MS4 General Permit
Town of North Branford 2023 Annual Report
Existing MS4 Permittee
Permit Number GSM 000072
January 1, 2023 – December 31, 2023
Primary MS4 Contact: Victor Benni, P.E., Town Engineer,
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This report documents the Town of North Branford's efforts to comply with the conditions of the MS4 General Permit to the maximum extent practicable (MEP) from January 1, 2023 to December 31, 2023.

Part I: Summary of Minimum Control Measure Activities

1. Public Education and Outreach (Section 6 (a)(1) / page 19)

1.1 BMP Summary

BMP	Activities in current reporting period	Sources Used (if applicable)	Method of Distribution	Audience (and number of people reached)	Measurable Goal	Department / Person Responsible	Additional details
1-1 Implement public education and outreach	Met with lead departments	NEMO & CT DEEP	Town Website	Town Staff / 12	Raise Awareness	Town Engineer	Link to NEMO and CT DEEP MS4 websites on Town webpage
1-2 Address education/ outreach for pollutants of concern	Farm River Watershed Management Plan committee	CT Southwest Conservation District (SWCD)	CT Conservation Districts Website	Various industry professionals & General Public / 100	Raise Awareness, Reduce Polluted Stormwater, Implement BMPS	CT SWCD / Chris Sullivan	Farm River Watershed Management Plan available on CT SWCD website; Farm River Watershed Fact Sheet available at Town Hall Land Use Department: https://conservect.org/southwest/watersheds/

1-3 Brochures & Flyers	Provide information: impact of impervious cover, septic systems & fertilizer use	EPA, CT DEEP, & NEMO	Town Hall & Town Website	Town Residents & Local Developers	Raise Awareness	Planning & Engineering Departments	Available for review and copies at Town Hall Land Use Department. Online resource locations available.
1-4 River Smart CT	Think Green, Stay Blue: Clean Water Starts with You! Take the River Smart Pledge!	CT DEEP and Co-op members	Online	Unlimited	Reduce Runoff and encourage LID and BMP's	River Smart Co-op	www.riversmartct.org Resources include a variety of LID's and BMP's
1-5 Town of No.Branofrd Wetlands Agency	Property Owner's Guide – Importance of Wetlands	Town & Sate Wetlands Regulations	Online, Wetlands Agency Meeting	Unlimited	Reduce Runoff, use water wisely	North Branford Wetlands Agent	Brochure available at Town Hall Land Use Department & online at Town Website: Microsoft Word - IWWA Property Owner Guide V Final.docx (northbranfordct.gov)
1-6 Water Quality Factsheet	Water Quality Data – North Branford	CT DEEP	CT DEEP Municipal Stormwater Website	Unlimited	Water Quality, Imp ervious Cover, Pollutants	CT DEEP	Town of North Branford Water Quality and Stormwater Summary prepared by CT DEEP and available for review at: https://portal.ct.gov/DEEP/Water-Regulating-and-Discharges/Stormwater/Municipal-Stormwater
1-7 Brochure – Streamside Buffers	Importance of Streamside Buffers	Rivers Alliance of Connecticut	Town Hall & Online	Unlimited	Stream Pollution, Buffers, Water Quality	Town Planner & Rivers Alliance	Brochure available at Town Hall Land Use Department; online: https://riversalliance.org/wp-content/uploads/2023/03/ImportanceOfStreamsideBuffers.pdf
1-8 Recycing News	Storm Drians, Haz Waste, Leaf Collection, Plastic Film	The Totoket Times	Online, local newspaper	Unlimited	Reduce Pollution	Totoket Times and Hazardous Waste & Recycling Committee	www.TotketTimes.com This information also available on the Town Website under the Hazardous Waste & Recycling Resources: Hazardous Waste & Recycling Committee | North Branford Town, CT (civicplus.com)
1-9 Water Quality Report	Annual Report on Water Quality	Regional Water Authority	Mailed to Consumers & Online	Unlimited	Sustainability, Water Cycle, Pollution Prevention	Regional Water Authority	2022 Report delivered to Consumers in 2023: https://www.rwater.com/water-quality/water-quality-reports/
1-10 Press Release		North Branford Land Trust	Regional Newspaper & Online	Local Towns & Online	Pollution, Impervious Cover	North Branford Land Trust	Available in print via The Sound and online at www.Zip06.com

1.2 Describe any Public Education and Outreach activities planned for the next year, if applicable.

Continued participation with SCRCOG committee in implementing the Hazard Mitigation Plan. Continued participation in the Farm River Estuary Comiittee in consideration of BMP/LID projects in North Branford. Review Land Use Department and town website for MS4 content and consider updating and/or adding MS4 related content.

2. Public Involvement/Participation (Section 6(a)(2) / page 21)

2.1 BMP Summary

BMP	Status (Complete, Ongoing, In Progress, or Not started)	Activities in current reporting period	Measurable Goal	Department / Person Responsible	Date completed or projected completion date (include the start date for anything that is 'in progress')	Location Posted	Additional details
2-1 Final Stormwater Management Plan publicly available	Complete & Ongoing	Posted notice on Town website, provided info to libraries, provided press release	Posted notice and provided press release	Town Engineer	April 3, 2018	Libraries, Engineering Department, Town Website	Edward Smith & Atwater Libraries
	2017-North-Branford-Stormwater-Management-Plan-PDF (northbranfordct.gov)				Engineering Department | North Branford Town, CT (northbranfordct.gov)		
2-2 Comply with public notice requirements for Annual Reports (annually by 2/15)	Complete	Posted notice on Town website, provided info to libraries	Post notice on website	Town Engineer	February 15, 2024	Engineering Dept / Engineering Dept Website	Engineering Dept, 909 Foxon Road
					Engineering Department | North Branford Town, CT (northbranfordct.gov)		
2-3 Formalize a Stormwater Review Group	In progress	Identified Group members as Town Engineer, Town Planner, Assistant Public Works Director	Provide forum to coordinate SWMP implementation across depts. and commissions	Inland Wetlands / Town Planner	Summer 2018	Town Website / Wetlands Agency Meeting Minutes	The Group will represent town departments & commissions with stake in stormwater mgmt.
2-4 Farm River Cleanup	Complete	River Cleanup	Raise Awareness / Pollution Prevention	Farm River Coallition	June 17, 2023	Group Email	

2.2 Describe any Public Involvement/Participation activities planned for the next year, if applicable.

Hold quarterly Stormwater Review Group meetings to review SMP implementation progress.
Participate in pertinent gatherings with the Farm River coalition and Friends of the Farm River; collaboration, outreach and ecducation.

3. Illicit Discharge Detection and Elimination (Section 6(*a*)(3) and Appendix B / page 22)

3.1 BMP Summary

BMP	Status (Complete, Ongoing, In Progress, or Not started)	Activities in current reporting period	Measurable Goal	Department / Person Responsible	Date completed or projected completion date (include the start date for anything that is 'in progress')	Additional details
3-1 Develop written IDDE program	In progress	IDDE written program using the CT IDDE program template endorsed in 2019	Develop written plan of IDDE program	Town Engineer	Finalized 4/2019	
3-2 Develop list and maps of all MS4 stormwater outfalls in priority areas	In progress / Ongoing	Annualy review finalized list & maps; update Stormwater Layer on GIS/Town Website as necessary	Continuous update of lists and maps	Town Engineer	April 1, 2021	Town of North Branford Outfall Overview map available at North Branford Engineering Department
3-3 Implement citizen reporting program	Complete / Ongoing	Posted on website	Completion of posting	Town Engineer	May 2018	Created an Illicit Discharge Reporting Form for logging in public reports and FAQ sheet to post on Town Website & Engineering Dept
3-4 Establish legal authority to prohibit illicit discharges	Substantially Complete	Town Attorney reviewed existing ordinance for compliance	Adoption of Ordinance	Town Engineer	Prior to July 2018	
3-5 Develop record keeping system for IDDE tracking (Due 7/1/17)	Substantially Complete	Reviewed reports received. One during this period	Track Reports	Town Engineer	Beginning of 2018	
3-6 Address IDDE in areas with pollutants of concern	In progress	Coordinate Septic Failures with East Shore District Health Department	Address Septic System Failures	Town Engineer	2021 & Ongoing	Give highest priority in areas with potential to discharege bacteria, phosphorus and nitrogen to the MS4

3.2 Describe any IDDE activities planned for the next year, if applicable.

Consider working with regional health department, conservation district & local high school to implement a residential septic system education and recordkeeping brochure; through possible grant funding.

3.3 Provide a record of all citizen reports of suspected illicit discharges and other illicit discharges occurring during the reporting period and SSOs occurring July 2017 through end of reporting period using the following table. Illicit discharges are any unpermitted discharge to waters of the state that do not consist entirely of stormwater or uncontaminated groundwater except those discharges identified in Section 3(a)(2) of the MS4 general permit when such non-stormwater discharges are not significant contributors of pollution to a discharge from an identified MS4.

Location (Lat long/ street crossing /address and receiving water)	**Date and duration of occurrence**	**Discharge to MS4 or surface water**	**Estimated volume discharged**	**Known or suspected cause / Responsible party**	**Corrective measures planned and completed** (include dates)	**Sampling data** (if applicable)
41.3965 lat -72.8094 long Off Woodvale Drive in easement	8/17/2017	Surface swamp	5,000 gal	Damaged manhole and line blockage by vandals	Repaired manhole and flushed and cleaned line	
41.3907 lat -72.7922 long 847 Forest Road	1/17/2021	No	< 8 gal	Gasoline spill	Applied Speedy Dry and diked storm drain; CT DEEP #21-183	N/A
41.3356 lat -72.7564 long 2090 Foxong Road	5/10/2021	No	< 2 gal	Gasoline spill	Applied Speedy Dry	N/A
41.3800 lat -72.8116 long 1071 Middletown Aveenue	5/27/2021	No	55 gal drums	Multiple waste oil drums leaking	CT DEEP Remediation	N/A
41.3356 lat -72.7564 long 2090 Foxong Road	6/27/2021	No	< 2 gal	Car leaking gasoline	Applied Speedy Dry; car towed from scene	N/A
41.3809 lat -72.7894 long 52 Tommys Path	06/30/2021	No	None	N/A	Complainant suspected illicit discharge. Site inspection verified no illicit discharge	N/A
41.3605 lat -72.8009 long 385 Forest Road	7/27/2021	No	< 2 gal	Hydraulic lines from garbage truck	State called for sand	N/A
41.3803 lat -72.7938 Long Tommys Path at Forest Road	8/4/2021	No	< 2 gal	Hydraulic lines from garbage truck	John's Refuge called for cleanup	N/A
41.3945 lat -72.8169 long 5 Clintonville Road	8/30/2021	No	< 1 gal	School bus leaked motor oil	Applied Speedy Dry and sand	N/A

41.3323 lat -72.8012 long 630 Foxon Road	10/9/2021	No	< 1 gal	Car leaking gasoline	Applied Speedy Dry; car towed from scene	N/A
41.3420 lat -72.7505 long 2344 Foxon Road	11/09/2021	No	None	N/A	Suspected septic system outbreak. Investigation by ESDHD verified source as stormewater surface runoff.	N/A
41.3907 lat -72.7925 long 847 Forest Road	1/1/2022	No	15 gal	Gasoline Spill	DEEP called, contractor cleanup	N/A
41.3383 lat -72.7456 long 4 Overlook Drive	3/6/2022	No	1 gal	Car leaking gasoline	Applied Speedy Dry	
41.3907 lat -72.7925 long 847 Forest Road	6/7/2022	No	10 gal	Diesel Spill	DEEP called, contractor cleanup	N/A
41.3471 lat -72.8145 long 464 Totoket Road	7/1/2022	No	10 gal	Gasoline Spill	Applied Speedy Dry; DEEP called did not respond	N/A
41.3410 lat -72.7493 long 2381 Foxon Road	7/1/2022	No	1 gal	Transmission Fluid	Applied speedy dry, car towed	N/A
41.3709 lat -72.794 Long 555 Forest Road	2/16/2023	No	Unknown	Diesel Fuel	Dump truck accident	N/A
41.3217 lat -72.7692 long 229 Branford Road	3/11/2023	No	Unknown	Gasoline	Rainbow sheen in condo parking lot; dissipated by time of inspection.	N/A
41.335 lat -72.8028 long 49 Caputo Road	5/25/2023	No	+/- 0.1 gal	Dielectric Fluid	Utility pole with transformer; contained to container; sample to lab	Unknown
41.3358 lat -72.7566 long 2090 Foxon Road	6/05/2023	No	None	Gasoline Spill	Fuel pump not holding pressure	N/A
41.3230 lat -72.7892 long 6 Rose Lane	6/28/2023	Yes, via surface/rain runoff	< 1 gal	Hydraulic Fluid	Sanitation Contractor applied road sand and swept area accordingly; biodegradable environmentally friendly fluid type.	N/A

41.3279 lat -72.7907 long 41 Twin Lakes Road	7/19/2023	No	< 1 gal	Leak on Outside Generator	Cleaned up oil	N/A
41.3296 lat -72.751 long 44 Glenwood Road	9/28/2023	No	2 gal	Power Steering Fluid	From delivery truck to residential driveway	N/A
41.4143 lat -72.7557 long Route 17 @ Reeds Gap Road	11/18/2023	No	Unknown	Dielectric Fluid	Motor Vehicle Accident; Utility Pole with Transformer	N/A
41.4208 lat -72. Long 44 Woodland Drive	12/18/2023	No	Unknown	Dielectric Fluid	Utility Pole with Transformer	N/A

3.4 Provide a summary of actions taken to address septic failures using the table below.

Method used to track illicit discharge reports	Location and nature of structure with failing septic systems	Actions taken to respond to and address the failures	Impacted waterbody or watershed, if known	Dept. / Person responsible
East Shore District Health Department reported 38 septic repairs in North Branford for 2021; including tank only, leach field only, and full system repairs. (2023 Info Pending)				
East Shore District Health Department reported no site inspections pertaining to failing system from complaintants in North Branford for 2021. (2023 Info Pending)				
Emailed request for 2023 information to ESDHD on 2/1/2024.				

3.5 Briefly describe the method and effectiveness of said method used to track illicit discharge reports.

Town engineer receives reports from public based upon website posting or general phone complaints / contact. Town Engineer keeps an ongoing list and responds to the complaints with appropriate responses. Fire Marshal's Office receives and respods to Haz-Mat situations.

3.6 IDDE reporting metrics

Metrics	
Estimated or actual number of MS4 outfalls	275 Estimated
Estimated or actual number of interconnections	25 Estimated
Outfall mapping complete	98%
Interconnection mapping complete (Coordinate/Update GIS Info with CT DOT)	98%
System-wide mapping complete (detailed MS4 infrastructure)	98%
Outfall assessment and priority ranking	50%
Dry weather screening of all High and Low priority outfalls complete	none
Catchment investigations complete	None in detail
Estimated percentage of MS4 catchment area investigated	unknown

3.7 Briefly describe the IDDE training for employees involved in carrying out IDDE tasks including what type of training is provided and how often it is given (minimum once per year).

IDDE Training is typically completed March/April following snow season. Town engineer wrote procedure and is responsible for follow up. Town Engineer provides informational email with video link to Town Management group. Town Engineer completes PowerPoint training and video review with Public Works Employees. East Shore District Health Department responds to needs and complaints of the public regarding septic systems. The Fire Marshal's Office repsonds to hazardous materials spills.

4. Construction Site Runoff Control (Section 6(a)(4) / page 25)

4.1 BMP Summary

BMP	Status (Complete, Ongoing, In Progress, or Not started)	Activities in current reporting period	Measurable Goal	Department / Person Responsible	Date completed or projected completion date (include the start date for anything that is 'in progress')	Additional details
4-1 Implement, upgrade, and enforce land use regulations or other legal authority to meet requirements of MS4 general permit	Complete	Zoning regs amended to add sect 62.5.6 Stormwater Management Plan for stormwater design and operation and maintenance	Adoption of Regulation	Town Planner & Town Engineer	Effective 07/26/19	Zoning Regulations include Purpose, Contents, Inspections, and Operations & Maitneance Plan sub-sections
4-2 Develop/Implement plan for interdepartmental coordination in site plan review and approval	Complete, Ongoing	Ongoing discussions during review	Finalize Process	Town Planner	July 2017	Part of Town Planner's existing referral process
4-3 Review site plans for stormwater quality concerns	Ongoing	Approximately 13 project reviews	Address concerns in individual reviews	Town Planner & Town Engineer	Ongoing	Includes Site Plan, Subdivision, Special Permit Applications for Wetlands Agency and P&Z Commission
4-4 Conduct site inspections	Ongoing	Includes Subdivisions, Site Plans, and Zoning Permits associated with new house inspections	Quantity of inspections	ZEO, Town Planner, Town Engineer	Ongoing	Tracking/Approval Software through Building Dpeartment
4-5 Implement procedure to allow public comment on site development	Complete, Ongoing	Procedure exists in Zoning Regulations and procedures	Establishment of Procedure	Town Planner	July 2017	
4-6 Implement procedure to notify developers about DEEP construction stormwater permit	Complete, Ongoing	Included as Approval condition	Establishment of Procedure	Town Planner	July 2017	Brochure provided to Contractors: EPA Stormwater Pollution Prevention for Small Residential Construction Sites
4-7 Develop stormwater compliance checklist	In Progress	Developing checklist to provide developers on stormwater mgmt compliance requirements	Standardize plan review	Town Planner	Jul 1, 2024	Reason for addition: Make it easier to ensure compliance with stormwater regulations

4-8 Stormwater & Flooding Outreach Program	Not Started	Work with Stormwater Review Group to develop the Stormwater component. Work with State & local flood resources to develop the Flood component	Provide information on Town Website	Building Official, Town Planner, Town Engineer	November 2023	Utilize EPA Stormwater Outreach Tools and CT Flood Management Portal

4.2 Describe any Construction Site Runoff Control activities planned for the next year, if applicable.

Continue to work with Town and private developers to integrate sound stormwater management techniques into projects. Continue to coordinate Enviroscape presentation with Earth Day and Little League opening day.

5. Post-construction Stormwater Management (Section 6(*a*)(5) / page 27)

5.1 BMP Summary

BMP	Status (Complete, Ongoing, In Progress, or Not started)	Activities in current reporting period	Measurable Goal	Department / Person Responsible	Date completed or projected completion date (include the start date for anything that is 'in progress')	Additional details
5-1 Establish and/or update legal authority and guidelines regarding LID and runoff reduction in site development planning (Due 7/1/22)	Complete	Stormwater Management Plan (SMP) submittal requirement, control construction related impact, implement additional measures to protect and/or improve water quality, include BMP's & LID's, provide zero net increase in runoff	Revision to Zoning Regulations	Town Planner, Town Engineer	07/26/19	Zoning Regulations Section 62.5.6.A. & B. Stormwater Management Plan, Effective 7/26/19
5-2 Enforce LID/runoff reduction requirements for development and redevelopment projects (Due 7/1/22)	Complete	Periodic inspections of the construction site shall be conducted by the Town designated inspector to ensure compliance with the plan to control construction related impacts to stormwater.	Revision to Zoning Regulations	Town Planner, Town Engineer	07/26/19	Zoning Regulations Section 62.5.6.C. Stormwater Management Plan, Inspections, Effective 7/26/19
5-3 Identify retention and detention ponds in priority areas	Complete	All municipal detention basins are identified	Creation of List	Town Engineer	End of 2019	Beginning process of determining impervious surfaces contributing to detention ponds for 2012 Retrofit calculation
5-4 Implement long-term maintenance plan for stormwater basins and treatment structures	Ongoing	Informal plan to clean annually, Town Engineer assigns Work Order Requests to Department of Public Works. Priority areas are main focus, then the rest of the system.	Catch basin cleaning	Town Engineer & Director of Public Works	Ongoing	Town Jet/Vac Truck
5-5 DCIA mapping (Due 7/1/20)	Complete	Update accounts for impervious surfaces in CT DOT right-of-ways.	Calculate DCIA	Town Engineer	7/17/20, Updated 11/2021	
5-6 Address post-construction issues in areas with pollutants of concern	Ongoing	Catch basin cleaning Work Order requests sent to Department of Public Works; order of importance based on DCIA Priority Areas	Correct Stormwater Pollutant of Concern	Town Engineer Town Planner	Not Specified	Farm River – Bacteria Muddy River - Bacteria

5-7 Investigate alternative retention pond maintenance options	Ongoing	Coordinated locations of treatment pond locations and easements with Director of Public Works.	ID sustainable means of maintaining town owned detention ponds	Town Engineer Director of Public Works	Ongoing	Public Works working off season in these locations to reduce amount of vegetation that needs clearing and for ease of access to overgrown locations

5.2 Describe any Post-Construction Stormwater Management activities planned for the next year, if applicable.

Continue to coordinate with Public Works to maintain highest priority retention ponds. Prioritize catch basin cleaning work order requests based on sections of stormwater management system contributing to the impaired sections of the Farm River and the Muddy River.
Review management procedures for existing stormwater basins with Town of North Branford Public Works Department.
*Note: Continue processing/updating 2012 Retrofit Town property locations on Impervious Cover Tracking Spreadsheet.

5.3 Post-Construction Stormwater Management reporting metrics

For details on this requirement, visit Post-construction Stormwater Management | CT NEMO Program (uconn.edu). Scroll down to the DCIA section.

Metrics	
Baseline (2012) Directly Connected Impervious Area (DCIA) – Excluding DOT R.O.W.'s	480.4 acres
DCIA disconnected (redevelopment plus retrofits)	7.6 acres this year / 20 acres total
Retrofit projects completed* (Refer to Note Section 5.2 above)	17
DCIA disconnected* (Refer to Note Section 5.2 above)	1.6% this year / 4.2% total since 2012
Estimated cost of retrofits	$ Zero $
Detention or retention ponds identified	Zero this year /13 total

5.4 Briefly describe the method to be used to determine baseline DCIA.

Excel Spreadsheet, Interactive NEMO Mapping of Impervious Surfaces, and DCIA Connectivity Level Equations (Sutherland Equations/EPA).

6. Pollution Prevention/Good Housekeeping (Section 6(*a*)(6) / page 31)

6.1 BMP Summary

BMP	**Status** (Complete, Ongoing, In Progress, or Not started)	**Activities in current reporting period**	**Measurable Goal**	**Department / Person Responsible**	**Date completed or projected completion date** (include the start date for anything that is 'in progress')	**Additional details**
6-1 Develop/implement formal employee training program (Ongoing)	Ongoing	Completed PowerPoint Presentation for use in Training with supplemental training video; emailed Dept Heads	Implement O&M Training Program, Increase water quality awareness	Town Engineer, Assistant Director of Public Works	Ongoing	Ref YouTube: Parks Maintenance and Stormwater Protection Employee Training
6-2 Implement MS4 property and operations maintenance (Ongoing)	Ongoing	Completed Inspection of Public Works Garage based on Stormwater Pollution Prevention Plan	Maintain Town Owned Properties and other Facilities	Town Engineer, Assistant Director of Public Works	Ongoing	
6-3 Implement coordination with interconnected MS4s	In Progress	Worked with CT Southwest Conservation District to identify interconnected MS4's in the Farm River Watershed	Coordinate with CT DOT MS4 Stormwater Quality Management Program	Town Engineer Director of Public Works	Ongoing	Added CT DOT stormwater layers to Town's GIS
6-4 Develop/implement program to control other sources of pollutants to the MS4	Ongoing	Site Plan review & approvals coordinated with on-ste inspection of E&S control measures	Develop and Enforce Erosion & Sedimentation Control Program	Town Planner Town Engineer	Ongoing	Subdivision, Zoning & Wetlands Regiulations support implementation of E&S control measures
6-5 Evaluate additional measures for discharges to impaired waters*	Ongoing	Review Town owned properties and facilities with high potential to contruibute bacteria (dog waste, waterfowl, failing septic systems)	Develop source management program	Town Engineer	Ongoing	Farm River – Bacteria Muddy River – Bacteria Consider implementing Pet Waste Brochure in 2024
6-6 Track projects that disconnect DCIA (Ongoing)	Ongoing	Began process of analyzing Town owned properties to determine impervious cover areas that may already be treated for water quality	Track Disconnect of DCIA	Town Engineer	Ongoing	Retrofit projects added to Impervious Cover Tracking Spreadsheet

6-7 Implement infrastructure repair/rehab program (Due 7/1/21)	Ongoing	Repaired and/or replaced approximately 30 catch basins throughout the MS4	Repair & Rehabilitation to Reduce Discharge of Pollutants	Director of Public Works	July 1, 2021	Training available thru UCONN T2; Principals of Drainage for Local Roads
6-8 Develop/implement plan to identify/prioritize retrofit projects (Due 7/1/20)	Ongoing	Incorporate retrofit projects into road paving projects and prioritize sites that may be suitable for retrofit projects	Develop Plan and Budget	Director of Public Works Town Engineer	July 1, 2020	
6-9 Implement retrofit projects to disconnect 2% of DCIA (Due 7/1/22)	Ongoing	Continue process of reviewing Town owned properties and facilities to credit existing LID practices to the Impervious Cover Tracking Spreadsheet	Reduce DCIA with goal of 2% disconnect	Director of Public Works Town Engineer	July 1, 2022	Continue to incorporate retrofit projects into road paving program
6-10 Develop/implement street sweeping program (Ongoing)	Complete	Annualy sweep 75 miles of entire Town road system	Increase water quality of surface runoff to impaired waters	Director of Public Works	Ongoing beginning July 1, 2017	Typically completed with minimum frequency of once per year and/or following winter maintenance activities
6-11 Develop/implement catch basin cleaning program (Ongoing)	Complete	Completed approximately 15% of system plus critical and problem areas	# of Catch Basins Cleaned	Director of Public Works	Ongoing beginning July 1, 2020	Town Engineer provides work Order Requests focusing on Priority Areas
6-12 Develop/implement snow management practices (Due 7/1/18)	Complete	Plan already in place; includes prewetting trouble areas in order to reduce the amount of salt used during storm	Reduce de-icing chemicals and other pollutants	Director of Public Works	Ongoing beginning July 8, 2018	Training available thru UCONN T2; Green Snow Pro:Sustainable Winter Operations
6-13 Recycling/Trash Information	Complete	Curbside pickup & recycling info, what to recycle and where	Increase recycling and decrease MSW; educate public	Public Works Hazardous Waste & Recycling Committee	Ongoing January 2021	Posted on the Town Website and Card available at multiple Town facilities
6-14 CT DOT GIS Stormwater Layers	Complete	Coordinated with CT DOT MS4 Program and Town's GIS Host to include State DOT Stormwater Layers on Town's GIS Platform	Increase Public Awareness of Storm Drainage Features	Town Engineer	November 9, 2023	Provides ability for Town Dept of Public Works and Emenergency Management to respond more efficiently to drainage issues & Haz Mat scenarios.

6.2 Describe any Pollution Prevention/Good Housekeeping activities planned for the next year, if applicable.

Training PowerPoints and YouTube videos will continue to be incorporated into Employee Training program. Provide State of CT guideline documents to North Branford Public Works Department for review and consideration for incorporating into their current Street Sweepings, Catch Basin Cleanings, and Snow Removal management practices. Consider completing a Pet Waste Brochure and make available on Town Website and in the Office of the Planning, Building, Engineering Departments. Consider location(s) and funding source(s) for Pet Waste Sations; include weatherproof holder for Brochure.

6.3 Pollution Prevention/ Good Housekeeping reporting metrics

Metrics	
Employee training provided for key staff	Yes (2/14/2023 & 3/1/2023)
Street sweeping	
Curb miles swept	95 miles
Volume (or mass) of material collected	94 tons (Estimate)
Catch basin cleaning	
Total catch basins in priority areas (value will be less than or equal to total catch basins town or institution-wide)	320 (Estimate)
Total catch basins town- (or institution-) wide	2,230
Catch basins inspected	325
Catch basins cleaned	250
Volume (or mass) of material removed from all catch basins	230 tons
Volume removed from catch basins to impaired waters (if known)	72 (Estimate)
Snow management	
Type(s) of deicing material used	Magic-0 (minus zero) and Pro Melt Ultra 1000
Total amount of each deicing material applied	4000 gal ea (Estimate)
Type(s) of deicing equipment used	In-Cab Cirus Smart Spread Controls Systems, Vehicle mounted 100 gal tanks, pump control spray nozzles
Lane-miles treated (A lane-mile is a mile of roadway in a single driving lane)	75 miles (Estimate)
Snow disposal location	1003 Middletown Ave, North Branford, CT
Staff training provided on application methods & equipment	Yes
Municipal turf management program actions (for permittee properties in basins with N/P impairments)	
Reduction in application of fertilizers (since start of permit)	3 %
Reduction in turf area (since start of permit)	0.25 Acres
Lands with high potential to contribute bacteria (dog parks, parks with open water, & sites with failing septic systems)	
Cost of mitigation actions/retrofits	$500 Estimate

6.4 Catch basin cleaning program

Provide any updates or modifications to your catch basin cleaning program.
Town Engineer issues Work Order Requests for catch basin cleaning with order of completion based catch basins located in priority areas and impaired water bodies. Public Works cleans catch basins town wide based on equipment & personnel availability with goal of cleaning all town catch basins on annual basis.

6.5 Retrofit program

Briefly describe the Retrofit Program identification and prioritization process, the projects selected for implementation, the rationale for the selection of those projects and the total DCIA to be disconnected upon completion of each project.
Projects are coordinated with the Town's Pavement Management Plan for the upcoming year. Projects are prioritized based on their location within Priority Areas or where stormwater conveyance systems discharge to impaired water bodies.

Describe plans for continuing the Retrofit program and how to achieve a goal of 1% DCIA disconnection annually in future years.
Will continue to coordinate Retrofit projects with the Town's Pavement Management Plan. Town owned properties and facilities will also be further analyzed to consider implementing retrofit projects. Private development projects will continue to address stormwater regulations with departmental goal of reducing DCIA.

Part II: Impaired waters investigation and monitoring

1. Impaired waters investigation and monitoring program

For details on this requirement, visit Water Quality Monitoring | CT NEMO Program (uconn.edu). Refer to the yellow column of the Monitoring comparison chart and the Impaired waters monitoring flowchart.

1.1 Indicate which stormwater pollutant(s) of concern occur(s) in your municipality or institution. This data is available on the MS4 map viewer: http://s.uconn.edu/ctms4map.

