	IC Managed (acres)	# of BMPs
Bio-filtration	4.42	9
Extended Dry Detention Pond	0.5	1
Infiltration/Surface Infiltration	0.03	1
Infiltration Trench	0.42	2
Wet Ponds	4.55	1
Not Specified	0	3
Totals	**9.92**	**17**
Total EIC	**-1.06**	

Impervious Cover Management Table - Non Structural BMPs

Non Structural BMP	Amount	Description	Report of Origin
Street Sweeping (# street-miles)	0.13	Annual street sweeping to remove sand and litter	TIF Road Development Plans

Non Structural BMP	Amount	Description	Report of Origin
Catch Basin Cleaning (# basins)	16.00	Bi-annual cleaning of catch basins	
BMP Operation and Maintenance	2.00	Bi-annual inspection for erosion and accumulated sediment and debris. Mow twice a year. Inspect after any rainfall event exceeding 2 inches in 24 hrs	
Street Sweeping (# street-miles)	0.13	Annual street sweeping to remove sand and litter	Tif Road Development Plans
Catch Basin Cleaning (# basins)	16.00	Bi-annual cleaning of catch basins	
Catch Basin Cleaning (# basins)	561.00	catchbasins cleaned June 2018	DPW Maintenance 2018
Street Sweeping (# street-miles)	1400.00	Lane-miles swept from February through November 2018	
Leaf Collection Composting Program (frequency of collection)	2.00	May and November 2018, residents are allowed to have up to 12 bags of leaves picked up. The transfer station also accepts yard waste all year.	
Fertilizer Control Program	1.00	updates to fertilizer ordinance	
Pet Waste Pickup Program	19.00	# of pet waste stations (bags and receptacles) owned and maintained by the town	
BMP Operation and Maintenance	2.00	Bi-annual inspection for erosion and accumulated sediment and debris. Mow twice a year. Inspect after any rainfall event exceeding 2 inches in 24 hrs	
Not Specified	0.00		Town of Exeter, NH Utility Extension Project on Epping Road
Catch Basin Cleaning (# basins)	200.00	Issues with the contractor resulted in less cleaning than planned	DPW Maintenance MS4 permit Y2 activities 7/1/19-6/30/20
Catch Basin Cleaning (# basins)	118.00	Catchbasins cleaned in August 2019	Exeter Municipal Report 2019 activities
Pet Waste Pickup Program	19.00	# of pet waste stations (bags and receptacles) owned and maintained by the Town	
Leaf Collection Composting Program (frequency of collection)	2.00	May and November 2019, residents are allowed to have up to 12 bags of leaves picked up. The transfer station also accepts yard waste all year.	
Pet Waste Pickup Program	1500.00	#rolls of pet waste bags provided to Town residents who register their dog at the start of the year.	
Street Sweeping (# street-miles)	1598.00	Lane-miles swept from February through November 2019	
Other	2.00	Public Involvement: Shoreline/Waterbody Cleanups: April 2019 Seacoast School of Tech (SST) Earth Day spring cleanup of SST parking lot and Morrissette property with 65 students. April 2019 PEA students remove invasive plants from Henderson Swasey Town Forest as part of Climate Action Day.	
Not Specified	0.00		Wayside Drive Dental Office

Non Structural BMP	Amount	Description	Report of Origin
BMP Operation and Maintenance	0.00	Routine inspection and maintenance of on-site surface stormwater pond and subsurface detention system	Unitil/NH Electric Operations DOC - Seacoast Region
Catch Basin Cleaning (# basins)	0.00	Routine inspection and maintenance of on-site catch basins	
Not Specified	0.00		Ray Farm
BMP Operation and Maintenance	0.00	See municipal I & M Mnaual	18 Hampton Road, Exeter, NH

Impervious Cover Management Summary Table - Non Structural BMPs

Non Structural BMP	Amount
BMP Operation and Maintenance	4
Catch Basin Cleaning (# basins)	911
Fertilizer Control Program	1
Leaf Collection Composting Program (frequency of collection)	4
Pet Waste Pickup Program	1538
Street Sweeping (# street-miles)	2998.26
Other	2

Wastewater Management Table

Existing Conditions			Future Conditions			Report of Origin
Management Option	**Discharge (GPD)**	**Description**	**Management Option**	**Discharge (GDP)**	**Description**	
Sewered	0.00	added	Not Specified	0.00		DPW Maintenance MS4 permit Y2 activities 7/1/19-6/30/20
Undeveloped	0.00	Site has been leveled 8 plus years ago.	Sewered	590.00	Sewer connection from proposed dental office.	Wayside Drive Dental Office
Undeveloped	0.00		Sewered	1686.00		Unitil/NH Electric Operations DOC - Seacoast Region
Sewered	0.00		Sewered	0.00		18 Hampton Road, Exeter, NH
Totals	**0**			**2276**		

Wastewater Management Summary Table

Management Option	Existing Discharge (GPD)	Future Discharge (GPD)	Change (GPD)
Sewered	0	2276	2276
	0	**2276**	**2276**

Attachment 4

MS4 Annual Report

New Hampshire Small MS4 General Permit

Annual Report

Town of Exeter

Permit Year 1

Reporting Period: May 1, 2018 to June 30, 2019

EPA NPDES Permit Number: NHR041007

Certification

"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 gathered and evaluated 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."

Printed Name	Russell Dean
Title	Town Manager
Signature	
Date	9/30/19

Contact Information

Primary MS4 Program Manager Contact Information:

Name: Jennifer Mates, PE

Title: Assistant Town Engineer

Street Address: 13 Newfields Road

Exeter NH 03833

Email: jmates@exeternh.gov

Phone Number: (603) 418-6431

Small MS4 Authorization

The following annual report is intended to document on the activities undertaken over the reporting period from May 1, 2018 – June 30, 2019 in accordance with the Notice of Intent (NOI). The NOI can be found at the following (document name or web address):

https://www3.epa.gov/region1/npdes/stormwater/nh/tms4noi/exeter.pdf

Compliance activities have been identified and described in the Town of Exeter's Stormwater Management Program (SWMP) and Illicit Discharge Detection and Elimination (IDDE) Plan. These documents can be found at the following (document name or web address) and will be referred to throughout this report:

SWMP: https://www.exeternh.gov/sites/default/files/fileattachments/public_works/page/38331/2019.06_exeternh_swmp.pdf

IDDE Plan: Located at the Exeter Department of Public Works – 13 Newfields Road

MCM 1 - PUBLIC EDUCATION AND OUTREACH

BMP 1: Pet Waste Brochures/Pamphlets

Document Name and/or Web Address:
"Every Drop" post cards or flyer https://www4.des.state.nh.us/nh-ms4/?page_id=54
See Attachments for BMP 1.

Description:
Distribution and promotion of "Every Drop" post cards or flyer with proper pet waste management, impacts of improper management, pet waste ordinance, and disposal requirements messaging. May include pledge to pick up pet waste to be made available during dog registration and other events or venues (veterinarians, dog training, groomers, etc.). Every Drop is a collaborative education effort with PREP, NHDES, and other partners.

In Permit Year 1, the "Every Drop" flyer was posted at the three trailheads that allow dogs and have pet waste stations. Flyers were made available at the Town Clerk and DPW offices. It was also shared via social media on the Conservation Commission and DPW Facebook pages as well as the Think Blue Exeter website. Four people from Exeter signed the pledge (https://stateofourestuaries.org/everydrop/petpledge/). Additionally, to encourage dog owners to timely license their dogs and to keep their dogs' rabies vaccinations current, the Town Clerk's office runs a "Top Dog Contest" (https://www.exeternh.gov/townclerk/2019-top-dog-contest-entry-form).

Targeted Audience:
Residents, businesses, institutions, and commercial facilities

Measurable Goal(s):
Dog owners and/or dog walkers are aware of the potential water quality impacts from pet waste, local pet waste ordinances, and how to dispose of pet waste properly. If pledges are signed, there will be an increase of dog owners committed to picking up pet waste. Assessment of goals will be discussed in greater detail in Permit Year 2. For additional information, refer to: https://www4.des.state.nh.us/nh-ms4/?page_id=54 , "Minimum Control Measure 1: Public Outreach and Education".

Message Date:
Annually in spring and throughout the permit year

BMP 2: Clean Water/Healthy Lawns Brochures/Pamphlets

Document Name and/or Web Address:
5 Easy Steps "Healthy Lawns – Clean Water": https://www.exeternh.gov/bcc/exeters-healthy-lawns-clean-water-initiative
See Attachment for BMP 2.

Description:
Distribute Clean Water/Healthy Lawns information. In Permit Year 1, Exeter's Healthy Lawns – Clean Water Initiative posted the "5 Steps for a Healthy, Natural Lawn that Keeps our Rivers Clean" flyer on their webpage and Facebook page on April 12, 2019. More healthy lawn, clean water tips are posted on the Think Blue Exeter website. Additionally, the Healthy Lawns Clean Water Facebook page shares information related to stormwater impact, water quality, and environmentally friendly law care techniques. The page has 154 followers with an average reach of about 15-30/post/week. The Planning Department made lawn care magnets available since March of 2019; approximately 60 were picked up. Also in March of 2019, the Town adopted an amendment to the Town's fertilizer regulations to allow restricted application of fertilizer for heavy sports turf fields within the shoreland protection district.

Targeted Audience:
Residents, businesses, institutions, and commercial facilities

Measurable Goal(s):
To see an increased awareness of proper fertilizer use. Assessment of goals will be discussed in greater detail in Permit Year 2.

Message Date:
Annually in the spring

BMP 3: Development Regulations Fact Sheet Brochures/Pamphlets
Deliverables will progress in accordance with the accepted NOI and is scheduled for Permit Year 2.

BMP 4: Advertise Green SnoPro Certification Website
Deliverables will progress in accordance with the accepted NOI and is scheduled for Permit Year 3.

BMP 5: Septic Smart Displays/Posters/Kiosks

Document Name and/or Web Address:
https://www.exeternh.gov/bcc/think-blue-septic-system-maintenance
See Attachment for BMP 3.

Description:
Utilize Septic Smart posters to encourage residents to inspect and maintain their septic systems each year. In Permit Year 1, the Septic Smart posters were displayed at the Town Clerk's office and at the library from September 17 through September 21, 2018. Septic systems maintenance flyers were also provided with the displays. Additionally, the Think Blue Exeter website includes a septic system maintenance page with similar information.

Targeted Audience:
Residents with septic systems

Measurable Goal(s):
To see an increase in septic system testing/maintenance. Assessment of goals will be discussed in Permit Year 2.

Message Date:
Annually in the fall during Septic Smart week.

BMP 6: Leaf and Yard Waste Collection

Document Name and/or Web Address:
See Attachment for BMP 6.

Description:
Post notices of leaf and yard waste collection. In Permit Year 1, notices were posted on the town's website, DPW Facebook page, and in the Exeter News-Letter during October and November of 2018 and April of 2019.

Targeted Audience:
Residents, businesses, institutions, and commercial facilities

Measurable Goal(s):
To see an increase in the disposal of leaf and yard waste at the transfer station. It has been estimated that approximately 200 cubic yards of material was collected during the Fall of 2018 and Spring of 2019 curbside leaf collection. The amount of material brought directly to the transfer station has not been determined; however the Town began grinding and removing the brush pile at the transfer station. Starting next year, the Town will be able to estimate the volume of leaf and yard waste that is brought to the transfer station. Assessment of goals will be discussed in greater detail in Permit Year 2.

Message Date:
Annually in the spring and fall

BMP 7: Exeter Conservation Commission's Guest Speaker Night

Deliverables will progress in accordance with the accepted NOI and is scheduled for Permit Year 4.

BMP 8: Stormwater Pollution Prevention for Industrial Sites Flyer

Deliverables will progress in accordance with the accepted NOI and is scheduled for Permit Year 5.

MCM 2 - PUBLIC PARTICIPATION

BMP 9: Public Review of Stormwater Management Program (SWMP)

The Town of Exeter's Stormwater Management Program (SWMP) is available to the public on the Town's website.

BMP 10: Public Participation in SWMP Development

Deliverables will progress in accordance with the accepted NOI and is scheduled for Permit Year 2.

BMP 11: Shoreline/Waterbody

The Natural Resource Planner lead a spring cleanup of the Seacoast School of Technology parking lot and Morrissette property with 65 students from the Seacoast School of Technology for Earth Day on April 19, 2019. Three members of the Conservation Commission participated in the cleanup and the DPW disposed of the trash that was collected. Additionally, students from Phillips Exeter Academy helped remove invasive plants from the Henderson Swasey Town Forest as part of Climate Action Day on April 26, 2019. This effort was also led by the Natural Resource Planner. These events were posted on the Conservation Commission's Facebook page (see Attachment for BMP 11).

MCM 3 – ILLICIT DISCHARGE DETECTION AND ELIMINATION

BMP 12: Sanitary Sewer Overflow (SSO) Inventory

There were four SSOs identified in Permit Year 1. All were corrected and reported to EPA and other government agencies, as required. The list of SSOs is available at: https://www.exeternh.gov/publicworks/combined-sewer-sanitary-sewer-overflows.

BMP 13: Storm Sewer System Map

Phase 1 mapping of all known stormwater infrastructure has been completed. The map is continually updated as new information is available.

BMP 14: Written IDDE Program Development

A written IDDE plan has been developed. The IDDE plan will be reviewed and finalized in Permit Year 2.

BMP 15: Implement IDDE Program

An initial outfall inventory and priority ranking has been completed and included in the IDDE plan and attached to the annual report (see Attachment for BMP 15). The development of written catchment investigation procedures will progress in accordance with the accepted NOI and is scheduled to be completed in Permit Year 2. During Permit Year 1, no illicit discharges were identified.

BMP 16: Implement Employee Training

No IDDE training was conducted in Permit Year 1. Annual IDDE training will be completed in accordance with the IDDE plan.

BMP 17: Conduct Dry Weather Screening

No dry weather screening was conducted in Permit Year 1. Dry weather screening will progress in accordance with the accepted NOI and is scheduled to begin in Permit Year 2.

BMP 18: Conduct Wet Weather Screening

No wet weather screening was conducted in Permit Year 1. Wet weather screening will progress in accordance with the accepted NOI and is scheduled to begin in Permit Year 2.

BMP 19: Ongoing Screening

Ongoing screening will progress in accordance with the accepted NOI (upon completion of the IDDE program).

BMP 20: IDDE Regulations

The existing Storm Drainage Ordinance prevents illegal discharges to the drainage system, with fines. The ordinance has been reviewed and did not require modification for compliance with the 2017 NH Small MS4 General Permit.

MCM 4 – CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

BMP 21: Sediment and Erosion Control Ordinance

The Town of Exeter will rely on the Site Plan Review and Subdivision Regulations as a regulatory mechanism to require the use of sediment and erosion control practices at construction sites. The Site Plan Review and Subdivision Regulations were amended in April of 2018 to meet the provisions of the 2017 NH Small MS4 General Permit.

BMP 22: Site Plan Review Procedures

The Town of Exeter will rely on the Site Plan Review and Subdivision Regulations which outline the site plan review procedures. The Site Plan Review and Subdivision Regulations were amended in April of 2018 to meet the provisions of the 2017 NH Small MS4 General Permit. During Permit Year 1, seven Planning Board applications were reviewed.

BMP 23: Procedures for Site Inspection and Enforcement of Erosion and Sediment Control Measures

The Town of Exeter contracts with a local engineering firm to perform site inspections of erosion and sediment control measures during construction. During Permit Year 1, seven sites that were greater than an acre were inspected with a total of 65 inspections completed. The site inspector uses the Town's Site Plan Review and Subdivision Regulations as well as the approval and permit conditions as a general guideline for inspections. No enforcement action was needed; deficiencies noted were brought to the attention of the contractor during the site visit and corrected by the contractor.

BMP 24: Construction and Site Waste Controls

The Town of Exeter incorporated requirements for construction operators to control onsite wastes into the Site Plan Review and Subdivision Regulations, which were amended in April of 2018 to meet the provisions of the 2017 NH Small MS4 General Permit.

MCM5 – POST-CONSTRUCTION STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT

BMP 25: Post-Construction Ordinance

The Town of Exeter will rely on the Site Plan Review and Subdivision Regulations as a regulatory mechanism to address post-construction stormwater management. The Site Plan Review and Subdivision Regulations were amended in April of 2018 to meet the provisions of the 2017 NH Small MS4 General Permit.

BMP 26: Street Design and Parking Lot Guidance Report

Deliverables will progress in accordance with the accepted NOI and is scheduled for Permit Year 4.

BMP 27: Green Infrastructure Report

Deliverables will progress in accordance with the accepted NOI and is scheduled for Permit Year 4.

BMP 28: List of Municipal Retrofit Opportunities

Deliverables will progress in accordance with the accepted NOI and is scheduled for Permit Year 4.

BMP 29: As-built Plans for On-site Stormwater Controls

The Town of Exeter will rely on the Site Plan Review and Subdivision Regulations for procedures to require submission of as-built plans from private development projects. The Site Plan Review and Subdivision Regulations were amended in April of 2018 to meet the provisions of the 2017 NH Small MS4 General Permit.

MCM 6 – GOOD HOUSEKEEPING AND POLLUTION PREVENTION FOR PERMITTEE OWNED OPERATIONS

BMP 30: Parks and Open Spaces Operations and Maintenance (O&M) Procedures

Deliverables will progress in accordance with the accepted NOI and is scheduled for Permit Year 2.

BMP 31: Buildings and Facilities Operations and Maintenance (O&M) Procedures

Deliverables will progress in accordance with the accepted NOI and is scheduled for Permit Year 2.

BMP 32: Vehicles and Equipment Operations and Maintenance (O&M) Procedures

Deliverables will progress in accordance with the accepted NOI and is scheduled for Permit Year 2.

BMP 33: Inventory Town-owned Parks and Open Spaces, Buildings and Facilities, and Vehicles and Equipment

Deliverables will progress in accordance with the accepted NOI and is scheduled for Permit Year 2.

BMP 34: Infrastructure Operations and Maintenance (O&M) Procedures

Deliverables will progress in accordance with the accepted NOI and is scheduled for Permit Year 2.

BMP 35: Catch Basin Cleaning Program

The current schedule for catch basin cleaning is to clean approximately half of the catch basins each year. Data collected from catch basin cleaning efforts over the last two years is being used to identify catch basins that are more than 50% full for increased cleaning. During Permit Year 1, catch basins were cleaned between June 4 and June 29, 2018. The following is a summary of catch basin cleaning completed (see Attachment for BMP 35 for full 2018 Catch Basin Cleanout Summary):

2018 Catch Basin Cleanout Summary	
Total Town Maintained Catch Basins	1,732
Catch Basin Cleaned in 2018	561
Total Sediment Removed (in)	6,249
Total Sediment Removed (ft^3)	5,790
Catch Basins Cleaned in 2018 at Least 50% Full	200
% Catch Basins Cleaned in 2018 at Least 50% Full	36%

BMP 36: Street sweeping program

The Town of Exeter swept streets and municipally-owned parking lots several times per year. Sweeping occurs three to four days per week between April and November. During Permit Year 1, 1,800 lane miles were swept and 1,640 cubic yards of material were removed.

BMP 37: Winter Road Maintenance Program

The Town of Exeter follows the guidance of the Green SnoPro certification for optimizing salt spreading operations. Chloride alternatives were evaluated and it was

determined to not be economically feasible. The Town optimizes the salt spreading equipment to use the least amount of salt possible.

BMP 38: Stormwater Treatment Structures Inspection and Maintenance Procedures

All treatment units are inspected and maintained annually as part of the catch basin cleaning operations. The written inspection and maintenance procedures are being developed as part of Permit Year 2 activities.

BMP 39: Stormwater Pollution Prevention Plan (SWPPP)

The existing SWPPP for the Exeter DPW Complex was updated in March of 2019 to meet the requirements of the 2017 NH Small MS4 General Permit. The SWPPP will be further updated in Permit Year 2 to fully incorporate the recent upgrades to the wastewater treatment facility into the DPW Complex SWPPP. SWPPPs for other town-owned facilities within the MS4 will be updated as required for Permit Year 2 activities.

TMDLS AND WATER QUALITY LIMITED WATERS

Bacteria/Pathogens

Outfalls to these receiving waters will be ranked as high priority for the IDDE implementation when the initial outfall inventory and priority ranking is updated (relevant BMP: 15). For the status of other relevant BMPs in the SWMP that address enhanced BMPs for Bacteria/Pathogens, refer to BMPs 1 and 5.

Nitrogen

Outfalls to these receiving waters will be ranked as high priority for the IDDE implementation when the initial outfall inventory and priority ranking is updated (relevant BMP: 15). For the status of other relevant BMPs in the SWMP that address enhanced BMPs for Nitrogen, refer to BMPs 1, 2, 6, and 36.

The Town of Exeter through its participation in the Seacoast Stormwater Coalition and continued involvement with the NHDES led Pollutant Tracking and Accounting Pilot Project (PTAPP) will satisfy the tracking and accounting requirement of the municipally owned structural BMPs listed in Attachment 1 to Appendix H. The PTAPP 2018 report is attached to the annual report (see Attachment for TMDL and Water Quality Limited Waters – Nitrogen).

Solids, Oil and Grease (Hydrocarbons), or Metals

Outfalls to these receiving waters will be ranked as high priority for the IDDE implementation when the initial outfall inventory and priority ranking is updated (relevant BMP: 15). For the status of other relevant BMPs in the SWMP that address enhanced BMPs for Solids, Oil and Grease (Hydrocarbons), or Metals, refer to BMPs 35 and 36.

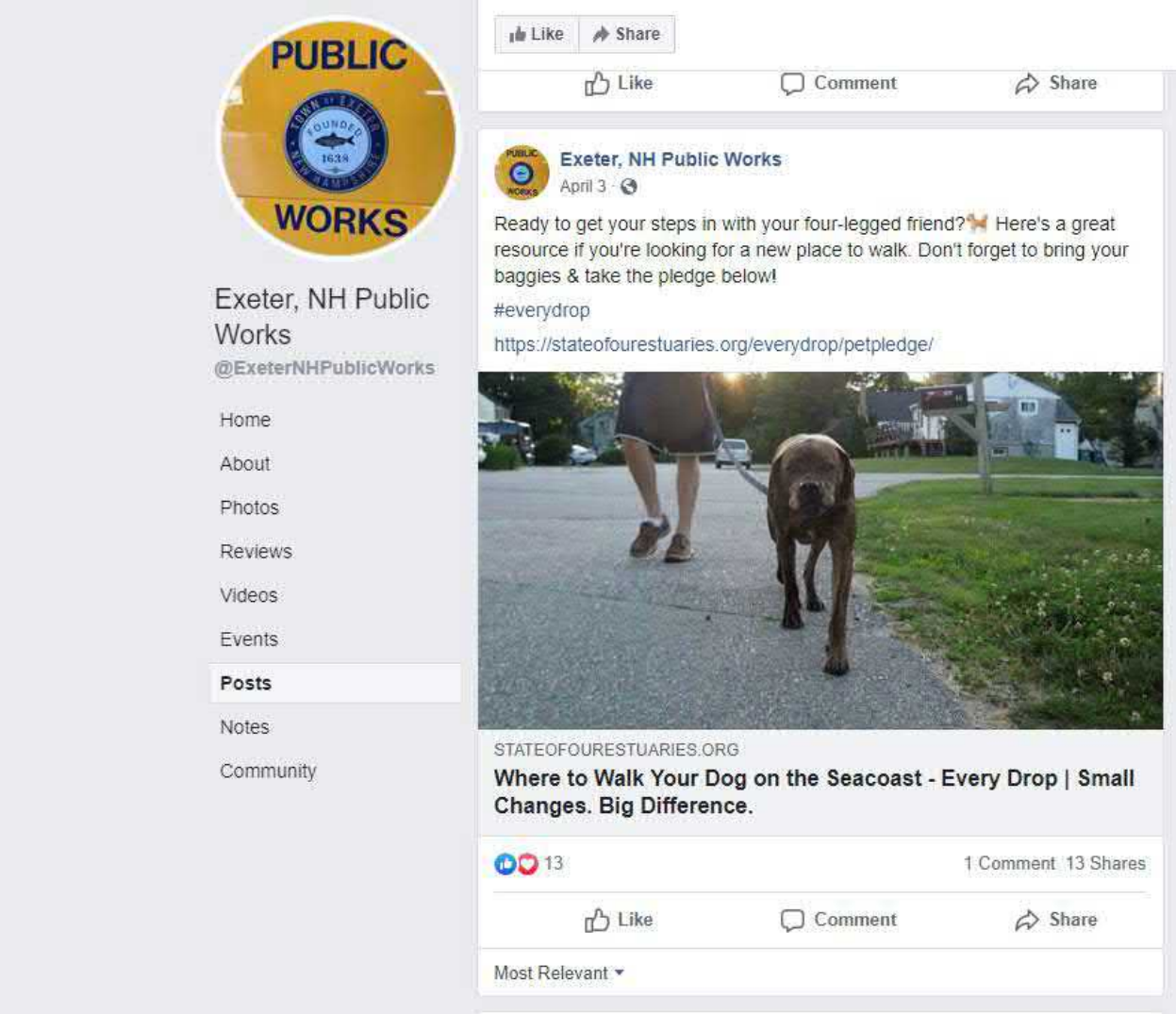
DESCRIPTION OF ANY CHANGES IN IDENTIFIED BMPS OR MEASURABLE GOALS

The Town of Exeter has implemented activities in accordance with the approved NOI. All BMPs and measurable goals as outlined in the approved NOI are appropriate. It should be noted that the description of BMP 1 was expanded with more detail as included in the annual report.

ACTIVITIES FOR THE NEXT REPORTING PERIOD

The Town of Exeter will continue to implement activities in accordance with the approved NOI and as noted in the Annual Report.

EVERY DROP – DPW FACEBOOK



PY1 Attachment: BMP 1

Exeter NH Conservation Commission
· March 8 ·

Are you ready to take the pledge to Scoop The Poop? Coming soon to our trailheads. Every Drop #EveryDropNH,

Ben Begnaud, Cornelia Lewis, Janet Chase Bruce and others like this.

8 Shares

top dog contest.jpg (600×800)

PY1 Attachment: BMP 1

Exeter Healthy Lawns Clean Water
Like This Page · April 12 ·

Its almost that time of year! Here are water quality friendly lawn care practices for a healthy, environmentally friendly lawn.

THINK BLUE EXETER
TOWN OF EXETER, NH

DO YOUR PART, BE SEPTIC SMART

It's Septic Smart Week: September 17-21, 2018

During Septic Smart Week, the EPA and the Town of Exeter encourage homeowners to get Septic Smart and take action. Proper Care and Maintenance of your septic system can prevent costly repairs and protect the environment.

Malfunctioning septic systems release pollutants into the ground which eventually enter local waterways.

SEPTEMBER 2018

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
				30	31	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17 Protect & Inspect	18 Think at the Sink	19 Don't Overload	20 Don't Strain the Drain	21 Shield your Field	22
23	24	25	26	27	28	28
30						

Day 1 - September 17: Protect & Inspect

Homeowners can save more than $10,000 in repair and replacement costs if they have their septic system inspected at an average cost of $200-$350 at least every 3 to 5 years by a septic service professional.

Day 2 - September 18: Think at the Sink

Whether you flush down the toilet, grind it in the garbage disposal, or pour it down the sink, shower, or bath...what goes down the drain can have a major impact on how well your septic system works.

Day 3 - September 19: Don't Overload

Only put things in the drain or toilet that belong there. Things that DON'T belong in the drain include: coffee grounds, dental floss, disposable diapers or wipes, feminine hygiene products, cigarette butts and cat liter. These items can clog or damage septic systems.

Day 4 - September 20: Don't Strain the Drain

Efficient use of water and staggering water use can not only improve the operation of your septic system but also reduce the risk of failure as well.

Day 5- September 21: Shield your Field

What is placed on or around your drainfield—a component of your septic system that removes contaminants—matters.

THINK BLUE EXETER

FOUNDED 1638

RUNOFF RETURNS

septicsmart

U.S. Environmental Protection Agency

LEAF PICK-UP NOTICES DPW FACEBOOK

Exeter, NH Public Works
October 15, 2018 ·

Leaf pick-up will be November 26-30th on your regular pick-up day.
🍁🍁🍁🍁🍁🍁🍁🍁🍁
Waste Management picks-up leaves curbside twice each year (1 spring and 1 fall date). Bags must be biodegradable paper bags and placed curbside by 7 a.m. on your rubbish collection day (12 bag limit per residence). Bags are available to purchase at local hardware or grocery stores. In addition, leaves can be taken directly to the Transfer Station (no permit required) during hours of operation.
https://www.exeternh.gov/publicworks/fall-leaf-pick-0

Exeter, NH Public Works
Government Organization

Send Message

7

4 Comments 12 Shares

Exeter, NH Public Works
November 26, 2018 ·

It's Fall leaf pick-up week! 🍂🍁
Please have your 12 bags curbside by 7am on your regular pick-up day this week! Leaves must be in biodegradable paper leaf bags.

https://www.exeternh.gov/publicworks/fall-leaf-pick-0

EXETERNH.GOV

Fall Leaf Pick-up | Town of Exeter New Hampshire Official Website

Waste Management picks-up leaves curbside twice each year (1 spring and 1 fall date). Bags must be biodegradable paper bags and placed curbside...

2 9 Comments 4 Shares

Like Comment Share

Exeter, NH Public Works
November 30, 2018 ·

Leaves must have been out by 7am in order to be picked up. If you happened to miss leaf pick-up leaves can be brought to the Transfer Station, no permit required.

Winter Hours (until Dec 15th) are:
Tuesday 9-2:30
Thursday 1-4... See More

Exeter, NH Public Works
Government Organization

Send Message

7 Comments 1 Share

Like Comment Share

Exeter, NH Public Works
April 17 at 8:48 AM ·

Spring leaf pick-up is coming up soon! Do you have your bags and rakes ready? 🍂🍂

Leaf pick-up will be during the week of April 29th-May 3rd on your regular pick-up day. Please place your leaves in the biodegradable paper leaf bags before 7am on your pick-up day. There is a 12 bag limit per residence.

https://www.exeternh.gov/publicworks/spring-leaf-pick-2

2 1 Comment 7 Shares

Like Comment Share

Exeter NH Conservation Commission

Published by Kristen Murphy [?] · April 20 ·

Friday the juniors and seniors from Ms. Demarco's animal and plant science class at SST helped bring a little earth day love to the SST parking lot and Morrissette property. Thank you from the Commission and the Planning Department's Kristen Murphy. Added thanks to Bill Campbell, Alyson Eberhardt and Ginny Raub for helping lead these hard workers. And a big thank you to DPW for the disposal of their efforts. #trashtag

543
People Reached

134
Engagements

Boost Post

Exeter NH Conservation Commission
Published by Kristen Murphy · April 27 ·

Friday the PEA students helped remove invasive plants from the Henderson Swasey Town Forest as part of their Climate Action Day. A diverse forest is a resilient forest.

230
People Reached

73
Engagements

Boost Post

WRIGHT-PIERCE
Engineering a Better Environment

MEMORANDUM

TO:	Paul Vlasich, PE Jennifer Mates, PE Dan Lewis	DATE:	December 29, 2017
FROM:	Lyndsay R. Butler, PE W-P	PROJECT No.:	13353D
SUBJECT:	Initial Priority Ranking of Outfalls/Catchments		

The Town of Exeter (the Town) retained Wright-Pierce (W-P) to develop a priority ranking matrix and complete initial priority ranking of the MS4 outfalls and associated catchment areas. This priority ranking matrix is intended for use in development and implementation of the Town's Illicit Discharge Detection and Elimination (IDDE) Program in accordance with the NH Small MS4 General Permit requirements outlined in Section 2.3.4.7.a. This memorandum outlines the methodology used in developing the priority ranking matrix and summarizes the initial priority ranking of identified MS4 outfalls and associated catchment areas.

The Town identified 123 MS4 outfalls and provided W-P with the GIS data containing general information, such as location, size, material, and condition of each outfall. The Town also completed inspections for 118 of the identified MS4 outfalls and provided W-P with the inspection forms. W-P completed initial delineation of catchments associated with each of the identified outfalls in December 2017. Outfall/Catchment Area maps were developed as part of this effort. W-P reviewed the following data related to the condition and catchment characteristics associated with each of the 123 identified MS4 outfalls:

- Stormwater system GIS data provided by the Town;
- Sewer system GIS data provided by the Town;
- Sanitary Sewer Overflow (SSO) GIS data provided by the Town;
- Detailed Outfall Inspection forms provided by the Town;
- Outfall/Catchment Area maps, prepared by W-P in December 2017;
- Dry Weather Outfall Inspection / Screening Summary Memo, prepared by W-P in February 2016;

W-P completed the initial priority ranking based on the available existing information noted above, following the guidance outlined in the DRAFT IDDE Plan, prepared by W-P for the Town of Exeter in November 2016. Outfalls were classified into one of the following categories:

1. **Problem Outfalls**: Outfalls with known or suspected contributions of illicit discharges based on existing information shall be designated as Problem Outfalls. This shall include any outfalls where previous screening indicates likely sewer input. Likely sewer input indicators are any of the following:
    - Olfactory or visual evidence of sewage,

- Ammonia ≥ 0.5 mg/L, surfactants ≥ 0.25 mg/L, and bacteria levels greater than the water quality criteria applicable to the receiving water, or
- Ammonia ≥ 0.5 mg/L, surfactants ≥ 0.25 mg/L, and detectable levels of chlorine.

2. **High Priority Outfalls**: Outfalls that have not been classified as Problem Outfalls and that are:
    - Discharging to an area of concern to public health due to proximity of public beaches, recreational areas, drinking water supplies or shellfish beds
    - Determined by the permittee as high priority based on the characteristics listed below in the Scoring Criteria or other available information.

3. **Low Priority Outfalls**: Outfalls determined by the permittee as low priority based on the characteristics listed below in the Scoring Criteria or other available information.

4. **Excluded Outfalls**: Outfalls with no potential for illicit discharges may be excluded from the IDDE program. This category is limited to roadway drainage in undeveloped areas with no dwellings and no sanitary sewers; drainage for athletic fields, parks or undeveloped green space and associated parking without services; cross-country drainage alignments (that neither cross nor are in proximity to sanitary sewer alignments) through undeveloped land.

The priority ranking matrix, Attachment A, was developed for the initial ranking of outfalls/catchment areas for the Town of Exeter. The following scoring criteria was used for assessment of catchment characteristics.

Scoring Criteria:

[1] Previous screening results indicate likely sewer input if any of the following are true:

- Olfactory or visual evidence of sewage,
- Ammonia ≥ 0.5 mg/L, surfactants ≥ 0.25 mg/L, and bacteria levels greater than the water quality criteria applicable to the receiving water, or
- Ammonia ≥ 0.5 mg/L, surfactants ≥ 0.25 mg/L, and detectable levels of chlorine

[2] Outfalls/interconnections that discharge to or in the vicinity of any of the following areas: public beaches, recreational areas, drinking water supplies, or shellfish beds

[3] Receiving water quality based on latest version of New Hampshire Department of Environmental Services (NHDES) Integrated List of Waters.

- Poor = Waters with approved TMDLs (Category 4a Waters) where illicit discharges have the potential to contain the pollutant identified as the cause of the impairment
- Fair = Water quality limited waterbodies that receive a discharge from the MS4 (Category 5 Waters)
- Good = No water quality impairments

[4] Generating sites are institutional, municipal, commercial, or industrial sites with a potential to contribute to illicit discharges (e.g., car dealers, car washes, gas stations, garden centers, industrial manufacturing, etc.)

[5] Age of development and infrastructure:

- High = Industrial areas greater than 40 years old and areas where the sanitary sewer system is more than 40 years old
- Medium = Developments 20-40 years old
- Low = Developments less than 20 years old

[6] Areas once served by combined sewers and but have been separated, or areas once served by septic systems but have been converted to sanitary sewers.

[7] Aging septic systems are septic systems 30 years or older in residential areas.

[8] Any river or stream that is culverted for distance greater than a simple roadway crossing.