Nitrogen/ Phosphorus ☒ Bacteria ☒ Mercury ☐ Other Pollutant of Concern ☒

1.2 Describe program status

Discuss 1) the status of monitoring work completed, 2) a summary of the results and any notable findings, and 3) any changes to the Stormwater Management Plan based on monitoring results.
Samples taken over past 5 years. Building inventory of baseline information. The Farm River watershed study will provide additional information to supplement the sampling.

2. Screening data for outfalls to impaired waterbodies (Section 6(i)(1) / page 41)

2.1 Screening data

Complete the table below to report data for any wet weather sampling completed for MS4 outfalls that discharge directly to a stormwater impaired waterbody during the reporting period. For details on this requirement, visit www.nemo.uconn.edu/ms4/tasks/monitoring.htm. Refer to the yellow column of the Monitoring comparison chart and the Impaired waters monitoring flowchart.

Each Annual Report will add on to the previous year's data showing a cumulative list of sampling data. **You may also attach an excel spreadsheet with the same data rather than copying it into this table**. If you do attach a spreadsheet, please write "See Attachment" below.

Outfall ID	Latitude / Longitude	Sample date	Parameter (Nitrogen, Phosphorus, Bacteria, or Other pollutant of concern)	Results	Name of Laboratory (if used)	Follow-up required? *
NB-1	41.3302 -72.7675	11/12/19	Other pollutant of concern	-Turbidity 6.25 NTU	EML	No
NB-2	41.3293 -72.7667	11/12/19	Other pollutant of concern	-Turbidity 7.32 NTU	EML	No
NB-3	41.3231 -72.7680	11/12/19	Other pollutant of concern	-Turbidity 15.6 NTU	EML	No
NB-4	41.3227 -72.7674	11/12/19	Other pollutant of concern	-Turbidity 10.5 NTU	EML	No
NB-5	41.3389 -72.8149	8/13/19	Bacteria, Other pollutant of concern	- E.coli 387 MPN/100mL -Turbidity 12.1 NTU	EML	No

NB-6	41.3389 -72.8147	8/13/19	Bacteria, Other pollutant of concern	- E.coli 816 MPN/100mL -Turbidity 5.45 NTU	EML	Yes
NB-7	41.3335 -72.8150	8/13/19	Bacteria, Other pollutant of concern	- E.coli 1986 MPN/100mL -Turbidity 24.6 NTU	EML	Yes
NB-8	41.3271 -72.8159	11/12/19	Bacteria, Other pollutant of concern	-E.coli 326 MPN/100mL -Turbidity 10.7 NTU	EML	No
NB-10	41.3229 -72.8225	11/12/19	Bacteria, Other pollutant of concern	-E.coli 66 MPN/100mL -Turbidity 8.71 NTU	EML	No
NB-1	41.3302 -72.7675	10/20/20	Other pollutant of concern	-Turbidity 5.75 NTU	EML	No
NB-4	41.3227 -72.7674	10/20/20	Other pollutant of concern	-Turbidity 1.14 NTU	EML	No
NB-6	41.3389 -72.8147	10/20/20	Bacteria, Other pollutant of concern	-E.coli 2826 MPN/100mL -Turbidity 3.07 NTU	EML	Yes
NB-7	41.3335 -72.8150	10/20/20	Bacteria, Other pollutant of concern	- E.coli 2022 MPN/100mL -Turbidity 0.6 NTU	EML	Yes
NB-12	41.3254 -72.8116	10/20/20	Other pollutant of concern	-Turbidity 2.67 NTU	EML	No
NB-17	41.3326 -72.8000	10/20/20	Other pollutant of concern	-Turbidity 0.21 NTU	EML	No
NB-1	41.3302 -72.7675	9/28/21	Other pollutant of concern	-Turbidity 27.4 NTU	EML	No
NB-4	41.3227 -72.7674	9/28/21	Other pollutant of concern	-Turbidity 3.67 NTU	EML	No
NB-6	41.3389 -72.8147	9/28/21	Bacteria, Other pollutant of concern	-E.coli 388 MPN/100mL -Turbidity 21.4 NTU	EML	No
NB-7	41.3335 -72.8150	9/28/21	Bacteria, Other pollutant of concern	- E.coli 2092 MPN/100mL -Turbidity 2.27 NTU	EML	Yes
NB-12	41.3254 -72.8116	9/28/21	Other pollutant of concern	-Turbidity 6.70 NTU	EML	No
NB-17	41.3326 -72.8000	9/28/21	Other pollutant of concern	-Turbidity 3.04 NTU	EML	No
NB-1	41.3302 -72.7675	9/13/22	Other pollutant of concern	-Turbidity 46.6 NTU	EML	No
NB-4	41.3227 -72.7674	9/13/22	Other pollutant of concern	-Turbidity 15.8 NTU	EML	No
NB-6	41.3389 -72.8147	9/13/22	Bacteria, Other pollutant of concern	-E.coli 613 MPN/100mL -Turbidity 34.4 NTU	EML	Yes
NB-7	41.3335 -72.8150	9/13/22	Bacteria, Other pollutant of concern	- E.coli 2420 MPN/100mL -Turbidity 16.6 NTU	EML	Yes
NB-12	41.3254 -72.8116	9/13/22	Other pollutant of concern	-Turbidity 41.2 NTU	EML	No
NB-17	41.3326 -72.8000	9/13/22	Other pollutant of concern	-Turbidity 16.8 NTU	EML	No
NB-1	41.3302 -72.7675	12/11/23	Other pollutant of concern	-Turbidity 12.7 NTU	EML	No
NB-4	41.3227 -72.7674	12/11/23	Other pollutant of concern	-Turbidity 93.4 NTU	EML	No
NB-6	41.3389 -72.8147	12/11/23	Bacteria, Other pollutant of concern	-E.coli 12 MPN/100mL -Turbidity 39.5 NTU	EML	No
NB-7	41.3335 -72.8150	12/11/23	Bacteria, Other pollutant of concern	- E.coli 1986 MPN/100mL -Turbidity 13.0 NTU	EML	Yes
NB-12	41.3254 -72.8116	12/11/23	Other pollutant of concern	-Turbidity 19.4 NTU	EML	No
NB-17	41.3326 -72.8000	12/11/23	Other pollutant of concern	-Turbidity 36.3 NTU	EML	No

Follow-up investigation required (last column) if the following pollutant thresholds are exceeded:

Pollutant of concern	Pollutant threshold
Nitrogen	Total N > 2.5 mg/l
Phosphorus	Total P > 0.3 mg/l
Bacteria (fresh waterbody)	• E. coli > 235 col/100ml for swimming areas or 410 col/100ml for all others • Total Coliform > 500 col/100ml
Bacteria (salt waterbody)	• Fecal Coliform > 31 col/100ml for Class SA and > 260 col/100ml for Class SB • Enterococci > 104 col/100ml for swimming areas or 500 col/100 for all others
Other pollutants of concern	Sample turbidity is 5 NTU > in-stream sample

3. Follow-up investigations (Section 6(i)(1)(D) / page 43)

Provide the following information for outfalls exceeding the pollutant threshold.

Outfall ID	Status of drainage area investigation	Control measure to address impairment
NB-7	Completed investigation of outfall drainage area – farming activities are prevalent in this watershed. Crop & milk cattle fields.	Consider providing education material to local farmers; Small Farms Manure Storage Solutions brochure by the Eastern Connecticut Conservation District.

4. Prioritized outfall monitoring (Section 6(i)(1)(D) / page 43)

Once outfall sampling has been completed for at least 50% of outfalls to impaired waters, identify 6 of the highest contributors of any pollutants of concern. Begin monitoring these outfalls on an annual basis by July 1, 2021. **You may also attach an excel spreadsheet with the same data rather than copying it to this table.** If you do attach a spreadsheet, please write "See Attachment" below.

Outfall	Latitude / Longitude	Sample Date	Parameter(s)	Results	Name of Laboratory (if used)
NB-1	41.3302 -72.7675	9/28/21	Other pollutant of concern	-Turbidity 27.4 NTU	EML
NB-4	41.3227 -72.7674	9/28/21	Other pollutant of concern	-Turbidity 3.67 NTU	EML
NB-6	41.3389 -72.8147	9/28/21	Bacteria, Other pollutant of concern	-E.coli 388 MPN/100mL -Turbidity 21.4 NTU	EML
NB-7	41.3335 -72.8150	9/28/21	Bacteria, Other pollutant of concern	- E.coli 2092 MPN/100mL -Turbidity 2.27 NTU	EML
NB-12	41.3254 -72.8116	9/28/21	Other pollutant of concern	-Turbidity 6.70 NTU	EML
NB-17	41.3326 -72.8000	9/28/21	Other pollutant of concern	-Turbidity 3.04 NTU	EML
NB-1	41.3302 -72.7675	9/13/22	Other pollutant of concern	-Turbidity 46.6 NTU	EML
NB-4	41.3227 -72.7674	9/13/22	Other pollutant of concern	-Turbidity 15.8 NTU	EML
NB-6	41.3389 -72.8147	9/13/22	Bacteria, Other pollutant of concern	-E.coli 613 MPN/100mL -Turbidity 34.4 NTU	EML

NB-7	41.3335 -72.8150	9/13/22	Bacteria, Other pollutant of concern	- E.coli 2420 MPN/100mL -Turbidity 16.6 NTU	EML
NB-12	41.3254 -72.8116	9/13/22	Other pollutant of concern	-Turbidity 41.2 NTU	EML
NB-17	41.3326 -72.8000	9/13/22	Other pollutant of concern	-Turbidity 16.8 NTU	EML
NB-1	41.3302 -72.7675	12/11/23	Other pollutant of concern	-Turbidity 12.7 NTU	EML
NB-4	41.3227 -72.7674	12/11/23	Other pollutant of concern	-Turbidity 93.4 NTU	EML
NB-6	41.3389 -72.8147	12/11/23	Bacteria, Other pollutant of concern	-E.coli 12 MPN/100mL -Turbidity 39.5 NTU	EML
NB-7	41.3335 -72.8150	12/11/23	Bacteria, Other pollutant of concern	- E.coli 1986 MPN/100mL -Turbidity 13.0 NTU	EML
NB-12	41.3254 -72.8116	12/11/23	Other pollutant of concern	-Turbidity 19.4 NTU	EML
NB-17	41.3326 -72.8000	12/11/23	Other pollutant of concern	-Turbidity 36.3 NTU	EML

Part III: Additional IDDE Program Data

1. Assessment and Priority Ranking of Catchments data (Appendix B (A)(7)(c) / page 5)

Provide a list of all catchments with ranking results (DEEP basins may be used instead of manual catchment delineations).

1. Catchment ID (DEEP Basin ID)	2. Category	3. Rank

2. Outfall and Interconnection Screening and Sampling data (Appendix B (A)(7)(d) / page 7)

2.1 Dry weather screening and sampling data from outfalls and interconnections

For details on this requirement, visit https://nemo.uconn.edu/ms4/tasks/monitoring.htm. Refer to the blue column of the Monitoring comparison chart and the IDDE baseline monitoring flowchart.

Provide sample data for outfalls where flow is observed. Only include Pollutant of concern data for outfalls that discharge into stormwater impaired waterbodies. **You may also attach an excel spreadsheet with the same data rather than copying it to this table.** If you do attach a spreadsheet, please write "See Attachment" below.

Outfall / Interconnection ID	Latitude / Longitude	Screening / sample date	Ammonia	Chlorine	Conductivity	Salinity	E. coli or enterococcus	Surfactants	Water Temp	Pollutant of concern	If required, follow-up actions taken

2.2 Wet weather sample and inspection data

For details on this requirement, visit https://nemo.uconn.edu/ms4/tasks/monitoring.htm. Refer to the green column of the Monitoring comparison chart and the IDDE catchment investigation flowchart.

Provide sample data for outfalls and key junction manholes of any catchment area with at least one System Vulnerability Factor. **You may also attach an excel spreadsheet with the same data rather than copying it to this table.** If you do attach a spreadsheet, please write "See Attachment" below.

Outfall / Interconnection ID	Latitude / Longitude	Sample date	Ammonia	Chlorine	Conductivity	Salinity	E. coli or Enterococcus	Surfactants	Water Temp	Pollutant of concern

1. Catchment Investigation data (Appendix B (A)(7)(e) / page 9)

For details on this requirement, visit www.nemo.uconn.edu/ms4/tasks/monitoring.htm. Refer to the green column of the Monitoring comparison chart and the IDDE catchment investigation flowchart.

3.1 System Vulnerability Factor Summary

For those catchments being investigated for illicit discharges (i.e. categorized as high priority, low priority, or problem) document the presence or absence of System Vulnerability Factors (SVF). If present, report which SVF's were identified. An example is provided below.

Outfall ID	Receiving Water	System Vulnerability Factors

Where SVFs are:

1. History of SSOs, including, but not limited to, those resulting from wet weather, high water table, or fat/oil/grease blockages.
2. Sewer pump/lift stations, siphons, or known sanitary sewer restrictions where power/equipment failures or blockages could readily result in SSOs.
3. Inadequate sanitary sewer level of service (LOS) resulting in regular surcharging, customer back-ups, or frequent customer complaints.
4. Common or twin-invert manholes serving storm and sanitary sewer alignments.
5. Common trench construction serving both storm and sanitary sewer alignments.
6. Crossings of storm and sanitary sewer alignments.

7. Sanitary sewer alignments known or suspected to have been constructed with an underdrain system;
8. Sanitary sewer infrastructure defects such as leaking service laterals, cracked, broken, or offset sanitary infrastructure, directly piped connections between storm drain and sanitary sewer infrastructure, or other vulnerability factors identified through Inflow/Infiltration Analyses, Sanitary Sewer Evaluation Surveys, or other infrastructure investigations.
9. Areas formerly served by combined sewer systems.
10. Any sanitary sewer and storm drain infrastructure greater than 40 years old in medium and densely developed areas.
11. Widespread code-required septic system upgrades required at property transfers (indicative of inadequate soils, water table separation, or other physical constraints of the area rather that poor owner maintenance).
12. History of multiple local health department or sanitarian actions addressing widespread septic system failures (indicative of inadequate soils, water table separation, or other physical constraints of the area rather that poor owner maintenance).

3.2 Key junction manhole dry weather screening and sampling data

You may also attach an excel spreadsheet with the same data rather than copying it to this table. If you do attach a spreadsheet, please write "See Attachment" below.

Key Junction Manhole ID	Latitude / Longitude	Screening / Sample date	Visual/ olfactory evidence of illicit discharge	Ammonia	Chlorine	Surfactants

3.3 Wet weather investigation outfall sampling data

You may also attach an excel spreadsheet with the same data rather than copying it to this table. If you do attach a spreadsheet, please write "See Attachment" below.

Outfall ID	Latitude / Longitude	Sample date	Ammonia	Chlorine	Surfactants

3.4 Data for each illicit discharge source confirmed through the catchment investigation procedure

Discharge location	Source location	Discharge description	Method of discovery	Date of discovery	Date of elimination	Mitigation or enforcement action	Estimated volume of flow removed

Part IV: Certification

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement made in this document or its attachments may be punishable as a criminal offense, in accordance with Section 22a-6 of the Connecticut General Statutes, pursuant to Section 53a-157b of the Connecticut General Statutes, and in accordance with any other applicable statute."

Chief Elected Official or Principal Executive Officer	Document Prepared by
Print name: Michael P. Downes, Town Manager	Print name: Victor A. Benni, P.E., Town Engineer
Signature: Date: March 29, 2024	Signature: Date: March 29, 2024
Email: townmanager@townofnorthbranfordct.com	Email: townengineer@townofnorthbranfordct.com

Attachment A

Part I: Summary of Minimum Control Measure Activities

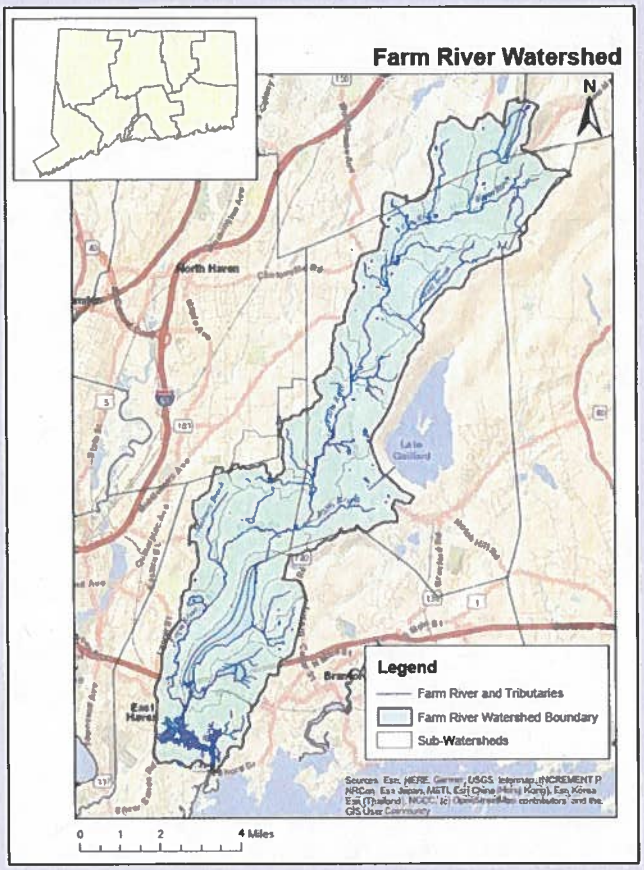
1. Public Education and Outreach

1.1 BMP Summary

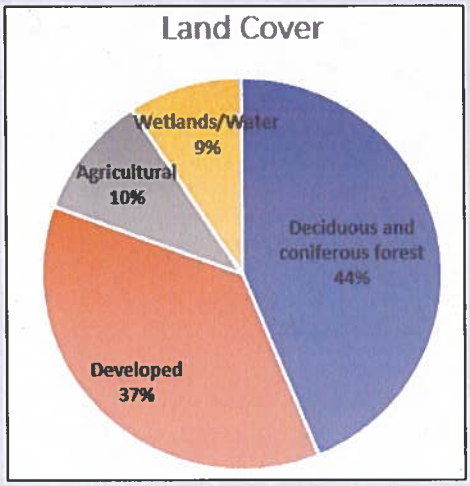
1-2	The Farm River Watershed: Fact Sheet, CT Southwest Conservation District
1-3	Minimizing Pollution and Maximizing the Effectiveness of Lawn Fertilizer
1-3	Step by Step, A Citizen's Guide to Curbing Polluted Runoff, The Long Island Sound Study
1-3	Do Your Part, Be SepticSmart: The Do's and Don'ts of Your Septic System, EPA
1-4	Think Green, Stay Blue: Clean Water Starts with You! Take the River Smart Pledge, River Smart CT
1-5	Property Owner's Guide, Town of North Branford Inland Wetlands & Watercourses Agency
1-6	Factsheet: Town of North Branford Water Quality and Stormwater Summary, CT DEEP
1-7	The Importance of Streamside Buffers, Rivers Alliance of Connecticut
1-8	Recycling News, Totoket Times (Multiple Dates)
1-9	2022 Annual report on Water Quality, Regional Water Authority
1-10	Press Release, Join in Helping to Revive the Farm River, North Branford Land Conservation Trust (The Sound/Zip06)

The Farm River Watershed: Fact Sheet

Overview: The Farm River Watershed is located in New Haven and Middlesex counties in south-central Connecticut. The watershed covers an area of approximately 25.5 square miles across the towns of North Branford, East Haven, Branford, Wallingford, Durham, and North Haven.

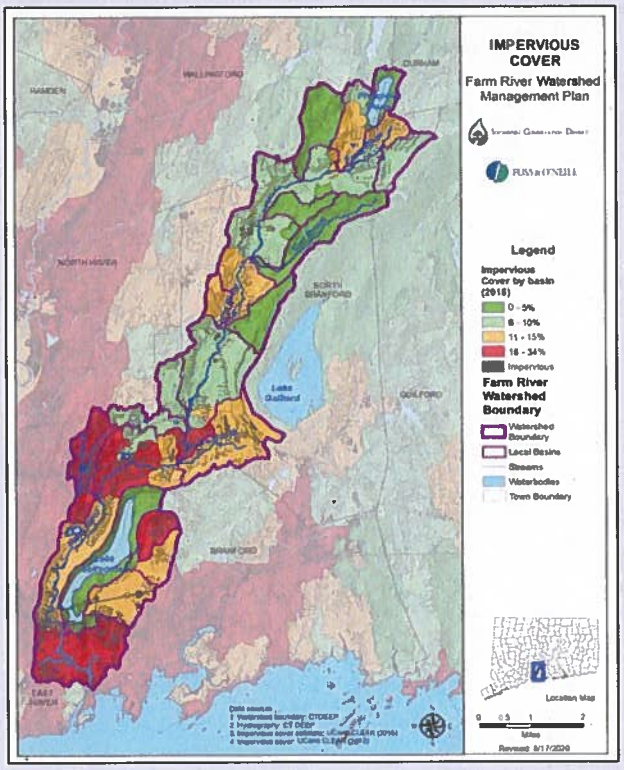


The Farm River Watershed covers a diverse variety of land including deciduous and coniferous forest, developed areas, and agriculture. Tilcon Quarry of North Branford also makes up about 2% of the watershed area.



Water Quality: Water quality across the Farm River Watershed varies. Certain stream segments are of high-quality and support healthy populations of resident fish species and macroinvertebrates. These areas include the public drinking water supply sources within the watershed that are managed by the Regional Water Authority (RWA) and are well-protected by undeveloped land. However, the long history of development and certain land-use activities have adversely affected the water quality of some segments within the watershed.

Impervious Cover: Impervious cover refers to any surface that prevents natural infiltration of stormwater into the soil, such as buildings and pavement. Stormwater runoff generated in developed areas within the watershed is a significant source of pollutants, such as fecal indicator bacteria and excess nutrients.



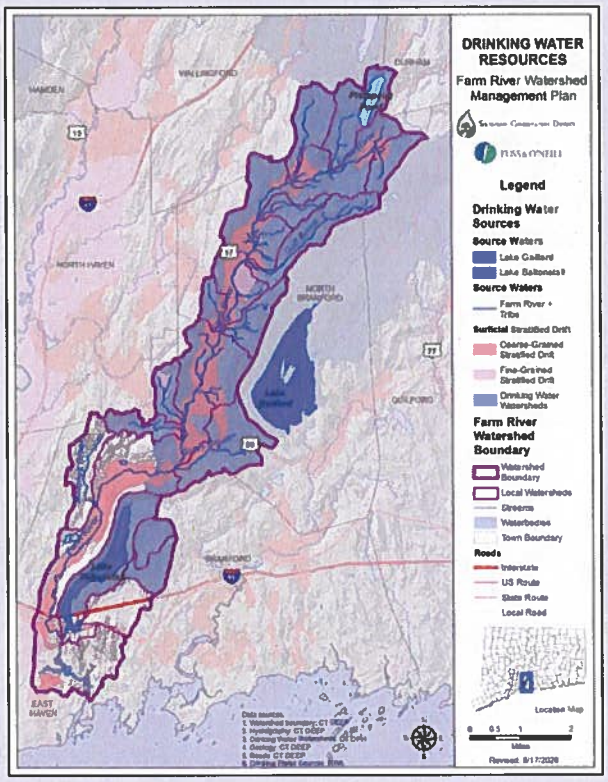
To address the overall health of the Farm River Watershed, stakeholders from various organizations with interest in the watershed have gathered to create a watershed management plan. These stakeholders include:

Southwest Conservation District, the Natural Resource Conservation Service, CT Department of Energy and Environmental Protection, CT Department of Public Health, the Environmental Protection Agency, Fuss & O'Neill, CT Council on Soil & Water Conservation, East Shore District Health Department, Save the Sound, South Central CT Regional Water Authority, Town of Branford, Town of East Haven, Town of Guilford, Town of North Branford, Town of Wallingford, North Branford Land Conservation Trust, Branford Land Trust, East Haven Land Trust, Hammonasset Chapter Trout Unlimited, and Friends of Farm River Estuary.

The Farm River Watershed: Fact Sheet

Watershed Management Plan: In general, the goal of a watershed management plan is to protect and improve the health of the drinking water supplies and source waters within the watershed. A watershed management plan considers various factors such as soil characteristics, water quality and quantity, wetland distribution, geology, ecology, forest cover and many more. The funding to develop the Farm River watershed plan is through the National Water Quality Initiative.

Drinking Water Supply: The Farm River Watershed is served by 1) the regional public water supply system operated by the South-Central Connecticut Regional Water Authority (RWA) that relies on surface water, 2) smaller public water public water systems that rely on groundwater, and 3) private groundwater wells.

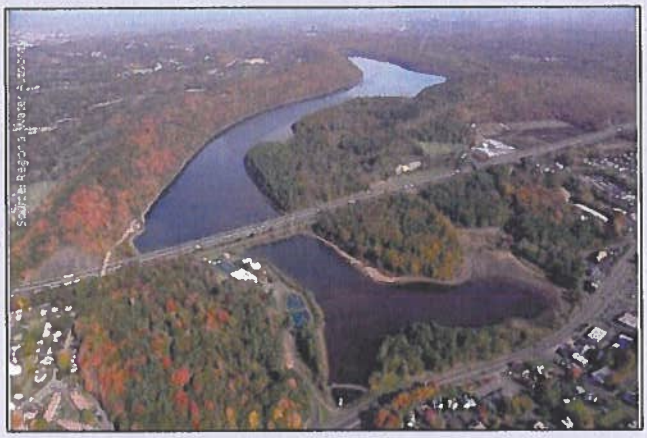


Best Management Practices: To protect the health of the watercourses within the Farm River Watershed, best management practices (BMPs) are implemented at various sites in the area. The goal of BMPs is to reduce the amount of stormwater runoff from entering the streams, and thus, reduce the amount of polluted material from entering the streams. Some examples of general BMPs implementations are bioretention areas, vegetated swales, and permeable pavements. Some examples of agricultural-related BMPs include cover cropping, nutrient load management, and irrigation management.

Benefits of the Watershed Management Plan: Completing this watershed management plan will not only improve the overall health of the watershed but will also provide additional funding opportunities to eligible properties in which further improvements can be made. Funding opportunities for agricultural-related projects include the NRCS' Environmental Quality Incentive Program (EQIP), Conservation Stewardship Program (CSP), Agricultural Management Assistance (AMA), Conservation Innovative Grants (CIG) and more. Additional funding opportunities would also be available through the EPA Clean Water Section 319 Program.

Segment of the Farm River seen from off Farmington Drive in North Branford

Note: The information provided in this document has been gathered from previous reports, stakeholder input, on-site assessment, stream walks, and USGS water quality data collection. Please contact the Southwest Conservation District at SWCD@conservect.org if you have any questions.



Aerial view of Lake Saltonstall and the Farm River (left) near the head of the Farm River Estuary. Photo courtesy of the RWA.

UCONN | COLLEGE OF AGRICULTURE, HEALTH AND NATURAL RESOURCES

NEMO Bulletin

CT NEMO is a part of the Center for Land Use Education and Research at UConn.

Minimizing Pollution and Maximizing the Effectiveness of Lawn Fertilizer

Michael Dietz, Ph.D.
CT NEMO Director
July 2017

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NEMO (Nonpoint Education for Municipal Officials) provides information, education and assistance to local land use officials and other community groups on how they can accommodate growth while protecting their natural resources and community character.

Minimize Pollution

Although many improvements have been made in the water quality of Long Island Sound, pollution from nitrogen still leads to excess algae growth and low oxygen in certain parts of the Sound. Stormwater runoff from lawn fertilization is one source of nitrogen pollution. The following recommendations are based on the research of leading turf scientists in New England. By taking some of the following actions in your yard, you can help to improve the health of Long Island Sound:

- If an unfertilized lawn is considered acceptable, then do not fertilize.
- Return clippings to lawn and mow as high as can be tolerated (at least 3 inches). This practice can reduce nitrogen needs (and your fertilizer cost) by 50%.
- Test soil to determine if fertilization is needed. For information on having your soil tested and getting fertilizer recommendations, visit http://soiltest.uconn.edu and select "soil testing."
- If planting a new lawn or reseeding, choose grasses such as fescues that require less nutrient and water inputs.

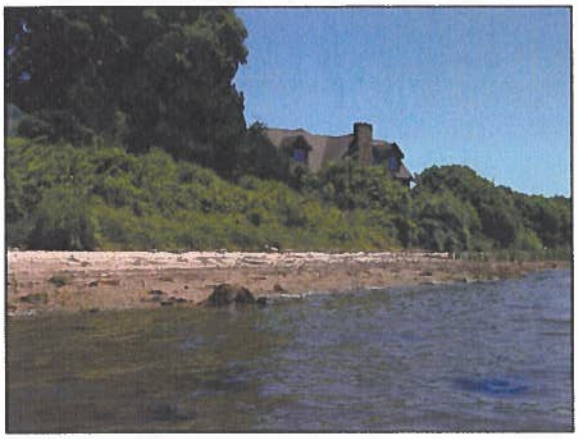
Use the Right Formulation for YOUR Lawn

- If a soil test shows that phosphorus (P) and potassium (K) are adequate, only apply nitrogen fertilizer. Applying more than what is called for wastes your money, adds to pollution and doesn't make your lawn healthier.
- If fertilizing, slow-release fertilizers are better than soluble, fast release formulations.
- For new turf, if soil organic matter is below 3% (your soil test results will give you this value), incorporate compost or another organic matter to raise the OM in soil to at least 3% (preferably 5%).
- Avoid using combinations that include both fertilizers and pesticides. You may be over-applying harmful pesticides when they are not really needed.

Apply the Right Amount

- If adding nitrogen fertilizer, set a target maximum rate of one half (or less) of the bag recommendation, with a maximum annual application rate of 3.25 lbs of total nitrogen for every 1000 ft^2. Less fertilizer should be applied if you live near an environmentally sensitive area, such as next to a wetland or waterbody.

NEMO CLEAR



Riparian buffer along the water's edge.

Gutter downspout discharging to lawn.

Fertilize at the Right Time

- Do not apply fertilizer before spring greenup, or after October 15.
- Do not apply any fertilizer if major rain is expected within 48 hours. Excess fertilizer can wash off into the stormwater system, which leads directly to local streams.

Fertilize in the Right Place

- Do not apply ANY fertilizer or pesticide to turf that borders a waterbody.
- If property borders a lake/pond or river, leave a buffer of unfertilized grasses or other vegetation of at least 20 feet.
- Apply fertilizer carefully so that excess doesn't land on hard surfaces like sidewalks and driveways. The next rain event will wash the fertilizer into the storm system where it will be discharged to the nearest waterbody, where it causes problems.

Other Useful Tips

Trying to figure out how big your lawn is? Use our rain garden app or website! The sizing tool on the website or in the app allows for you to zoom in on your location and outline the shape of your roof, to measure the area. However, you can outline a shape on any area, including your lawn. Use this tool to figure out how big your lawn is to help determine how much fertilizer to apply. Visit our website here: http://nemo.uconn.edu/raingardens, or search for "rain garden" in the Google Play store (Android) or the App Store (iOS). It's free!

References

Guillard, K. (editor). 2008. New England Regional Nitrogen and Phosphorus Fertilizer and Associated Management Practice Recommendations For Lawns Based on Water Quality Considerations. Turfgrass Nutrient Management Bulletin B-0100, *University of Connecticut Department of Plant Science and Landscape Architecture.*

NEIWPCC. Final Report to the New England and New York State Environmental Agency Commissioners: Regional Clean Water Guidelines for Fertilization of Urban Turf. New England Interstate Water Pollution Control Commission. 30 pp.

LONG ISLAND SOUND STUDY

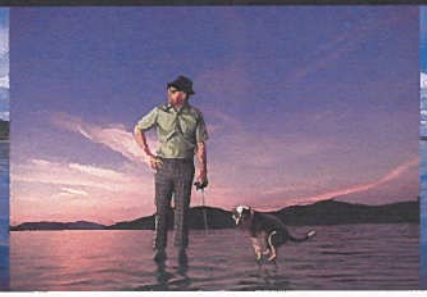
When you're washing your car in the driveway,

...you're not just washing your car in the driveway.

When your pets go on the ground,

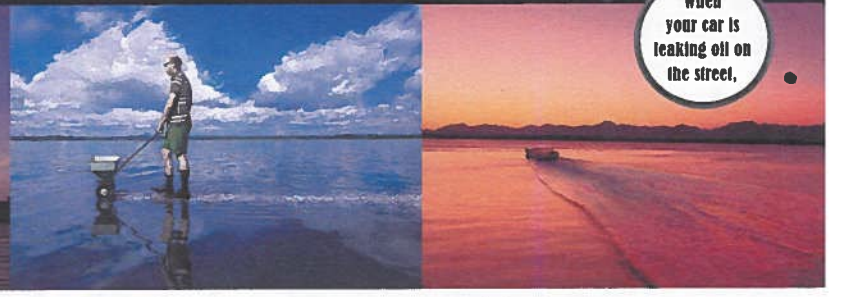
...they're not just going on the ground.

When you're fertilizing the lawn,



...you're not just fertilizing the lawn.

When your car is leaking oil on the street,



...it isn't just leaking oil on the street.

Step by Step

A citizen's guide to curbing polluted runoff

www.longislandsoundstudy.net

A Partnership to Restore and Protect the Sound

If you wash your car on the street or driveway, soap, scum, and oily grit will be washed into nearby storm drains and into lakes, streams, and Long Island Sound without any treatment. This causes pollution that is unhealthy for fish and people.

So how do you avoid this mess? Wash your car on grass or gravel surfaces instead of on paved streets. Or better yet, take it to a commercial car wash where the water is treated and recycled.

If pet waste is not properly disposed of, that waste is washed into nearby storm drains by rain or melting snow. Pet waste can be a source of bacteria. Storm sewers drain directly into lakes, streams, and Long Island Sound, delivering bacteria and other pollutants to the water.

So what to do? Take a pooper scooper or plastic bag along on your next walk. Flush only the waste, or if local law allows, seal it in a plastic bag and dispose of it in the garbage.

If you apply fertilizer just before a rainstorm, much of it will be washed into nearby storm drains and into lakes, streams, and Long Island Sound without any treatment. Once in the water, fertilizers spur a growth and decay process in algae. The algae then use up oxygen, which fish need to survive.

So when you fertilize your lawn, avoid applying it before a rainstorm, use it sparingly, and use organic, slow-release fertilizers.

When oil leaks from our cars onto streets and driveways, it is washed into nearby storm drains and eventually makes its way into lakes, streams, and Long Island Sound. Picture the number of cars in your area and imagine the amount of oil that finds its way from leaky gaskets into our waterways.

So please, fix oil leaks and never dump motor oil or other engine fluids down storm drains or onto the ground.

Visit these web sites for information about polluted runoff

Long Island Sound Study:
www.longislandsoundstudy.net/runoff

Connecticut Department of Environmental Protection: http://dep.state.ct.us/wtr

New York State Department of Environmental Conservation: www.dec.state.ny.us/website/dow

U.S. Environmental Protection Agency:
www.epa.gov/nps

Be a Part of the Pollution Solution!

What is Polluted Runoff?

Polluted runoff occurs when it rains or when snow melts. Water washes over roads, parking lots, lawns, and sidewalks, removing oil, debris, soil, and fertilizer from those surfaces. The water and pollutants then flow directly into waterways, or into nearby storm drains and are carried—untreated—to our rivers, lakes, and oceans.

In recent years, sources of water pollution originating from industrial and sewage treatment plants have been greatly reduced. If we want to continue to make progress, more effort is needed to control polluted runoff, such as oil leaking from cars or fertilizer washing off lawns. And remember, don't dump! Only rainwater should go down a storm drain.

Help Clean up Long Island Sound.

A Clean Long Island Sound is Important to All of Us.

You don't have to live near Long Island Sound for your actions to affect its water quality. Oil spilled within the Sound's watershed may eventually find its way into the Sound. The environmental impacts from polluted runoff are gradual, but severe. The cumulative effects of polluted runoff can make the water unhealthy for fish and for people.

It's up to all of us to keep our lakes, streams, and Long Island Sound clean. Polluted runoff can be reduced significantly if everyone incorporates small preventive measures into their regular everyday activities, such as properly disposing of pet waste or minimizing use of lawn fertilizers.

The Long Island Sound Study is a partnership of federal, state, and local government agencies, private organizations, educational institutions, and other concerned organizations and individuals. Through a cooperative effort, these groups are working together to restore and protect Long Island Sound.

For more information about Long Island Sound or to order additional copies of this brochure, call the office at (203) 977-1541, or (631) 632-9216, or visit www.longislandsoundstudy.net.

What You Can Do

Wash your car on a grassy area so the ground can filter the water naturally.

Use soap sparingly and use non-phosphate detergents.

Use a high-pressure, low-volume hose that has a trigger nozzle to save water.

Empty your bucket of used, soapy water down the sink, not on the driveway or in the street.

Best of all, take your car to a commercial car wash. Most car washes reuse wash-water several times before sending it to a sewage treatment plant.

If you plan to hold a car wash fund-raising event, contact your public works department for suggested disposal methods of the soapy water.

What You Can Do

Scoop up pet waste.

Flush the waste—as long as the droppings are not mixed with litter or other materials. This method is best because then your community sewage system treats the pet waste.

Seal the waste in a plastic bag and put it in the garbage, if local laws allow.

Bury the waste.

Never dump pet waste into a storm drain.

If your community does not regulate pet waste, encourage your local government to adopt a "Pooper-scooper" ordinance.

If your local parks do not provide pet waste stations, encourage them to do so.

What You Can Do

Use fertilizers sparingly. Lawns and many plants do not need as much fertilizer as you might think.

Use organic, slow-release fertilizers.

Don't fertilize before a rain storm or a frost.

Use commercially available compost, or make your own using garden/yard waste. Mixing compost with your soil means your plants will need less chemical fertilizer and puts your waste to good use. Commercial compost may be available from your local solid waste utility or a garden store.

Don't bag grass clippings. Use a mulching lawn mower and naturally fertilize your lawn with the grass clippings.

Wash your spreader and equipment on a pervious area like the lawn, not on the driveway. This allows natural absorption of excess fertilizer.

Maintain a buffer strip of unmowed natural vegetation bordering all water bodies to trap excess fertilizers and sediment.

What You Can Do

Check your car often for drips and oil leaks and fix them promptly.

Have your car tuned-up regularly to reduce oil use.

Use ground cloths or drip pans under your vehicle if you have leaks or are doing engine work.

Recycle used motor oil. Many auto supply stores, car-care centers, and gas stations will accept used oil. Many communities have hazardous-waste collection days and locations where used oil can be properly disposed.

Clean up spills immediately; you can use kitty litter or sand to soak up the liquid.

Collect all used oil in containers with tight-fitting lids. Old plastic jugs are excellent for this purpose.

Do not mix waste oil with gasoline, solvents, or other engine fluids. This contaminates the oil, which may be reused, and may form a more hazardous chemical.

Never dump motor oil, antifreeze, transmission fluid, or other engine fluids down storm drains, into road gutters, on the ground, or into a ditch.

EPA
NEIWPCC

The Long Island Sound Study thanks the Washington State Department of Ecology, King County and the cities of Bellevue, Seattle and Tacoma for letting us adapt these images and concepts for use in educating the Long Island Sound community about polluted runoff. This brochure was developed for the Long Island Sound Study by the New England Interstate Water Pollution Control Commission through a cooperative agreement with the U.S. Environmental Protection Agency.

Printed on recycled paper

Do Your Part, Be SepticSmart:

The Do's and Don'ts of Your Septic System

Learn these simple steps to protect your home, health, environment and property value:

septicsmart
U.S. Environmental Protection Agency

Protect It and Inspect It:

Do:

- Have your system inspected (in general) every three years by a licensed contractor and have the tank pumped, when necessary, generally every three to five years.

Think at the Sink:

Don't:

- Pour cooking grease or oil down the sink or toilet.
- Rinse coffee grounds into the sink.
- Pour household chemicals down the sink or flush them.

Do:

- Eliminate or limit the use of a garbage disposal.
- Properly dispose of coffee grounds & food.
- Put grease in a container to harden before discarding in the trash.

Don't Overload the Commode:

Don't:

- Flush non-degradable products or chemicals, such as feminine hygiene products, condoms, dental floss, diapers, cigarette butts, cat litter, paper towels, pharmaceuticals.

Do:

- Dispose of these items in the trash can!

Shield Your Field:

Don't:

- Park or drive on your drainfield. The weight can damage the drain lines.
- Plant trees or shrubs too close to your drainfield, roots can grow into your system and clog it.

Do:

- Consult a septic service professional to advise you of the proper distance for planting trees and shrubs, depending on your septic tank location.

Don't Strain Your Drain:

Don't

- Concentrate your water use by using your dishwasher, shower, washing machine, and toilet at the same time. All that extra water can really strain your septic system.

Do:

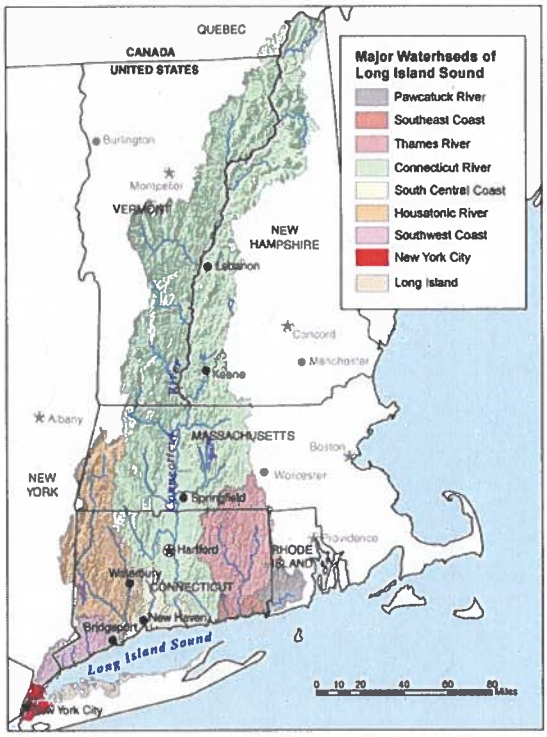
- Stagger the use of water-generating appliances. This can be helpful especially if your system has not been pumped in a long time.
- Become more water efficient by fixing plumbing leaks and consider installing bathroom and kitchen faucet aerators and water-efficient products.

For more SepticSmart tips, visit: **www.epa.gov/septicsmart**

EPA 832-R-13-002 • September 2013

Think Green, Stay Blue: Clean Water Starts with You!

The future health of Connecticut's water depends on the actions of every individual. No matter where we live, work, or play, we are somehow connected to a nearby river, stream, lake, pond, wetland, or shoreline. The rain that falls around us will always moves according to gravity, following a path to the nearest downhill body of water and, in Connecticut, eventually to Long Island Sound. This simple fact means that the health of Long Island Sound -- and every river and stream that flows into it -- is connected to how we live on the land. Yet, many people still think that water pollution is caused mostly by discharges from business and industry and are unaware of the unique role we play in determining the fate of our waterways.



The good news is that industrial discharges are largely under control thanks to the Clean Water Act passed in 1972. With passage of this act, we saw the number of healthy rivers across the nation (those considered clean enough for fishing and swimming) increase from just 20% in the mid-1900's to 57% by 1994. The bad news is that just ten years later we saw that number drop slightly to 53% and by 2012, only 48% of rivers and streams were considered clean enough for fishing and swimming.

With industrial discharges under control, what is causing the decline in river health? According the U.S. Environmental Protection Agency, it is polluted runoff. Runoff is the water that does not soak into the ground during a storm. Forests and meadows are excellent places for water to soak into the ground, but with a growing population these areas are giving way to more developed land (i.e. more buildings, roads, parking lots, lawns) and the volume of runoff is increasing. So is the amount polluted runoff -- water that picks up nutrients, salts, sediments, bacteria, pesticides, and other widely-used chemicals (like cleaning supplies and automotive fluids) from the landscape and carries them to nearby waterways. With fewer natural areas for water to soak into the ground and more pollutants being used in excess, nature's cleaning systems are overloaded, causing more pollutants to end up in our waterways.

With the health of our nation's rivers declining over the past two decades, now is the time for you to make a real and positive difference around your home to reduce polluted runoff. Here are just some of simple, River Smart steps you can take:

1. **Nurture native trees, shrubs, and flowers.** Native species require no fertilizers or pesticides or watering to keep healthy. They thrive in the local habitat and provide great food and shelter birds, pollinators, and other wildlife.
2. **Reduce the size of grass lawns.** Lawns limit the amount of water that can soak into the ground and often require large amounts of fertilizers and pesticides. If you do have a lawn, follow the rule "mow high and let it lie." By letting your grass grow taller, you also let the roots grow deeper, and leaving the clippings provides a natural fertilizer. Altogether, you will improve the lawn's ability to absorb water, stabilize soil, control weeds, and not dry out.

3. **Limit the amount of paved areas and create natural places for the water to soak into the ground.** Rain gardens and swales are excellent ways to attenuate and treat runoff from roofs and driveways. Pervious material like gravel, porous concrete, and field stone can be used for patios, driveways, and walkways.
4. **Plant or grow natural buffers at the edges of rivers/streams, lakes/ponds, and wetlands.** These buffers – made up of trees, shrubs, woody and herbaceous perennials and ground cover – prevent shoreline erosion, reduce flood impacts, capture and treat runoff by trapping sediment and removing nutrients, regulate water temperature, and provide food and habitat for wildlife.
5. **Reduce or eliminate use of fertilizers and pesticides.** These chemicals washed from your property with every rainstorm into a nearby waterway where they can cause algal blooms and be deadly to aquatic organisms. Before applying chemicals, get your soil tested to determine what you actually need and if necessary, use only a slow-release, low-concentration fertilizer or natural compost. If applying pesticides, spot treat only when absolutely necessary and carefully follow the safety guidelines provided.
6. **Dispose of pet waste in the trash or a pet-waste processor.** It is full of bacteria that can make our waterways unsafe for drinking, swimming and fishing.
7. **Have your septic tank pumped and inspected regularly.** A faulty system can release harmful bacteria to our waterways and can be costly to repair. Every system is different, but a good rule of thumb is to pump out every 3 to 5 years.
8. **Check and fix all the taps on sinks, baths, toilets, and hoses for leaks and drips.** Upgrade to more water-efficient appliances and fixtures, like those with the "WaterSense" logo (the water version of EnergyStar).
9. **Dispose of unused and unwanted medications in the trash; do not flush them down the toilet.** The fate of these chemicals interacting in the environment is still unclear and we are only just beginning to understand their effects on aquatic organisms.

To find resources to help you get started with these and other River Smart practices or to learn more about how polluted runoff affects the health of our local rivers, visit www.riversmartct.org. The River Smart program will introduce you to and provide you with the tools you need to and create areas to naturally absorb and filter runoff, to reduce chemical use, and to conserve water.

The future health of our water is in our hands. Working collectively, we CAN reduce water pollution and restore the health of our rivers, streams, lakes, and the Long Island Sound. Show your commitment to clean water by visiting **www.riversmartct.org** and make the River Smart Pledge today. Pledge participants will a River Smart yard sign, a pledge reminder magnet, and a resource packet (while supplies last).

River Smart is led cooperatively by Housatonic Valley Association, Pomperaug River Watershed Coalition, Kent Land Trust, Weantinoge Heritage Trust, Rivers Alliance of Connecticut, and the Farmington River Watershed Association. The River Smart initiative was made possible through generous grant support from Connecticut Community Foundation, Ellen Knowles Harcourt Foundation, LUSH Cosmetics' Charity Pot Program, Council of Governments of Naugatuck Valley, and the Merchant of New Preston Village. Publication Date: January 2015.

Town of North Branford
Inland Wetlands & Watercourses Agency
Property Owner's Guide

Why are Wetlands and Watercourses Important?

Wetlands are important features of our landscape that bring economic benefits to communities. Many people don't realize that healthy wetlands are among the most productive ecosystems on the planet. Wetlands and watercourses are part of a diverse and complex set of ecosystems that are vital to Connecticut's economy and an important part of our natural heritage.

As a property owner you play a big role in wetland protection and health. Protecting a wetland doesn't necessarily require additional effort on your part. Often times it's what you don't do that's important. Your most effective protection strategy may be as simple as guarding it from activities that will damage it. This may be as simple as maintaining a protective zone or buffer around the wetland to protect it.

Protective Regulation

In 1972, the Connecticut State Legislature enacted the Inland Wetlands and Watercourses Act which requires municipal governments to regulate activities affecting Inland Wetlands and Watercourses.

The State of Connecticut recommends the first 100-feet from a wetland or watercourse as an "upland review area" subject to review by the local municipality's Inlands Wetlands and Watercourses Agency (IWWA). The Town of North Branford IWWA Regulations adopted the 100-foot upland review area for all wetlands and watercourses with the exception of the Farm River which has a 200-foot upland review area.

Many property owners are often surprised to learn their property contains or is near protected wetlands. Watercourses, ponds, wetland plants and grasses are clearly recognized as wetlands. Some areas are not so obvious requiring soil testing and flagging by a Soil Scientist to be identified.

Permitting is required before any activities can take place within or near a wetlands or watercourse and before any work can commence. There are certain uses and activities within those areas that are regulated, such as removal or deposition of soil and vegetation. Other restricted activities include obstruction of stream flow, construction, landscape alteration,

pollution, removing trees, clearing brush and grasses within the wetland buffer area, directly in wetlands or on stream banks. The IWWA will grant a permit if it finds the activity will not cause harm to the wetland or watercourse.

North Branford's Farm River is a Public Water Source with significant ecological benefits. It is vital that the land adjacent to the Farm River be protected from disruption. As with all wetlands and watercourses it is imperative that there be no introduction of chemicals, such as pesticides, fertilizers, or septic effluent into the Farm River.

It is the intent of the North Branford IWWA to work with you to responsibly develop your property to both meet your needs and that of protecting our environment. More information can be found on the Town of North Branford website or call the **Town Planner's Office at 203-484-6010**. The Town Planner has resources available, such as a town wetlands map that might indicate if your property is potentially in a wetland or adjacent to a watercourse.

Protective Measures

It is imperative that all of us work together to protect our wetlands and waterways. Wetlands and watercourses are of <u>huge</u> ecological and environmental significance providing protection from floods, habitats for wildlife and aquatic animals, as well as plants which act as a carbon sink, etc.

Some measures you can take to protect our wetlands and watercourses:

- Do:
    - Understand if your property is located within or adjacent to a wetland or a watercourse.
    - Contact the North Branford Town Planner if you intend to build an addition, deck, pool, driveway, cut trees and other vegetation within a wetlands and watercourse review area.
    - Obtain a permit for any planned activities within a review area.
    - Everything you can to protect our wetlands.
    - Enjoy the beauty of your wetland.
- Don't:
    - Fill in wetlands with soil, debris, leaves or grass clippings.
    - Divert or change the water flow of watercourses.
    - Cut grasses, bushes or trees in wetlands or along watercourses and river banks.
    - Use pesticides or fertilizers withing the buffer area or near watercourses.
    - Dump motor oil or other chemicals into or near wetlands or watercourses.

Thank you for making North Branford a better place to live by protecting its wetlands and watercourses.

Connecticut Department of
ENERGY &
ENVIRONMENTAL
PROTECTION

79 Elm Street • Hartford, CT 06106-5127 www.ct.gov/deep Affirmative Action/Equal Opportunity Employer

Factsheet: Town of North Branford Water Quality and Stormwater Summary

This document was created for each town that has submitted monitoring data under the current Small Municipal Separate Storm Sewer System (MS4) General Permit. What follows is information on how stormwater can affect water quality in streams and rivers and a summary of data submitted by your town. This factsheet is intended to help you interpret your monitoring results and assist you in compliance with the MS4 program.

Water Quality in Connecticut

Surface waters are important resources that support numerous uses, including water supply, recreation, fishing, shellfishing and sustaining aquatic life. Water quality conditions needed to support these uses are identified within the Connecticut Water Quality Standards (WQS). In order to protect and restore these uses, we need acceptable environmental conditions (physical, chemical and biological) to be present within surface waters.

To assess and track water quality conditions, CT DEEP conducts monitoring across the State. The data is synthesized into a biennial state water quality report called the Integrated Water Quality Report. Currently, specific water quality monitoring in the state encompasses about 50% of rivers, 47% of lakes, and 100% of estuary/coastline. In addition, CT DEEP may have information about certain land uses or discharges which could indicate a potential for water quality to be impacted, even if the waterbody has not been fully monitored and assessed.

To find more detailed information on water quality in your town, please see the Integrated Water Quality Report (IWQR) on the CT DEEP website at www.ct.gov/dep/iwqr. Information on water quality within your town is also presented on the maps included in this fact sheet.

Impacts of Impervious Cover on Water Quality

Impervious cover (IC) refers to hard surfaces across the landscape such as roads, sidewalks, parking lots and roofs. Studies have focused on the amount of hard surfaces to evaluate the impacts of stormwater runoff from these hard surfaces on water quality and found that IC affects both the quantity and quality of stormwater. IC forces rain to runoff the land, carrying pollutants quickly and directly to lakes and streams instead of soaking into the ground and being filtered by the soil. For more information on impervious cover, please see the CT DEEP web page www.ct.gov/deep/imperviouscoverstudies and EPA's web page www.epa.gov/caddis/ssr_urb_is1.html.

In general, the higher the percentage of IC in a watershed, the poorer the surface water quality. Research in Connecticut strongly suggests that aquatic life will be harmed when the IC within a

watershed exceeds 12%. Stormwater pollution from IC is a likely cause of impairment for these waterbodies.

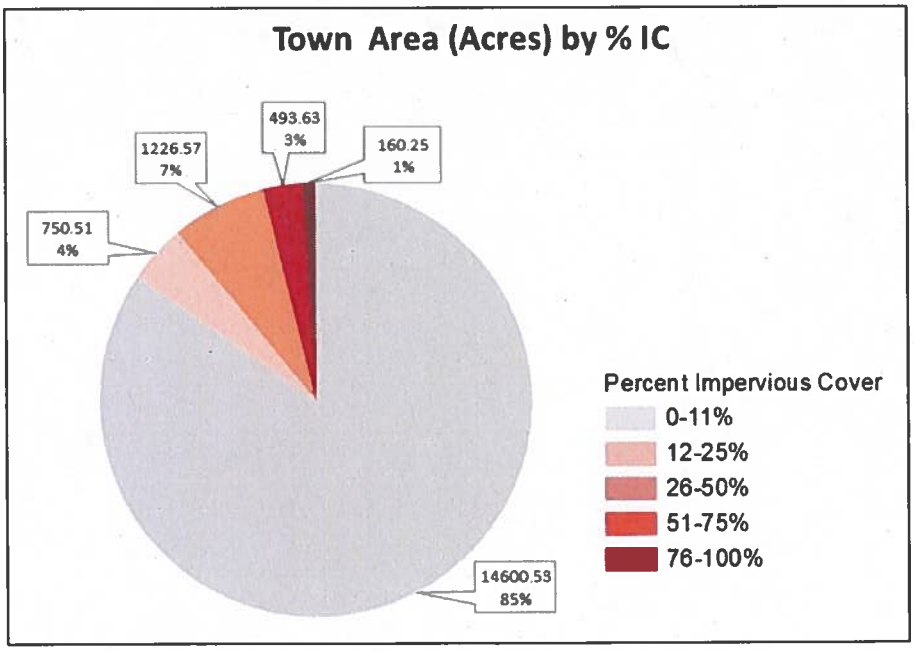
Town of North Branford: Impervious Cover Data

This chart shows the amount of area within your town that contains IC. Data is grouped by acres and percent IC. While all levels of IC can contribute stormwater to streams, it is important to note that land with IC greater than 12% in town is likely to be contributing enough stormwater to streams to have a negative impact on water quality.

Towns should aim to make stormwater improvements in areas with IC greater than 12% in an effort to reduce the amount of stormwater pollution reaching surface waters which will protect and improve water quality.

For more information on areas of impervious cover within your town, please see the maps at the back of this factsheet.

Amounts of Impervious Cover within the Town of North Branford



Pollution Reduction

Waterbodies often can handle a certain amount of pollutants and still maintain good water quality. However, impaired waterbodies have too much pollution impacting their water quality and therefore the streams do not support all uses for the waterbody. Total Maximum Daily Loads (TMDLs) are pollution reduction budgets developed for impaired waterbodies in order to meet water quality. If the pollution budget is achieved through the recommended pollution reduction

measures, then the waterbody is expected to meet water quality. CT DEEP also supports impaired waters restoration through watershed based plans (www.ct.gov/deep/watershed) which provide more specific non-point source pollution control measures. The following TMDLs or pollution reduction strategies have been developed and apply to areas within your town.

TMDLs or Strategies Applicable to the Town of North Branford

Name of TMDL or Strategy	Pollutant	Waterbody Name	Link
Statewide Bacteria TMDL	Bacteria	Farm River	www.ct.gov/deep/lib/deep/water/tmdl/statewidebacteria/farmriver5112.pdf
Statewide Bacteria TMDL	Bacteria	Coginchaug River / Laurel Brook / Wadsworth Falls Pond / Lyman Meadows Brook	www.ct.gov/deep/lib/deep/water/tmdl/statewidebacteria/coginchaugriver4607.pdf
A TMDL Analysis for Cedar Pond in North Branford, CT	Phosphorus	Cedar Pond	www.ct.gov/deep/lib/deep/water/tmdl/tmdl_final/cedarfinaltmdl.pdf
A TMDL Analysis for Linsley Pond in North Branford and Branford, CT	Phosphorus	Linsley Pond	www.ct.gov/deep/lib/deep/water/tmdl/tmdl_final/linsleyfinaltmdl.pdf
A TMDL Analysis for the Mattabesset River Regional Basin	Bacteria	Mattabesset River / John Hall Brook / Little Brook / Spruce Brook / Coles Brook / Miner Brook / Willow Brook 4600 / Belcher Brook / Webster Brook / Sawmill Brook / Coginchaug River / Willow Brook 4602	www.ct.gov/deep/lib/deep/water/tmdl/tmdl_final/mattbasintmdlfinal.pdf
Statewide Bacteria TMDL	Bacteria	West River and Edgewood Park Pond	www.ct.gov/deep/lib/deep/water/tmdl/statewidebacteria/westriver5305.pdf
A TMDL Analysis to Achieve Water Quality Standards for Dissolved Oxygen in Long Island Sound	Nitrogen	Long Island Sound and contributing watersheds	www.ct.gov/deep/lib/deep/water/lis_water_quality/nitrogen_control_program/tmdl.pdf
Northeast Regional Mercury TMDL	Mercury	All CT Inland waters	www.ct.gov/deep/lib/deep/water/tmdl/tmdl_final/ne_hg_tmdl.pdf

For more information on these TMDLs or strategies please go to our website www.ct.gov/deep/tmdl.

Stormwater Quality Monitoring

Regular monitoring for targeted pollutants in stormwater provides an indication of potential for water quality impacts and helps identify sources and unlawful discharges. Annual monitoring at 6 locations from different areas of town has been a requirement of the MS4 permit since 2004. CT DEEP uses that information to evaluate the quality of stormwater and the potential for impacts to surface waters as well as to make sure that stormwater is managed properly.