If previous inspection or screening results provided for an outfall indicated likely sewer input, as noted in Scoring Criteria 1, the outfall was automatically ranked as "Problem". If the total score for an outfall was 10 or greater, then the outfall was ranked "High Priority". If the total score for an outfall was less than 10, then the outfall was ranked "Low Priority". There were 2 outfalls ranked as "Excluded" in this initial priority ranking effort, however several of the outfalls located along Swasey Parkway have the potential to be classified as "Excluded" upon further review of their associated catchment areas.

As previously noted, this initial ranking was based on available information for outfalls and associated catchment areas. As more information is gathered by the Town this priority ranking should be updated and refined.

* * * *

Attachment A - Outfall Inventory and Priority Ranking Matrix
Exeter, New Hampshire
Revision Date: December 28, 2017

Outfall ID	Receiving Water	Previous Screening Results Indicate Likely Sewer Input?[1]	Discharging to Area of Concern to Public Health?[2]	Frequency of Past Discharge Complaints	Receiving Water Quality[3]	Density of Generating Sites[4]	Age of Development/ Infrastructure[5]	Historic Combined Sewers or Septic?[6]	Aging Septic?[7]	Culverted Streams?[8]	Presence of System Vulnerability Factors	Additional Characteristics	Score	Priority Ranking
Information Source		Outfall Inspections and screening/sampling results	GIS Maps	Town Staff	Impaired Waters List	Land Use/GIS Maps, Aerial Photography	Land Use Information, Visual Observation	Town Staff, GIS Maps	Land Use, Town Staff	GIS and Storm System Maps	Town Staff, GIS Maps, Town Records	Other		
Scoring Criteria		Yes = 3 (problem outfall) No = 0	Yes = 3 No = 0	Frequent = 3 Occasional = 2 None = 0	Poor = 3 Fair = 2 Good = 0	High = 3 Medium = 2 Low = 1	High = 3 Medium = 2 Low = 1	Yes = 3 No = 0	Yes = 3 Possible = 2 No = 0	Yes = 3 No = 0	TBD	TBD		
CLPD-001	Colcord Pond	0	0	0	2	1			2	0	None		5	Low
DBBK-001	Dearbron Brook	0	3	0	0	1			0	0		Road Drainage, Undeveloped Area, No Sewer	4	Excluded
DBBK-010	Dearbron Brook	0	3	0	0	1			0	0	None		4	Low
EXRV-001	Exeter River	0	0	0	0	1			0	0	None		1	Low
EXRV-010	Exeter River	0	0	0	0	1			0	0	None		1	Low
EXRV-020	Exeter River	0	0	0	0	2		3	0	0	See 8/17 Inspection	Dry Weather Flow, See 8/17 Inspection	5	Low
EXRV-030	Exeter River	0	0	0	0	2		3	0	0	See 8/17 Inspection	SSO in Vicinity (11/2012)	5	Low
EXRV-040	Exeter River	0	0	0	0	2		3	0	0	See 8/17 Inspection	Dry Weather Flow, See 8/17 Inspection	5	Low
EXRV-050	Exeter River	0	0	0	0	2			0	0	None		2	Low
EXRV-060	Exeter River	0	0	0	0	3		3	0	0	See 8/17 Inspection		6	Low
EXRV-070	Exeter River	0	0	0	0	3		3	0	0	See 8/17 Inspection		6	Low
EXRV-080	Exeter River	3	0	0	0	3		3	0	0	See 8/17 Inspection	Dry Weather Flow & Visual Indicators, See 8/17 Inspection	9	Problem
EXRV-090	Exeter River	0	3	0	0	1			0	0	None		4	Low
EXRV-100	Exeter River	0	3	0	0	1			0	0	None		4	Low
EXRV-110	Exeter River	0	3	0	0	1			0	0	None		4	Low
EXRV-130	Exeter River	0	3	0	0	1			0	0	None		4	Low
EXRV-140	Exeter River	0	3	0	0	1			0	0	None	Dry Weather Flow, See 7/17 Inspection	4	Low
EXRV-150	Exeter River	0	3	0	0	1			0	0	Near Sewer Pump Station		4	Low
EXRV-160	Exeter River	0	3	0	0	1			0	0	None		4	Low
EXRV-170	Exeter River	0	3	0	0	1			0	0	None		4	Low
EXRV-180	Exeter River	0	3	0	3	1			0	0	Sewer Pump Station	Dry Weather Flow, See 7/17 Inspection	7	Low
EXRV-190	Exeter River	0	3	0	3	1			0	0	None	Dry Weather Flow, See 8/17 Inspection, Could be Excluded	7	Low
LTRV-001	Little River	0	3	0	2	1			0	0	None	Visual Indicators, See 7/17 Inspection	6	Low
LTRV-010	Little River	0	3	0	2	1			0	0	None		6	Low
LTRV-020	Little River	0	3	0	2	1			0	0	None		6	Low
LTRV-030	Little River	0	3	0	2	2		3	0	0	See 7/17 Inspection	Dry Weather Flow, See 7/17 Inspection	10	High
LTRV-040	Little River	0	3	0	2	2			0	0	None		7	Low
LTRV-050	Little River	0	3	0	2	1			0	0	Near Sewer Pump Station		6	Low
LTRV-055	Little River	0	3	0	2	1			0	0	None		6	Low
LTRV-060	Little River	0	3	0	2	1			0	0	None		6	Low
LTRV-070	Little River	0	3	0	2	1			0	0	None	Dry Weather Flow, See 7/17 Inspection	6	Low
LTRV-080	Little River	0	3	0	2	1			0	0	None		6	Low
LTRV-090	Little River	0	3	0	2	1			0	0	None		6	Low
LTRV-100	Little River	0	3	0	2	1			0	0	None		6	Low
LTRV-110	Little River	0	3	0	2	1			0	0	None		6	Low
LTRV-120	Little River	0	3	0	2	3		3	0	0	See 7/17 Inspection		11	High
LTRV-130	Little River	0	3	2	2	1			0	0	None	Dry Weather Flow & Visual Indicators, See 8/17 Inspection	8	Low
LTRV-140	Little River	0	3	0	2	3			0	0	None		8	Low
LTRV-150	Little River	0	3	0	2	1			0	0	None		6	Low
LTRV-160	Little River	0	3	0	2	2			0	0	None		7	Low
LTRV-170	Little River	0	3	0	2	1			0	0	None	Visual Indicators, See 7/17 Inspection	6	Low
LTRV-180	Little River	0	3	0	2	1			0	0	None		6	Low
LTRV-190	Little River	0	3	0	2	1			0	0	None	Dry Weather Flow, See 8/17 Inspection	6	Low
LTRV-200	Little River	0	0	0	2	2			0	0	None		4	Low
LTRV-210	Little River	0	0	0	2	1	3		0	0	None		6	Low
LTRV-220	Little River	0	0	2	2	1			0	0	None	Pet Waste, See 7/17 Inspection	5	Low
LTRV-230	Little River	0	0	0	2	1			0	0	None		3	Low
LTRV-240	Little River	3	0	0	2	1			3	0	None		9	Problem
LTRV-250	Little River	0	0	0	2	1			0	0	None		3	Low
LTRV-260	Little River	0	0	0	2	1			0	0	None	Dry Weather Flow, See 7/17 Inspection	3	Low
LTRV-270	Little River	0	0	0	2	1			0	0	None	Dry Weather Flow, See 8/17 Inspection	3	Low
LTRV-280	Little River	0	0	0	2	1			0	0	None	Dry Weather Flow, See 7/17 Inspection	3	Low
LTRV-290	Little River	0	0	0	2	1			0	0	None	Dry Weather Flow & Visual Indicators, See 8/17 Inspection	3	Low
LTRV-300	Little River	0	0	0	2	1			2	0	None		5	Low
LTRV-310	Little River	0	0	0	2	1			0	0	None		3	Low
NRBK-001	Norris Brook	0	0	0	0	1			0	0	None		1	Low
NRBK-010	Norris Brook	3	0	0	0	2		3	2	0	See 8/17 Inspection		10	Problem
NRBK-020	Norris Brook	0	0	0	0	2			0	0		Possibly not an outfall	2	Low
NRBK-030	Norris Brook	0	0	0	0	3		3	0	0	See 8/17 Inpsection	Dry Weather Flow, See 8/17 Inspection	6	Low
NRBK-040	Norris Brook	0	0	0	0	3		3	0	0	See 9/17 Inspection		6	Low
NRBK-050	Norris Brook	3	0	2	3	3			0	0	See 8/17 Inspection	SSOs in Vicinity & Visual Indocators, See 8/17 Inspection	11	Problem
PKBK-001	Perkins Brook	0	3	0	0	1			2	0	None		6	Low
SQRV-001	Squamscott River South	0	0	0	3	1			0	0	None		4	Low
SQRV-010	Squamscott River South	0	3	0	3	1			0	0	None	Dry Weather Flow, See 8/17 Inspection	7	Low
SQRV-020	Squamscott River South	0	3	0	3	1			0	0	None	Road Drainage, No Dwellings, No Sewer	7	Low

Attachment A - Outfall Inventory and Priority Ranking Matrix
Exeter, New Hampshire
Revision Date: December 28, 2017

Outfall ID	Receiving Water	Previous Screening Results Indicate Likely Sewer Input?[1]	Discharging to Area of Concern to Public Health?[2]	Frequency of Past Discharge Complaints	Receiving Water Quality[3]	Density of Generating Sites[4]	Age of Development/ Infrastructure[5]	Historic Combined Sewers or Septic?[6]	Aging Septic?[7]	Culverted Streams?[8]	Presence of System Vulnerability Factors	Additional Characteristics	Score	Priority Ranking
Information Source		Outfall Inspections and screening/sampling results	GIS Maps	Town Staff	Impaired Waters List	Land Use/GIS Maps, Aerial Photography	Land Use Information, Visual Observation	Town Staff, GIS Maps	Land Use, Town Staff	GIS and Storm System Maps	Town Staff, GIS Maps, Town Records	Other		
Scoring Criteria		Yes = 3 (problem outfall) No = 0	Yes = 3 No = 0	Frequent = 3 Occasional = 2 None = 0	Poor = 3 Fair = 2 Good = 0	High = 3 Medium = 2 Low = 1	High = 3 Medium = 2 Low = 1	Yes = 3 No = 0	Yes = 3 Possible = 2 No = 0	Yes = 3 No = 0	TBD	TBD		
SQRV-030	Squamscott River South	0	3	0	3	1			0	0	None	Road Drainage, No Dwellings, No Sewer	7	Low
SQRV-040	Squamscott River South	0	3	0	3	1			0	0	None	Road Drainage, No Dwellings, No Sewer	7	Low
SQRV-050	Squamscott River South	0	3	0	3	1			0	0	None		7	Low
SQRV-060	Squamscott River South	0	3	0	3	1			0	0	None	Road Drainage, No Dwellings, No Sewer	7	Low
SQRV-070	Squamscott River South	0	3	0	3	1			0	0	None	Road Drainage, No Dwellings, No Sewer	7	Low
SQRV-080	Squamscott River South	0	3	0	3	1			0	0	None	Road Drainage, No Dwellings, No Sewer	7	Low
SQRV-090	Squamscott River South	0	3	0	3	2			0	0	See 8/17 Inspection		8	Low
SQRV-100	Squamscott River South	0	3	0	3	1			0	0	None		7	Low
SQRV-110	Squamscott River South	0	3	0	3	1			0	0	None		7	Low
SQRV-120	Squamscott River South	0	3	0	3	1			0	0	None		7	Low
SQRV-130	Squamscott River South	0	3	0	3	1			0	0	None		7	Low
SQRV-140	Squamscott River South	0	3	0	3	1			0	0	None		7	Low
SQRV-150	Squamscott River South	3	3	2	3	3	3	3	0	3	See 8/17 Inspection		23	Problem
SQRV-160	Squamscott River South	0	3	0	3	1			0	0	None		7	Low
SQRV-170	Squamscott River South	0	3	0	3	3	3	3	0	0	See 8/17 Inspection		15	High
SQRV-180	Squamscott River South	0	3	0	3	3			0	0	None	SSO in Vicinity (11/2012)	9	Low
SQRV-190	Squamscott River South	0	3	2	3	2		3	0	3	See 8/17 Inspection		16	High
SQRV-200	Squamscott River South	0	3	0	3	1			0	0	None		7	Low
SQRV-210	Squamscott River South	0	3	0	3	3		3	0	0	See 9/17 Inspection		12	High
SQRV-220	Squamscott River South	0	3	0	3	2			0	0	None		8	Low
TLRV-001	Taylor River - Ash Brook	0	0	0	0	1			0	0	None	Dry Weather Flow, See 7/17 Inspection	1	Low
TLRV-010	Taylor River - Ash Brook	0	3	0	0	1			0	0	None		4	Low
TLRV-020	Taylor River - Ash Brook	0	3	0	0	1			0	0	None		4	Low
UNBK-001	Unnamed Brook	0	3	0	0	2		3	0	0	See 8/17 Inspection		8	Low
UNBK-010	Unnamed Brook	0	3	0	0	1			0	0	None		4	Low
UNBK-020	Unnamed Brook	0	3	0	0	1		3	0	0	See 8/17 Inspection		7	Low
UNBK-030	Unnamed Brook	0	3	0	0	1		3	0	0	See 8/17 Inspection		7	Low
UNBK-040	Unnamed Brook	0	3	0	0	1			0	0	None		4	Low
UNBK-050	Unnamed Brook	0	3	0	0	1		3	0	0	See 8/17 Inspection		7	Low
UNBK-060	Unnamed Brook	0	3	0	0	1		3	0	0	See 8/17 Inspection	Dry Weather Flow, See 8/17 Inspection	7	Low
UNBK-070	Unnamed Brook	0	3	0	0	1			0	0	None		4	Low
UNBK-080	Unnamed Brook	0	3	0	0	1			0	0			4	Low
UNBK-090	Unnamed Brook	0	3	0	0	1			0	0	None		4	Low
UNBK-100	Unnamed Brook	0	3	0	0	2			0	0	None		5	Low
UNBK-110	Unnamed Brook	0	3	0	0	1			0	0	None		4	Low
UNBK-120	Unnamed Brook	0	3	0	0	1			0	0	None		4	Low
UNBK-130	Unnamed Brook	0	0	0	0	1			2	0	None		3	Low
UNBK-140	Unnamed Brook	0	0	0	0	1			2	0	None		3	Low
UNCLPD-010	Colcord Pond	0	0	0	0	1			2	0	None		3	Low
UNEXRV-001	Exeter River	0	0	0	0	1			0	0	None	Dry Weather Flow & Visual Indicators, See 12/17 Inspection	1	Low
WWCK-001	Wheelwright Creek	0	3	0	0	2		3	2	0	See 8/17 Inspection	Visual Indicators, See 8/17 Inspection	10	High
WWCK-010	Wheelwright Creek	0	3	0	0	1		3	0	0	See 8/17 Inspection		7	Low
WWCK-020	Wheelwright Creek	0	3	0	0	1		3	0	0	See 8/17 Inspection		7	Low
WWCK-030	Wheelwright Creek	0	3	0	0	3			0	3	See 8/17 Inspection	Dry Weather Flow & Visual Indicators, See 8/17 Inspection	9	Low
WWCK-040	Wheelwright Creek	0	3	0	0	2			0	0	None	Dry Weather Flow & Visual Indicators, See 8/17 Inspection	5	Low
WWCK-050	Wheelwright Creek	3	3	0	0	3		3	0	0	See 8/17 Inspection	Visual Indicators, See 8/17 Inspection	12	Problem
WWCK-060	Wheelwright Creek	3	3	0	0	3		3	0	3	See 8/17 Inspection	Visual Indicators, See 8/17 Inspection	15	Problem
WWCK-070	Wheelwright Creek	3	3	0	0	3		3	0	0	See 8/17 Inspection	Visual Indicators, See 8/17 Inspection	12	Problem
WWCK-080	Wheelwright Creek	0	3	0	0	3		3	0	0	See 8/17 Inspection		9	Low
WWCK-090	Wheelwright Creek	0	3	0	0	3		3	0	0			9	Low
WWCK-100	Wheelwright Creek	3	3	0	0	3		3	0	0	None	Sheen Observed, See 8/17 Inspection	12	Problem
WWCK-110	Wheelwright Creek	3	3	0	0	3		3	0	0	See 8/17 Inspection	Dry Weather Flow, See 8/17 Inspection	12	Problem
WWCK-120	Wheelwright Creek	0	3	0	0	1		0	0	0		Road Drainage, Undeveloped Area, No Sewer	4	Excluded
WWEXRS-001	Wheelwright Creek - Exeter Reservoir	0	3	0	0	1		3	0	0	See 8/17 Inspection		7	Low
WWEXRS-010	Wheelwright Creek - Exeter Reservoir	0	3	0	0	1			0	0	None		4	Low
WWEXRS-020	Wheelwright Creek - Exeter Reservoir	0	3	0	0	1			0	0	None		4	Low
WWEXRS-030	Wheelwright Creek - Exeter Reservoir	0	3	0	0	1			0	0	None		4	Low
WWEXRS-040	Wheelwright Creek - Exeter Reservoir	0	3	0	0	1			0	0	None	Visual Indicators, See 8/17 Inspection	4	Low

Catch Basin Cleanout Summary

Town of Exeter, NH

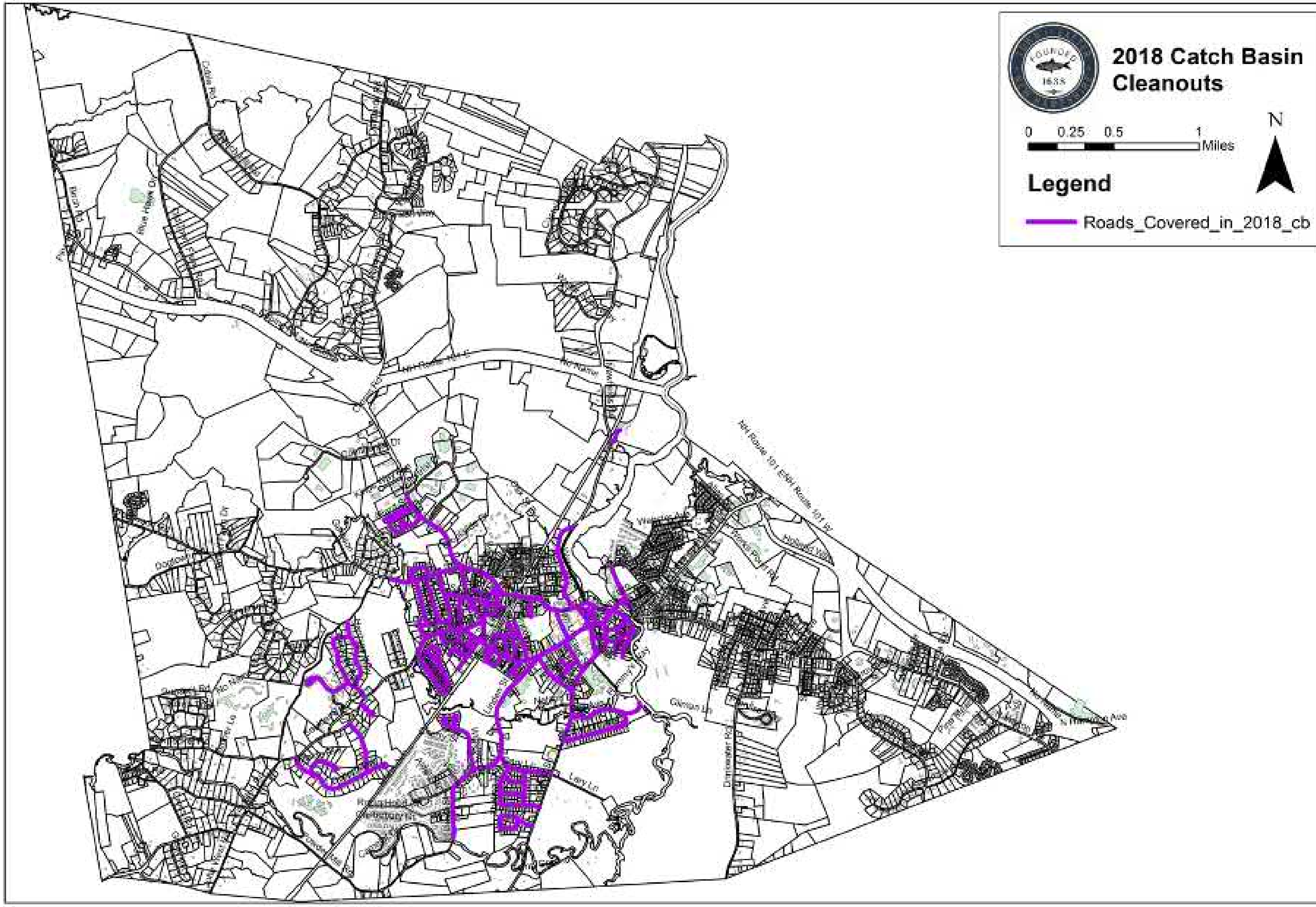
2018

The total number of town maintained catch basins is estimated to be 1732. The catch basins cleaned in 2018 total to be 561. This is a 10% increase in catch basins cleaned from 2017. A total of 6249 inches of debris and sediment were removed, equivalent to 5790 cubic feet. Of 561 catch basins cleaned, 200 were found to be at least 50% full. This is 36% of the total catch basins cleaned in 2018.

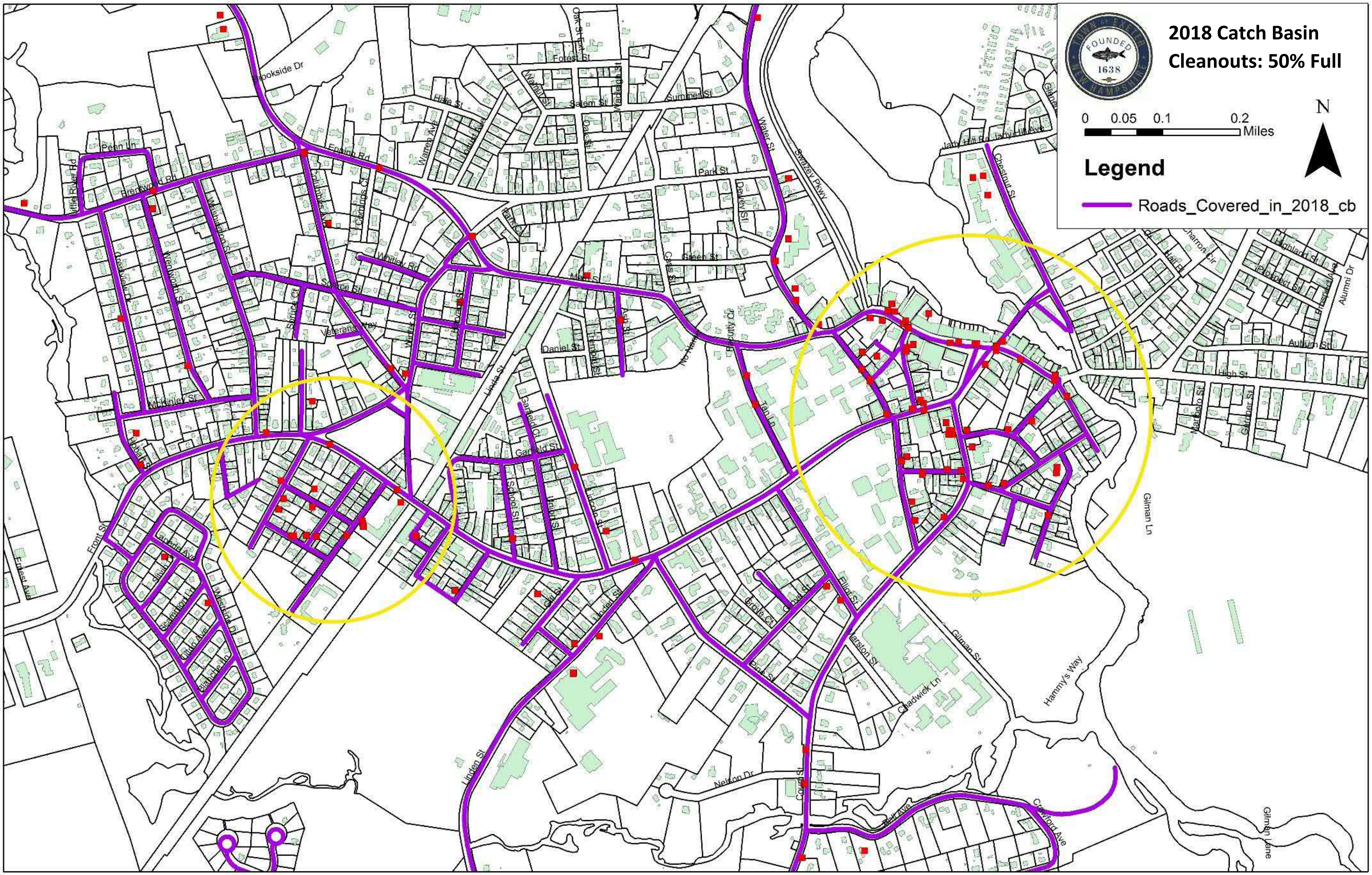
A map of the roads covered in the 2018 catch basin cleanout and a map of the catchment areas with catch basins at least 50% full may be found in Appendix A and B, respectively.

2018 Catch Basin Cleanout Summary	
Total Town Maintained Catch Basins	1732
Catch Basin Cleaned in 2018	561
Total Sediment Removed (in)	6249
Total Sediment Removed (ft^3)	5790
Catch Basins Cleaned in 2018 at Least 50% Full	200
% Catch Basins Cleaned in 2018 at Least 50% Full	36%

Catch Basin Cleanout Program	2017	2018
Catch Basins Cleaned	508	561
Dates of Cleaning	5/10 - 6/13	6/4 - 6/29
Number of Days	21	17



Street
Allard St
Arbor Ct
Arbor St
Ash St
Bell Ave
Blanche Ln
Bow St
Brentwood Rd
Browns Ct
Carroll St
Center St
Charter St
Chestnut St
Clara St
Clifford St
Colcord Pond Dr
Colonial Way
Columbus Ave
Cottage St
Court St
Crawford Ave
Crestview Dr
Cullen Way
Dartmouth St
Elliot St
Elm St
Epping Rd
Exeter DPW
Franklin St
Front St
Garfield St
Gary Ln
Gill St
Greybird Farm Cir
Grove St
Hervey St
Heritage Way
Hilliard Cir
Hillside Ave
Hobart St
Kathleen Dr
Kossuth St
Leddy Ln
Lepeste Ave
Liberty Ln
Lincoln St
Linden St
Little River Rd
Main St
Maple St
Marilyn Ave
McKinley St
Michael Ave
Mill St
Morrow St
Myrtle St
Parker St
Pleasant St
Railroad Ave
River St
River St Ext
Riverbend Cir
Rockingham St
Sanborn St
Scammon Ln
School St
Silvio Dr
South St
Spring St
Spruce Ct
Spruce St
Squire Way
String Bridge
Tamarind Ln
Tax Ln
Thelma Dr
Tilton Ave
Union St
Veterans Way
Vine St
Water St
Wentworth St
Westside Dr
Whitley Rd
Williams Ct
Winslow Dr
Winter St


2018 Catch Basin
Cleanouts: 50% Full
TOWN OF EXETER NEW HAMPSHIRE FOUNDED 1638
0 0.05 0.1 0.2
Miles
N
Legend
Roads_Covered_in_2018_cb
Penn Ln
Brentwood Rd
Epping Rd
Brookside Dr
Forest St
Salem St
Sumner St
Hale St
Park St
Green St
Main St
Whitley Rd
Spruce St
Veterans Way
Daniel St
McKinley St
Garfield St
Linden St
School St
Water St
Swasey Pkwy
Chestnut St
High St
Auburn St
Gilman Ln
Gilman St
Hammy's Way
Chadwick Ln
Marston St
Nelson Dr
Court St
Crawford Ave
Front St
Gilman Lane

Exeter Municipal Report (2019-01-01 - 2019-01-31)

Impervious Cover Management Table

Structural BMP	Impervious Cover Managed	Runoff Volume Storage at Design Capacity (ft^3)	Design Storm Depth (")	Infiltration Rate (in/hr)	Report of Origin
Infiltration Trench	0.16	230.00	0.5	0.52	DPW Maintenance 2018
Total Impervious Cover (acres)	**0**				
Total Management (acres)	**0.16**				
Effective Impervious Cover (acres)	**-0.16**				

BMP List Table

Structural BMP	Infiltration Rate (in/hr)	Impervious Cover Managed	Design Storm Depth (")	Instance Count
Infiltration Trench				
	0.52	0.16	0.5	1

BMP Summary Table

Structural BMP	IC Managed (acres)	# of BMPs
Infiltration Trench	0.16	1
Totals	**0.16**	**1**
Total EIC	**-0.16**	

Impervious Cover Management Table - Non Structural BMPs

Non Structural BMP	Amount	Description	Report of Origin
Catch Basin Cleaning (# basins)	561.00	catchbasins cleaned June 2018	DPW Maintenance 2018
Street Sweeping (# street-miles)	1400.00	Lane-miles swept from February through November 2018	
Leaf Collection Composting Program (frequency of collection)	2.00	May and November 2018, residents are allowed to have up to 12 bags of leaves picked up. The transfer station also accepts yard waste all year.	
Fertilizer Control Program	1.00	updates to fertilizer ordinance	
Pet Waste Pickup Program	19.00	# of pet waste stations (bags and receptacles) owned and maintained by the town	

Impervious Cover Management Summary Table - Non Structural BMPs

Non Structural BMP	Amount
Catch Basin Cleaning (# basins)	561
Fertilizer Control Program	1
Leaf Collection Composting Program (frequency of collection)	2
Pet Waste Pickup Program	19
Street Sweeping (# street-miles)	1400

Attachment 5

Education and Outreach Flyers

EXETER FALL LEAF PICK-UP 11/25 – 11/30

2019 Fall Leaf Pick-Up

Waste Management will pick-up leaves on curbside. Bags **MUST** be biodegradable paper bags and placed curbside by 7 a.m. on your rubbish collection day (12 bag limit per residence). Bags are available to purchase at local hardware or grocery stores. In addition, leaves can be taken directly to the Transfer Station (no permit required) during hours of operation. Leaves brought to the Transfer Station or collected curbside are composted. Compost is available to residents free of charge.

Town of Exeter

Fall 2019 Leaf Pick-Up

11/25/19 to 11/30/19

PUBLIC WORKS

13 Newfields Rd.
Exeter, NH 03833
603-773-6157
www.exeternh.gov/publicworks

Monday-Friday
7:00 am – 3:30 pm

Think Blue: Pet Waste

→ Pet Waste

- Harmful to waterways
- Rain washes pet waste into stream and rivers
- Contains excess nitrogen and disease-causing organisms

→ You Can Help

- Clean up after your pet
- Always carry a pet waste bag
- Dispose of bag in the garbage or any of the 19 pet waste disposal stations in Town
- Commit to "Scoop the Poop"

EVERY DROP
Small Changes. Big Difference.

Your town wants to hear from you! Visit
stateofourestuaries.org/everydrop/doody

→ Resources

- **Exeter, NH Think Blue: Pet Waste**
  https://www.exeternh.gov/bcc/think-blue-pet-waste
- **Exeter, NH Dog License**
  https://www.exeternh.gov/townclerk/dog-license
- **NHDES Pet Waste Outreach Campaign**
  https://www.des.nh.gov/organization/divisions/water/wmb/coastal/scoop_the_poop.htm
- **State of the Estuaries**
  https://stateofourestuaries.org/everydrop/petpledge/

Contact: Town of Exeter, NH 10 Front St Exeter, NH 03833 (603) 772-6112

YOUR SEPTIC SYSTEM
IS YOUR RESPONSIBILITY

Do Your Part
Be SepticSmart

On a Septic System?
When's the last time you thought about it?

Did You Know?
Common Household leaks can add hundreds of extra gallons of water everyday, stressing your septic system.

Overloading your septic system with water is a leading cause of failure.

Save water and support your septic system's health. For the long-term care of your system, have your septic tank inspected and pumped out by a licensed septic tank contractor as needed (on average every three to five years).

Know your part, be SepticSmart!

Learn more at:
www.epa.gov/septicsmart

septicsmart™
U.S. Environmental Protection Agency

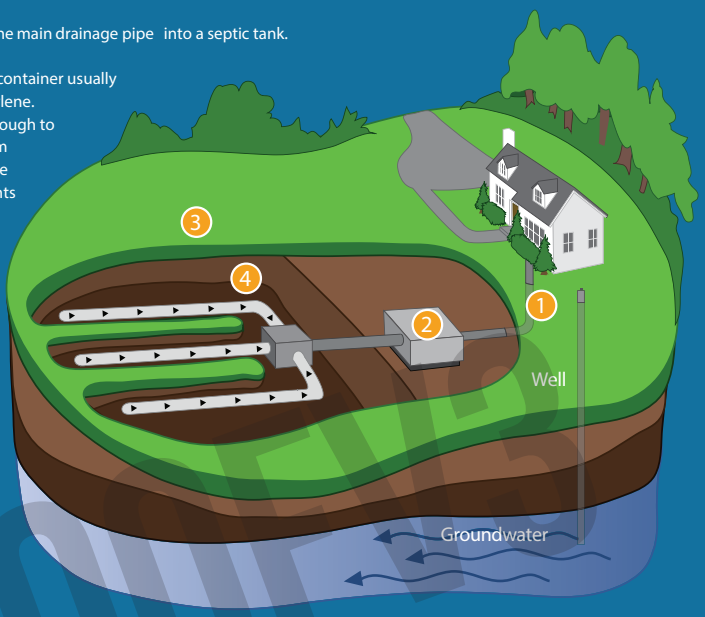
FAILING SEPTIC SYSTEMS

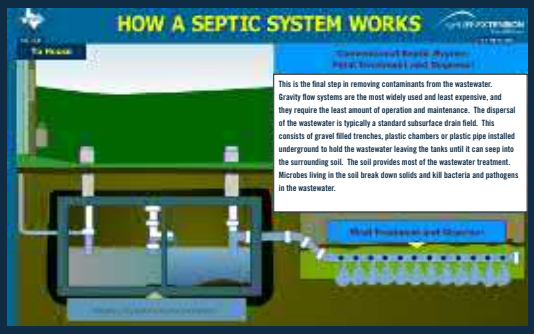
IS A MAJOR WATER QUALITY CONCERN IN THE GREAT BAY WATERSHED

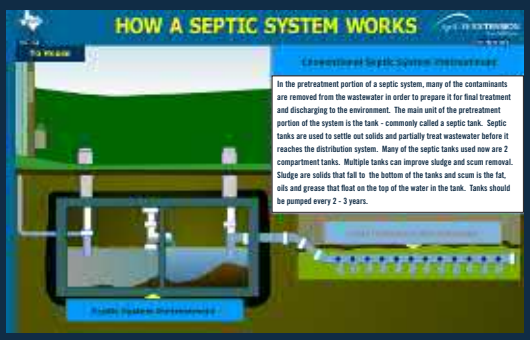
How does a septic system work?

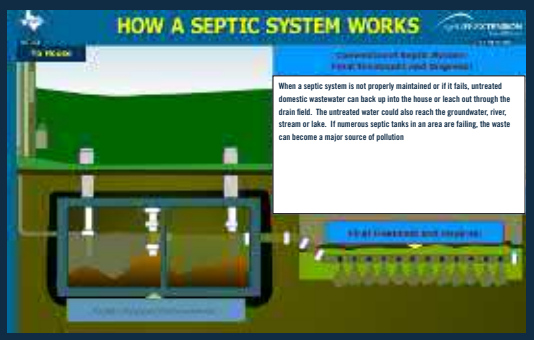
This is a simplified overview of how a septic system works.

1. All water runs out of your house from one main drainage pipe into a septic tank.
2. The septic tank is a buried, water-tight container usually made of concrete, fiberglass or polyethylene. Its job is to hold the wastewater long enough to allow solids to settle down to the bottom (forming sludge), while the oil and grease floats to the top (as scum). Compartments and a T-shaped outlet prevent the sludge and scum from leaving the tank and traveling into the drainfield area.
3. The liquid wastewater then exits the tank into the drainfield . If the drainfield is overloaded with too much liquid, it will flood, causing sewage to flow to the ground surface or create backups in toilets and sinks.
4. Finally, the wastewater percolates into the soil , naturally removing harmful bacteria, viruses, and nutrients.