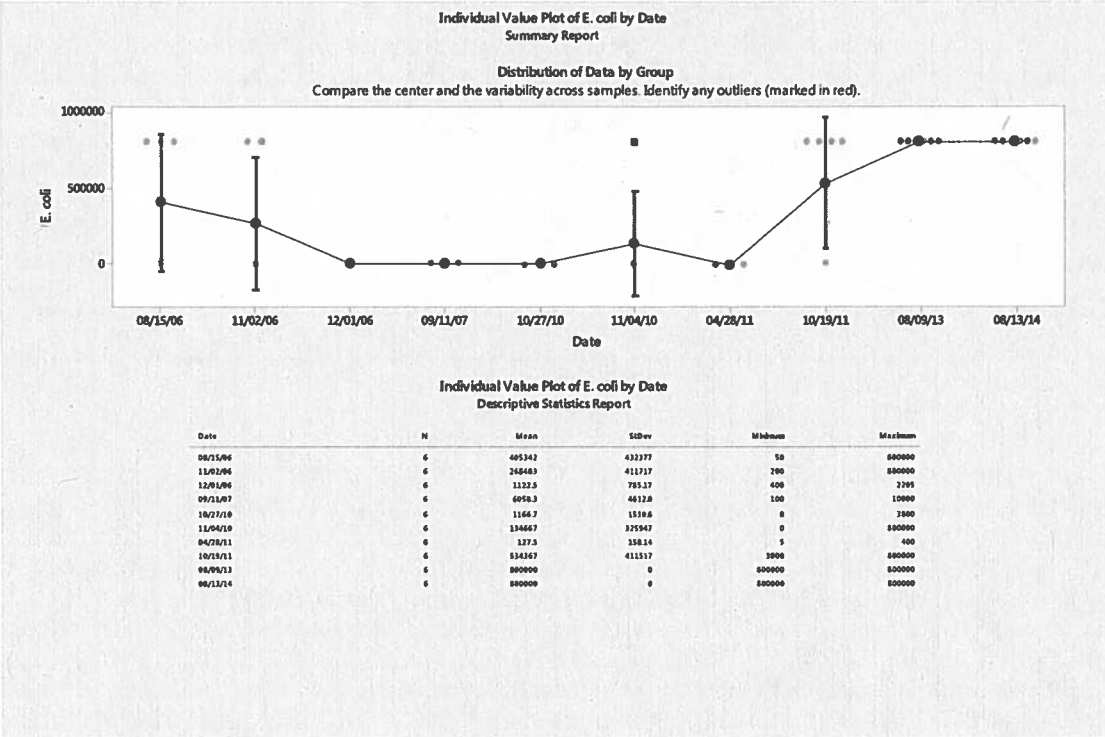
Below are 5 graphs tracking stormwater results submitted by your town for 5 parameters reported under the current MS4 General Permit. The results of each stormwater test submitted to CT DEEP by your town is shown. Individual sample results are shown in grey while the average of the samples collected on a particular day is shown in blue, with a line connecting the averages for the various sample dates. The bars show the statistical range of samples for each day with the red squares showing results which are considered to be outliers, that is, very different from the other samples collected on that day. The chart on the graph lists the sample dates and some basic statistics:

Statistic	Description
N	Number of stormwater samples collected on that date
Mean	Average of the results reported for that sample date
Standard Deviation (StdDev)	A measure of the variability of the results for the sample date
Minimum	The lowest sample result for the sample date
Maximum	The highest sample result for the sample date

Bacteria

Escherichia coli (*E. coli*) is a bacteria that lives in the intestines of humans and other warm-blooded animals and is used to indicate the presence of fecal matter in surface waters. Some strains of *E. coli* and other pathogens found in fecal material cause serious illness in people coming in contact with it. For this reason, high amounts of bacteria will cause authorities to close beaches for swimming. Bacteria is measured as the number of colony forming units, or CFU, per 100 ml of water. Any result that was reported as "to numerous to count" is included on the chart as 800,000 CFU/100 mL.

Results of annual stormwater monitoring under MS4 permit for *E.coli* (CFU/ 100 mL of sample)
Town of North Branford

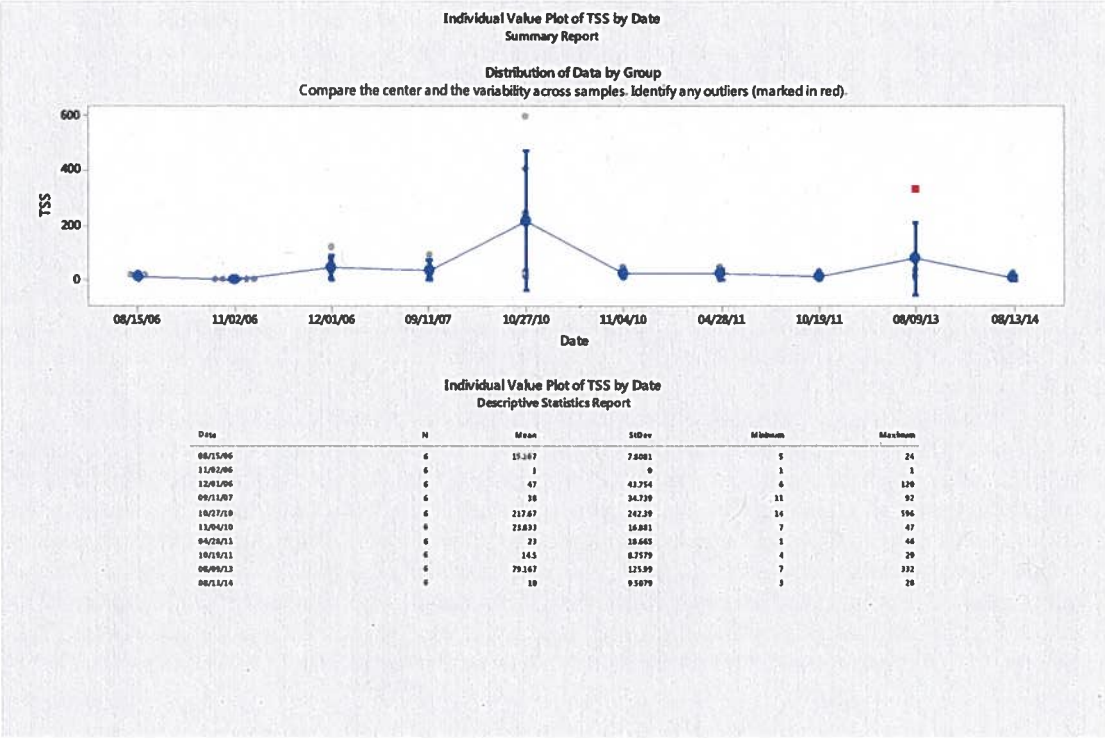


To support recreational uses of surface waters, the CT DEEP Water Quality Standards indicate that the average amount of *E. coli* found in a freshwater water body should be less than 126 CFU/100 mL and that a single sample tested for *E. coli* should be less than 235 CFU/100 mL at a designated swimming area and less than 410 CFU/100 mL in other areas. Monitoring for *E. coli* is currently required in the MS4 permit. Enterococci is another bacteria used to indicate the presence of fecal material in salt water environments. For recreation in salt water the Water Quality Standards indicate that average amount of Enterococci should be less than 35 CFU/100 mL in a designated swimming area and that a single sample tested for Enterococci should be less than 104 CFU/100 mL and in all other areas less than 500 CFU/100 mL. These targets have been included in the statewide bacteria TMDLs. In the Draft MS4 permit, *E.coli* results higher than 235 CFU/100 mL at a designated swimming area or greater than 410 CFU/100 mL in other areas requires a follow-up investigation. Individual stormwater sample results that exceed the applicable single sample maximum value for bacteria could impact water quality, so the associated outfalls should be evaluated for additional stormwater management.

Total Suspended Solids

Total Suspended Solids (TSS) is a measurement of the amount of solids (including sand and silt) found in the stormwater sample. High concentrations of TSS can lower water quality in the receiving stream by transporting various pollutants to the waterbody where they can directly affect aquatic life or affect aquatic life by absorbing light, reducing photosynthesis, and by making the water warmer. TSS can also clog fish gills and smother fish eggs and suffocate the organisms that fish eat. TSS comes from erosion and is found in agricultural, urban and industrial runoff. TSS can be reduced by protecting land from erosion and allowing stormwater time to settle before discharging to surface waters.

Results of annual stormwater monitoring under the MS4 general permit for TSS (mg/L)
Town of North Branford



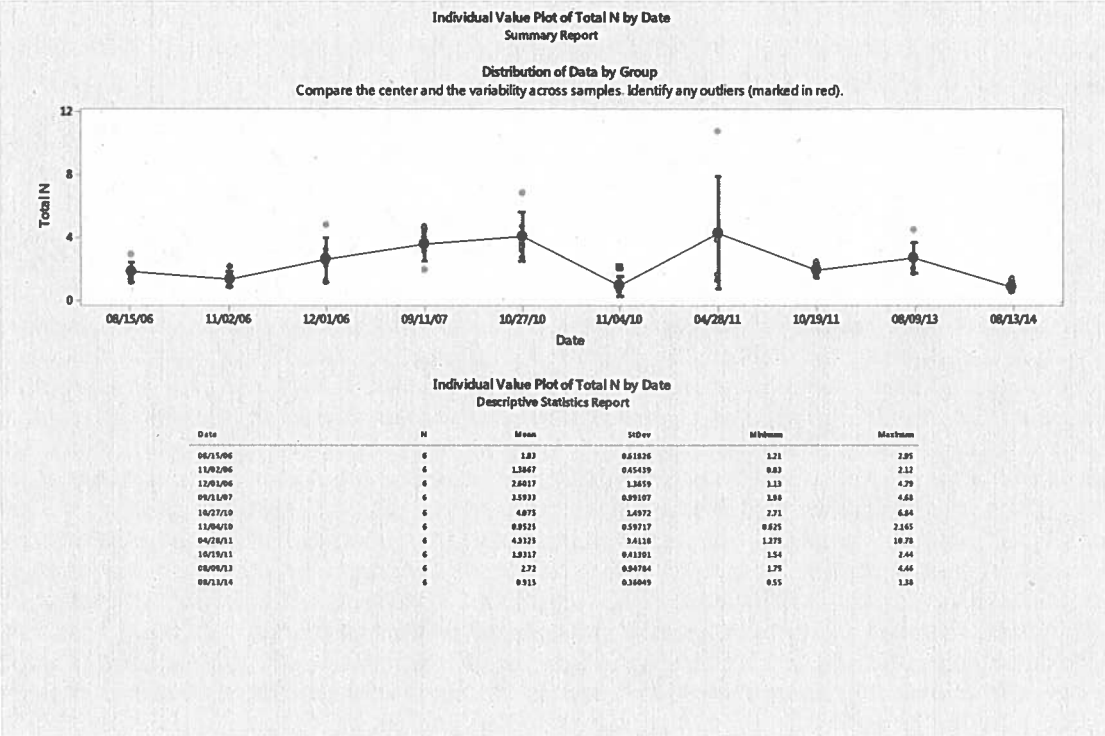
Date	N	Mean	StDev	Minimum	Maximum
08/15/06	6	15.167	7.8081	5	24
11/02/06	6	1	0	1	1
12/01/06	6	47	43.754	6	120
09/11/07	6	38	34.739	11	92
10/27/10	6	217.67	242.39	14	596
11/04/10	6	25.833	16.881	7	47
04/28/11	6	23	18.665	1	46
10/19/11	6	14.5	8.7579	4	29
08/09/13	6	79.167	125.99	7	332
08/13/14	6	10	9.5079	3	28

Currently, there is not a water quality based target for TSS in stormwater but TSS is a general indicator of water quality and, lower amounts of TSS are better. For comparison purposes, the average MS4 stormwater result reported for TSS by all towns covered by this permit is 48 mg/L. Areas within your town which have elevated TSS may be places to consider additional stormwater management efforts.

Total Nitrogen

Nitrogen is an important nutrient in marine and estuarine waters such as Long Island Sound, as well as a concern in fresh water lakes and rivers. High amounts of nitrogen can lead to excessive growth of water plants and algae which then reduces the amount of oxygen available to living things in these waters. Unlawful discharges, animal waste, failing septic systems, leaves, litter and fertilizers are common sources of high nitrogen in stormwater. Responsible use of fertilizers, maintaining septic systems and proper disposal of pet waste will help reduce nitrogen in stormwater.

Results of annual stormwater monitoring under MS4 general permit for total nitrogen (Total N mg/L)
Town of North Branford



Individual Value Plot of Total N by Date
Descriptive Statistics Report

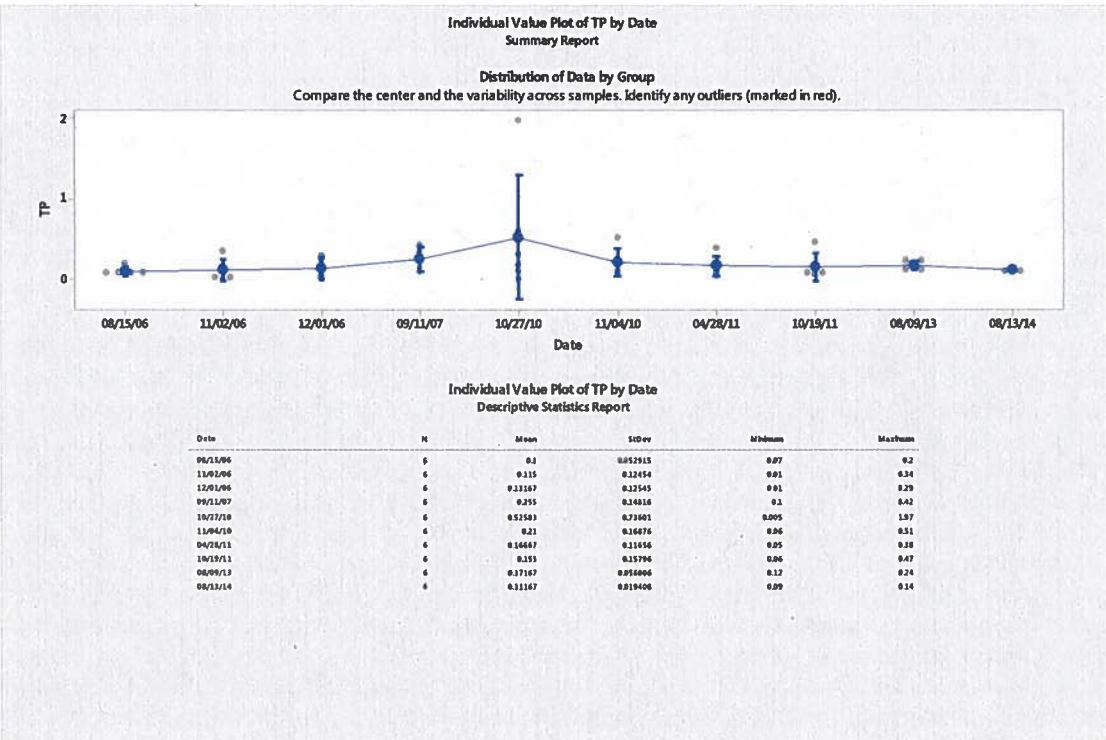
Date	N	Mean	StDev	Minimum	Maximum
08/15/06	6	1.83	0.61826	1.21	2.85
11/02/06	6	1.3867	0.45439	0.83	2.12
12/01/06	6	2.6017	1.3659	1.13	4.79
09/11/07	6	3.5933	0.99107	1.98	4.68
10/27/10	6	4.875	1.4972	2.71	6.84
11/04/10	6	0.9525	0.59717	0.625	2.165
04/28/11	6	4.3125	3.4118	1.275	10.78
10/19/11	6	1.9317	0.41301	1.54	2.44
08/09/13	6	2.72	0.94784	1.75	4.46
08/13/14	6	0.915	0.36049	0.55	1.38

The TMDL for Long Island Sound requires a 10% reduction of nitrogen in stormwater discharges to prevent low oxygen conditions in Long Island Sound. Each town should be working to reduce the amount of nitrogen in their stormwater to address this issue. Under the current draft MS4 permit, any result for total nitrogen greater than 2.5 mg/L will require a follow-up investigation. Areas within your town which have elevated nitrogen may be places to consider additional stormwater management activities.

Total Phosphorus

Phosphorus is an important nutrient necessary for growth in plants and animals in freshwater. Too much phosphorus in the water can throw off the balance of aquatic ecosystems causing excessive growth of water plants and algae blooms, which reduces the amount of oxygen in the water, potentially harming the fish. Sometimes these algae blooms can contain toxic forms of algae which are harmful to people and animals that come into contact with it. Sources of high phosphorus can be unlawful discharges, fertilizers, litter, leaves, erosion and animal waste.

Results of annual stormwater monitoring under MS4 permit for total phosphorus (mg/L)
Town of North Branford

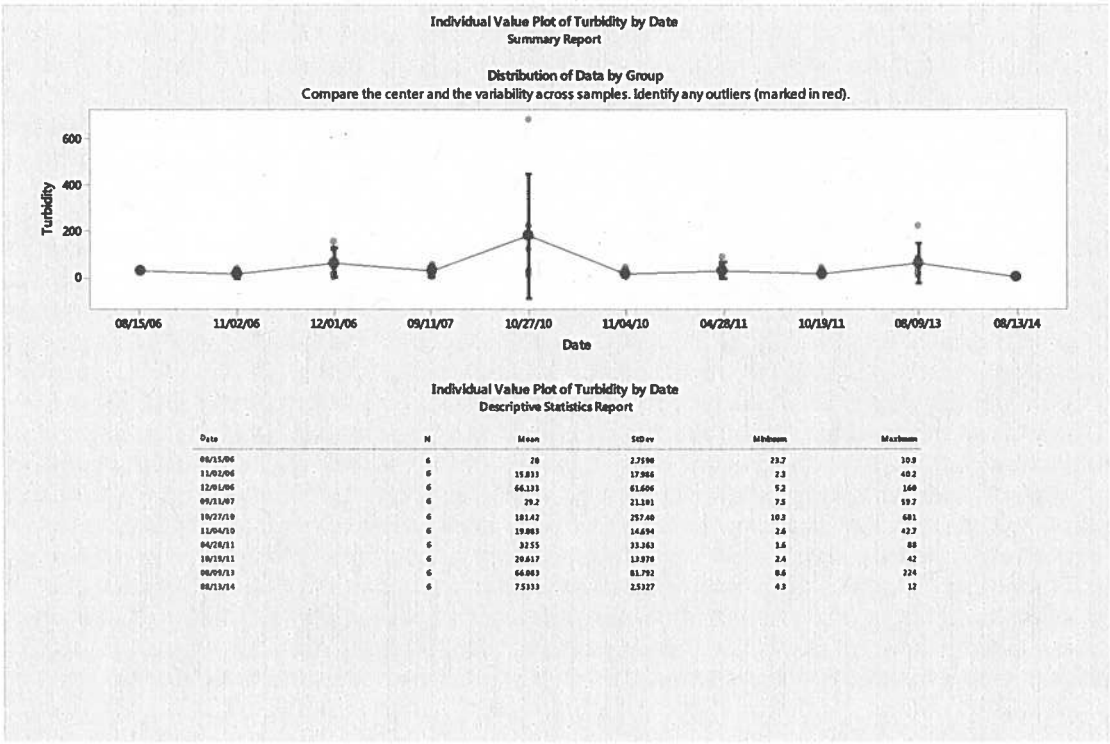


CT DEEP is actively working with many towns to reduce the amount of phosphorus reaching Connecticut's streams and rivers. Under the current draft MS4 permit, a total phosphorus result greater than 0.3 mg/L will require a follow-up investigation. Areas of your town that have elevated levels of phosphorus in the stormwater are good places to develop additional stormwater controls.

Turbidity

Turbidity measures the clarity of the stormwater sample. It measures how much material (soil, algae, pollution, microbes etc.) is suspended in the sample. High turbidity lowers the water quality of a surface water by blocking sunlight for the plants and makes food harder for the fish to find and may be an indication of a higher amounts of other pollution in the water. Surface waters with high turbidity are visually less appealing for recreational use. High turbidity can be caused by erosion, failing septic systems, decaying plants or animals, and excessive algae growth. Turbidity is reported in Nephelometric Turbidity Units (NTU) which is related to how easily light passes through the water sample.

Results of annual stormwater monitoring under MS4 permit for turbidity (NTU)
Town of North Branford



Date	N	Mean	StDev	Minimum	Maximum
08/15/06	6	20	2.7598	23.7	10.9
11/02/06	6	15.833	17.986	2.3	40.2
12/01/06	6	66.133	61.606	9.2	160
09/11/07	6	29.2	21.101	7.5	59.7
10/27/10	6	181.42	257.40	10.3	681
11/04/10	6	19.983	14.694	2.6	42.7
04/28/11	6	3255	33.363	1.6	88
10/19/11	6	20.617	13.978	2.4	42
08/09/13	6	66.083	81.792	0.6	224
08/13/14	6	7.5333	2.5327	4.3	12

The Water Quality Standards have a criterion that indicates turbidity should not to exceed 5 NTU above ambient levels. In the draft MS4 permit, a turbidity result greater than 5 NTU over in-stream conditions will require a follow-up investigation. While there is not a fixed statewide criterion for turbidity, lower results are better for the health of the surface waters in town. Areas with higher levels of turbidity in stormwater would be a good place to develop additional stormwater controls.

Town Maps

The following maps were created to show the impervious cover (IC) in your town as well as the water quality in the rivers, streams, lakes and estuaries in and around your town.

Impervious Cover on the Town Maps

IC is shown in red on the maps. Dark red areas indicate a higher percentage of IC, lighter red areas have less IC, while the grey areas indicate very little or no IC.

Water Quality on the Town Maps

Separate maps are provided for the different uses of the waterbodies such as Aquatic Life Uses, Recreation, and Shellfishing (in coastal towns). The waterbodies are colored to show the health of the waterbody. Green means that the waterbody meets the water quality requirements to fully support the specified use. Yellow means that water quality is poor and that the specified use is not met. Blue means that there is not enough information to know whether or not water quality is good or bad to support the specified use. Additionally, a small map is provided on the left side of each larger map to show which watersheds are within your town.

Waters Designated For Aquatic Life in the Town of North Branford

Percent Impervious Cover

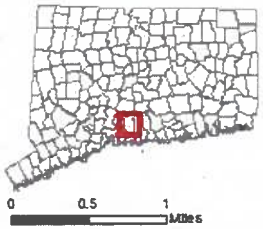
- 0-11%
- 12-25%
- 26-50%
- 51-75%
- 76-100%

Designated For Aquatic Life

- Fully Supporting
- Not Supporting
- Unassessed

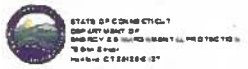
Subregional Basins

- Branford River
- Coginchaug River
- Farm River
- Muddy River
- West River



These maps were created using the National Land Cover Database (NLCD) 2011 Impervious Cover Percent Data. For more detail please review the metadata document.

Impervious cover (IC) refers to hard surfaces across the landscape such as pavement or buildings. These hard surfaces do not absorb water and prevent rain from soaking into the ground. As a result, runoff occurs and easily carries pollutants to nearby lakes and streams.



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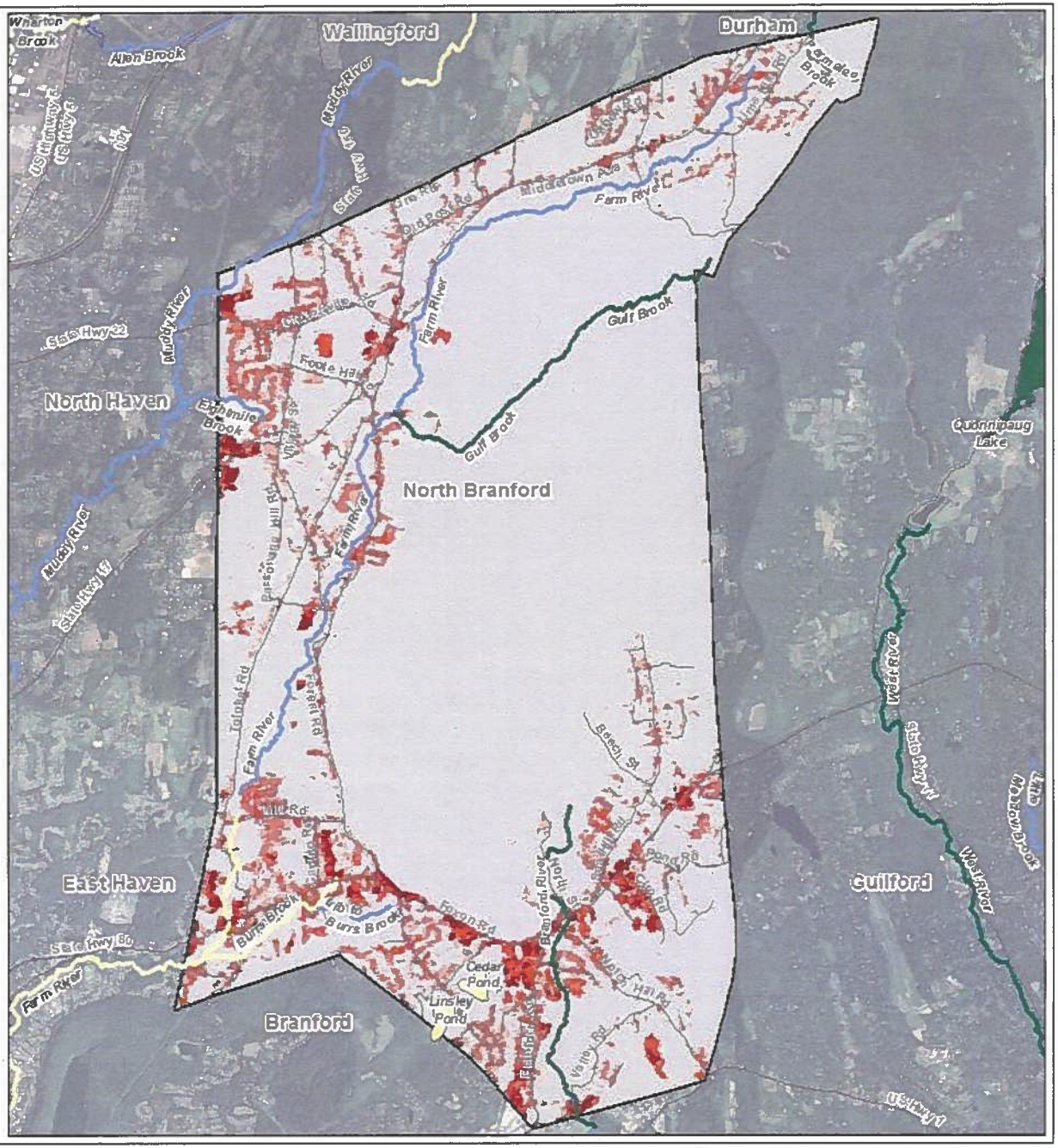
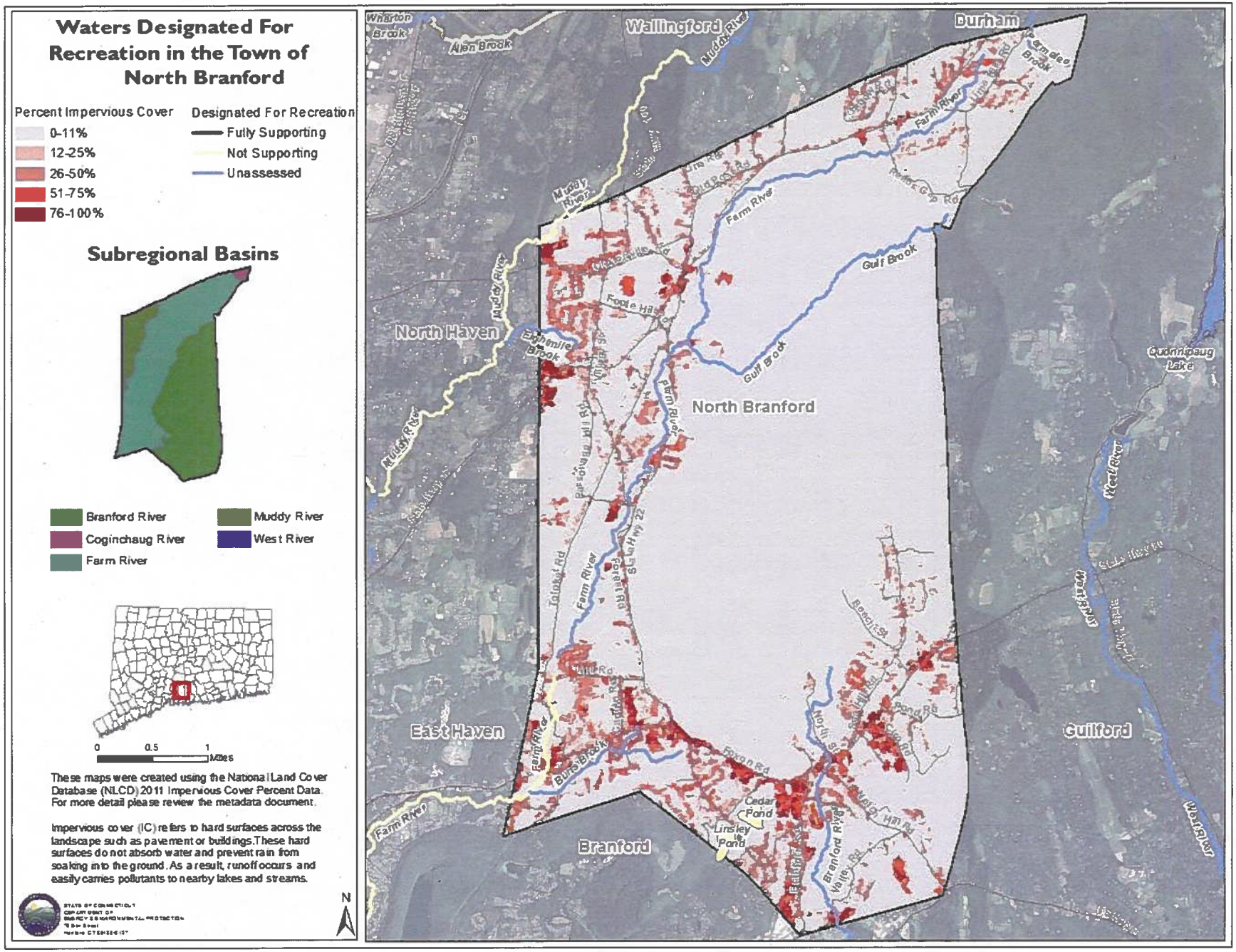


Waters Designated For Recreation in the Town of North Branford



THE IMPORTANCE OF STREAMSIDE BUFFERS

A Guide for Landowners and Land-Use Decision Makers

For more information on how you can protect and enhance a nearby watercourse, please contact your local watershed organization, Statewide river conservation organization, or state environmental protection agency.

Written and Produced by
Rivers Alliance
of Connecticut

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Litchfield, CT 06759
Tel.: 860.361.9349
Email: rivers@riversalliance.org

Thanks to Bill Hubbell, the CT Department of Environmental Protection, the Farmington River Watershed Association, Sarah Faulkner Fein, and Jim MacBroom for use of their photographs.

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Rivers and streams are like the veins and arteries of our land. They nourish us, cleanse us, and carry away our wastes. Like the arteries in our bodies, our rivers must be kept clean and healthy in order for us to live healthy lives in a clean environment.

STREAMSIDE BUFFERS

PROTECTING OUR COMMUNITIES ECOLOGICALLY AND ECONOMICALLY

As we build our communities — with new homes and businesses, roads and factories, farms and playing fields — we sometimes change our landscape in ways that cause expensive problems in the future. These problems include pollution of streams and rivers, pollution which can lead to costly clean-up projects, often under government supervision. Meanwhile, the degraded river is no longer an asset to those who live near it or to the larger community.

It is far more economical to prevent harm to a river at the outset than to repair damage that has been done. Luckily, for rivers (and all bodies of water), there is an easy, low-cost, efficient way to prevent numerous problems: simply leave in place the natural plants that border the shoreline or banks. This band of vegetation, or buffer, is an important protection for the quality of the water, the beauty of the waterway, and the well being of the people, animals and plants that live on, near or in the river.

BUFFERS AND BENEFITS

What is a buffer? It is this band of protective vegetation along side a body of water. It is the land and plants next to a river or stream. The naturally occurring plants usually include trees, shrubs, and tall, coarse grasses. This stretch of vegetated land literally "buffers" the vulnerable riverbanks and the water itself from harmful materials flowing across the land after a rainfall or snow melt. The materials include eroded soil and pollutants in runoff water from parking lots, roads, malls, lawns, kennels, gardens, factories, stables, farms, junkyards, and other paved or clear-cut sites. This contaminated runoff is technically called non-point source pollution, because it does not come from a particular discharge point.

How does the buffer deal with these materials? Plant roots in the buffer hold the banks of the river in place, stabilizing the soil. Roots also absorb the water and some of the contaminants in it. The bodies of the plants (tree trunks, bushy shrubs, and tall grass) slow the rush of polluted runoff, allowing the water

But buffers are much more than passive barriers. They are green ribbons of life alongside our watercourses. Buffers are sometimes called "riparian bands" because they support riparian (riverside) life — all the plants and animals that live near or in the water. Buffers increase opportunities for us to enjoy a river, whether for boating, fishing, walking a streamside trail, or simply sitting on a rock and taking in the scene. In summer, buffer trees shade the water protecting the cool flows that trout and other fish need. What does it cost us to receive all these benefits? Usually, nothing. We just leave in place what nature has given us.

Unfortunately, our understanding of the importance of buffers is relatively new, and buffers are often needlessly damaged. Engineers bury buffers under roads; loggers cut to the water line; homeowners create lawns alongside streams.

WHAT YOU CAN DO

Landowners can make an enormous contribution to water quality by leaving or restoring a strip of native plants along their segment of shoreline. The width of the strip depends on your goals and needs, among other factors (see ahead). It can be several hundred feet or more. A 100-foot buffer will filter most pollutants. Even a 25-foot buffer will provide benefits.

FORM AND FUNCTION

All buffers protect water and habitat. Of course, some buffers function better than others. Generally, wider buffers work better, but they are not always possible. The appropriate size for a buffer depends on your needs and goals, the slope and character of the land near the river, what animals live in or near the river, the health of the river, local setback requirements, and more.

Most regulations focus on water quality, not wildlife. But there are many sources for guidance on what size buffers are needed to protect both habitat and water quality. These sources include local river and watershed groups and land trusts.

NATIVE PLANTS

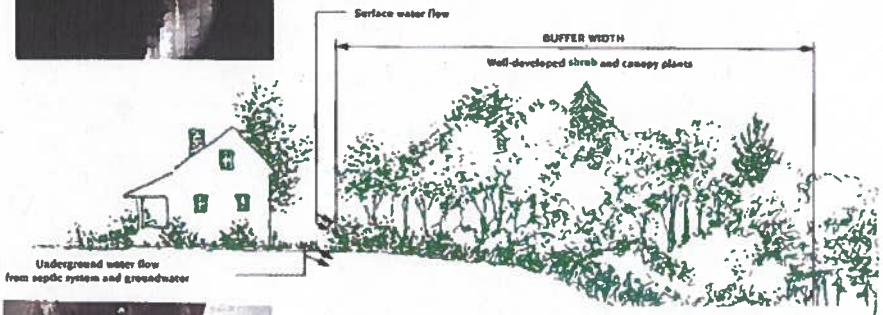
Buffers function best when they consist of native plants. Non-native invasive species, such as phragmites, multifloral rose and purple loosestrife, choke out native plants and change the character of the habitat. This change can exclude or even harm the animals that normally live there. Information on your native plants is usually available through local and state conservation groups, horticultural societies, state environmental protection agencies, and the national Natural Resources Conservation program (which has a number of district offices in each state).

EROSION CONTROL

As rainwater flows down hills, it picks up and carries along any loose soil. This wearing away, or erosion, of soil is often accelerated by human activities, such as construction and farming, which expose the soil. Creating large lawns and paved areas speeds the flow of runoff water. Instead of seeping into the soil and recharging groundwater, the water rushes over the surface, with increased power to erode. Much of the eroded soil ends up clogging streams, ponds and rivers; destroying the habitat of fish and other animals; filling up harbors and bays; burying fish eggs and shellfish beds, and turning clean clear water muddy. A buffer of vegetation slows the flow of runoff water, and traps the soil. The plants' roots strengthen steep streambanks, holding the soil in place, keeping stream water clean, and maintaining stream channels.

HOMES FOR ANIMALS

Watching deer drink from a river, ducklings learning to swim, or herons stalking fish are wonderful experiences. Yet animals like these need the food and shelter that a native vegetated buffer provides. They also need space and migratory paths. Even small amphibians — frogs, salamanders, and turtles — may need to travel large distances for food or to breed. The wood frog, for example, has a natural range of more than 1,000 meters between upland homes and breeding pools. If you want a buffer that will truly protect animals, it must be more generous than what is needed for water quality or to meet most local setback rules. The buffer should be at least 250 feet, and form a continuous margin along the water. The wider the better, however. A buffer of a quarter mile or more will support a marvelous variety of wildlife and plants.



RIVER RECREATION

Hiking, camping, fishing, picnicking and paddling along rivers brings joy to many of us. Rivers and streams are most beautiful in their natural state, cascading over rocks, surrounded by woods and fields. A natural buffer increases the chance of observing wildlife, and provides shade in summer and a windbreak in winter. Rivers with bare banks have lost much of their natural variety, life, and beauty.

OUR ECONOMY

Healthy rivers and streams are essential to our economic well being. Clean water and opportunities for recreation are important to our quality of life. These features attract residents, tourists, and businesses. Many communities have struggled, at great cost, to clean up contaminated rivers. Maintaining a buffer of vegetation alongside the water is an easy and cost-effective means of limiting contamination.

SAVING FISH

Most of us sense that a river without fish is not a healthy river. Buffers help to save fish in many ways: By preserving water quality. By shading the water so that it remains cool and less apt to evaporate. By sheltering and providing nourishment for the insects that are essential to the food chain. And by creating hiding places under fallen trees and branches, where fish are secure and will breed. (Here neatness is not a virtue. Leave debris in streams and rivers. It not only provides shelter, but food. For example, bugs eat and breed on decaying leaves, and fish eat the bugs.) Fish need all these protections to thrive. And they themselves contribute to and serve the total ecosystem of the river. A continuous buffer of plants along the waterside is a

PROTECTION FROM FLOODS

As rainstorms and snowmelts increase river flows, flooding may occur. Flood waters in a natural landscape normally are beneficial. The plants, wetlands and flood plains that naturally border a river act like a huge sponge, absorbing and storing water. The downstream flow is reduced. In dry seasons and droughts, this stored water is gradually released, replenishing groundwater, water in wells, and the flow in the river itself. Meanwhile the flood waters have deposited nutrients in the soil. But flood waters in a developed, clear-cut, paved environment can be devastating. Runoff rushes unimpeded over these surfaces, overfilling the river channel. Without vegetation on the banks, there is no sponge to absorb the flood waters, which are likely to flow right down main street. Later, when a drought comes, there is no stored water to replenish supplies. This is why rivers that flood their banks are also rivers that run dry.

Preserving natural vegetation as a buffer helps to prevent floods, to limit flood damage, and to conserve water for dry seasons.

POLLUTION PREVENTION

Most rivers today are much cleaner than in the past. We have made great progress in controlling specific discharges from sewage plants, factories, and the like. Now most pollution entering our streams and rivers comes not from a particular point of discharge, but in the general downhill flow of water following a rainstorm or snow melt. This runoff is called "non-point source pollution." It may contain oil, gasoline, salt, sand, and variety of other chemicals and debris from roads and parking lots. Farms, suburban and urban residences, golf courses and playing fields contribute animal waste, pesticides, herbicides and large amounts of fertilizer (which can lead to algae blooms that use up oxygen in the water, leaving dead zones — such as the huge dead zone in Long Island Sound.)

To reduce this pollution, we need to adopt best management practices in using and developing our land, including reducing or eliminating pesticides and fertilizers from lawn maintenance and gardening. (Farming and gardening experts can explain how what is called "integrated pest management" can discourage plant-destroying critters while reducing human exposure to toxic pesticides.)

But in all circumstances, simple vegetated buffers will help to filter and absorb pollutants before they can flow into a storm drain, stream or river. A buffer is nature's cost-effective water filter, guarding the quality

Recycling News

Thanks to all that came out to the Electronic Recycling Event on Saturday July 8th. We had over 140 cars and trucks. Most people recycled electronics, batteries and used motor oil.

Some of the electronics were still in working condition. While we appreciate these items being recycled, if you have a working item please try to give it away to someone else who can use it. The Facebook page: North Branford and Northford Free Items works great for giveaways.

POCO is coming up the first weekend in August.

Please be on the lookout for the recycling bins for your drink containers.

These recycling bins will be clearly marked. There are plenty of trash containers for your leftover food and other waste. Please don't put your leftover food in the recycling bins. The charitable organization that will receive the proceeds from the drink containers needs to sort through the containers and rinse them out. Please don't make this task more unpleasant than it needs to be.

The next Bulk Pickup isn't until November.

It is a little soon to put your couches on the curb now. They will be there for the next 4 months.

Hazwaste Central is open for the Season

Located right behind the Regional Water Authority's headquarters, 90 Sargent Drive, New Haven
Hours are 9am to noon - Saturdays through October 28th.

Gather your household chemicals so they can be disposed of properly.
Accepted: Waste oil, antifreeze, cleaners, pool chemicals, oil-based paints, pesticides, compact fluorescent light bulbs and much more.

The water company collects these items so they don't go into the trash and pollute your local drinking water.

To find the complete list and the registration form go to Hazwaste at rwater.com or call 203-401-2712.

Not Accepted at HazWaste Central: Asbestos, Commercial Waste, Electronics, Fire Extinguishers, Gas-Grill Size Propane Tanks, Medicine, Needles, Smoke Detectors.

Please visit *https://www.rwater.com/in-the-community/hazwaste-central* for a complete list of what is accepted along with the online registration form. You can also call 203-401-2712 or email ask.hazwaste@rwater.com.

For more information about recycling in North Branford you can check out North Branford's Recycling Committee's website: townofnorthbranfordct.com/government/boards-commissions/hazardous-wasterecycling-committee.aspx or our Facebook page: North Branford CT Hazardous Waste & Recycling Committee

Thank You for Your Participation

Get Your Tickets for the NBHS Athletic Hall of Fame Dinner.

North Branford High School Athletic Hall of Fame will be inducting seven exceptional athletes on Sunday, August 6, 2023 at the Millpond Gatherings. The Hall of Fame started in 2011 and since then 67 individual athletes and coaches as well as 4 teams have been inducted.

We hope that you will join us in honoring the following incoming inductees who excelled in soccer, football, lacrosse, softball, ice hockey, tennis basketball and track. Jeff Breeman (1975) Roselle Simiola from the class of 1977 as well as Tommy Fair(1981) Jeff Crouse (1994), Sean Anderson (1999) and Kelsey Platner (2010)

These men and women were outstanding athletes who excelled in a variety of sports including; football, soccer, basketball, ice hockey, softball, baseball, tennis and lacrosse.

Jeff Breeman and Tommy Fair also came back to coach at North Branford High School.

The induction will take place at a brunch at Northford Gatherings from 12:00 - 4:00.Anyone who would like to make a reservation is asked to conact Chris Webster at cwebster@northbranfordschools.org

THEY MAKE US PROUD

Marcus Williams was named to the Dean's List at Holy Cross College in Worcester, MA.

Marissa Montesanto and Jazzmine Gargano were named to the Dean's List at the University of Bridgeport.

Children and Smoke Alarms

Sleeping children don't always awake when a smoke alarm activates. Children, ages 6 thru 10 seem to be most affected. While these dramatic facts are worrisome, we shouldn't allow them to obscure the fact that smoke alarms are highly effective at reducing fire deaths and injuries. Roughly 70% of deaths occur from fires in homes without smoke alarms or disabled smoke alarms.

Think about how heavily you or your children sleep. As loud as smoke alarms can be, sometimes children sleep through it. Research has shown that some children don't wake up from the loud beep of a typical smoke alarm.

There are many new types of smoke detectors and carbon monoxide detectors on the market today. Some of the new features include:

- Personalized Instructions, which allows you to record customized escape instructions
- Fire Drill Feature, which allows a time delay to simulate an actual fire alarm
- Loud 85 decibel outputs
- 10 year batteries

There have been many advances over the last 10 years in home smoke alarms. Smoke and carbon monoxide detectors are electrical devices and the do have a life limit. It's a good idea to replace your detectors every 10 years. We also want to emphasize the need to continue planning and practicing home fire escape plans and to insure everyone in your home can be awakened by the sound of the smoke alarm. We will continue to reinforce the importance of developing and practicing a home fire escape plan during which the smoke alarm is activated so all family members know its sound.

Sleepover fire safety for kids

Is your child safe staying overnight at a friend's home?

Think upset tummies and lack of sleep are the biggest risks when your child is spending the night at his or her friend's house? Before you permit your child to sleep over with a friend, talk to the child's parents. Depending on what you learn, it can either uncover serious fire dangers or give you peace of mind during your child's sleepover.

8 out of 10 fire deaths take place in the home, with the majority of home fire deaths occurring late at night. "If you don't know for certain that the friend's home is equipped with working smoke alarms, and that the sleepover will be supervised by an adult, don't take the risk; reverse the invitation and have the sleepover at your own home.

Teach children about the importance of fire escape planning in a positive, non-threatening style. Ideally, your child is already well versed in home fire escape planning and drills in your own home. Before you permit a sleepover at a friend's, discuss the importance of knowing how to escape from a fire wherever you are, including friends' homes. Have your children ask friends and their parents about fire safety in their home, and to report to you anything that makes them feel unsafe.

And when it's your turn to have other children stay overnight in your home, make sure they know what your home's fire escape plan is.

NBFD has a limited supply of new battery operated Smoke detectors. If you don't have a working alarm, call or email us @ 203-484-6016 or jobrien@townofnorthbranfordct.gov

NORTH HAVEN SONS & DAUGHTERS OF ITALY
5th Annual Richard M. DeCrosta Memorial Golf Tournament.
Sunday, September 24, 2023
Hunter Golf Club, 688 Westfield Road, Meriden, CT. 06450
203-634-3366.
$150 per person Includes Lunch & Dinner.
Prizes will be awarded.
Women are urged to participate!
For more information or to sponsor, Call Tim at 203-843-7157.
Portions of the proceeds go to the Epilepsy Foundation of Connecticut.

Recycling News

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Some of the electronics were still in working condition. While we appreciate these items being recycled, if you have a working item please try to give it away to someone else who can use it. The Facebook page: North Branford & Northford Free Items works great for giveaways.

POCO is HERE!!

At POCO, please be on the lookout for the recycling bins for your 5-cent deposit drink containers. These recycling bins will be clearly marked. There are plenty of trash containers for your leftover food and other waste. Please don't put your straws, napkins or leftover food in the recycling bins. The organization that will receive the proceeds from the drink containers needs to sort through the containers and rinse them out. Please don't make this task more unpleasant than it needs to be.

The next Bulk Pickup isn't until November.

It is a little soon to put your couches on the curb now.
Your neighbors will be looking at that couch for the next 3 months.

Hazwaste Central is open for the Season

Located right behind the Regional Water Authority's headquarters, 90 Sargent Drive, New Haven
Hours are 9am to noon - Saturdays through October 28th.
Gather your household chemicals so they can be disposed of properly.
Accepted: Waste oil, antifreeze, cleaners, pool chemicals, oil-based paints, pesticides, compact fluorescent light bulbs and much more.
The water company collects these items so they don't go into the trash and pollute your local drinking water.
To find the complete list and the registration form go to Hazwaste at rwater.com or call 203-401-2712.

Not Accepted at HazWaste Central: Asbestos, Commercial Waste, Electronics, Fire Extinguishers, Gas-Grill Size Propane Tanks, Medicine, Needles, Smoke Detectors.
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or our Facebook page: North Branford CT Hazardous Waste & Recycling Committee

Thank You for Your Participation

Branford Compassion Club Hosts Kitten Shower

Branford – Branford Compassion Club is hosting a kitten shower on Friday, Aug 25 from 6-8 p.m. at the Branford Community House located at 46 Church St.

An evening of fun is planned with refreshments, games and raffles to benefit kittens and mama cats under BCC's care. While there is no admission fee for the event, gifts of food, supplies, monetary donations and gift cards are greatly appreciated. A wish list for kittens and moms can be accessed on BCC's website at branfordcompassionclub.org/how-to-help/wish-list/.

Also, please note that there will be no adoptions processed at the shower. If interested in adopting a kitten or adult cat, please fill out an adoption application found on the website at branfordcompassionclub.org/learn/adoption/. An adoption counselor will contact you upon review of your application.

CLASSIFIED AD RATES

Personal. For Sale. Help Wanted. Tag Sale. and all non-business classified
1 issue $9.00 2 issues $12.00 3 issues $15.00
20 words or less, not including phone #. $.05 per word, per run, after 20 words
Lost and Found ..... FREE
Business Classified Ads & Real Estate
3 issues $35.00, 6 issues $60.00, 12 issues $100.00
$.10 per word, per run, after 20 words
Payment MUST accompany all ads. The advertiser must notify this newspaper of any errors.

Send ad along with your check to:
Totoket Times P.O. Box 313 Northford, CT 06472
For more information call 203-410-4254

CONSTRUCTION SERVICES

Southern CT Restoration. Insurance restoration and general contracting services. New construction, remodeling, kitchens, baths, roofing, siding, windows, doors, decks and painting. Call 203-239-9600.

PLUMBING

John DiMaggio Plumbing - Residential/Commercial repairs/remodeling. Big or small. Water Heater Specials! Licensed & Insured. Call 203 - 627 - 6826. References available.

TREE SERVICES

Tree Service - A Better Cut, Tree Service - Local. full service tree company - we provide tree removal, chipping, and grinding. Please call 203-945-1808 for a free estimate.

Recycling News

Thank You for your Recycling efforts at the POCO Fest!

Hazwaste Central is Open

Located right behind the Regional Water Authority's headquarters, 90 Sargent Drive, New Haven

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Please visit *https://www.rwater.com/in-the-community/hazwaste-central* for a complete list of what is accepted along with the online registration form. You can also call 203-401-2712 or email ask.hazwaste@rwater.com.

Plastic Film Reminder

Please remember to empty your plastic bags of food and liquids before placing in the collection bin. The best way to do this is to turn the bags inside out. It may just be water to you, but mixed with other things it becomes a sticky mess. Also, if you are putting the bags in another bag, please pack them loosely. Tightly packed bags tend to get smelly.

Why Am I Getting a Bill If You Didn't Transport Me?

The State Department of Public Health sets the rate schedule for all Connecticut ambulances to abide by. In June 2021, they enacted a provision that allows ambulance services to bill patients for a "treat and non-transport" situation. We have held off implementing this in North Branford.

It is important to know that in our town, every dollar to fund the ambulance operation that doesn't come in from billing, must come from taxpayers. To that end, the "treat and non-transport" provision was recently started with our billing company – Comstar. As you can imagine, the enhancement to staff the second Paramedic ambulance - which has proven very beneficial – comes with a large financial commitment. Also, it is not uncommon for us to encounter a patient who requires us to use supplies, medications etc. and then decides to refuse transportation. These medications are costly and sometimes we have limited supplies.

If you receive one of the "treat without transport" invoices, we ask you to forward it to your insurance company for payment. If anyone has questions, please send them to firechief@townofnorthbranfordct.com

As a reminder, the town's drop off locations are:
Atwater and Smith Libraries, Northford Store, STW Community Center, The Food Pantry of NB, Country Paint and Hardware, T.J.'s Launderette

Helpful Hints for Plastic Recycling

You can keep the caps on the bottles when putting them into the blue bin. Black plastic, as in plant pots and take-out containers, are not recyclable. The sorting machines don't work on the black plastic.All other colors work fine.

Please don't put your bulky waste out at the curb

The next bulky waste pickup isn't until November!

Construction debris (such as toilets, concrete blocks, roofing material), propane tanks, TVs, monitors, printers, home cleanouts may not be placed curbside. These items will not get picked up; please dispose/recycle properly.

You can post useful items on the Facebook page: North Branford & Northford Free Items.

There is also Freecycle.org in East Haven or New Haven.

You can look up your item in the **New Haven Downsizing Donation Guide**. It lists multiple organizations that want your stuff! Just Google 'New Haven Downsizing Donation Guide'.Some places even pick up large items.

100+ Quilts Show & Sale
Highlights Needlework of Talented Church Members
Fundraiser on September 15 & 16 at United Methodist Church, Branford

Branford, CT: On Friday, September 15 (5 - 9pm) and Saturday, September 16 (9am - 5pm), The United Methodist Church, Branford will be filled with the vibrant colors and designs of over 100 quilts, many available for purchase. The church's "Sewing for God" group has been hard at work for several months to meet their goal of completing over 100 quilts, as well as many other hand-crafted items, such as cloth books, table runners, large cubby bags, and microwave cozies.

There will also be several demonstrations by the church's talented stitchers and local quilters, plus sewing and craft vendors displaying their wares. Guests can also visit a bake sale and order food from the café.

Admission is $10 for adults, $7 for seniors, and $5 for children ages 5+. Tickets are available at the door. A portion of the net proceeds from the Quilt Show will benefit local autism support agencies.

The United Methodist Church, Branford is located at 811 East Main Street (Route 1); there is ample on-site parking.

NORTHFORD-NORTH BRANFORD WOMEN'S CLUB, GFWC MEETING

The first meeting of the club year will be Tuesday, September 19th at 7:00pm. The meeting is being held at the Stanley T. Williams Community Center, 1332 Middletown Avenue in Northford. We will have a speaker from Rise and Shine, CT. Rise and Shine provides support and assistance to children and families in need throughout Connecticut. The public is invited to attend. For additional information about the meeting or membership, please contact Vicki at victorialanza2017@gmail.com.

ENGAGE EDUCATE ENTERTAIN

NORTH BRANFORD PUBLIC LIBRARIES

Atwater Memorial Library 1720 Foxon Road North Branford, CT 06471 203-315-5709
Edward Smith Library 3 Old Post Road Northford, CT 06472 203-484-0469
www.nblibraries.org

Hello Autumn

ADULT DEPARTMENT NEWS - SEPTEMBER 2023

Mother, Mogul, or Menace: The History and Influence of Barbie - Livestreamed Event
Tuesday, September 12th @ 6:30PM at Smith & Zoom
Join us for an interactive workshop on the history of this legendary toy and her significance in an ever-evolving worldview throughout the decades.

How Upcoming Tax Changes May Impact Your Retirement
Wednesday, September 13th @ 6PM at Atwater
Please join us for a workshop with USA Financial Tax Services to learn how effective planning and timing can alter the outcome of your retirement.

Pat's Picks Movie Club, "Kramer vs Kramer"
Thursday, September 14th @ 1PM at Atwater
This month's title is, *Kramer vs. Kramer*, a 1979 Drama. "After his wife leaves him, a work-obsessed Manhattan advertising executive is forced to learn long-neglected parenting skills, but a heated custody battle over the couple's young son deepens the wounds left by the separation" - IMDB.

Movie Matinee, "Moving On"
Friday, September 15th @ 1PM at Smith
This month's movie is, *Moving On*, a 2022 Comedy! "Two old friends reconnect at a funeral and decide to get revenge on the widower who messed with them decades before" - IMDB.

Macramé Class
Saturday, September 16th @ 10AM at Smith
Join special guest, Vanessa Fasanella, and learn basic macrame knots, designs, and supplies. Go home with a finished plant hanger or piece of wall art.

Retirement Planning Workshop
Tuesday, September 19th @ 6PM at Smith
Join the father/daughter team of Lou and Jessica Pelletier of Pelletier Senior Planning for an Interactive Comprehensive Retirement Planning Workshop.

Read Between the Vines Book Club
*Thursday, September 21st @ 6PM at Rose Vineyards & Winery *Copies of book available at both libraries**
Please join us for our new offsite book club! Come to Rose Vineyards for a fun and lively discussion with other members in our community! Our first featured book is, Ninth House, by Leigh Bardugo.

Understanding & Responding to Dementia Related Behavior
Thursday, September 28th @ 10:30AM at Smith
Please join us for a conversation about the primary ways people with dementia communicate as their ability to use language is lost.

Recycling News

Labor Day is a Trash Holiday!

There will be no pickup on Monday September 4th.

Trash pickup will be delayed one day this week.

Important Dates for the Fall

Scrap Metal Pickup – week of October 23-27

Electronics collection at Public Works – Saturday November 4.

Bulky Waste Pickup – week of November 6-10

You may ask: Why the November 6th date for Bulky Waste?

This is so the scrap metal can be picked up and recycled before bulky waste. Also, it is after the electronics collection so your electronics can be recycled.

==========

Hazwaste Central is Open

Located right behind the Regional Water Authority's headquarters, 90 Sargent Drive, New Haven

Hours are 9am to noon - Saturdays through October 28th.

Gather your household chemicals so they can be disposed of properly.

Accepted: Waste oil, antifreeze, cleaners, pool chemicals, oil-based paints, pesticides, compact fluorescent light bulbs and much more.

The water company collects these items so they don't go into the trash and pollute your local drinking water.

To find the complete list and the registration form go to Hazwaste at rwater.com or call 203-401-2712.

Not Accepted at HazWaste Central: Asbestos, Commercial Waste, Electronics, Fire Extinguishers, Gas-Grill Size Propane Tanks, Medicine, Needles, Smoke Detectors.

Please visit *https://www.rwater.com/in-the-community/hazwaste-central* for a complete list of what is accepted along with the online registration form. You can also call 203-401-2712 or email ask.hazwaste@rwater.com.

==========

Plastic Film Reminder

We receive a TREX bench every 6 months because of the amount of plastic film we collect. The last one went to Fire Company 4.

The town's drop off locations are:

Atwater and Smith Libraries, Northford Store, STW Community Center, The Food Pantry of NB, Country Paint and Hardware, T.J.'s Launderette

==========

Helpful Hints for Packaging Recycling

Cardboard boxes can go into the recycle bin but the plastic bubble wrap cannot. Bubble wrap is considered plastic film. You can drop this off at any of the town collection locations or your nearest grocery store.

Plastic shipping envelopes are also considered plastic film if the inside is plastic also.

Mixed media shipping envelopes (paper on the outside, plastic on the inside) need to go into the trash.

==========

How to find good homes for your extra stuff.

You can post useful items on the Facebook page: North Branford & Northford Free Items. There is also Freecycle.org in East Haven or New Haven.

You can look up your item in the **New Haven Downsizing Donation Guide**. It lists multiple organizations that want your stuff! Just Google 'New Haven Downsizing Donation Guide'.

Some places even pick-up large items.

Can I recycle it?

Connecticut has a website to help with recycling questions: www.recyclect.com. They also have an app.

North Branford Welcomes Partyville

North Branford proudly welcomes Partyville to town! Local officials joined with Shoreline Chamber members for a ribbon-cutting and celebration of their opening on Thursday, September 7th.

Located at 999 Foxon Rd. in the Twin Lakes Commons plaza, Partyville is a great new local place to host kids' parties and events with a large variety of activities for kids ages 3-14. Staff assisted crafts are created in one of their spacious, colorful rooms. Each room has a chalk wall for expression and fun, and goodie bags can be filled from their numerous dispensers.

There to welcome owners Tina and Kate Evans were Town Manager Michael Downes, Mayor Jeff Macmillen, Asst. Town Manager and Economic Development Director Rory Burke, Economic Development Commission member Scott Small, Shoreline Chamber Executive Director Dee Jacob and Shoreline Chamber President Jim Fennell.

Check them out at partyvillellc.com or call 203-208-4261.

Closer to Free Ride Stops in North Branford

We were proud to have North Braford Town Hall once again serve as a rest station for riders during the annual Closer to Free Ride on Saturday, September 9th. Riders could pull in along their route for rest, refuel and repair.

The Ride fuels research and care at Smilow Cancer Center Hospital and Yale Cancer Center while giving riders of all levels the chance to experience five professionally-designed and fully-supported routes ranging from 10 to 100 miles long.

Photos: Town manager Michael Downes visits with the great volunteers from Closer to Free, and riders resting at the North Branford Town Hall location.

Photos from Town of North Branford.

Recycling News

Important Dates for the Fall

Scrap Metal Pickup – week of October 23-27

Electronics collection at Public Works – Saturday 11-4.

Bulky Waste Pickup – week of November 6-10

Hazwaste Central is Open until October 28th

Go now to avoid longer lines in October

Located right behind the Regional Water Authority's headquarters, 90 Sargent Drive, New Haven

Hours are 9am to noon - Saturdays through October 28th.

Gather your household chemicals so they can be disposed of properly.

Accepted: Waste oil, antifreeze, cleaners, pool chemicals, oil-based paints, pesticides, compact fluorescent light bulbs and much more.

The water company collects these items so they don't go into the trash and pollute your local drinking water.

To find the complete list and the registration form go to Hazwaste at rwater.com or call 203-401-2712.

Not Accepted at HazWaste Central: Asbestos, Commercial Waste, Electronics, Fire Extinguishers, Gas-Grill Size Propane Tanks, Medicine, Needles, Smoke Detectors.

Please visit *https://www.rwater.com/in-the-community/hazwaste-central* for a complete list of what is accepted along with the online registration form. You can also call 203-401-2712 or email ask.hazwaste@rwater.com.

Plastic Film Reminder

We receive a TREX bench every 6 months because of the amount of plastic film we collect. The last one went to Fire Company 4.

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Helpful Hints for Packaging Recycling

Cardboard boxes can go into the recycle bin but the plastic bubble wrap cannot.

Bubble wrap is considered plastic film. You can drop this off at any of the town collection locations or your nearest grocery store.

Plastic shipping envelopes are also considered plastic film if the inside is plastic also.

Mixed media shipping envelopes (paper on the outside, plastic on the inside) need to go into the trash.

How to find good homes for your extra stuff.

You can post useful items on the Facebook page: North Branford & Northford Free Items.

There is also Freecycle.org in East Haven or New Haven.

You can look up your item in the **New Haven Downsizing Donation Guide**. It lists multiple organizations that want your stuff! Just Google 'New Haven Downsizing Donation Guide'.

Some places even pick-up large items.

Can I recycle it?