Your septic system is part of your home and your responsibility!

EVERY DROP

Small Changes. Big Difference.

We love our dogs! But dog waste carries harmful bacteria that can make our waters unsafe for drinking or swimming. So always pick it up and throw it in the trash!

EVERY DROP

Small Changes. Big Difference.

Take the Pledge to Scoop the Poop!

Visit **stateofourestuaries.org/everydrop/petpledge** or just scan the QR code to let your town know that you're doing your part by scooping the poop!

Many NH towns have over 1,000 dogs living in them, and each dog "goes" once or twice a day. That's a lot of poop! Not only is it gross when it's left around, but it can be dangerous. Harmful bacteria and parasites - such as Giardia or Salmonella - that lives in pet waste, can come in contact with other people and pets or wash into nearby waterways or storm drains. **Picking up our dog's waste and throwing it out is a small change that can make a big difference in keeping our waters clean.**

5 Small Changes that Make a Big Difference:

1. **Always carry a plastic bag when you walk your dog.**
2. **Always pick up that poop.**
3. **Always dispose of it in a trashcan.**
4. **Never put bagged or unbagged waste in a storm drain.**
5. **Take the Pledge to tell your town you're making a difference!**

Exeter, NH Public Works shared a post.
December 27 at 2:59 PM ·

Christmas tree pick up will be during the week of January 6th on your regular pick-up day or you can bring them to Memories for their goats!

Either way please remove all tinsel, ornaments, and lights! 🎄 🎄

Memories Ice Cream
Ice Cream Shop

Send Message

Like Page

Memories Ice Cream
December 27 at 9:56 AM ·

8 1 Comment 4 Shares

Like Comment Share

Exeter, NH Public Works shared a post.
November 27 ·

Great reminder for our Thanksgiving chefs!

Fat, oil, and grease (FOG) cannot be disposed of down the drain. Once the water containing any FOG cools it solidifies and causes clogging in your pipes.

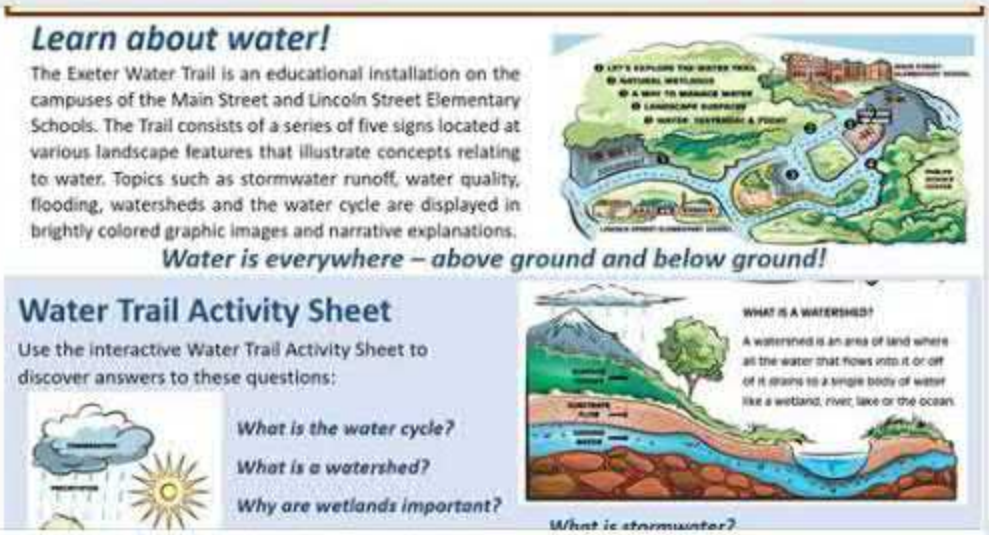
Thank you NH Department of Environmental Services!

119 Views

> **NH Department of Environmental Services**
> November 27 ·
>
> Who would think that the recipes you choose for Thanksgiving could cause a problem (other than the heartburn you get from Aunt Martha's green bean casserole)? B...
> See More

2 1 Share

Like Comment Share



AUG
13

Exeter Water Trail Tour

Public · Hosted by Rockingham Planning Commission and Exeter NH Conservation Commission

★ Interested | ✓ Going | •••

Tuesday, August 13, 2019 at 5 PM – 6:30 PM
about 4 weeks ago

Begin from Main Street Elementary School playground

About | Discussion

Details

You're invited to join the Exeter Conservation Commission and the Rockingham Planning Commission on a tour of the Exeter Water Trail, Tuesday August 13th from 5:00-6:30pm. Tours on the hour and half hour. Stop by to learn more about water!

Kid Friendly

Exeter, NH Public Works
November 5 at 9:13 AM ·

Reminder! 🍂🍁🍂🍁

Curbside fall leaf pick-up will be during the week of November 25th on your regular pick-up day unless your day is Thursday or Friday. Thursday's pick-up will be on Friday, and Friday's will be on Saturday.

Waste Management picks-up leaves curbside twice each year (1 spring and 1 fall date). Bags must be biodegradable paper leaf bags and placed curbside by 7 a.m. on your pick-up day (12 bag limit per residence). Bags are available to purchase at local hardware or grocery stores. In addition, leaves can be taken directly to the Transfer Station (no permit required) during hours of operation.

Leaves brought to the Transfer Station or collected curbside are composted. Compost is available to residents free of charge!

https://www.exeternh.gov/publicworks/fall-leaf-pick-0

Exeter, NH Public Works shared an event.
October 18 at 12:59 PM

Reminder: Tomorrow is Household Hazardous Waste Day!
Do you have any questions regarding what is or isn't accepted? Let us know below or email publicworks@exeternh.gov!

SAT, OCT 19

Household Hazardous Waste Collection Day

Exeter, NH Public Works · Exeter

★ Interested

You like Town of Stratham

1

1 Comment

Like Comment

Exeter, NH Public Works
October 8 ·

Important dates ‼️

Starting Oct 15th through Dec 15th the Transfer Station hours will be extended for fall clean-up:
Tuesday 9:00 am - 1:00 pm
Friday 9:00 am - 2:30 pm
Saturday 8:00 am - 2:30 pm
Sunday Noon - 4:00 pm
*Please check the Transfer Station page for disposal information.

Household Hazardous Waste ☢️ Day will be Saturday, October 19, 2019 at the Public Works Complex 8am-1pm.

Leaf🍂 pick-up will be during the week of Thanksgiving (Nov 25th) on your regular pick-up day unless your day is Thursday or Friday. Thursday's pick-up will be on Friday, and Friday's will be Saturday.

The next holiday observed by Waste Management♻️ will be Thanksgiving. If your normal day is Thursday or Friday pick-up will be delayed 1 day due to the holiday.

Please let us know if you have any questions!
publicworks@exeternh.gov

www.exeternh.gov/publicworks

Exeter, NH Public Works
September 24 ·

#TipTuesday 🚽: Human waste & toilet paper 🧻 are the ONLY flushable items. Whether you're on private septic or public sewer service!

None of the following items are flushable:
❌ flushable wipes
❌ wipes of any kind (make-up wipes, baby wipes, etc.)
❌ facial tissues
❌ paper towels
❌ dental floss
❌ toys
❌ feminine products
❌ cotton swabs
❌ cigarettes
❌ diapers
❌ toys (regardless of what your toddler might think)

Don't let misleading packaging fool you... disposable items and items that state "flushable" on the package are not flushable! These items can cause clogs in your home and public sewer systems resulting in costly repairs!

#getpumpednh #educateothers

https://getpumpednh.com/…/uploa…/2018/10/whats-flushable.pdf

Exeter, NH Public Works
September 20 ·

Final Septic Smart week tip... Shield your field!
That's a wrap for Septic Smart week, but that shouldn't stop you from learning more!

www.epa.gov/septic

3 2 Comments 1 Share

Like Comment Share

Exeter, NH Public Works
September 19 ·

Keep your well water clean! If you have a well, you should have your well water tested regularly.

A list of accredited lab testing services can be found here:

http://des.nh.gov/.../dwgb/n.../documents/labs-private-wells.pdf

1

Like Comment Share

Exeter, NH Public Works
September 18 ·

Don't strain your drain! Use water efficiently by spacing out your dishwasher and laundry loads!

4

Like Comment Share

Exeter, NH Public Works
September 17 ·

Think at the sink! Septic Smart tip #2

https://www.epa.gov/septic/septicsmart-week

3

Like Comment Share

Exeter, NH Public Works
September 17 ·

Septic Smart Week is 9/16/19 through 9/20/19. Over the next few days we'll have tips for residents to be "septic smart" and to help keep waterways clean!

4 1 Comment 2 Shares

Like Comment Share

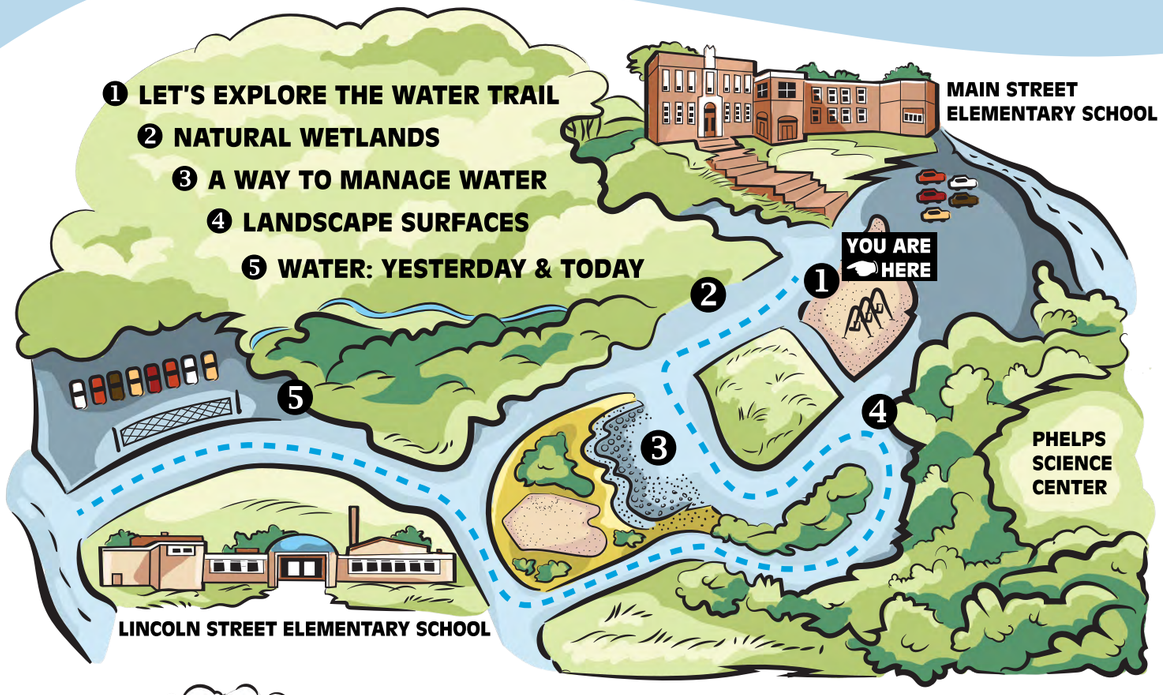
Exeter Water Trail

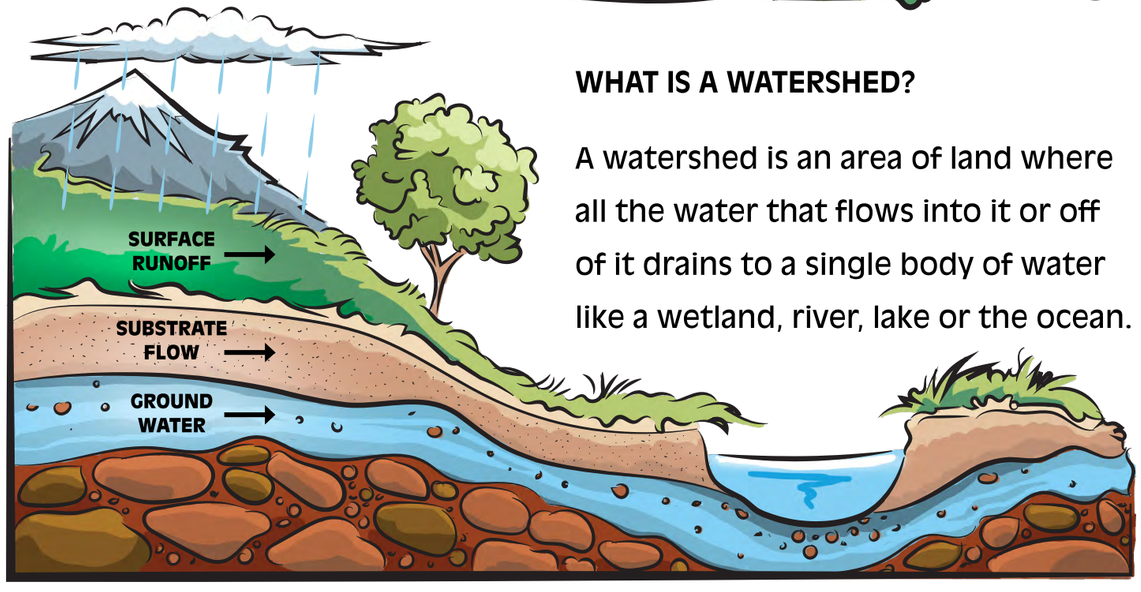
LET'S EXPLORE THE WATER TRAIL

Welcome to the *Water Trail* at Main Street and Lincoln Street Elementary Schools! The Water Trail shows water in many settings as it moves across the landscape.

Water is everywhere — above ground, below ground, and in between!

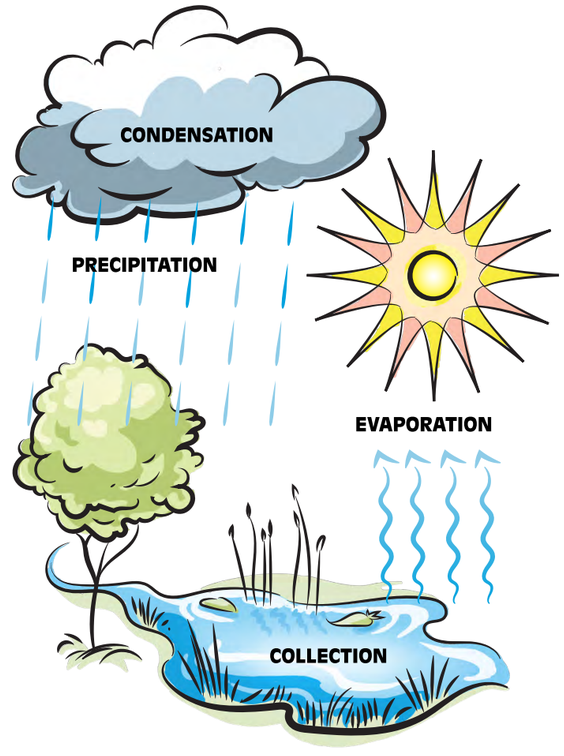
Follow the *Water Trail* markings around the playground and along the nature trail to the Lincoln Street Elementary School.





WHAT IS A WATERSHED?

A watershed is an area of land where all the water that flows into it or off of it drains to a single body of water like a wetland, river, lake or the ocean.



WHAT IS THE WATER CYCLE?

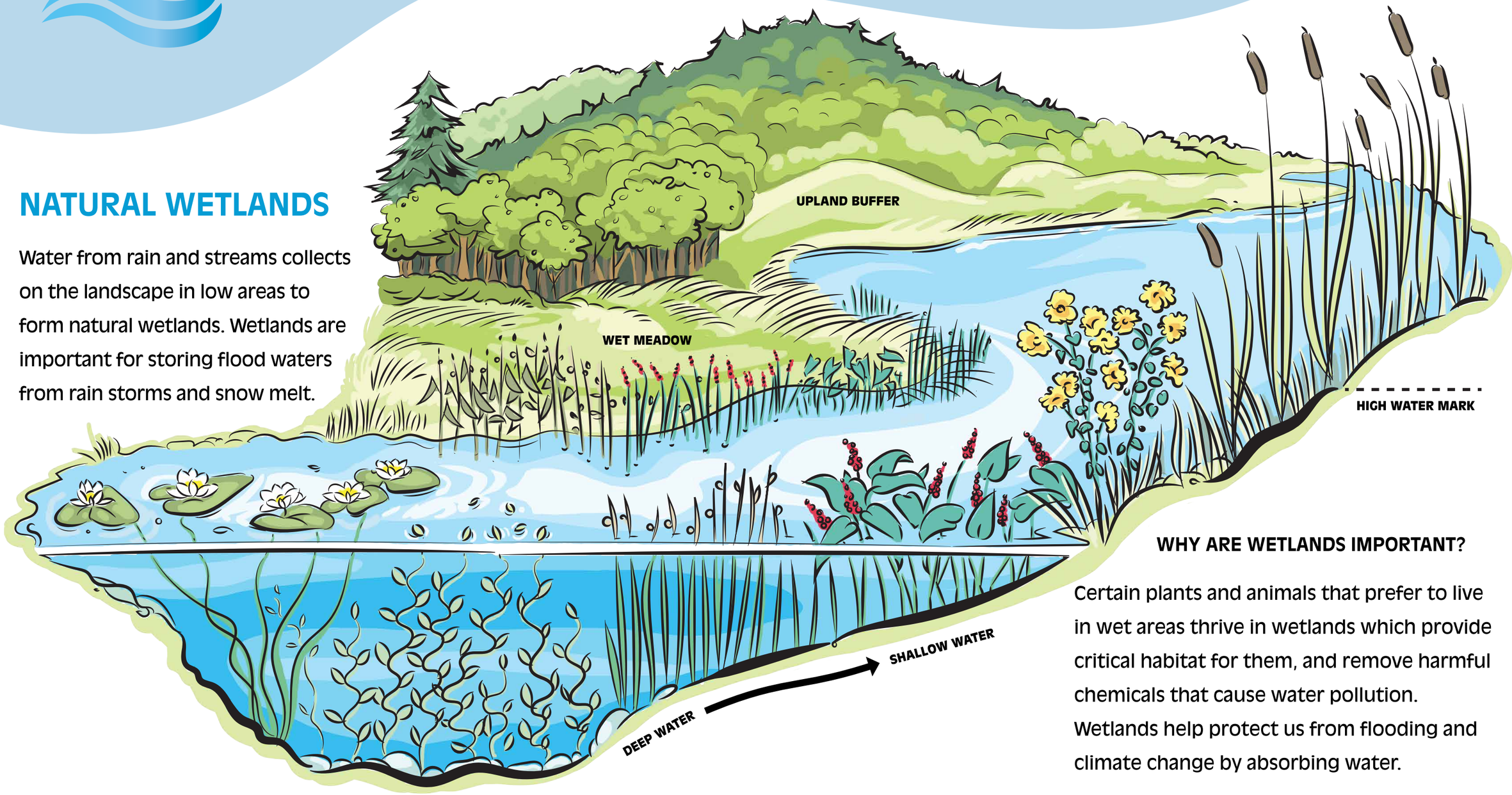
The water cycle, also known as the hydrologic cycle, describes the movement of water on, above, and below the surface of the Earth.

This project was funded, in part, by NOAA's Office of Coastal Management under the Coastal Zone Management Act in conjunction with the NH Department of Environmental Services Coastal Program.

2 Exeter Water Trail

NATURAL WETLANDS

Water from rain and streams collects on the landscape in low areas to form natural wetlands. Wetlands are important for storing flood waters from rain storms and snow melt.



WHY ARE WETLANDS IMPORTANT?

Certain plants and animals that prefer to live in wet areas thrive in wetlands which provide critical habitat for them, and remove harmful chemicals that cause water pollution. Wetlands help protect us from flooding and climate change by absorbing water.

This project was funded, in part, by NOAA's Office of Coastal Management under the Coastal Zone Management Act in conjunction with the NH Department of Environmental Services Coastal Program.

3 Exeter Water Trail

A WAY TO MANAGE WATER

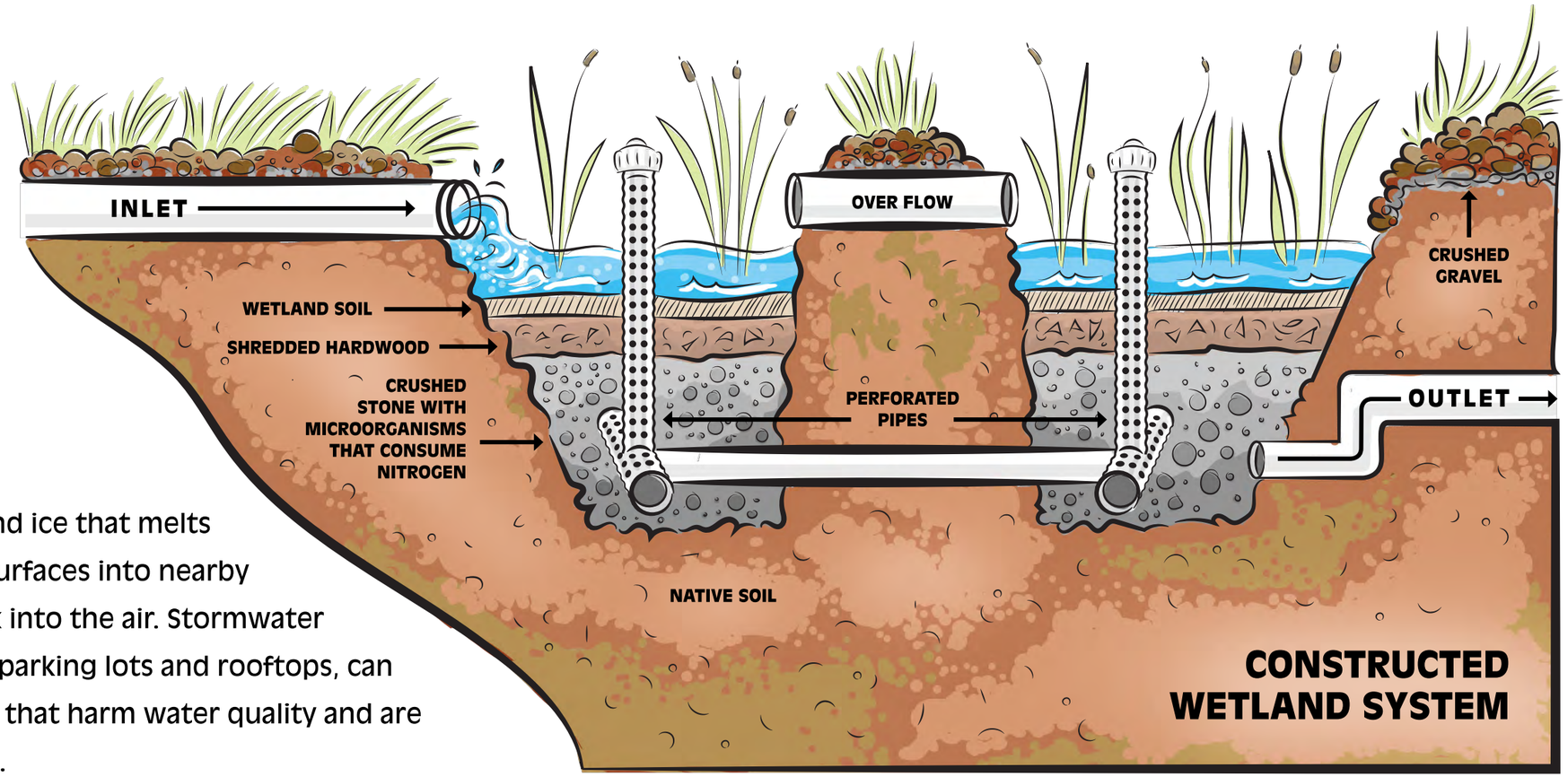
This stormwater collection area holds water that comes from the 177 acre Lincoln Street watershed. Some of the water travels underground in pipes and some flows across the land.

WHY DO WE MAKE WETLANDS?

If a natural wetland no longer exists, man-made wetlands can be created to collect rain water and stormwater into a large basin. Once in the basin, dirt particles settle to the bottom and plants clean the water by taking in pollutants and extra nutrients from the water. These wetlands also store water and help reduce flooding.

WHAT IS STORMWATER?

Stormwater comes from rain, snow, and ice that melts and soaks into the soil, runs off hard surfaces into nearby streams and rivers, or evaporates back into the air. Stormwater that flows over land, and surfaces like parking lots and rooftops, can pick up toxic chemicals and pollutants that harm water quality and are harmful to people, animals, and plants.



This project was funded, in part, by NOAA's Office of Coastal Management under the Coastal Zone Management Act in conjunction with the NH Department of Environmental Services Coastal Program.

4 Exeter Water Trail

This project was funded, in part, by NOAA's Office of Coastal Management under the Coastal Zone Management Act in conjunction with the NH Department of Environmental Services Coastal Program.

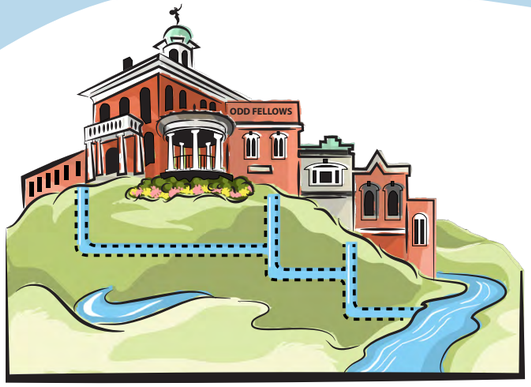
5 Exeter Water Trail

WATER,
YESTERDAY & TODAY

Water once flowed around the Lincoln Street Elementary School through a natural stream, but today water flows through pipes underground.

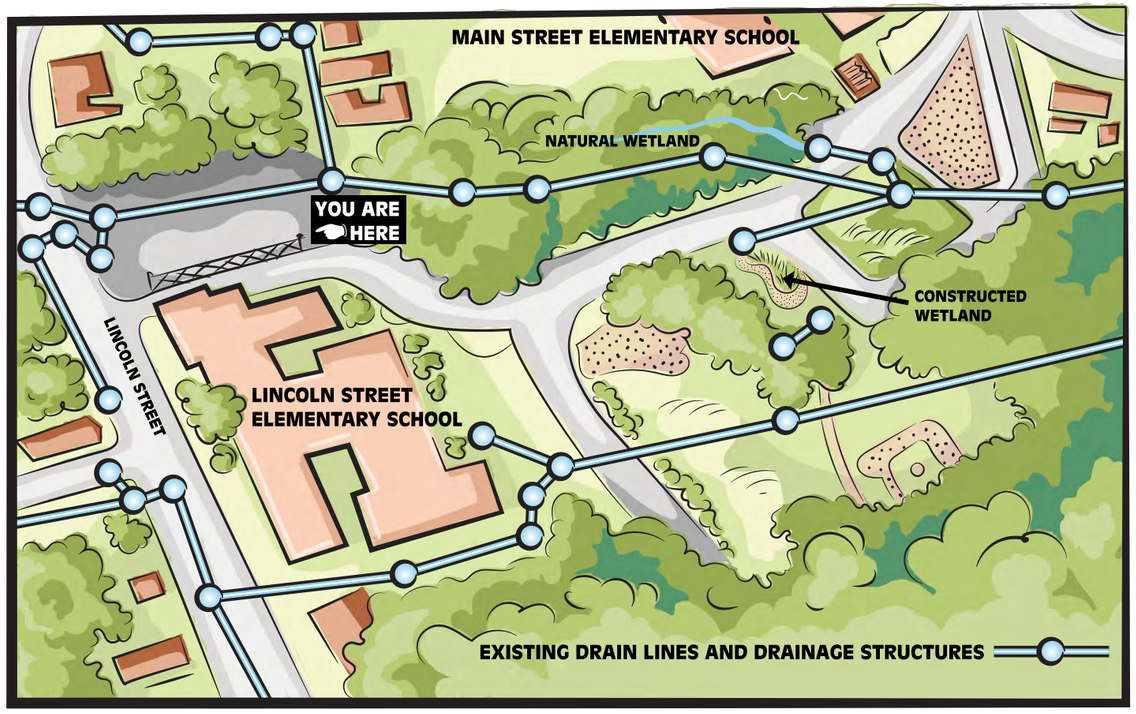
Water is everywhere — above ground, below ground, and in between!

Follow the Water Trail markings along the parking lot and through the woods to the Main Street Elementary School.



WHAT IS AN URBAN WATERSHED?

Some watersheds have natural landscapes like forests, meadows, and native plants and animals. Other watersheds are located in places where many people live and the land is developed with roads and buildings. These developed or "urban" watersheds have some, but not many, natural places where water flows over the land. In urban watersheds, much of the water is collected and piped underground for long distances until it flows into a river or the ocean.

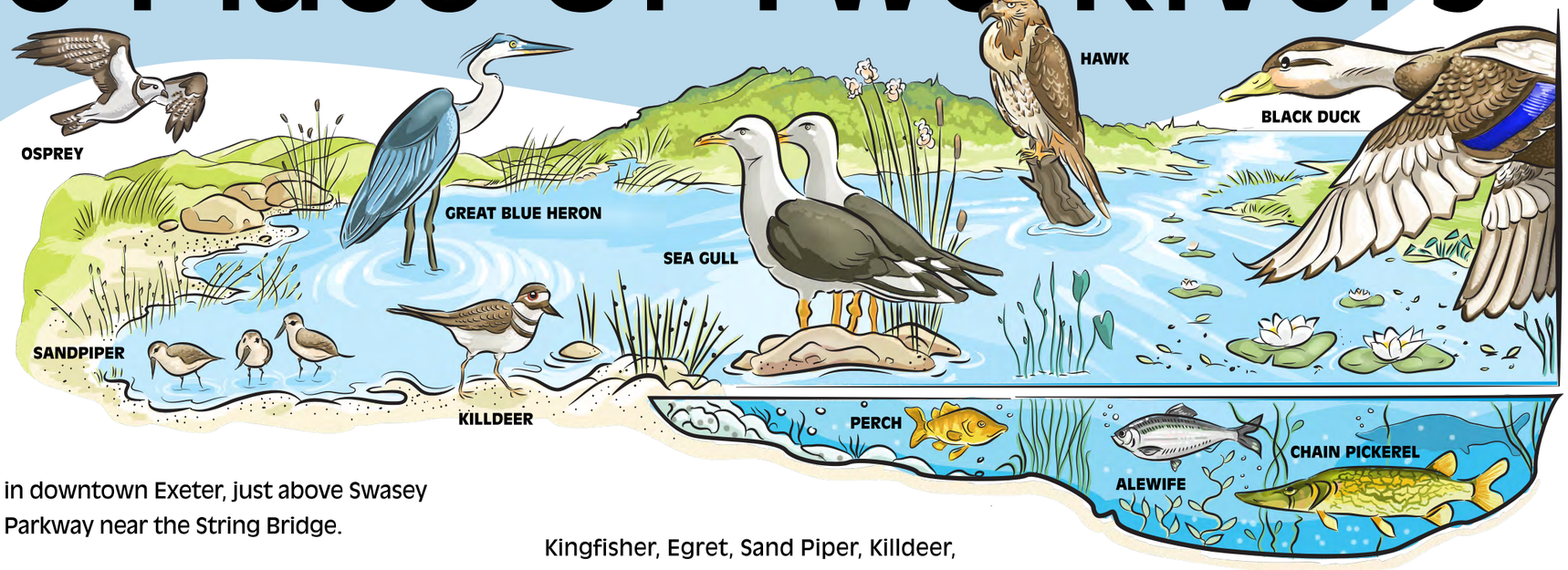


WHAT IS BURIED BELOW THIS PARKING LOT AND THE PLAYING FIELDS?

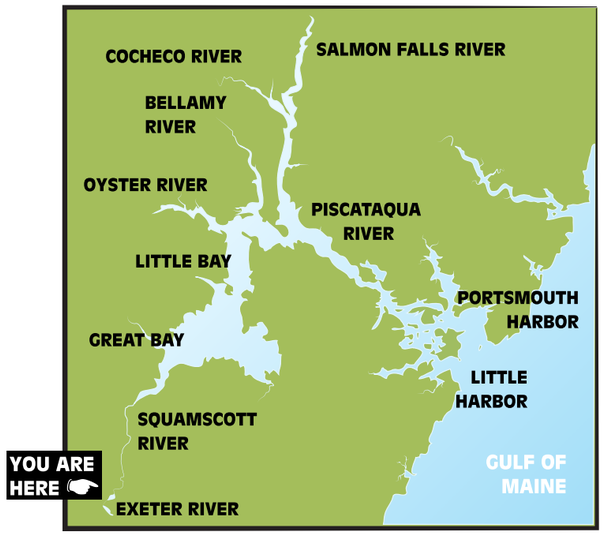
Water from the upper parts of the Lincoln Street watershed flows underground in pipes below Lincoln Street, then it continues under the parking lot and below the playing fields at the Lincoln Street Elementary School. One pipe reaches the land surface to allow water to flow into a wetland for a short distance before entering an underground pipe at the Main Street Elementary School.

This project was funded, in part, by NOAA's Office of Coastal Management under the Coastal Zone Management Act in conjunction with the NH Department of Environmental Services Coastal Program.

The Place Of Two Rivers



THE EXETER-SQUAMSCOTT RIVER



The Exeter River is a 128-square mile (81,726 acre) freshwater watershed which drains all, or portions of, 12 towns in the seacoast area of New Hampshire. The Squamscott River is a tidal tributary of the Great Bay Estuary which drains to the Atlantic Ocean. The Exeter River and the Squamscott River meet in downtown Exeter, just above Swasey Parkway near the String Bridge.

WHAT TYPES OF FISH AND WATERFOWL LIVE HERE?

In 2016, the Great Dam on the Exeter River was removed, restoring 21 miles of habitat for anadromous fish, which are fish that live in salt water but travel each year up the Exeter River to spawn. Species of anadromous fish include Alewife and Blueback Herring. The Exeter-Squamscott River provides habitat for over 17 fish species including Brook Trout, Small and Large Mouth Bass, Yellow Perch, Smelt, and Chain Pickerel.

A variety of shorebirds feed on animals and fish that live in the saltmarshes including the Mallard Duck, Black Duck, Blue-Wing Teal Duck, Green-Wing Teal Duck, Osprey, Bald Eagle, Great Blue Heron, Kingfisher, Egret, Sand Piper, Killdeer, Cormorant, and many kinds of hawks, owls, and seagulls.

WHAT IS THE IMPORTANCE OF A TIDAL SALTMARSH?

Saltmarsh is abundant along the shores of the Squamscott River. Flooded by the tidal waters of the Great Bay Estuary, it is a complex ecosystem containing a variety of plants and animals. A saltmarsh has low marsh grass which is submerged at high tide, and high marsh grass along its upper fringe. Saltmarsh plays an important role in protecting roads, buildings and homes by storing tidal floodwater during highest annual tides and during storm events. However, because of its proximity to development, saltmarsh is threatened by pollution running off of the land.

WHAT IS SEA-LEVEL RISE AND HOW MAY IT EFFECT THE RIVERS AND THE ESTUARY?

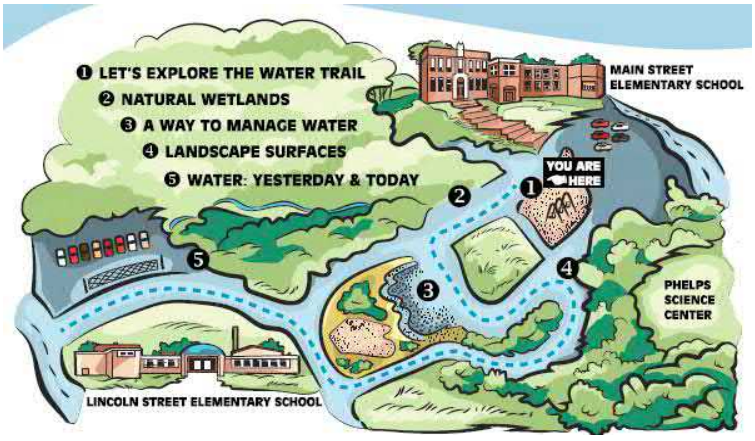
Sea levels adjust locally and globally to changes in the Earth's environment. Sea-level rise is caused by several factors, including the melting of glaciers and sea ice, and an increase of ocean temperatures. Research in N.H. reports that sea levels may rise up to several feet, or more, by 2100 and projections range from a low of 1.7 feet to a high of 6.6 feet. In a natural environment, saltmarsh is able to move inland with rising sea levels, but in a "built" environment where obstacles such as roads and buildings prevent this process from happening, an increase in sea level could transform saltmarsh into mudflats or open water.