Connecticut has a website to help with recycling questions: www.recyclect.com.

They also have an app.

For more information about recycling in North Branford you can check out North Branford's Recycling Committee's website: townofnorthbranfordct.com/government/boards-commissions/hazardous-wastercecycling-committee.aspx

or our Facebook page: North Branford CT Hazardous Waste & Recycling Committee

Recycling News

North Branford Fall Leaf Collection opens on 10/14/23

North Branford residents can bring their leaves to the leaf drop off center located to the left of the police station, near the Public Works Facility on Route 22 from 9:00am to 3:00pm. Just follow the signs. No brush or grass clippings. The leaf drop off will be open on Saturdays October 14th, 21st, 28th, November 4th, 11th and 18th. Please place leaves in biodegradable leaf bags (no tape please) or empty them loose onto the ground. There will be a curbside pickup of leaves in untapped biodegradable paper bags the weeks of November 27th – December 8th

Scrap Metal Pickup will be the week of October 23rd on your normal trash pick-up day.

Items taken: A/C units, metal lawn furniture, large appliances, hot water tanks, tools, metal fencing, filing cabinets, outdoor grills, small machines, non-riding lawn movers and similar metal items.

Bulky Waste Pickup is only twice a year.
The next pickup is the week of November 6th.
Please do not place your bulky waste curbside until that week.

You can find a home for your used furniture before Bulky Waste!!

Help someone else out, unclutter your house and save the cost of sending items to the landfill.

You can post on the Facebook page: North Branford & Northford Free Items.

Or, post on the New Haven, East Haven or Milford Freecycle.org site. Or, you can look up furniture in the New Haven Downsizing Donation Guide. It lists multiple organizations that want your stuff! Just Google 'New Haven Downsizing Donation Guide'. Some places even pick-up large items.

Electronics Drop Off will be on Saturday November 4th. These items should not be taken by the Bulky Waste pick-up.

The event will be held at Public Works from 9am to noon. Take2 Recycling will be collecting electronics such as TVs, computers, small appliances and almost anything that has a plug. They cannot accept smoke detectors, A/C's or dehumidifiers.
We will also be taking MATTRESSES (clean and dry), BATTERIES and USED OIL for FREE.
There is a small fee for recycling PROPANE TANKS in reusable condition and TIRES.

When you bring us your mattress, you are creating jobs for those who take them apart to recycle the components.

Hazwaste Central will be closing for the year on 10/28/23

Located right behind the Regional Water Authority's headquarters, 90 Sargent Drive, New Haven
Hours are Saturdays from 9am to noon.

Household hazardous waste comes from everyday products used in the home, garage, yard or garden.

Gather your household chemicals so they can be disposed of properly to protect our drinking water. Anything poured down into the storm drains goes into your ground water. Chemicals put into the trash can leach into the ground water where the trash is stored or gets into the air if the trash is burned.
To find the complete list and the registration form go to Hazwaste at rwater.com or call 203-401-2712.

Not Accepted at HazWaste Central: Asbestos, Commercial Waste, Electronics, Fire Extinguishers, Gas-Grill Size Propane Tanks, Medicine, Needles, Smoke Detectors.

KNIGHTS OF COLUMBUS FALL DANCE

Saturday, October 28, 2023

7:00 p.m. – 11:00 p.m.

COUNCIL 6801 Saint Monica's Church COUNCIL 6801

1331 Middletown Avenu
Northford, CT 06472

Raffle Baskets & 50/50 Raffle

Music by DJ – Anthony Esposito

BYOB & Snacks

Setup, Pizza & light desserts are provided by: Knights of Columbus

Tickets $15/per person

For questions or tickets, please call:
Wayne 203-410-3885 or Damian 203-215-7699
or email: **knights6801@gmail.com**

PROCEEDS WILL HELP WITH THE PURCHASE OF THANKSGIVING AND CHRISTMAS DINNERS FOR MEMBERS OF OUR COMMUNITY

Come to our final antique tractor pull of 2023!
October 28th
298 Forest Rd.
Northford
Weigh in 8am
Pulling starts at 9

Come to the Augur Farm and have Fun

Can I recycle it?

Connecticut has a website to help with recycling questions: www.recyclect.com.
They also have an app.

Plastic Film Reminder

The town's drop off locations are:
Atwater and Smith Libraries, Northford Store, STW Community Center, The Food Pantry of NB, Country Paint and Hardware, T.J.'s Launderette

For more information about recycling in North Branford you can check out North Branford's Recycling Committee's website: townofnorthbranfordct.com/government/boards-commissions/hazardous-wasterecycling-committee.aspx
or our Facebook page: North Branford CT Hazardous Waste & Recycling Committee

Thank You for Your Participation

Recycling News

Happy Halloween!

Please remember that most of those candy bar wrappers and bags go into the trash. They are not plastic film and they are not recyclable. When your pumpkin has lost its decorating use, you can throw it into the woods to feed the wildlife. Be sure to remove any non-organic features.

North Branford Fall Leaf Collection is open on Saturdays until November 18th.

North Branford residents can bring their leaves to the leaf drop off center located to the left of the police station, near the Public Works Facility on Route 22 from 9:00am to 3:00pm. Just follow the signs. No brush or grass clippings. The leaf drop off will be open on Saturdays October 21st, 28th, November 4th, 11th and 18th. Please place leaves in biodegradable leaf bags (no tape please) or empty them loose onto the ground. There will be a curbside pickup of leaves in untapped biodegradable paper bags the weeks of November 27th – December 8th

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Please do not place your bulky waste curbside until that week.

You can find a home for your used furniture before Bulky Waste!!

Help someone else out, unclutter your house and save the cost of sending items to the landfill. You can post on the Facebook page: North Branford & Northford Free Items.
Or, post on the New Haven, East Haven or Milford Freecycle.org site.
Or, you can look up furniture in the New Haven Downsizing Donation Guide. It lists multiple organizations that want your stuff! Just Google 'New Haven Downsizing Donation Guide'.
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We will also be taking MATTRESSES (clean and dry), BATTERIES and USED OIL for FREE.
There is a small fee for recycling PROPANE TANKS in reusable condition and TIRES.
When you bring us your mattress, you are creating jobs for those who take them apart to recycle the components.

Hazwaste Central will be closing for the year on 10- 28th.

Located right behind the Regional Water Authority's headquarters, 90 Sargent Drive, New Haven
Hours are Saturdays from 9am to noon.
Household hazardous waste comes from everyday products used in the home, garage, yard or garden.
Gather your household chemicals so they can be disposed of properly to protect our drinking water. Anything poured down into the storm drains goes into your ground water. Chemicals put into the trash can leach into the ground water where the trash is stored or gets into the air if the trash is burned.
To find the complete list and the registration form go to Hazwaste at rwater.com or call 203-401-2712.
Not Accepted at HazWaste Central: Asbestos, Commercial Waste, Electronics, Fire Extinguishers, Gas-Grill Size Propane Tanks, Medicine, Needles, Smoke Detectors.

Can I recycle it?
Connecticut has a website to help with recycling questions: www.recyclect.com.They also have an app.

TOWN OF NORTH BRANFORD OFFICE OF SOCIAL SERVICE THANKSGIVING BASKET SHARE

The Thanksgiving Basket Share Program will take place on Monday, November 20th, 2023.

For those that need some assistance with their Thanksgiving Dinner, you only need to call the Office of Social Service and request to be a recipient in the Thanksgiving Basket Share. The only requirement is that you are in need, and that you reside in Northford or North Branford. Your information is protected, and your name will not be disclosed. You must be able to pick up your basket or arrange for someone to pick it up for you. We are unable to deliver or bring it to your car.

For those wishing to donate a basket or grocery store gift card, call or email the Office of Social Service and express your desire to donate a Thanksgiving Dinner Basket or a grocery store gift card. You may choose the family size you would like to adopt. You may choose to do this alone, or as a group, with neighbors or co-workers.

Although names are not disclosed, a number will be given to both the recipient and the donor. This is used to identify which family is the recipient. All commitments by the donor and recipients will receive written confirmation.

The Thanksgiving Basket Share is scheduled for Monday, November 20th, 2023. Should you have an interest in being a recipient or a donor please contact Office of Social Service by email at ssadm@townofnorthbranfordct.com or by phone at 203.484.6006 or 475-655-0412 by ***10/31/2023 for recipients, no end date for donors.***

Knights of Columbus Giant Flea Market/Tag Sale has been rescheduled to Saturday, October 21st at Doody's Field from 8:00AM to 3:00PM

KNIGHTS OF COLUMBUS
FALL DANCE

Saturday, October 28, 2023

7:00 p.m. – 11:00 p.m.

Saint Monica's Church 1331 Middletown Avenue
Northford, CT 06472
Raffle Baskets & 50/50 Raffle
Music by DJ – Anthony Esposito
Setup, Pizza & light desserts are provided
BYOB & Snacks
Tickets $15/per person
For questions or tickets, please call:
Wayne 203-410-3885 or Damian 203-215-7699
or email: knights6801@gmail.com

PROCEEDS WILL HELP WITH THE PURCHASE OF THANKSGIVING AND CHRISTMAS DINNERS FOR MEMBERS OF OUR COMMUNITY

Recycling News

ELECTRONICS DROP OFF IS THIS SATURDAY – NOVEMBER 4TH

THAT IS THIS SATURDAY FROM 9AM UNTIL NOON

At Public Works at 290 Forest Road
Electronics, Mattresses, Used Oil and Batteries are Taken for FREE

This is a quick way to do the right thing for our future generations. The items we collect during this event are taken apart and the components recycled in a dedicated facility that employs many people..

ELECTRONICS: Take2 Recycling will be collecting electronics such as TVs, computers, small appliances and almost anything that has a plug. They cannot accept smoke detectors, A/C's or dehumidifiers. Electronic devices are banned from being collected by trash services because they are considered hazardous waste.

MATTRESSES (clean and dry): You are charged a recycling fee when you buy a mattress. This goes toward the recycling of the mattresses that we collect at these events. It is a win/win because our trash disposal is paid for by the ton. Mattresses weight a lot. The more we take out of the waste stream, the less the charge is. For more information see: https://mattressrecyclingcouncil.org/programs/connecticut/.

BATTERIES and USED OIL are Hazardous Waste. Public Works uses the oil for heat to save the town money on fuel.

There is a small fee for recycling PROPANE TANKS in reusable condition and TIRES.

These items should not be taken by the Bulky Waste pick-up.

Bulky Waste will be the week of November 6th on your normal trash day.

Bulky Waste includes rugs and tree branches (no thicker than 4") if less than 4' long and tied into bundles. Also included are couches, mattresses, wooden furniture and most items that won't fit in your toter.

Bulky Waste will NOT take:

Electronics including TVs and computers, construction waste, grass clippings, tires, hazardous materials or scrap vehicle parts. It is also not meant for total home cleanouts.

For a complete list please refer to your pink recycling card.

You can find a home for your used furniture before Bulky Waste!!

Help someone else out, unclutter your house and save the cost of sending items to the landfill.

You can post on the Facebook page: North Branford & Northford Free Items.

Or, post on the New Haven, East Haven or Milford Freecycle.org site.

Or, you can look up furniture in the **New Haven Downsizing Donation Guide**. It lists multiple organizations that want your stuff! Just Google 'New Haven Downsizing Donation Guide'.

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There will be a curbside pickup of leaves in untapped biodegradable paper bags the weeks of November 27th – December 8th

When your pumpkin has lost its decorating use, you can throw it into the woods to feed the wildlife. Be sure to remove any non-organic features. You can throw your mums into the compost pile after removing the black plastic container and throwing it in the trash. (Black plastic cannot be recycled.) Asters may survive the winter if you cover them with leaves and put in a sheltered spot outside.

Can I recycle it?

Connecticut has a website to help with recycling questions: www.recyclect.com.

They also have an app.

Plastic Film Reminder

The town's drop off locations are:

Atwater and Smith Libraries, Northford Store, STW Community Center, The Food Pantry of NB, Country Paint and Hardware, T.J.'s Launderette

For more information about recycling in North Branford you can check out North Branford's Recycling Committee's website: townofnorthbranfordct.com/government/boards-commissions/hazardous-wasterecycling-committee.aspx

or our Facebook page: North Branford CT Hazardous Waste & Recycling Committee

Thank You for Your Participation

The Northford-North Branford Women's Club, GFWC 60th Anniversary Celebration

We are proud to be celebrating our 60th Anniversary at our November meeting. All former members of the club, as well as the general public, are cordially invited to attend the celebration. The meeting will be held on Tuesday, November 14th at 7:00pm at the Stanley T. Williams Community Center, 1332 Middletown Avenue, Northford. The Northford-North Branford Women's Club is a civic organization dedicated to promoting deeper friendships among

women of our town and surrounding areas, participating in community service, and

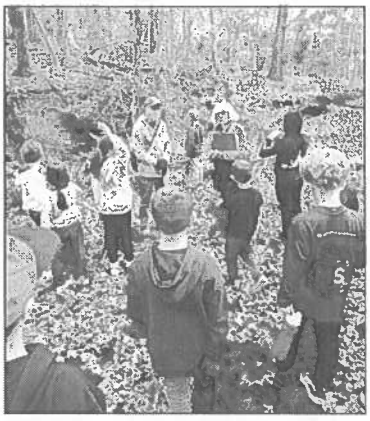
cooperating with the club work of the Connecticut State Federation of Women's Clubs. For additional information about membership, please contact Vicki at victorialanza2017@gmail.com

You can also check us out on Facebook: Northford-North Branford Women's Club, GFWC.

Want to discover a huge white oak from the 1600's...stone walls...an old farm cistern

The nature trails behind **Totoket Valley Elementary School** are one of the quiet gems of our town. The trails were designed in 1968 by the Northford Garden Club (no longer operational). It is believed that this property was farmed by the Bartholomew Family in the mid 1800's.

Join NBLCT hike leaders Mike Ferrucci, Forester, and Board Members Hank Petroskey and Bonnie Symansky to walk on trails through the woodlands, which are constantly changing by the season.



When: Saturday, December 2, 2023 from 9:30 - 11:30 a.m. (rain date Sunday). Where: Meet at the Playscape at Totoket Valley Elementary School, 1388 Middletown Ave, Northford CT at 9:15.

This walk is one of a number of events presented by the North Branford Land Conservation Trust for adults and families throughout the year.

All events are free and open to the public.

The mission of the North Branford Land Conservation Trust is to acquire and maintain open space and to promote the conservation of land and natural resources within the Town of North Branford and environs.

MARK YOUR CALENDARS FOR GIVING TUESDAY, NOVEMBER 28, 2023

Giving Tuesday is a global movement to encourage the generosity of people in the support of charitable giving in their communities. Founded in 2012, **Giving Tuesday** inspires people to collective generosity during the holiday season. The collaborative effect of many gifts at once allows good causes to benefit substantially. Great success comes from collaboration!

Giving Tuesday emphasizes opportunities to give back to communities and causes that allow for social connection and kindness.

This year, **Giving Tuesday** is November 28.

Support your local community with a generous donation to **the North Branford Land Conservation Trust (NBLCT).** This year, funds raised during **Giving Tuesday** will be used to create the first ADA-accessible parking lot and trail in North Branford. We will also be participating in a project to try to repopulate American Chestnut trees. Both projects will take place following our acquisition of 37 acres of Regional Water Authority (RWA) property at the intersection of Beech St. and Pomps Ln in North Branford.

NBLCT provides value to the community through acquisition and open space for passive recreation. We create and maintain trails for the benefit of our community. When you support NBLCT, you give to your own community.

North Branford Land Conservation Trust
Go to nblandtrust.org
Click on the DONATE button
Give generously for our community!
Like us on Facebook.

Recycling News

Saturday 11-18 is the last day that the leaf drop-off is open.

North Branford residents can bring their leaves to the leaf drop off center located to the left of the police station, near the Public Works Facility on Route 22 from 9:00am to 3:00pm. Just follow the signs. No brush or grass clippings. No commercial vehicles. Please place leaves in biodegradable leaf bags (no tape please) or empty them loose onto the ground.

There will be a curb side pickup of leaves in untapped biodegradable paper bags the weeks of November 27th – December 8th

Thanksgiving is a trash holiday. Pickups is delayed one day.

Thanks to everyone who came out to the electronics waste drop-off on November 4th. In the 3 hours that we were there, we had well over 200 cars who brought electronics, waste oil, batteries and tires to be recycled.

We collected over 3 dozen mattresses that will be taken apart and recycled. At some points we overwhelmed the Take2 person collecting the electronics. We are working on correcting this for next spring. Thanks to everyone for helping to keep these materials out of the waste stream.

Did you know that you can drop off waste oil at Public Works when they are open during the week? They use this oil to heat their buildings so it needs to have no contaminates in it like antifreeze or water.

Did you just find something that should have gone out for Bulky Waste?
Don't want to wait till the spring to dispose of it?
Here are some options:

- You can post on the Facebook page: North Branford & Northford Free Items.
- Post on the New Haven, East Haven or Milford Freecycle.org site.
- Look up your item in the **New Haven Downsizing Donation Guide**. It lists multiple organizations that want your stuff! Just Google 'New Haven Downsizing Donation Guide'. Some places even pick-up large items.
- Some big box stores take used electronics for recycling.
- Tire stores can take used tires for a fee.

Can I recycle it?
Connecticut has a website to help with recycling questions: www.recyclect.com. They also have an app.

Plastic Film Reminder

The town's drop off locations are:
Atwater and Smith Libraries, Northford Store, STW Community Center, The Food Pantry of NB, Country Paint and Hardware, T.J.'s Launderette

Plastic Film includes grocery bags, newspaper sleeves, produce bags, bread bags, dry cleaning bags, ice bags, wood pellet bags, salt bags, and zipper bags for recycling.

They also accept plastic wraps from water bottle cases, diapers, bathroom tissue, and paper towels, as well as bubble wrap and shipping pillows.

Plastic bags with recycling symbols Number 2 or Number 4 **are** accepted.

Plastic bags with recycling symbols Number 5 or Number 7 (i.e. salad and grape bags), snack bags (potato chips, popcorn, and candy), pet food bags, frozen food bags, and any bags with food residue are **not** accepted.

Plastic bags and wraps get recycled into products such as new grocery bags, benches, and decking.

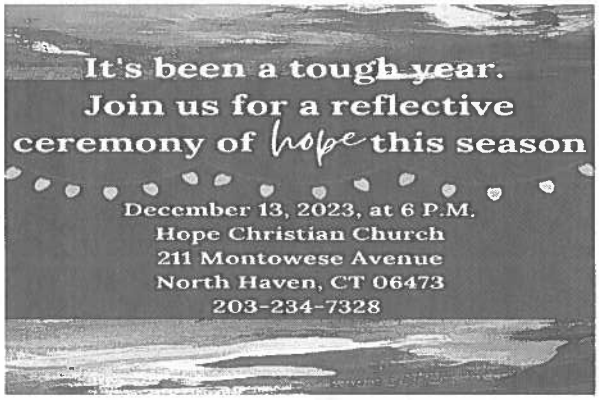
For more information about recycling in North Branford you can check out North Branford's Recycling Committee's website: townofnorthbranfordct.com/government/boards-commissions/hazardous-wasterecycling-committee.aspx or our Facebook page: North Branford CT Hazardous Waste & Recycling Committee

Welcome to Central Cafe

North Branford officials were pleased to participate in a ribbon-cutting ceremony to welcome Central Cafe to Central Plaza in North Branford on November 16th. Best of luck to newlyweds Norm Macdonald and Mar Parsaye on their brand new neighborhood bar with some great signature cocktails! Come by when you get a chance and check them out at Central Cafe .

Photo courtesy of the Shoreline Chamber of Commerce.

L-R: Town Manager Michael Downes, State Representative Vincent Candelora, Mayor Rose Angeloni, owners Norm Macdonald and Mar Parsaye, Asst. Town Manager Rory Burke, Nancy Gerson of Guilford Savings Bank, EDC chair Liz Caplan.



North Branford/Northford Holiday Program
Office of Social Service
www.townofnorthbranfordct.com

TOWN OF NORTH BRANFORD – OFFICE OF SOCIAL SERVICES

DECEMBER HOLIDAY BASKET SHARE

The December Holiday Basket Share will take place on Monday December 18th, 2023.

For those that need some assistance with their Holiday dinner and/or gifts for children, you only need to contact the Office of Social Services and request to be a recipient in the December Holiday Basket Share. The requirements are that you are in need and a resident of North Branford or Northford. Your information is protected, and your name will not be disclosed. You must be able to pick up your basket or arrange for someone to pick it up for you. We are unable to deliver or bring it to your car.

For those wishing to donate a basket, you only need to call or email the Office of Social Service and express your desire to donate a Holiday Dinner Basket or a grocery store gift card, with or without children's gifts. You may choose the family size you would like to adopt. You may choose to do this alone, or as a group, with neighbors or co-workers. For those wishing to include children's gifts, this Office will provide you with the children's wish list.

Although names are not disclosed, a number will be given to both the recipient and the donor. This is used to identify which family is the recipient. All commitments by the donors and recipients will receive written confirmation.

Donor Drop Off: Monday, December 18, 2023 (9:30 AM – 11:00 AM)

Recipient Pick-up: Monday, December 18, 2023 (11:30 AM – 1:00 PM)

Should you have an interest in being a recipient or donor, please contact the Office of Social Service by email at ssadmin@townofnorthbranfordct.com or by phone at 203-484-6006 by 11/17/2023.

Recycling News

There will be a curbside pickup of leaves in untapped biodegradable paper bags the week of December 4th - 8th

Holiday Recycling

Please recycle the packaging that your holiday shipments arrive in. The cardboard goes into the recycle bin, but the Styrofoam goes into the trash. Styrofoam does have a recycle symbol on it but we don't have the equipment to recycle Styrofoam yet.

Any bubble wrap is considered plastic film and can be brought to a plastic film drop off location. Get out your frustrations by popping it first. Plastic shipping envelopes are also considered plastic film. These are the ones that are plastic on the inside and outside. The ones with paper on the outside need to go into the trash because they are mixed materials. Holiday wrapping paper is mostly not recyclable because most of it has metallic, glitter or velvety flocking on it. Also, the ribbons and bows cannot go into the recycle bin.

"Please Don't Feed the Storm Drain"

Now that most of the leaves have fallen, please take a look at your storm drains and clear them of leaves so they can work properly and not flood your property.

Remember: Only Rain in the Drain!

Can I recycle it?

Connecticut has a website to help with recycling questions: www.recyclect.com.
They also have an app.

Plastic Film Reminder

The town's drop off locations are:
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For more information about recycling in North Branford you can check out North Branford's Recycling Committee's website: townofnorthbranfordct.com/government/boards-commissions/hazardous-wasterecycling-committee.aspx or our Facebook page: North Branford CT Hazardous Waste & Recycling Committee

Thank You for Your Participation

Recycling News

Christmas Day and New Year's Day are Trash Holidays
Pickups will be delayed 1 day for these 2 weeks.

Christmas Tree Pickup – January 2 - 12, 2024

Here are some tips for this holiday season.

Meal Planning

- Single-use paper plates, cups, napkins and utensils all belong in the trash.
- Shop smart to avoid throwing away excess food.
- Compost your food scraps.

Gift Giving

- Think outside the box – purchase experiences, memberships or donating to a non-profit on behalf of a friend or family.
- Check out local thrift and consignments stores for holiday gifts.
- Shop local to support your local economy.

Please recycle the packaging that your holiday shipments arrive in.

- Cardboard shipping box - recycle bin
- Styrofoam – trash bin
- Bubble wrap – plastic film drop-off location
- Shipping envelopes (plastic in and out) – plastic film drop-off location
- Shipping envelopes (mixed materials) – trash bin
- Plain cardboard gift box - recycle bin
- Plain wrapping paper – recycle bin
- Fancy wrapping paper (metallic, glitter, flocking) – trash bin
- Ribbons/bows/string – trash bin
- Cellophane wrapping paper – trash bin
- Plain holiday cards – recycle bin
- Fancy holiday cards (metallic, glitter, flocking) – trash bin
- Photo holiday cards – trash bin

If you aren't sure if it should go into the recycling or trash, put it in the trash. Don't put your recyclables inside a cardboard box or plastic bag. Recycling should always stay separated and loose

Plastic Film Reminder

The town's drop off locations are:
Atwater and Smith Libraries, Northford Store, STW Community Center, The Food Pantry of NB, Country Paint and Hardware, T.J.'s Launderette

Are you interested in getting involved on a town committee?
Does it upset you when you see littering?
Do you wonder where the trash goes and how recycling works?
Next year is full of possibilities and we could use some new ideas.

The Solid/Hazardous Waste and Recycling Committee is looking for new members. Please call the Town Manager's office if you are interested
For more information about recycling in North Branford you can check out North Branford's Recycling Committee's website:thbranfordct.com/government/boards-commissions/hazardous-wasterecycling-committee.aspx or our Facebook page

Northford-North Branford Women's Club, GFWC Sponsors Little Free Library

The Northford-North Branford Women's Club, GFWC is proudly sponsoring a Little Free Library. The Library is located at 44 Village Street in Northford. The library was built by Ed Collett and painted appropriately in a sunflower theme by club member Patty Meglio.

Little Free Library is a nonprofit organization based in St. Paul, Minnesota. Their mission is to be a catalyst for building community, inspiring readers, and expanding book access for all through a global network of volunteer-led Little Free Library book-exchange boxes.

Come by and visit. Take a Book, Share a Book.

For membership information, contact Vicki at victorialanza2017@gmail.com.

(pictured are Liz Boissard, Patty Meglio, Mary Ellen Collett and Ed Collett)

Company 1 Receives Plastic Film Program Bench

On Tuesday, November 28, NB Fire Department Company 1 was presented the latest bench NB has earned from the Plastic Film Recycling Program, sponsored by Trex and supported by our NB Big Y. This NB's 14th bench.

NB Solid/Hazardous Waste and Recycling Committee members Bill Savastano and Hank Petroskey made the presentation.

A big thank you to Lauren Davis and the staff at Atwater Library who agreed to donate the second bench they earned to the NB Fire Companies. To date, Atwater Library has collected over 4,000 pounds (2 tons) of plastic film.

The bench will give our First Responders a nice place to rest between calls.

Thanks to everyone who participates in the Plastic Film Recycling Program and please continue to be diligent in placing only acceptable items in the collection bins and turn all bags inside out.

The purpose of North Branford's Solid/Hazardous Waste and Recycling Committee is to develop and implement environmentally sound solutions and best practices for solid waste disposal and recycling management on behalf of our town.

Seated are Co 1 Members Kyle Conklin and Ken Ash. Standing is Acting Fire Chief Anthony Esposito, Jr. (photo by Hank Petroskey)

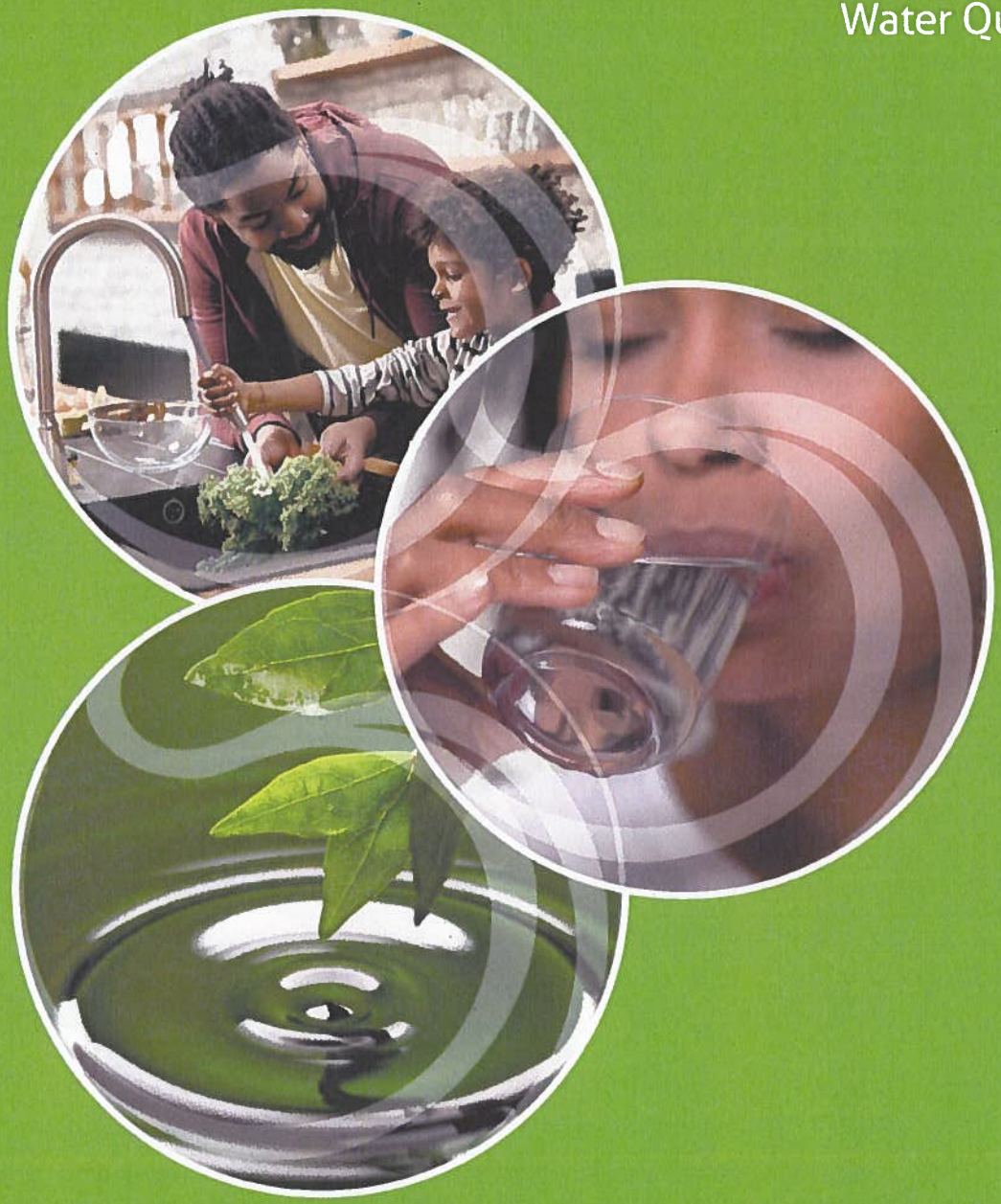
NORTH BRANFORD REPUBLICAN CAUCUS

Notice is hereby given that there will be a caucus of all enrolled Republican electors of the town of North Branford.

On Wednesday, January 10, 2024, at 7:00 PM in the North Branford Town Hall located at 909 Foxon Blvd, North Branford, to endorse candidates for the Republican Town Committee

Edward J. Boughton
Chairman, NBRTC

2022 Consumers' Annual Report on Water Quality



Regional Water Authority

Dear Consumer:

Having access to safe, reliable water service is essential not only for public health, but for fire protection, economic growth and overall quality of life. At the Regional Water Authority (RWA), we take our purpose and part in supplying high-quality water very seriously.

Once again, we proudly present our Consumers' Annual Report on Water Quality. As you read it, you will see that in 2022 we continued to deliver drinking water that meets or is better than all federal and state drinking water standards.

To that end, we monitor and test your water at multiple points throughout our process of drawing it from its sources, treating it to meet drinking water standards and distributing it through our network of pipes. In 2022, we tested for over 100 regulated contaminants as required by state and federal drinking water standards. Moreover, we invested more than $30 million to improve our water treatment and distribution systems.

Water quality, service, reliability, affordability and sustainability remain at the core of what we do at the RWA. We work hard every day to fulfill our purpose to make life better for people by delivering water for life. That has been our commitment for nearly 175 years, and it is our promise for the future.

This report contains important information about your drinking water. If you require this report in Spanish, please visit rwater.com.

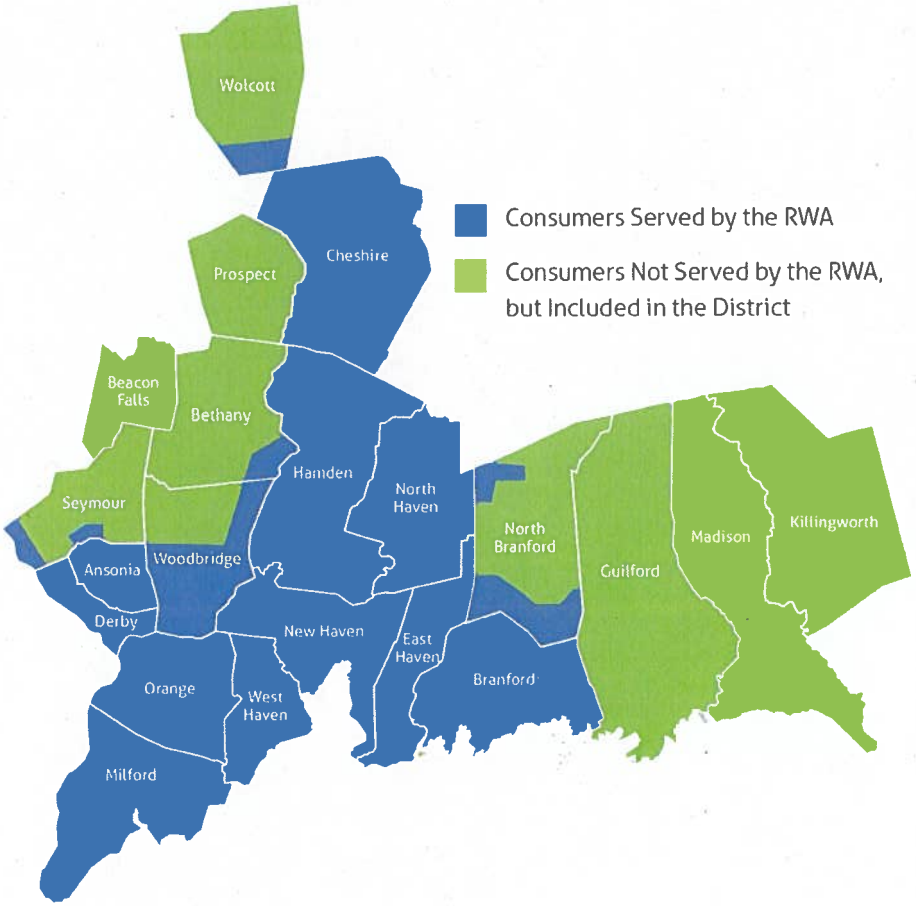
Este reporte contiene información importante sobre su agua potable. Si necesita este reporte en Español, consulta rwater.com.

Attention: Landlords, Apartment Owners and Property Managers

Please share a copy of this report with your tenants and residents.

Sincerely,

Larry L. Bingaman
President & Chief Executive Officer



South Central Connecticut Regional Water Authority

90 Sargent Drive
New Haven, CT 06511-5966

Call Us: **203-562-4020**
Monday – Friday, 8 am. – 5 p.m.

Write Us: **ask.info@rwater.com**

A five-member Authority and a 21-member Representative Policy Board (RPB) oversee our operations. The Authority meets on the fourth Thursday of each month at 12:30 p.m., and the RPB meets on the fourth Thursday of the month at 6:30 p.m. Please call to confirm meeting day and time.

Where Your Water Comes From

The water cycle begins when water falls to the ground as rain, sleet or snow. Water then flows through the watershed to reservoirs or soaks into the ground and is tapped by our wells.

We have 10 active reservoirs and three aquifers. The reservoirs are filled by rivers. Aquifers are natural sand, gravel and bedrock areas below the surface of the ground that are saturated with water, typically from rainfall.

We draw most – about 88 percent – of our water from the 10 reservoirs. We pump the remaining 12 percent of the water from wells in Cheshire, Hamden, Derby and Seymour.

Drinking water is distributed to the region through a 1,700-mile-long network of pipes, pumping stations and storage tanks. Because of this interconnected system, water from two or more sources may be delivered to some neighborhoods. For example, water supplied to parts of Orange and West Haven may come only from Lake Gaillard or only from West River, while water in other neighborhoods of these towns may come from both sources.

What We Do to Make Your Water Safe to Drink

PROTECT: Our source water protection program focuses on pollution prevention and watershed management. Source water is untreated water from lakes, rivers, streams, ponds, reservoirs, aquifers and springs that serve as a community's water source. Protecting these supplies is one of the best ways to prevent drinking water from becoming polluted. We own more than 27,000 acres of land in the Greater New Haven region and manage it carefully. We vigilantly monitor the quality of the water and all activity on the surrounding land, constantly watching for potential contamination of our supplies.

Here's how you can help us protect source water:

- Pick up after your pet.
- Never dump anything in streams, lakes or storm drains.
- Compost yard waste and use natural fertilizers.
- Check vehicle fluid levels and repair leaks.
- Properly dispose of household hazardous waste; visit rwater.com to learn if your community participates in HazWaste Central, our permanent collection facility.

TREAT: Aquifer water is naturally filtered underground. Reservoir water is filtered at our treatment plants. Water from both reservoirs and aquifers is disinfected with chlorine to kill microbes that can cause illness. We add fluoride to prevent dental cavities, as required by Connecticut Department of Public Health (DPH) regulations, and phosphate to minimize corrosion of pipes.

DISTRIBUTE: We carefully maintain our extensive distribution system to ensure that high-quality water is available on tap anytime you need it.

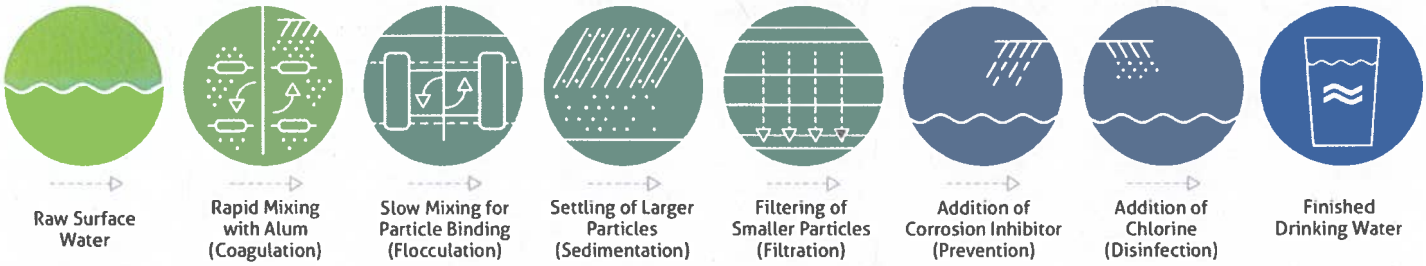
MONITOR: We continually monitor the water treatment process and verify the high quality of our water by testing samples in our state and federally certified laboratory. Based on these test results – which are regularly reported to state health officials – we know that the water we deliver to you meets or is better than all state and federal water quality standards.

Source Water Assessment Information

A source water assessment lists possible contaminants that might affect the quality of your water sources. You can find the DPH Drinking Water Section's assessment of the RWA's sources of water at https://dir.ct.gov/dph/Water/SWAP/Community/CT0930011.pdf.

Transforming Source Water into Drinking Water

Turning raw water into drinking water requires several treatment and purification steps.



Cross Connection

The State of Connecticut and RWA regulations require that the RWA conduct periodic inspections of properties for potential cross connection situations. A cross connection exists if there is a physical connection between a public water system and a contaminant source. A potential cross connection can occur when you use your garden hose to fill a swimming pool, apply pesticides or operate your irrigation system at the same time as the water system experiences a significant pressure drop, such as a water main break. This can pose a significant health threat to you and your family. The RWA conducted over 2,200 cross connection inspections and surveys, and tested over 8,000 backflow prevention devices in 2022. Safeguard your water: keep the end of a hose clear of possible contaminants and don't submerge it in sinks, tubs, buckets or pools; buy and install inexpensive backflow prevention devices for all threaded faucets around your home; and don't use spray attachments without a backflow prevention device.

How Safe Is Your Water?

In 2022, the RWA collected more than 8,900 water samples and conducted over 104,000 tests to ensure that high-quality water reached your tap. The 2022 test results presented in this report demonstrate that your drinking water meets or is better than the water quality standards established by the U.S. Environmental Protection Agency (EPA) and the DPH.

What the EPA Says About Contaminants and Health Effects

The EPA wants you to know that drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information can be obtained by calling the EPA's Drinking Water Hotline at 1-800-426-4791 or by visiting epa.gov/safewater.

The Maximum Contaminant Levels (MCLs) established by the EPA are very stringent. A person would have to drink two liters of water at the MCL every day for a lifetime to have a one-in-a-million chance of experiencing the described health effect.

The Maximum Contaminant Level Goals (MCLGs) established by the EPA are also very rigorous. MCLGs are the measure of a contaminant in drinking water below which there is no known or expected risk to health. Think of MCLGs as allowing for a margin of safety.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those undergoing chemotherapy, those who have received organ transplants, people with HIV/AIDS or other immune system disorders, and some elderly and infants can be particularly at risk of infection. These people should seek advice from their healthcare providers about drinking water.

Sources of Contaminants

In order to ensure that tap water is safe to drink, the EPA and the DPH set regulations that limit the amount of certain contaminants in water provided by public water systems. For more information, visit the DPH website at ct.gov/dph.

Water is the universal solvent. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals. Generally, untreated source water may include the following kinds of contamination:

Microbial contaminants, such as viruses and bacteria, may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.

Inorganic compounds, such as salts and metals, can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges or farming.

Pesticides and herbicides may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses.

Organic chemical compounds, including synthetic and volatile organic chemicals, which are by-products of industrial processes, can come from gas stations, urban stormwater runoff and septic systems.

Radioactive contaminants can be naturally occurring or may be the result of oil and gas production and mining activities.

Radon

Radon is a radioactive gas that you cannot see, taste or smell. It is found throughout the U.S. Radon can move up from the ground and into a home through cracks and holes in the foundation. It can build up to high levels in all types of homes. Radon can also get into indoor air when released from tap water during showering, washing dishes and other household activities. In most cases, radon entering the home through tap water is a small source of all the radon in indoor air.

Radon is a carcinogen. Breathing air containing radon over long periods can lead to lung cancer. Drinking water containing radon may also cause increased risk of stomach cancer. If you are concerned about radon in your home, test the air. Testing is inexpensive and easy. If the level of radon in your air is four picocuries per liter (pCi/L) or higher, you need to take steps to reduce it. For additional information, call Connecticut's radon program or EPA's Radon Hotline at 1-800-SOS-RADON.

Although state and federal regulations do not require monitoring, we regularly test for radon in our Cheshire, Hamden, Derby and Seymour wells. Our test results show that we meet existing health-based guidelines. Because radon dissipates quickly in the open air, it is not a concern with reservoir water.

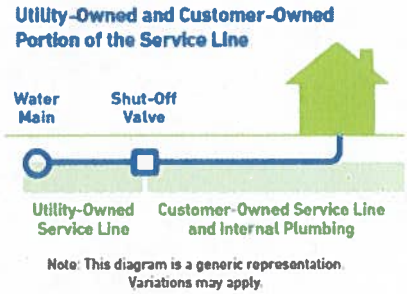
Lead and Copper

The EPA developed the Lead and Copper Rule (LCR) to protect public health by minimizing lead and copper levels in drinking water. The LCR established an action level of 15 parts per billion (ppb) for lead and 1.3 parts per million (ppm) for copper, based on the 90th percentile level of tap water samples. This means that no more than 10 percent of the samples can be above either action level. The MCLG for lead is zero; the MCLG for copper is 1.3 ppm.

Federal regulations require that the RWA analyze water samples from a minimum of 50 homes, though we have consistently monitored more sites. These samples help us assess the need for, or the effectiveness of, corrosion-control treatment, which helps prevent lead from pipes and plumbing from leaching into drinking water. The table on page 6 summarizes the results of lead testing. During the last lead and copper sampling rounds conducted in 2020, results showed that the 90th percentile value was well below the action level set by the EPA. As a result, the RWA remains in compliance with the LCR. The RWA will conduct the next round of lead and copper analysis in 2023.

What Can I Do in My Home to Reduce Exposure to Lead?

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The RWA is responsible for providing high-quality drinking water, but cannot control the variety of materials used in plumbing components in home construction. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for



up to five minutes or until it becomes cold or reaches a steady temperature. Use only cold water for drinking, cooking and making baby formula.

If you are concerned about lead in your water, you should consider having your water tested. Information on lead in drinking water, testing methods and steps you can take to minimize exposure is available from the EPA's Safe Drinking Water Hotline at 1-800-426-4791 and epa.gov/safewater/lead.

Copper

The major sources of copper in drinking water are the corrosion of household plumbing systems and the erosion of natural deposits. Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. The table on page 6 summarizes the results of copper testing. To minimize exposure to copper, please follow the previous flushing instructions for lead.

Sodium

Sodium is an essential nutrient in your diet. It helps maintain the right balance of fluids in your body and transmit nerve impulses to your muscles. Sodium in drinking water normally presents no health risks, since 99 percent of your daily salt intake is from food and only about one percent is from water. However, elevated sodium in water may be considered a health concern for those on a restricted salt diet. If you have been placed on such a diet, please inform your physician that our water can contain as much as 38 milligrams of sodium per liter. For comparison, whole milk has a sodium content of 530 milligrams per liter.

Water Quality Analysis and Results for 2022

All test results well below allowable levels

Drinking water is unique – it is the only life-sustaining product reliably delivered by water utilities to your home around the clock for your convenient use on demand. As shown in the tables on the following pages, the water that the RWA delivers to your tap meets or is better than all federal and state requirements for safe drinking water. Of the more than 100 regulated and unregulated substances for which we test annually, only a few have been detected, and the detection levels were well below allowable limits.

Drinking water quality report highlights:

- The RWA's drinking water quality and its stringent monitoring program met or were better than all state and federal regulatory standards in 2022.
- Our professionals conduct many routine tests beyond those reported here to monitor and optimize water quality. Additional testing focused on building a better understanding of our water quality from source to tap.
- Our water treatment systems employ multiple barriers to protect our water from disease-causing microorganisms and other contaminants.
- All of our treatment plant operators maintain a Class IV Water Treatment Operator Certification, the highest standard in the state.
- We continuously take steps to deliver even higher-quality drinking water to your tap through technology and innovation.
- In 2022, we devoted more than $30 million to building and supporting our water system infrastructure.

How to Read the Tables:
The following tables show the results of the RWA's water quality analyses on its treated drinking water delivered from its water treatment facilities and distribution system. Unless otherwise noted, the data is from tests performed between January 1 and December 31, 2022. The tables contain the name of each substance, the highest level allowed by regulation, the ideal goals for public health, the amount detected, the usual source of each substance and key units of measurement.

2022 WATER QUALITY RESULTS

Regulated Contaminants Found in Reservoirs and Aquifers

Substance	MCL	MCLG	Average Level and Range Detected	Potential Sources of Contaminant	Met Regulatory Standards
Barium	2 ppm	2 ppm	0.08 ppm *Range 0.008 – 0.293*	Erosion of natural deposits	**Yes**
Chloride	250 ppm	N/A	51.5 ppm *Range 11.2 – 130*	Naturally present in the environment	**Yes**
Di(2-ethylhexyl) Phthalate	0.006 ppm	0	0.0001 ppm *Range ND – 0.0016*	Naturally present in the environment	**Yes**
Fluoride	4 ppm	4 ppm	0.6 ppm *Range 0.1 – 2.4*	Water additive required by DPH that promotes strong teeth; erosion of natural deposits	**Yes**
Microbial Pathogens[a]	TT = 100% of 4-log removal based on chlorine residual	N/A	100%	Naturally present in the environment	**Yes**
Nitrate (as nitrogen)	10 ppm	10 ppm	0.98 ppm *Range ND – 4.40*	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits	**Yes**
Radium 226 & 228 Combined	5 PCi/L	0	0.327 pCi/L *Range ND – 2.40*	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits	**Yes**
Sulfate	N/A	250 ppm	13.9 ppm *Range 6.5 – 33.4*	Erosion of natural deposits	**Yes**
Total Chromium	0.1 ppm	0.1 ppm	0.0003 ppm *Range ND – 0.001*	Naturally present in the environment	**Yes**
Total Haloacetic Acids (THAA)	60 ppb Average	N/A	33 ppb *Range 1.1 – 50.2[b]*	By-product of drinking water chlorination	**Yes**
Total Organic Carbon (TOC)	TT = Removal Ratio >1[c]	N/A	1.68 *Range 1.00 – 2.40*	Naturally present in the environment	**Yes**
Total Trihalomethanes (TTHM)	80 ppb Average	N/A	44 ppb *Range 3.6 – 70.7[b]*	By-product of drinking water chlorination	**Yes**
Turbidity (aquifers)	TT = 5 NTU	N/A	0.08 NTU *Range ND – 3.0*	Soil runoff	**Yes**
Uranium	0.03 ppm	0	0.0008 ppm *Range ND – 0.0047*	Naturally present in the environment	**Yes**

(a) Treatment reliably achieves at least 99.99% (4-log) treatment of viruses using inactivation; (b) Individual sample and individual location; (c) Ratio is a value derived from monthly TOC percent removal calculation.

Regulated Contaminants Found in Reservoirs and Aquifers (CONTINUED)

Substance	MCL	MCLG	Highest Level Detected	Potential Sources of Contaminant	Met Regulatory Standards
Total Coliform Bacteria	Presence of coliform bacteria not to exceed 5.00% of monthly samples	0%	0%	Naturally present in the environment	Yes
Turbidity (reservoirs)	TT = 95% of samples <0.3 NTU[d]	N/A	99.6% *0.076 NTU*	Soil runoff	Yes

Substance	MRDL	MRDLG	Average Level and Range Detected	Potential Sources of Contaminant	Met Regulatory Standards
Chlorine	4 ppm	4 ppm	1.8 ppm *Range 0.8 – 2.5*	Water additive used to control microbes	Yes

Substance	MCL	MCLG	90th Percentile[e]	Potential Sources of Contaminant	Met Regulatory Standards
Lead	AL = 15 ppb[f]	0	2 ppb *Analyzed 2020[g]* *No. of sites above AL = 2*	Corrosion of household plumbing systems; erosion of natural deposits	Yes
Copper	AL = 1.3 ppm[f]	1.3	0.35 ppm *Analyzed 2020[g]* *No. of sites above AL = 0*	Corrosion of household plumbing systems; erosion of natural deposits	Yes

Unregulated Contaminants Found in Reservoirs and Aquifers

Substance	MCL	Average Level and Range Detected	Potential Sources of Contaminant	Met Regulatory Standards
Bromodichloromethane	N/A	7.3 ppb *Range 1.1 – 13.5*	By-product of drinking water chlorination	N/A
Chloroform	N/A	35.5 ppb *Range 1.1 – 62.3*	By-product of drinking water chlorination	N/A
Dibromochloromethane	N/A	1.2 ppb *Range ND – 3.3*	By-product of drinking water chlorination	N/A
Dichloroacetic Acid	N/A	11.7 ppb *Range 0,5 – 18.5*	By-product of drinking water chlorination	N/A
Monochloroacetic Acid	N/A	2.8 ppb *Range ND – 5.9*	By-product of drinking water chlorination	N/A
Trichloroacetic Acid	N/A	18.2 ppb *Range 5.7 – 26.6*	By-product of drinking water chlorination	N/A
Dibromoacetic Acid	N/A	0.07 ppb *Range ND – 0.6*	By-product of drinking water chlorination	N/A
Monobromoacetic Acid	N/A	0.4 ppb *Range ND – 1.4*	By-product of drinking water chlorination	N/A

(d) 95% of samples within a given month; (e) Calculated value derived from the analysis performed on high-priority customers; (f) Test frequency as determined by state and federal regulatory agencies; (g) Action level is based on the calculated 90th percentile.

Substance	Notification Level	Average Level and Range Detected	Potential Sources of Contaminant	Met Regulatory Standards
Sodium	100 ppm	25.7 ppm *Range ND – 61.3(h)*	Erosion of natural deposits; road salt runoff	N/A

Substance	Secondary MCL	CT Action Level and Range Detected	Potential Sources of Contaminant	Met Regulatory Standards
Manganese	0.05 ppm	0.30 ppm *Range 0.23 – 0.30*	Erosion of natural deposits	N/A

(h) See sodium notice on page 4.

During 2019 the RWA participated in the fourth phase of the EPA's Unregulated Contaminant Monitoring Rule (UCMR4). Unregulated contaminants are those for which the EPA has not established drinking water standards. Monitoring assists the EPA in determining the occurrence of these compounds and whether or not regulation is warranted. Detections from 2019 are summarized in the following table, along with typical sources. For general information on UCMR4, visit www.epa.gov/dwucmr or contact EPA's Safe Drinking Water Hotline at 1-800-426-4791.

Unregulated Contaminants for the Unregulated Contaminant Monitoring Rule List 4

Parameter	MCL	Average Level and Range Detected	Potential Sources of Contaminant
Monobromoacetic Acid	N/A	0.33 ppb *Range 0.3 – 0.4*	By-product of drinking water chlorination
Dibromoacetic Acid	N/A	0.85 ppb *Range 0.3 – 2.8*	By-product of drinking water chlorination
Bromochloroacetic Acid	N/A	2.0 ppb *Range 0.6 – 3.6*	By-product of drinking water chlorination
Bromodichloroacetic Acid	N/A	3.1 ppb *Range 1.1 – 4.3*	By-product of drinking water chlorination
Chlorodibromoacetic Acid	N/A	0.48 ppb *Range 0.3 – 0.8*	By-product of drinking water chlorination
Manganese	N/A	0.025 ppm *Range 0.001 – 0.117 (i)*	Erosion of natural deposits

(i) As part of the required testing under UCMR4, in May 2019, an elevated manganese concentration was identified in a sample collected from the North Cheshire Wellfield. The sample collection was incorrectly taken and is not representative of the drinking water provided by this wellfield, which has no history of manganese in the water. However, we are required by EPA to include the information in this report.

PFAS Management

Perfluoroalkyl and polyfluoroalkyl substances, commonly called PFAS, are a group of man-made chemicals that have been widely used for decades in industrial processes, consumer goods and fire-fighting foam, to name a few sources. The RWA's rigorous environmental and source water protection efforts have successfully limited the impact these chemicals have on our water sources.

In June of 2022, the Connecticut DPH established action levels for the PFAS substances listed here. Although monitoring is not required at this time by either the EPA or the Connecticut DPH, since 2019 the RWA has proactively evaluated all active sources for the presence of these compounds and has communicated the results to our customers through these annual water quality reports.

Substance	CT DPH Action Level	Average Level and Range Detected
PFOS	10 ppt	< 2 ppt *Range ND – 9.33*
PFOA	16 ppt	< 2 ppt *Range ND – 5.08*
PFHxS	49 ppt	< 2 ppt *Range ND – 2.63*
PFNA	12 ppt	ND *Range ND – ND*
PFHxA	N/A	< 2 ppt *Range ND – 3.17*
PFBS	N/A	< 2 ppt *Range ND – 3.66*

The RWA Lab uses a reporting level of 2.0 ppt as a minimum value; concentrations that fall below 2.0 are reported as less than (<) 2 ppt.

Helpful Drinking Water Quality Definitions

The following definitions will help you better understand the water quality results presented in this report.

AL Action Level
The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

BDL Below Detection Level
Calculated value resulting in below detection level.

MCL Maximum Contaminant Level
The highest level of a contaminant allowed in drinking water. Maximum Contaminant Levels are set as close to the Maximum Contaminant Level Goal as feasible, using the best available treatment technology.

MCLG Maximum Contaminant Level Goal
The level of a contaminant in drinking water below which there is not a known or expected risk to health. Maximum Contaminant Level Goals allow for a margin of safety.

MRDL Maximum Residual Disinfectant Level
The level of disinfectant added for water treatment that may not be exceeded at a consumer's tap without adverse health effects.

MRDLG Maximum Residual Disinfectant Level Goal
A non-enforceable health goal. It does not reflect the benefits of adding disinfectant for the control of waterborne microbial contaminants.

mg/L Micrograms per Liter
A unit of concentration for dissolved substances based on their weights.

N/A Not Applicable
Not applicable or required; EPA has not established limits for these substances.

ND Not Detected
Not detected.

NTU Nephelometric Turbidity Units
A measure of clarity of water. Turbidity more than five NTU is just barely noticeable to the average person.

ppb Parts per Billion
A measure of the concentration of a substance roughly equivalent to half a teaspoon of water in one Olympic-size swimming pool.

ppm Parts per Million
A measure of the concentration of a substance roughly equivalent to one-half of a dissolved tablet of aspirin in a full 50-gallon bathtub of water.

ppt Parts per Trillion
Our PFAS testing measures in parts per trillion, which is an amount roughly equivalent to one droplet of water in a 43-foot-deep pool covering a football field.

pCi/L Picocuries per Liter
A measure of radioactivity in water.

TT Treatment Technique
A required process intended to reduce the level of contaminants in drinking water.

Learn More

Use Water Wisely

Water is a precious resource. To ensure we have sufficient water to meet the needs of all our consumers and put less stress on local water sources and the environment, we encourage consumers to take the following steps, which can also lower your water bill:

- Fix dripping faucets and leaky toilets.
- Run dishwashers and washing machines with full loads.
- Turn the water off when you brush your teeth or shave.
- Install water-efficient appliances; look for the WaterSense label.
- Water your lawn and plants in the early morning or later in the evening.
- Use a broom instead of a hose to clean outdoor areas.

For more tips, visit us at rwater.com or the EPA at epa.gov/WaterSense.

Discover Nature's Wonderland

The RWA has nine recreation areas in 13 communities throughout Greater New Haven that offer great water views and four seasons of fun. With an RWA recreation permit, you can enjoy miles of wide, well-kept trails through a wilderness that is just minutes from your home. We provide easy-to-read trail maps and offer special family events such as nature walks and fishing derbies. And we offer discounts for senior citizens, veterans, students and people with disabilities. Buying a recreation permit is easy; visit us at rwater.com or call us at 203-401-2654.

Explore the Water World

We offer virtual and in-person educational programs for pre-K to eighth grade students across our district, using water as a teaching tool inside and outside the classroom. Our educator loves teaching young people about the importance of water and a healthy environment to the community. To schedule a free program, please call us at 203-777-1142.

Safeguard Water Quality

HazWaste Central helps area residents protect water quality by safely disposing of household hazardous waste. Located at our headquarters at 90 Sargent Drive in New Haven, HazWaste Central is open 9 a.m. until noon on Saturdays, May through October. To see if your community participates and to find out what household wastes can be dropped off, visit us at rwater.com or call 203-401-2712.

Protect Your Pipes

Our PipeSafe protection programs can help you avoid unexpected, costly repairs to your underground water, sewer and septic lines, and in-home plumbing. These programs offer the peace of mind that comes with knowing that you are covered for repair costs up to $6,500 and the hassle of finding qualified contractors. For more information, visit us at rwater.com or call 203-562-4020.

Regional Water Authority
Tapping the Possibilities℠

South Central Connecticut Regional Water Authority
90 Sargent Drive, New Haven, CT 06511-5966

DID YOU KNOW?

In 2022, our consumers used approximately

15 billion gallons of water.

That means we are producing an average of 43 million gallons per day of safe, clean water for our 430,000 consumers.

When Was the Last Time You Got a Bottled Water Quality Report?

VS.

We test our water every day to ensure it is of the highest quality.

Bottled water is tested less frequently.

We proudly publish our testing results online and in reports like the one you're reading now!

Many bottled water companies keep the results of their tests a secret.

We protect thousands of acres of land in your community to bring you clean, safe drinking water.

Bottled water uses about 17 million barrels of oil annually and creates more than 2.7 million tons of plastic waste.

06/06/2023 02:03 PM

Join in Helping to Revive the Farm River

Community members can get involved in helping a group effort to revive the Farm River by taking part in clean-up activities and more. The effort spans involvement of organizations from North Branford, East Haven and Branford. Coming up, join a boating estuary clean-up Saturday, June 17 at 145 Meadow Street, East Haven from at 10 a.m. to 1 p.m. Paddle and rowboats welcome. Shown here, a previous Farm River estuary clean up crew. Photo courtesy David Sargent, North Branford Land Conservation Trust

Press Release, North Branford Land Conservation Trust

Our Farm River is a very special natural feature touching seven towns within its more than 16,000-acre watershed. North Branford is home to the largest portion of both the river and its watershed. The river provides a rich abundance of habitats for plants and wildlife, loads of recreation (including fishing) and wonderful scenic vistas. It also has been neglected for decades.

Over years of lack of awareness, misuse and neglect, it has become polluted by sewage, nutrient runoff, plastic trash and degraded by poor stormwater management. Combined, all the pollution sources and lack of maintenance have caused excessive erosion, created high bacteria and nitrogen levels and overall poor water quality.