This project was funded, in part, by NOAA's Office of Coastal Management under the Coastal Zone Management Act in conjunction with the NH Department of Environmental Services Coastal Program.

Exeter Water Trail

Explore the Exeter Water Trail

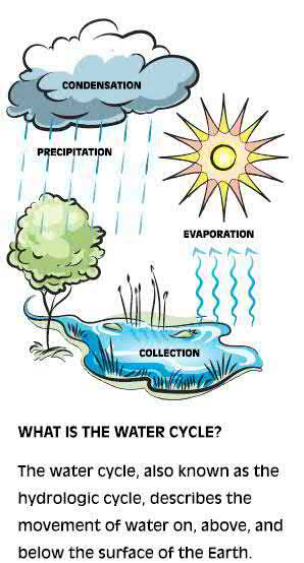
The Exeter Water Trail is an educational installation on the campuses of the Main Street and Lincoln Street Elementary Schools. The Trail consists of a series of five signs located at various landscape features that illustrate concepts relating to water. Topics such as stormwater runoff, water quality, flooding, watersheds and the water cycle are displayed in brightly colored graphic images and narrative explanations.



Learn about water! It's everywhere – above ground and below ground!

Water Trail Activity Sheet

Use the interactive Water Trail Activity Sheet to discover answers to these questions:



What is the water cycle?

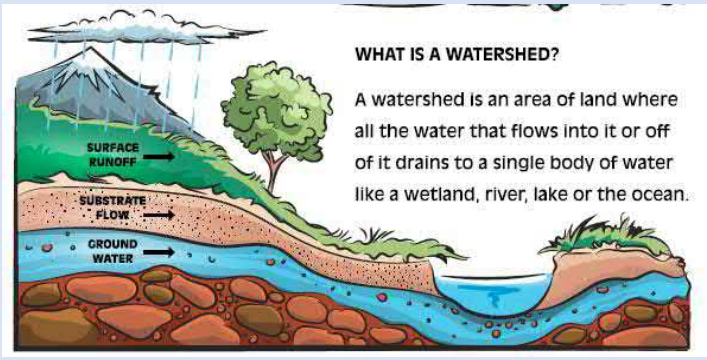
What is a watershed?

Why are wetlands important?

What is an urban watershed?

What is a "man-made" wetland?

How is stormwater managed above and below the ground?



What is stormwater?

Why do we need to manage stormwater?

What is porous pavement?

Download a printable copy of the Water Trail Flyer and Map here
www.rpc-nh.org/regional-community-planning/climate-change/exeter-resilience

The Exeter Water Trail is open to the public during non-school hours and weekends.

Support for this project was provided by the National Oceanic and Atmospheric Administration Office for Coastal Management pursuant to the Coastal Zone Management Act of 1972 in conjunction with the NH Department of Environmental Services Coastal Program.

WATER TRAIL MAP

Main Street Elementary Schools and Lincoln Street Elementary School

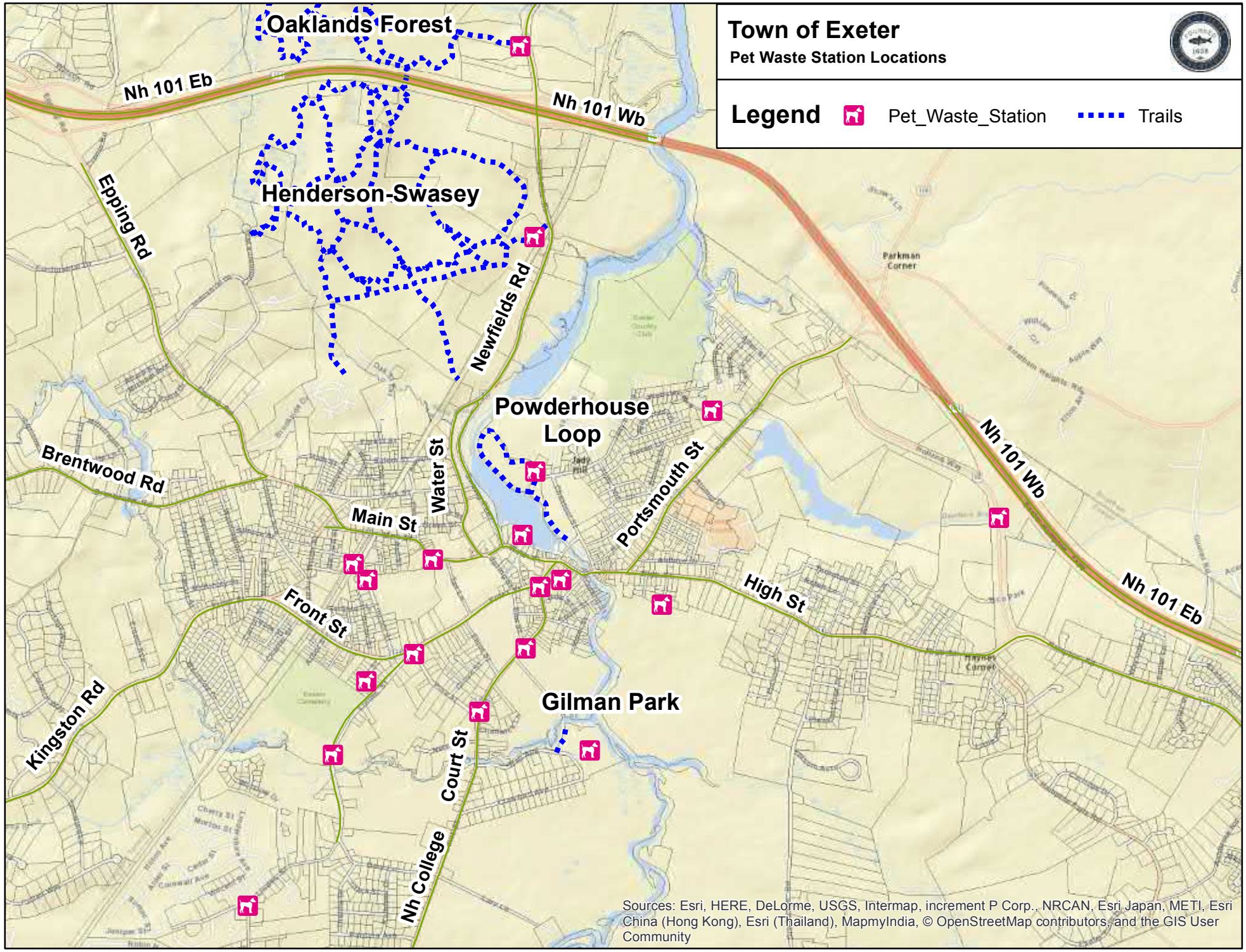
Follow the ***rain drop markings*** on the pavement and the ***way finding markers*** along the Nature Trail to view the 5 Water Trail signs.

Explore the Water Trail signs to find out how water works in 5 different ways on the landscape!

1. Watershed and Water Cycle
2. Natural Wooded Wetland
3. Constructed Gravel Wetland
4. Porous Pavement
5. Underground Stormwater Systems

Attachment 6

Pet Waste Station Location Map


Town of Exeter
Pet Waste Station Locations
Legend
Pet_Waste_Station
Trails
Oaklands Forest
Henderson-Swasey
Powderhouse Loop
Gilman Park
Nh 101 Eb
Nh 101 Wb
Epping Rd
Newfields Rd
Brentwood Rd
Water St
Main St
Portsmouth St
Front St
High St
Kingston Rd
Court St
Nh College
Parkman Corner
Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

Attachment 7

2019 VRAP Data

NHDES-W-07-023

2019 Field Data Sheet
NH Volunteer River Assessment Program

RSA487:38 VRAP Group: EXETER Date: 7 / 11 / 2019 Start Time: 0853

Volunteer Monitors *(First & Last Name)*: Kristen Murphy Deborah Twombly Kelly Warner

Time Dissolved Oxygen Meter Turned On: 0832

Time of 1st Dissolved Oxygen Calibration: 0920

Initial 1.0 NTU Turbidity Meter Check Value (+/- 0.25NTU): 0.95

Initial Conductivity Meter Check Value (2,000 std: 1,600–2,400 µS): 1827

NHDES Station ID	Station Name Or Description	Time Sampled (HHMM)	Turbidity (NTU)	pH Calibration Slope (95-105%)	pH (Units)	Dissolved Oxygen (Calibration Value)	Dissolved Oxygen (% saturation chamber reading)	Water Temp (ºC)	Dissolved Oxygen (% Sat)	Dissolved Oxygen (mg/L)	Specific Conductance (µS)
05LTE	Garrison	0853	4.61	/	/	100.3	100.3	22.4	79.7	6.92	264.6
02LTE	Linden	0940	8.33	/	/	100.4	100.4	22.8	63.8	5.53	283.8
00LTE	Gilman St	1004	13.4	/	/	100.4	100.4	23.3	72.6	6.13	292.4
REPLICATE (REQUIRED DAILY)											
02LTE	Linden	09:50	7.86	/	/	100.5	100.5	23.3	63.2	5.39	289.7

QA/QC METER CHECK: Station: _____ Time: 10:12

6.0 pH Check(5.7 – 6.3): / Turbidity Blank(0.0NTU) Check: 0.01

END OF DAY METER CHECK

Conductivity (2,000 µS std.): 1790 Turbidity (1.0 std.): 0.97

Please complete backside...

Weather: ☐ Clear ☒ Cloudy w/o Rain ☐ Intermittent Rain ☐ Cloudy w/Rain ☐ Snow ☐ Snow-melt

Wind: ☒ Calm ☐ Breeze ☐ Wind **Rain Past 3 Days?** ☐ Yes ☒ No ☐ Unknown

Air Temperature (ºF): ☐ Below 30 ☐ 30s ☐ 40s ☐ 50s ☒ 60s ~~☐ 70s~~ ☒ 80s ☐ 90s ☐ Above 90s
over sample period

Water Level: ☐ Dry ☐ Very Low ☒ Below Average ☐ Average ☐ Above Average ☐ High

Comments: (ie: swimmers, water color, algae, etc.) Please indicate NHDES Station ID.

00 LTE High ~~turbidity~~ calibration check 0.97
52 LTE Turtle swam passed by pail and may have increased ~~turbidity~~

pH Meter not working. Code Ur.

Laboratory Samples: *(Please check parameters taken (if any) at each station. If the same parameter was taken at each location indicate 'all' in the station ID)*

Lab where the samples were relinquished to? ☐ **NHDES** ☐ PSU ☐ UNH ☐ Other:_____

Station ID	# of Bottles	Parameter 1	Parameter 2	Parameter 3	Parameter 4	Parameter 5
		Chloride	E.coli	Total Phosphorous (TP)	Other:	Other:

OFFICE USE ONLY:

Activity Date: _____

Date Entered: _____ By: _____

Date Proofed: _____ By: _____

Date QA/QC: _____ By: _____

End of Day Checklist: *(Check if Completed)*

All Meters:
Dry and powered off _____
Turbidity:
Rinse sample vial and fill with DI water _____
pH:
Rinse probe with DI water and blot dry _____
Return probe to storage solution _____
Dissolved Oxygen:
Rinse probe with DI water _____
Return probe in chamber w/ wet sponge _____
Specific Conductance:
Rinse probe with DI water _____
Return probe to chamber _____
Equipment Kit:
Remove used Kimwipes _____
Clean off dirt, dust and moisture _____

Please return data sheets to:

Ted Walsh
NH Volunteer River Assessment Program
29 Hazen Drive – PO Box 95
Concord, NH 03302-0095
p - (603) 271-2083 f – (603) 271-7894
ted.walsh@des.nh.gov

Use free **CamScanner** app on IPhone/Android to send in data sheets.

NHDES-W-07-023

2019 Field Data Sheet
NH Volunteer River Assessment Program

RSA487:38 VRAP Group: Exeter Date: 6 /28/ 2019 Start Time: 0839

Volunteer Monitors *(First & Last Name)*: Kristen Murphy Lisa Dolloff Don Clement

Time Dissolved Oxygen Meter Turned On: 0825

Time of 1st Dissolved Oxygen Calibration: 0847

Initial 1.0 NTU Turbidity Meter Check Value (+/- 0.25NTU): 0.98

Initial Conductivity Meter Check Value (2,000 std: 1,600–2,400 µS) : 1873

NHDES Station ID	Station Name Or Description	Time Sampled (HHMM)	Turbidity (NTU)	pH Calibration Slope (95-105%)	pH (Units)	Dissolved Oxygen (Calibration Value)	Dissolved Oxygen (% saturation chamber reading)	Water Temp (ºC)	Dissolved Oxygen (% Sat)	Dissolved Oxygen (mg/L)	Specific Conductance (µS)
05LTE	Garrison	0844	5.52	99.8	6.81	100.9	100.9	20.6	78.6	7.06	242.8
02LTE	Linden	0916	9.50	100.5	6.73	101.0	101.0	21.7	68.0	6.05	249.0
00LTE	GILMAN	0951	~~15.~~ 14.3	100.0	6.82	101.0	101.0	21.3	75.5	6.69	254.3

REPLICATE (REQUIRED DAILY)

02LTE	Linden	0929	9.04	100.3	6.83	101.1	101.1	21.3	70.0	6.19	251.2

QA/QC METER CHECK : Station: 02LTE Time: 9:41

6.0 pH Check(5.7 – 6.3): 6.03 Turbidity Blank(0.0NTU) Check: 0.00

END OF DAY METER CHECK

Conductivity (2,000 µS std.): 1767 Turbidity (1.0 std.): 0.93

Please complete backside...

Weather: ☒ Clear ☐ Cloudy w/o Rain ☐ Intermittent Rain ☐ Cloudy w/Rain ☐ Snow ☐ Snow-melt

Wind: ☒ Calm ☐ Breeze ☐ Wind **Rain Past 3 Days?** ☒ Yes ☐ No ☐ Unknown

Air Temperature (ºF): ☐ Below 30 ☐ 30s ☐ 40s ☐ 50s ☐ 60s ☒ 70s ☐ 80s ☐ 90s ☐ Above 90s

Water Level: ☐ Dry ☐ Very Low ☒ Below Average ☐ Average ☐ Above Average ☐ High

Comments: (ie: swimmers, water color, algae, etc.) Please indicate NHDES Station ID.

OOLTE - RECHECKED TURBIDITY WITH 1.0 STANDARD AFTER HIGH READING + IT WAS CORRECT

Laboratory Samples: *(Please check parameters taken (if any) at each station. If the same parameter was taken at each location indicate 'all' in the station ID)*

Lab where the samples were relinquished to? ☐ **NHDES** ☐ PSU ☐ UNH ☐ Other:_____

Station ID	# of Bottles	Parameter 1	Parameter 2	Parameter 3	Parameter 4	Parameter 5
		Chloride	E.coli	Total Phosphorous (TP)	Other:	Other:

OFFICE USE ONLY:

Activity Date: _____

Date Entered: _____ By: _____

Date Proofed: _____ By: _____

Date QA/QC: _____ By: _____

End of Day Checklist: *(Check if Completed)*

All Meters:
Dry and powered off ✓

Turbidity:
Rinse sample vial and fill with DI water ✓

pH:
Rinse probe with DI water and blot dry ✓
Return probe to storage solution ✓

Dissolved Oxygen:
Rinse probe with DI water ✓
Return probe in chamber w/ wet sponge ✓

Specific Conductance:
Rinse probe with DI water ✓
Return probe to chamber ✓

Equipment Kit:
Remove used Kimwipes ✓
Clean off dirt, dust and moisture ✓

Please return data sheets to:
Ted Walsh
NH Volunteer River Assessment Program
29 Hazen Drive – PO Box 95
Concord, NH 03302-0095
p - (603) 271-2083 f – (603) 271-7894
ted.walsh@des.nh.gov

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NHDES-W-07-023

2019 Field Data Sheet
NH Volunteer River Assessment Program

RSA487:38 VRAP Group: Exeter Date: 6 / 27 / 2019 Start Time: 0929

Volunteer Monitors *(First & Last Name)*: Kristen Murphy

Time Dissolved Oxygen Meter Turned On: 919

Time of 1st Dissolved Oxygen Calibration: 0938

Initial 1.0 NTU Turbidity Meter Check Value (+/- 0.25NTU): 0.98

Initial Conductivity Meter Check Value (2,000 std: 1,600–2,400 µS): 1850

NHDES Station ID	Station Name Or Description	Time Sampled (HHMM)	Turbidity (NTU)	pH Calibration Slope (95-105%)	pH (Units)	Dissolved Oxygen (Calibration Value)	Dissolved Oxygen (% saturation chamber reading)	Water Temp (ºC)	Dissolved Oxygen (% Sat)	Dissolved Oxygen (mg/L)	Specific Conductance (µS)
14EXT	Pickpocket	0933	4.32	100.3	6.36	100.8	100.7	21.0	91.9	8.19	196.0
13Ext	111 Bridge	0955	3.87	98.7	6.50	100.8	100.8	20.6	89.4	7.99	194.5
12A Ext	Linden	10:10	4.68	~~100.9~~ 100.2 KM	6.82	100.9	100.9	20.4	83.6	7.56	199.7
12 Ext	Court	1033	4.68	100.2	6.84	100.9	100.9	20.4	81.7	7.37	196.1
09 Ext	High St	10:57	5.75	99.1	6.79	100.9	100.9	21.1	82.1	7.30	205.4
REPLICATE (REQUIRED DAILY)											
12AExt	~~DK~~ Linden	10:18	4.54	101.4	6.56	100.9	100.9	20.4	85.9	7.77	199.6

QA/QC METER CHECK : Station: 12AEXT Time: 1023

6.0 pH Check(5.7 – 6.3): 6.03 Turbidity Blank(0.0NTU) Check: 0.00

END OF DAY METER CHECK

Conductivity (2,000 µS std.): 1803 Turbidity (1.0 std.): 0.95

Please complete backside...

Weather: ☐ Clear ☒ Cloudy w/o Rain ☐ Intermittent Rain ☐ Cloudy w/Rain ☐ Snow ☐ Snow-melt

Wind: ☒ Calm ☐ Breeze ☐ Wind **Rain Past 3 Days?** ☒ Yes ☐ No ☐ Unknown

Air Temperature (ºF): ☐ Below 30 ☐ 30s ☐ 40s ☐ 50s ☒ 60s ☐ 70s ☐ 80s ☐ 90s ☐ Above 90s

Water Level: ☐ Dry ☐ Very Low ☐ Below Average ☐ Average ☒ Above Average ☐ High

Comments: (ie: swimmers, water color, algae, etc.) Please indicate NHDES Station ID.

Rain (heavy) last night

Laboratory Samples: *(Please check parameters taken (if any) at each station. If the same parameter was taken at each location indicate 'all' in the station ID)*

Lab where the samples were relinquished to? ☐ **NHDES** ☐ PSU ☐ UNH ☐ Other:_____

Station ID	# of Bottles	Parameter 1	Parameter 2	Parameter 3	Parameter 4	Parameter 5
		Chloride	E.coli	Total Phosphorous (TP)	Other:	Other:

OFFICE USE ONLY:

Activity Date: _____

Date Entered: _____ By: _____

Date Proofed: _____ By: _____

Date QA/QC: _____ By: _____

End of Day Checklist: *(Check if Completed)*

All Meters:
Dry and powered off _____
Turbidity:
Rinse sample vial and fill with DI water _____
pH:
Rinse probe with DI water and blot dry _____
Return probe to storage solution _____
Dissolved Oxygen:
Rinse probe with DI water _____
Return probe in chamber w/ wet sponge _____
Specific Conductance:
Rinse probe with DI water _____
Return probe to chamber _____
Equipment Kit:
Remove used Kimwipes _____
Clean off dirt, dust and moisture _____

Please return data sheets to:

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NHDES-W-07-023

2019 Field Data Sheet
NH Volunteer River Assessment Program

RSA487:38 VRAP Group: Exeter Date: 6 / 14 / 2019 Start Time: 0837

Volunteer Monitors *(First & Last Name)*: Kristen Murphy, Sue Morrissette

Time Dissolved Oxygen Meter Turned On: 0827
Time of 1st Dissolved Oxygen Calibration: 0845

Initial 1.0 NTU Turbidity Meter Check Value (+/- 0.25NTU): 0.95
Initial Conductivity Meter Check Value (2,000 std: 1,600–2,400 µS): 1841

NHDES Station ID	Station Name Or Description	Time Sampled (HHMM)	Turbidity (NTU)	pH Calibration Slope (95-105%)	pH (Units)	Dissolved Oxygen (Calibration Value)	Dissolved Oxygen (% saturation chamber reading)	Water Temp (ºC)	Dissolved Oxygen (% Sat)	Dissolved Oxygen (mg/L)	Specific Conductance (µS)
05LTE	Garrison	0837	3.41	100.6	6.76	99.6	99.6	15.2	86.0	8.61	216.4
02LTE	Linden	0911	4.96	100.6	6.63	99.6	99.6	16.9	82.6	8.00	214.1
00LTE	Gilman	0935	7.97	99.8	6.74	99.7	99.7	16.9	82.9	8.03	199.8
REPLICATE (REQUIRED DAILY)											
02LTE	Linden	0911	4.54	100.6	6.69	99.6	99.7	17.2	82.1	7.89	213.8

QA/QC METER CHECK: Station: 00LTE Time: 0948
6.0 pH Check(5.7 – 6.3): 6.05 Turbidity Blank(0.0NTU) Check: 0.01

END OF DAY METER CHECK
Conductivity (2,000 µS std.): 1794 Turbidity (1.0 std.): 0.95

Please complete backside...

Weather: ☐ Clear ☒ Cloudy w/o Rain ☐ Intermittent Rain ☐ Cloudy w/Rain ☐ Snow ☐ Snow-melt

Wind: ☒ Calm ☐ Breeze ☐ Wind **Rain Past 3 Days?** ☒ Yes ☐ No ☐ Unknown

Air Temperature (ºF): ☐ Below 30 ☐ 30s ☐ 40s ☐ 50s ☒ 60s ☐ 70s ☐ 80s ☐ 90s ☐ Above 90s

Water Level: ☐ Dry ☐ Very Low ☐ Below Average ☒ Average ☐ Above Average ☐ High

Comments: (ie: swimmers, water color, algae, etc.) Please indicate NHDES Station ID.

Laboratory Samples: *(Please check parameters taken (if any) at each station. If the same parameter was taken at each location indicate 'all' in the station ID)*

N/A

Lab where the samples were relinquished to? ☐ **NHDES** ☐ PSU ☐ UNH ☐ Other:_____

Station ID	# of Bottles	Parameter 1	Parameter 2	Parameter 3	Parameter 4	Parameter 5
		Chloride	E.coli	Total Phosphorous (TP)	Other:	Other:

OFFICE USE ONLY:

Activity Date: _____

Date Entered: _____ By: _____

Date Proofed: _____ By: _____

Date QA/QC: _____ By: _____

End of Day Checklist: *(Check if Completed)*

All Meters:
Dry and powered off ✓

Turbidity:
Rinse sample vial and fill with DI water ✓

pH:
Rinse probe with DI water and blot dry ✓
Return probe to storage solution ✓

Dissolved Oxygen:
Rinse probe with DI water ✓
Return probe in chamber w/ wet sponge ✓

Specific Conductance:
Rinse probe with DI water ✓
Return probe to chamber ✓

Equipment Kit:
Remove used Kimwipes ✓
Clean off dirt, dust and moisture ✓

Please return data sheets to:
Ted Walsh
NH Volunteer River Assessment Program
29 Hazen Drive – PO Box 95
Concord, NH 03302-0095
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ted.walsh@des.nh.gov

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NHDES-W-07-023

2019 Field Data Sheet
NH Volunteer River Assessment Program

RSA487:38 VRAP Group: Exeter Date: 5 / 31 / 2019 Start Time: 0904

Volunteer Monitors *(First & Last Name)*: Kristen Murphy Don Clement Sue Morrissette

Time Dissolved Oxygen Meter Turned On: 0837

Time of 1st Dissolved Oxygen Calibration: ~~08~~ 0904

Initial 1.0 NTU Turbidity Meter Check Value (+/- 0.25NTU): 0.96

Initial Conductivity Meter Check Value (2,000 std: 1,600–2,400 µS): 1892

NHDES Station ID	Station Name Or Description	Time Sampled (HHMM)	Turbidity (NTU)	pH Calibration Slope (95-105%)	pH (Units)	Dissolved Oxygen (Calibration Value)	Dissolved Oxygen (% saturation chamber reading)	Water Temp (ºC)	Dissolved Oxygen (% Sat)	Dissolved Oxygen (mg/L)	Specific Conductance (µS)
14EXT	PICKPOCKET	0904	1.71	100.7	6.76	95	99.2	16.3	99.3	9.74	208.6
13EXT	111 Bridge	0929	1.51	100.5	6.97	98.3	99.3	17.2	96.3	9.04	209.1
12AEXT	Linden St	0948	1.70	100.6	6.89	101.3	99.4	16.1	93.6	9.22	208.6
12EXT	Court St	0952	1.65	100.7	6.85	102.0	99.6	16.3	92.2	9.04	204.2
09EXT	High	1030	2.42	100.7	6.86	98.9	99.5	16.8	87.1	8.45	206.0
REPLICATE (REQUIRED DAILY)											
12AEXT	Linden St	0954	1.64	102.4	6.58	97.2	99.5	16.4	96.4	9.41	208.3

QA/QC METER CHECK : Station: 09 EXT Time: ~~10~~ 10:30

6.0 pH Check(5.7 – 6.3): 6.03 Turbidity Blank(0.0NTU) Check: 0.05

END OF DAY METER CHECK

Conductivity (2,000 µS std.): 1784 Turbidity (1.0 std.): 0.99

Please complete backside...

Weather: ☐ Clear ☐ Cloudy w/o Rain ☐ Intermittent Rain ☐ Cloudy w/Rain ☐ Snow ☐ Snow-melt

Wind: ☐ Calm ☐ Breeze ☐ Wind **Rain Past 3 Days?** ☐ Yes ☐ No ☐ Unknown

Air Temperature (ºF): ☐ Below 30 ☐ 30s ☐ 40s ☐ 50s ☐ 60s ☐ 70s ☐ 80s ☐ 90s ☐ Above 90s

Water Level: ☐ Dry ☐ Very Low ☐ Below Average ☐ Average ☐ Above Average ☐ High

Comments: (ie: swimmers, water color, algae, etc.) Please indicate NHDES Station ID.

Laboratory Samples: *(Please check parameters taken (if any) at each station. If the same parameter was taken at each location indicate 'all' in the station ID)*

Lab where the samples were relinquished to? ☐ **NHDES** ☐ PSU ☐ UNH ☐ Other:_____

Station ID	# of Bottles	Parameter 1	Parameter 2	Parameter 3	Parameter 4	Parameter 5
		Chloride	E.coli	Total Phosphorous (TP)	Other:	Other:

OFFICE USE ONLY:

Activity Date: _____

Date Entered: _____ By: _____

Date Proofed: _____ By: _____

Date QA/QC: _____ By: _____

End of Day Checklist: *(Check if Completed)*

All Meters:
Dry and powered off ✓

Turbidity:
Rinse sample vial and fill with DI water ✓

pH:
Rinse probe with DI water and blot dry ✓
Return probe to storage solution ✓

Dissolved Oxygen:
Rinse probe with DI water ✓
Return probe in chamber w/ wet sponge ✓

Specific Conductance:
Rinse probe with DI water ✓
Return probe to chamber

Equipment Kit:
Remove used Kimwipes ✓
Clean off dirt, dust and moisture ✓

Please return data sheets to:
Ted Walsh
NH Volunteer River Assessment Program
29 Hazen Drive – PO Box 95
Concord, NH 03302-0095
p - (603) 271-2083 f – (603) 271-7894
ted.walsh@des.nh.gov

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NHDES-W-07-023

2019 Field Data Sheet
NH Volunteer River Assessment Program

RSA487:38 VRAP Group: Exeter Date: 8 / 30 / 2019 Start Time: 0851

Volunteer Monitors *(First & Last Name)*: Kristen Murphy Marilyn Unger

Time Dissolved Oxygen Meter Turned On: 0831

Time of 1st Dissolved Oxygen Calibration: 0854

Initial 1.0 NTU Turbidity Meter Check Value (+/- 0.25NTU): 0.95

Initial Conductivity Meter Check Value (2,000 std: 1,600–2,400 µS): * See Note

NHDES Station ID	Station Name Or Description	Time Sampled (HHMM)	Turbidity (NTU)	pH Calibration Slope (95-105%)	pH (Units)	Dissolved Oxygen (Calibration Value)	Dissolved Oxygen (% saturation chamber reading)	Water Temp (ºC)	Dissolved Oxygen (% Sat)	Dissolved Oxygen (mg/L)	Specific Conductance (µS)
14Ext	Pickpocket	0854	2.96	98.7	6.62	97.1	100.2	20.1	91.2	8.39	225.3
13Ext	111 Bridge	0912	2.40	99.2	6.51	101.4	100.2	20.2	91.9	8.32	225.9
12AExt	Linden St	0928	3.01	100.0	6.50	100.0	100.3	19.9	85.9	7.83	225.9
12Ext	Court St	0947	2.58	99.7	6.51	102.2	100.3	20.0	83.0	7.55	226.0
09Ext	High St	1010	4.05	100.2	6.45	100.3	100.3	20.3	81.1	7.33	222.4
REPLICATE (REQUIRED DAILY)											
12A Ext	Linden	933	2.49	100.4	6.57	100.5	100.3	20.0	86.2	7.87	225.4

QA/QC METER CHECK : Station: 12Ext Time: 0951

6.0 pH Check(5.7 – 6.3): 6.02 Turbidity Blank(0.0NTU) Check: 0.00

END OF DAY METER CHECK

Conductivity (2,000 µS std.): * See Note Turbidity (1.0 std.): 1.01

Please complete backside...

Weather: ☒ Clear ☐ Cloudy w/o Rain ☐ Intermittent Rain ☐ Cloudy w/Rain ☐ Snow ☐ Snow-melt

Wind: ☐ Calm ☒ Breeze ☐ Wind **Rain Past 3 Days?** ☒ Yes ☐ No ☐ Unknown

Air Temperature (ºF): ☐ Below 30 ☐ 30s ☐ 40s ☐ 50s ☐ 60s ☒ 70s ☐ 80s ☐ 90s ☐ Above 90s

Water Level: ☐ Dry ☐ Very Low ☐ Below Average ☒ Average ☐ Above Average ☐ High

Comments: (ie: swimmers, water color, algae, etc.) Please indicate NHDES Station ID.

* We ran out of 2000uS for conductivity so we could not do the beginning/end of day meter checks.

Laboratory Samples: *(Please check parameters taken (if any) at each station. If the same parameter was taken at each location indicate 'all' in the station ID)*

Lab where the samples were relinquished to? ☐ **NHDES** ☐ PSU ☐ UNH ☐ Other:_____

Station ID	# of Bottles	Parameter 1	Parameter 2	Parameter 3	Parameter 4	Parameter 5
		Chloride	E.coli	Total Phosphorous (TP)	Other:	Other:

OFFICE USE ONLY:

Activity Date: _____

Date Entered: _____ By: _____

Date Proofed: _____ By: _____

Date QA/QC: _____ By: _____

End of Day Checklist: *(Check if Completed)*

All Meters:
Dry and powered off ✓

Turbidity:
Rinse sample vial and fill with DI water ✓

pH:
Rinse probe with DI water and blot dry ✓
Return probe to storage solution ✓

Dissolved Oxygen:
Rinse probe with DI water ✓
Return probe in chamber w/ wet sponge ✓

Specific Conductance:
Rinse probe with DI water
Return probe to chamber

Equipment Kit:
Remove used Kimwipes ✓
Clean off dirt, dust and moisture ✓

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NHDES-W-07-023

2019 Field Data Sheet
NH Volunteer River Assessment Program

RSA487:38 VRAP Group: Exeter Date: 8 / 29 / 2019 Start Time: 0927

Volunteer Monitors *(First & Last Name)*: Kristen Murphy Lisa Dalloff

Time Dissolved Oxygen Meter Turned On: 09:35
Time of 1st Dissolved Oxygen Calibration: 0956

Initial 1.0 NTU Turbidity Meter Check Value (+/- 0.25NTU): 0.96
Initial Conductivity Meter Check Value (2,000 std: 1,600–2,400 µS): 1868

NHDES Station ID	Station Name Or Description	Time Sampled (HHMM)	Turbidity (NTU)	pH Calibration Slope (95-105%)	pH (Units)	Dissolved Oxygen (Calibration Value)	Dissolved Oxygen (% saturation chamber reading)	Water Temp (ºC)	Dissolved Oxygen (% Sat)	Dissolved Oxygen (mg/L)	Specific Conductance (µS)
05LTE	Garrison	0947	4.14	100.3%	6.63	100.2	99.8	19.2	87.3%	8.06	266.7
02LTE	Linden	1014	5.91	99.1%	6.25	100.3	99.9	19.4	59.4%	5.46	215.2
00LTE	Gilman	10:32	8.84	99.6	6.10	100.2	99.9	19.4	64.0	6.06	204.8
REPLICATE (REQUIRED DAILY)											
02LTE	LINDEN	1019	5.76	99.7%	6.31	100.1	99.9	19.6	59.4%	5.42	208.8

QA/QC METER CHECK: Station: 00LTE Time: 10:34
6.0 pH Check(5.7 – 6.3): 5.99 Turbidity Blank(0.0NTU) Check: 0.00

END OF DAY METER CHECK
Conductivity (2,000 µS std.): 17.97 Turbidity (1.0 std.): 0.94

Please complete backside...

Weather: ☒ Clear ☐ Cloudy w/o Rain ☐ Intermittent Rain ☐ Cloudy w/Rain ☐ Snow ☐ Snow-melt

Wind: ☐ Calm ☒ Breeze ☐ Wind **Rain Past 3 Days?** ☒ Yes ☐ No ☐ Unknown

Air Temperature (ºF): ☐ Below 30 ☐ 30s ☐ 40s ☐ 50s ☐ 60s ☒ 70s ☐ 80s ☐ 90s ☐ Above 90s

Water Level: ☐ Dry ☐ Very Low ☐ Below Average ☒ Average ☐ Above Average ☐ High

Comments: (ie: swimmers, water color, algae, etc.) Please indicate NHDES Station ID.

Laboratory Samples: *(Please check parameters taken (if any) at each station. If the same parameter was taken at each location indicate 'all' in the station ID)*

Lab where the samples were relinquished to? ☐ **NHDES** ☐ PSU ☐ UNH ☐ Other:_____

Station ID	# of Bottles	Parameter 1	Parameter 2	Parameter 3	Parameter 4	Parameter 5
		Chloride	E.coli	Total Phosphorous (TP)	Other:	Other:

OFFICE USE ONLY:

Activity Date: _____

Date Entered: _____ By: _____

Date Proofed: _____ By: _____

Date QA/QC: _____ By: _____

End of Day Checklist: *(Check if Completed)*

All Meters:
Dry and powered off X

Turbidity:
Rinse sample vial and fill with DI water X

pH:
Rinse probe with DI water and blot dry X
Return probe to storage solution X

Dissolved Oxygen:
Rinse probe with DI water X
Return probe in chamber w/ wet sponge X

Specific Conductance:
Rinse probe with DI water X
Return probe to chamber X

Equipment Kit:
Remove used Kimwipes X
Clean off dirt, dust and moisture X

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