As our climate changes, and high rainfall events have become more common, unrestricted stormwater rushes off streets, parking lots and farmland into the river, causing the river to flood beyond its banks, flooding streets and scouring the river's banks. Undersized culverts on the river only exacerbate the flooding. During these events, the water can be seen running from a dark brown to a multitude of blue and gray colors. Tires and almost any sort of garbage you might imagine can be seen floating down the river.

In 2018 the Farm River was selected for a pilot watershed study by the National Water Quality Initiative (NWQI) mostly because of its water quality issues, and because it's a drinking water supply for the Regional Water Authority (RWA). Chris Sullivan (Southwest Conservation District) was hired to oversee the project. The goal of the study was to identify and prioritize the sources of the river's impairments, provide recommendations on how to correct them (including specific projects) and encourage future action by the communities involved.

The following year, a series of meetings was held in North Branford to seek out and organize towns, farmers, organizations and citizens with concerns and interests in the health of the river. Dozens of these "stakeholders" met many times, sharing their intimate knowledge of the river and its problems. Many of these volunteers were then trained in how to recognize and record issues with rivers and streams in general. Then, taking what they learned, they divided the river into sections, and section by section, small groups literally walked or boated the entire 18 miles of the river from the estuary in East Haven and Branford, to the headwaters in Wallingford and North Branford. This effort was guided by Sullivan and Nicole Davis (from Save the Sound) for the next 3 years. Volunteers got their feet wet, and prioritized impairments to the river. In August of 2021, a final plan called the "Farm River Watershed Management Plan" was published.

Prepared by Fuss & O'Neill, this thorough document highlights the current issues with the river and potential future issues. It offers a series of project-based solutions and associated costs of each, plus possible funding sources to pay for the estimated $3 to $6.6 million to restore the river. To make this plan legitimate and eligible for funding, it needed the approvals of the National Resource Conservation Service (NRCS) and the Connecticut DEEP. Both approved the plan earlier this year.

Now that the development of the plan has been successfully completed and 'blessed', it's time to regroup and implement the plan! A grassroots group was started by Curt Johnson (past president of Save the Sound) and Linda Cummings (a local artist and active member of "Friends of the Farm River Estuary") and assisted by Heather Wells-Sweeney (Chair of the Branford Conservation and Environment Commission). They organized four meetings this past April to determine community interest and discuss the best paths to move the plan forward. Ultimately, the group determined the first thing they needed to is create awareness and energy about the Farm River.

Your actions can bring the river back to life! You can help by physically participating in a restoration project or simply helping to engage our local and state officials. Emailing or writing a letter of support to your town manager, senator or representative can make a huge difference! This is a project you can be proud to say "yeah, I helped". If this pilot study is successfully implemented, it will be offered as a model to other watersheds throughout the country with similar deficiencies. But it won't happen without the support of local people like you, who care about this hidden and neglected treasure – not only for its importance as a drinking water source, but for its underutilized educational, recreational and visual potential.

The Farm River used to be clean and healthy. With your help, it can be again! There will be a boating estuary clean-up Saturday, June 17 at 145 Meadow Street, East Haven from at 10 am to 1 pm. Paddle & rowboats welcome.

For more information or to get involved, please contact: Heather Wells Sweeney heatherwsweeney@gmail.com or Curt Johnson cjohnson@savethesound.org.

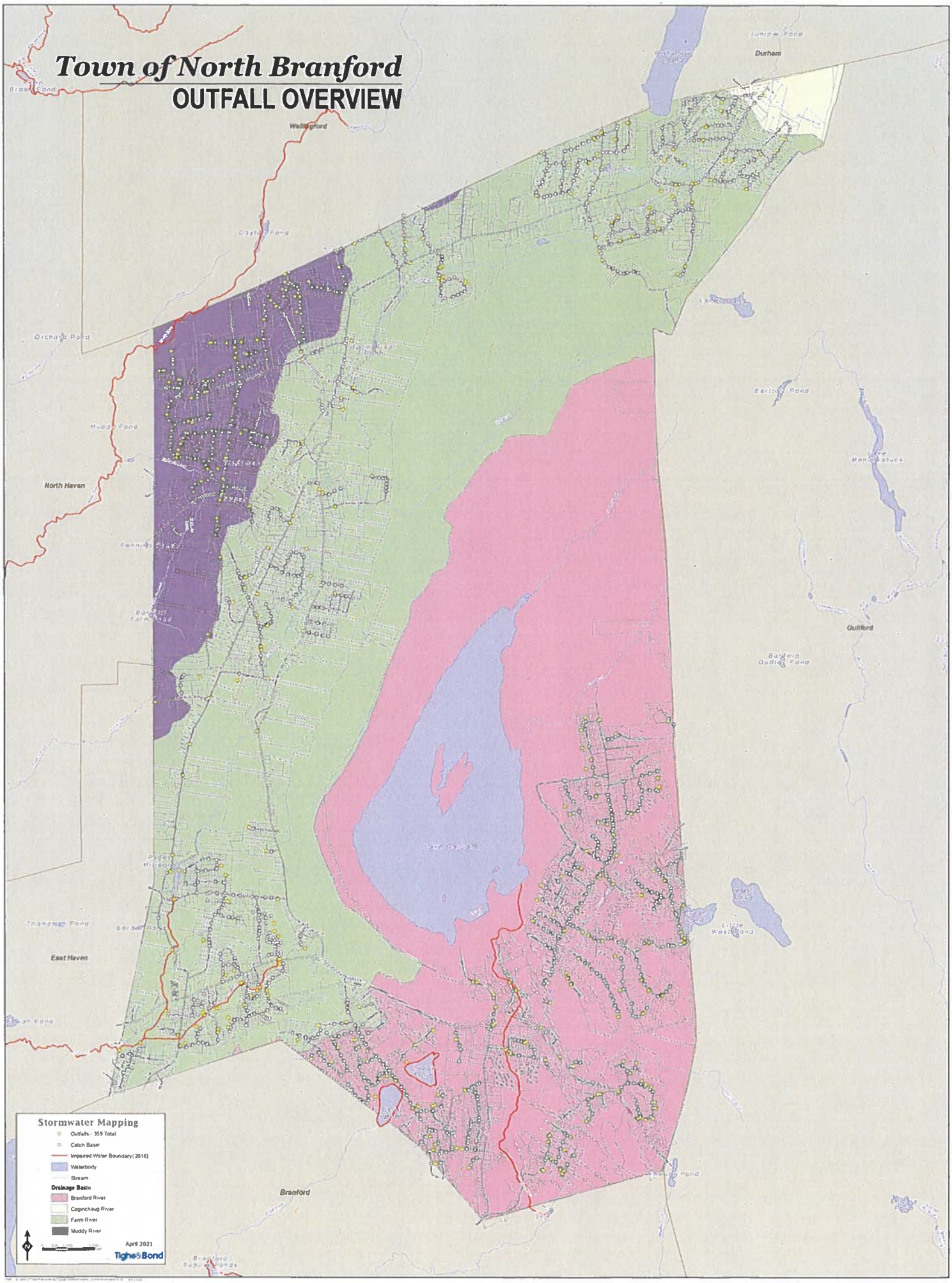
Attachment B

Part I: Summary of Minimum Control Measure Activities

3. Illicit Discharge Detection and Elimination

3.1 BMP Summary

Town of North Branford
OUTFALL OVERVIEW



Citizen Reporting of "Suspected" Illicit Discharge (Waste and Wastewater Spill/Dumping/Disposal)

What does "illicit discharge" mean?

Illicit discharge means waste and wastewater from non-rainwater sources entering a stormwater system (such as into a catch basin, open ditch, stream, pond, ocean, or detention basin).

A study conducted in Sacramento, California, found that almost one-half of the water discharged from local stormwater systems was not directly attributable to rainwater runoff. A significant portion of these flows were from illicit discharge or inappropriate discharges to the stormwater system. The result is untreated discharges that contribute high levels of pollutants, including heavy metals, toxics, oil & grease, solvents, nutrients, viruses, and bacteria to receiving water bodies. Pollutant levels from these illicit discharges have been shown in EPA studies to be high enough to significantly degrade receiving water quality and threaten aquatic habitat, wildlife, and human health.

What is defined by an "illicit discharge" into the stormwater system?

As defined by the CT Department of Energy & Environmental Protection, an illicit discharge would be a spill, dumping or disposal of materials including, but not limited to, residential, industrial and commercial waste, trash, used motor vehicle fluids, pesticides, fertilizers, food preparation waste, leaf litter, grass clippings, and animal wastes into any portions of a stormwater system.

Who do I contact and what to report when witnessing a suspected illicit discharge?

When witnessing a suspected illicit discharge, a citizen should contact the North Branford Engineering Department, at 203-484-6009 and report the date, time, location and if any suspicious color, odor, etc.

What will happen next?

Upon receiving a suspected illicit discharge report, the Town of North Branford acting as legal authority will promptly investigate reported location and act as according to the IDDE (Illicit Discharge Detection and Elimination) Program. A copy of an inspection report will be sent to the CT Department of Energy & Environmental Protection and appropriate agencies. For any health hazards, East Shore District Health Department will be notified for follow up and enforcement with the CT Public Health Code.

Why are we doing this?

Illicit discharge citizen reporting is required in accordance with the CT Department of Energy & Environmental Protection *General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems* (MS4 General Permit) Issued January 20, 2016, and Effective July 1, 2017.

ILLICIT DISCHARGE REPORTING FORM

Inspector Information

Name:	
Contact Phone Number:	Date & Time Discharge Discovered:

Discharge Information

Owner Name:		
Address:	Nearest Intersection/Landmark:	
GPS Location (if known):	Lat:	Long:

Last Rain Event:	Nature of Discharge or Flow (Circle One): Solid (Continuous) Intermittient (Occassional) Pulsing (Fluctuating) Transitory (Prior Spill)
If Possible Identify the Source of the Discharge: Pipe Outfall Gutter Sanitary Wastewater Ditch Septic System Spill Storm Sewer Other: _____	Potential for Discharge to enter into: Stream/Water Body Wetland Storm Drain Other: _____
Was Water Flow Observed? Yes No Direct Connection Pipe/Inlet? Yes No	Was Photo Taken? Yes No If Yes, Attach Photos

Describe Odor, If any:

None Musty Rotten Eggs (Sulphur) Rancid/Sour Milk

Sewage Gas/Petroleum Cooking Oil Other: _____

Describe Clarity:

Clear Cloudy Opaque Sheen Gray

Describe Color:

Red Yellow Brown Green Gray White Other: _____

Solids/Floatables:

Garbage Sewage Oil Sheen Suds Scum Organic Matter Other: _____

Additonal Information to assist in the Investigation (Vegetation Impacts?): _____

Describe Upstream / Land Use: Forest Agriculture Residential Commercial Industrial Other: _____

Follow up Investigation Necessary? Yes No

FIELD ANALYSIS: DATE:

Odor:	Solids/Floatables:	Flow:
Clarity	Sheen/Scum:	Source:
Color:	Conditions of Vegetation:	Direct Connection? Y / N

Comments:

Attachment C

Part I: Summary of Minimum Control Measure Activities

4. Post-construction Stormwater Management

4.1 BMP Summary

4-5 Stormwater Pollution Prevention for Small Residential Construction Sites, EPA

4-8 Stormwater Innovations Improve Our Community, EPA

EPA's Construction General Permit (CGP) Small Residential Lot Stormwater Pollution Prevention Plan (SWPPP) Template

Who needs to seek coverage under the EPA CGP?

Stormwater discharges from construction activities that disturb one or more acres, or smaller sites disturbing less than one acre that are part of a common plan of development or sale, are regulated under the National Pollutant Discharge Elimination System (NPDES) stormwater permitting program. Prior to the start of construction, construction operators must obtain coverage under an NPDES permit, which is administered either by the state (if it is authorized to operate the NPDES program) or EPA. Where EPA is the permitting authority, operators may seek coverage under the EPA CGP. The CGP requires operators of construction sites to meet effluent limits (i.e., through the implementation of erosion and sediment controls) and requires operators to develop a SWPPP detailing erosion and sediment controls and pollution prevention measures that will be implemented to meet the requirements of the CGP.

What is the Small Residential Lot SWPPP Template?

The Small Residential Lot SWPPP Template is designed to help operators of small residential sites develop a streamlined SWPPP that meets the minimum requirements of EPA's CGP. This simplified template does not change, relax, or modify any existing conditions in the CGP, including the requirement to submit a Notice of Intent (NOI) for permit coverage.

How does it work?

Think of the Small Residential Lot SWPPP Template as a 1040EZ tax form for small construction sites. All of the same requirements apply, but compliance options are focused on only those controls that apply to small residential lot construction, and they are presented in a simplified, user-friendly format.

The Small Residential Lot SWPPP Template streamlines SWPPP development by providing a simplified menu of erosion and sediment control and pollution prevention practices that operators can select from to complete a SWPPP consistent with the minimum requirements in the CGP.

Easy to Use BMP Menu

The Small Residential Lot SWPPP Template provides operators with a walk-through menu of typical erosion and sediment control and pollution prevention practices (i.e., Best Management Practices or BMPs) appropriate for small construction sites.

Illustrated Appendix with Pull-Out BMP Spec Sheets

Clear, step-by-step BMP spec sheets for each practice you choose are provided in an illustrated appendix that you may edit based on your site-specific conditions.

Does my project qualify for EPA's Small Residential Lot SWPPP Template?

In order to use EPA's streamlined template, your site must meet a series of criteria, including:

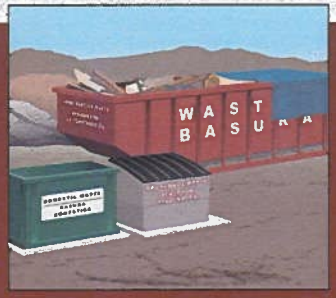
- ✔ Projects must disturb less than one acre of land;
- ✔ Projects must be located outside of sensitive areas (areas with endangered species concerns, historic preservation issues, wetlands, etc.);
- ✔ Projects must not cause disturbance within 50 ft of a water of the U.S.;
- ✔ Projects must not require the use of chemical treatment for stormwater; and
- ✔ Projects must not disturb steep slopes.

To access EPA's streamlined Small Residential Lot SWPPP Template, visit:
www.epa.gov/national-pollutant-discharge-elimination-system-npdes/stormwater-discharges-construction-activities

EPA 830-F-15-001
December 2015

EPA United States Environmental Protection Agency

Stormwater Pollution Prevention for Small Residential Construction Sites



10 Steps to Stormwater Pollution Prevention on Small Residential Construction Sites

Stormwater management on small residential construction sites need not be complicated.

1 Protect Any Areas Reserved for Vegetation or Infiltration and Preserve Existing Trees
If you will be installing infiltration-based features such as rain gardens or bioswales, make sure these areas are designated as off limits to avoid compaction.

Save time and money by preserving existing mature trees during construction. Preserving mature trees minimizes the amount of soil that needs to be stabilized once construction is complete, and minimizes the amount of runoff during and after construction activity.

2 Stockpile Your Soil
EPA's CGP requires operators to preserve native topsoil on site unless infeasible and protect all soil storage piles from run-on and runoff. For smaller stockpiles, covering the entire pile with a tarp may be sufficient.

3 Protect Construction Materials from Run-On and Runoff
At the end of every workday and during precipitation events, provide cover for materials that could leach pollutants.

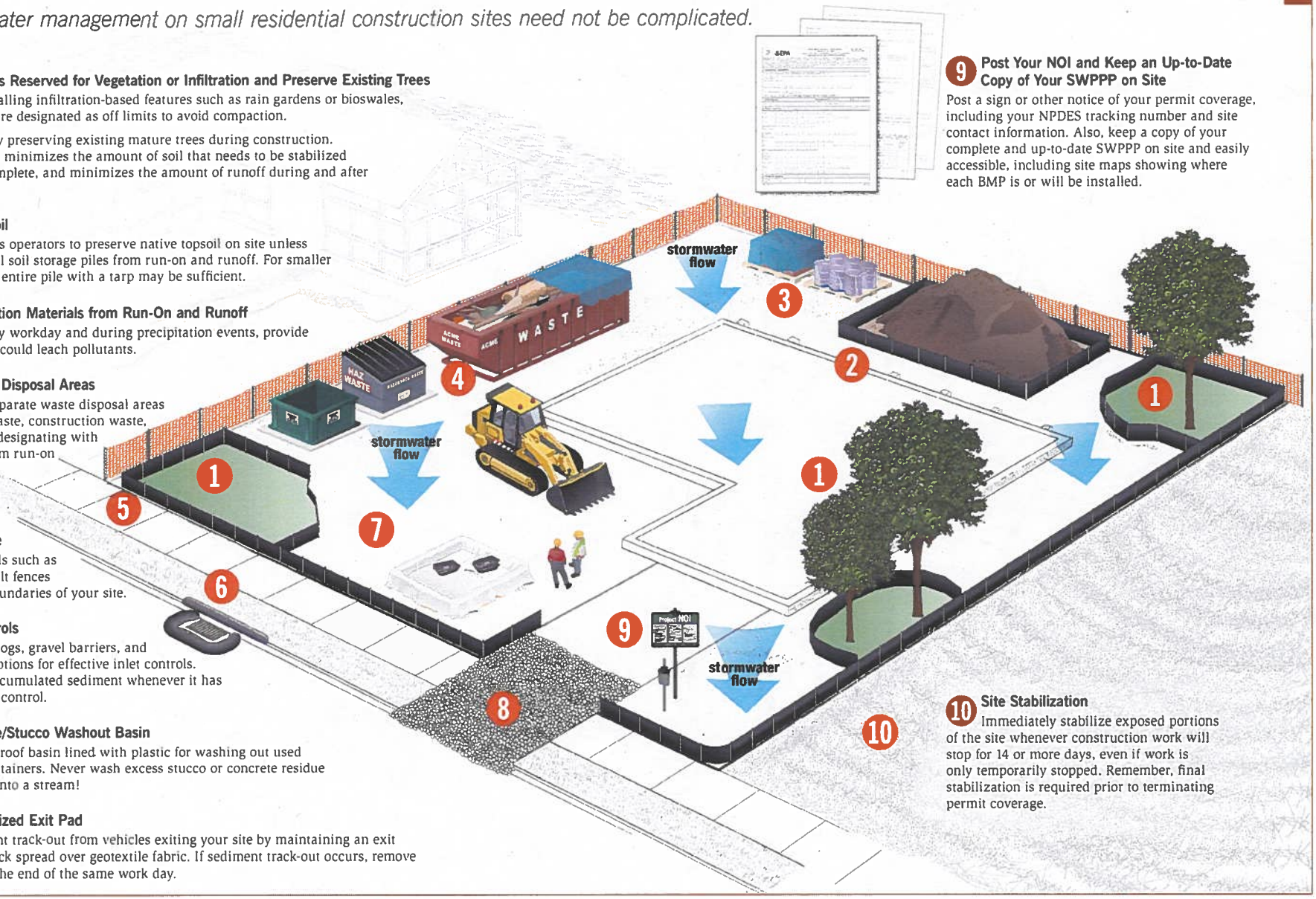
4 Designate Waste Disposal Areas
Clearly identify separate waste disposal areas on site for hazardous waste, construction waste, and domestic waste by designating with signage, and protect from run-on and runoff.

5 Install Perimeter Controls on Downhill Lot Line
Install perimeter controls such as sediment filter logs or silt fences around the downhill boundaries of your site.

6 Install Inlet Controls
Sediment control logs, gravel barriers, and sand or rock bags are options for effective inlet controls. Make sure to remove accumulated sediment whenever it has reached halfway up the control.

7 Install a Concrete/Stucco Washout Basin
Designate a leak-proof basin lined with plastic for washing out used concrete and stucco containers. Never wash excess stucco or concrete residue down a storm drain or into a stream!

8 Maintain a Stabilized Exit Pad
Minimize sediment track-out from vehicles exiting your site by maintaining an exit pad made of crushed rock spread over geotextile fabric. If sediment track-out occurs, remove deposited sediment by the end of the same work day.



9 Post Your NOI and Keep an Up-to-Date Copy of Your SWPPP on Site
Post a sign or other notice of your permit coverage, including your NPDES tracking number and site contact information. Also, keep a copy of your complete and up-to-date SWPPP on site and easily accessible, including site maps showing where each BMP is or will be installed.

10 Site Stabilization
Immediately stabilize exposed portions of the site whenever construction work will stop for 14 or more days, even if work is only temporarily stopped. Remember, final stabilization is required prior to terminating permit coverage.

Stormwater Innovations Improve Our Community

Where Stormwater Flows, Everything Goes

EPA

Attachment D

Part I: Summary of Minimum Control Measure Activities

5. Post-construction Stormwater Management

5.1 BMP Summary

5-1 Zoning Regulations of the Town of North Branford, Section 62.5.6 A & B.

5-2 Zoning Regulations of the Town of North Branford, Section 62.5.6 C.

5-5 Revised DCIA Calculation Spreadsheet

ZONING REGULATIONS
OF THE
TOWN OF NORTH BRANFORD
CONNECTICUT

NORTH BRANFORD PLANNING & ZONING COMMISSION

Annual Report, Part I 5.1 (5-2)
(5-1)

62.5.6** Stormwater Management Plan

A. Purpose

1. Developers, construction site operators, or contractors must submit with a Site Plan or Subdivision application, a plan to control construction related impacts, including erosion, sedimentation, and other pollutant sources during construction and land disturbance activities. The plan must be developed and implemented in accordance with the Connecticut Guidelines for Soil Erosion and Sediment Controls, as amended, the Connecticut Stormwater Quality Manual, as amended, and any applicable stormwater discharge permits issued by the DEEP within the municipal or institutional boundary pursuant to CGS 22a-430 and 22a-430b.

2. All development, regardless of the area of disturbance, must implement erosion and sedimentation controls prior to and during construction. Additionally, temporary controls shall be removed from a site and disposed of properly after the site has been stabilized.

3. The Town reserves the right to implement additional measures to protect and/or improve water quality as it deems necessary.

B. Contents

The Stormwater Management Plan (SMP) shall be included in any application that requires the submission and approval of a Site Plan or Subdivision Plan and shall be consistent with the purposes set herein.

1. The SMP shall be consistent with generally accepted engineering and site planning practices, and shall include best management practices and Low Impact development practices where practical. The plan shall include a summary report describing the nature of the improvement; a SMP improvement plan; supporting computations where appropriate; a description of the construction sequence; and a program for operation, maintenance, and monitoring. A professional engineer shall sign and seal all documents submitted as part of the plan.

2. The design report shall include:

- A description of existing site and relevant off-site conditions that may be affected by the selection of water quality measures;
- An evaluation of existing on-site and off-site hydrology including estimates of preconstruction and post-construction development from the 1-, 2-, 10-, 25-, and 100-year, 24-hour storm events;

** Effective: 7/26/19

- A discussion of the proposed treatment and control measures and their estimated effect on improving the quality of stormwater runoff, specifically for the removal of 80 percent of total suspended solids.

3. The plan shall be designed to:
- Maintain the predevelopment site hydrology to the maximum extent practical;
- Reduce peak runoff from 2-year, 24-hour post-development event to 50 percent of the predevelopment conditions for that storm event or to the equivalent of the 1-year, 24-hour storm event unless the Commission determines that such reduction is impractical;
- Provide zero net increase in peak runoff from the 10-, 25-, and 100-year storm events unless the applicant demonstrates that this would be a detriment to downstream properties;
- Provide treatment of stormwater runoff;
- Have conveyance systems meeting the applicable provisions of the CTDOT Drainage Manual; and
- Minimize structural stormwater components and incorporate vegetative measures such as rain gardens and bioretention basins where appropriate.

4. When the proposed development involves modification to an existing developed area, the applicant shall demonstrate that the stormwater quality treatment is being provided to the maximum extent practicable for all undisturbed impervious areas. New impervious areas and existing impervious areas that are disturbed shall meet the standards set forth in these regulations.

C. Inspections

1. The applicant shall notify the Planning Department two (2) business days before starting land-disturbing activity.

2. Periodic inspections of the construction site shall be conducted by the Town designated inspector to ensure compliance with the plan to control construction related impacts to stormwater. The Town reserves the right to conduct inspections, surveillance and/or monitoring of the site at any time.

3. At a minimum, inspections shall include: an initial site inspection prior to approval of any plan; inspection of site erosion controls; inspection of the stormwater management system prior to backfilling of any underground drainage or stormwater conveyance structures; and a final inspection before any required bond is released. The stormwater system

shall be inspected to verify its as-built features, and the inspector shall also evaluate the system during a storm event.

4. Upon completion, the applicant shall certify that the project is in accordance with approved plans and specifications, and shall provide inspections to adequately document compliance. The Zoning Enforcement Officer will issue a letter certifying completion upon its receipt and approval of the final inspection and reports, and/or upon otherwise determining that all work was completed in conformance with the approved plans.

D. Operation and Maintenance Plan

1. A long-term Operation and Maintenance (O&M) Plan shall be developed and implemented to ensure that stormwater management systems function as designed. Stormwater management systems include any retention pond, detention pond or other stormwater basin that discharges to or receives discharge from the municipal separate storm sewer system. This plan shall be reviewed and approved as part of the review of the proposed permanent stormwater management system. Execution of the O&M Plan shall be considered a condition of approval of a development plan. The Planning and Zoning Commission shall require a project applicant to establish a homeowners association or similar entity to maintain the stormwater management system, if it is to be owned and maintained by other than the Town.

2. At a minimum, the O&M Plan shall be sealed and signed by a Professional Engineer and shall identify:
   a. Stormwater management system(s) owners.
   b. The party or parties responsible for operation and maintenance including how future property owners will be notified of the presence of the stormwater management system and the requirement for proper operation and maintenance.
   c. The routine and non-routine maintenance tasks to be undertaken after construction is complete and a schedule for implementing those tasks.
   d. Log form for recording operation and maintenance activities.
   e. Estimated operations and maintenance budget.
   f. The maintenance declaration to be put in place.
   g. Plan that is drawn to scale and shows the location of all stormwater BMP's in each treatment train along with the discharge point.

3. The applicant shall include with the development plan a mechanism for implementing and enforcing the O&M Plan. The applicant shall identify the lots or units that will be serviced by the proposed stormwater management systems. The applicant shall also provide a copy of the legal instrument (deed, homeowner's association, utility trust or other legal entity) that establishes the terms of and legal responsibility for the operation and maintenance of stormwater management systems. In the event that the stormwater management systems will be operated and maintained by the entity, municipality, state agency or person other than the sole owner of the lot upon which the stormwater management facilities are placed, the applicant shall provide a plan and easement deed that provides a right of access for the legal entity to be able to perform said operation and maintenance functions, including inspections. The owner shall keep the O&M Plan current, including making modifications to the O&M Plan as necessary to ensure that stormwater management systems continue to operate as designed and approved. Proposed modifications of O&M Plans including, but not limited to, changes in inspection frequency, maintenance schedule, or maintenance activity along with appropriate documentation, shall be submitted to the Planning and Zoning Commission for review and approval within thirty (30) days of change.

   Parties responsible for the operation and maintenance of a stormwater management system shall keep records of the installation, maintenance and repairs to the system, and shall retain records for at least five (5) years.

   Parties responsible for the operation and maintenance of a stormwater management system shall provide records of all maintenance and repairs during inspections and/or upon the Town's request.

   When the responsible party fails to implement the O&M Plan, the municipality is authorized to assume responsibility for their implementation and to secure reimbursement for associated expenses from the responsible party, including, if necessary, placing a lien on the subject property.

   If a project may potentially impact another MS4 such as CT DOT, State or Federal Institutions, or another municipality, applicant must notify the appropriate representative.

62.6 Approval of Site Development Plans: The following procedures, standards and conditions shall be applicable to review and action on uses permitted in a district subject to administrative approval of a SITE DEVELOPMENT PLAN by the Commission:

DA	DCICDA	DEEP LOCAL BASIN ID	IC (%)	DCIA CONNECTIVITY LEVEL EQUATIONS 1 (%)	2 (%)	3 (%)	4 (%)	5 (%)
87.46	5.45	5208-00-3-R3	15.71	15.7	10.9	6.2	4.3	2.5
43.76	1.34	5208-00-3-L3	9.79	9.8	6.2	3.1	1.9	1.0
375.14	6.54	5112-00-2-L1	6.72	6.7	3.9	1.7	1.0	0.5
103.81	2.97	5112-03-1	9.36	9.4	5.9	2.9	1.8	0.9
236.28	0.21	5112-00-2-R2	3.00	3.0	1.5	0.5	0.3	0.1
58.5	2.08	5112-00-2-D1	14.00	14.0	9.5	5.2	3.6	2.0
221.99	11.37	5112-02-1	13.79	13.8	9.3	5.1	3.5	1.9
22.19	0.00	5112-02-1-L1	0.56	0.6	0.2	0.0	0.0	0.0
225.78	12.44	5112-00-1	14.48	14.5	9.9	5.5	3.8	2.1
172.66	0.88	4607-05-1	4.47	4.5	2.4	0.9	0.5	0.2
494.57	21.33	5208-09-1	12.30	12.3	8.1	4.3	2.9	1.5
697.45	10.00	5112-00-2-R4	8.21	8.2	5.0	2.4	1.4	0.7
44.64	0.16	5112-00-2-R3	3.57	3.6	1.8	0.7	0.3	0.1
142.13	0.00	5112-04-1	0.45	0.5	0.2	0.0	0.0	0.0
49.58	0.00	5112-00-2-D3	0.24	0.2	0.1	0.0	0.0	0.0
161.04	0.00	5112-04-1-D1	0.00	0.0	0.0	0.0	0.0	0.0
47.54	0.00	5112-00-2-D2	0.00	0.0	0.0	0.0	0.0	0.0
674.85	0.00	5112-05-1-D1	0.01	0.0	0.0	0.0	0.0	0.0
415.57	8.33	5112-00-2-R1	7.38	7.4	4.4	2.0	1.2	0.5
365.5	8.99	5112-01-1	8.46	8.5	5.2	2.5	1.5	0.7
701.81	26.24	5208-10-1	11.18	11.2	7.2	3.7	2.4	1.2
241	9.77	5112-06-1	11.80	11.8	7.7	4.1	2.7	1.4
569.73	18.18	5112-00-2-R5	10.06	10.1	6.4	3.2	2.0	1.0
96.41	0.04	5112-05-1	1.94	1.9	0.9	0.3	0.1	0.0
474.77	0.25	5112-07-1	2.31	2.3	1.1	0.4	0.2	0.1
1076.86	0.00	5111-01-1	0.00	0.0	0.0	0.0	0.0	0.0
2247.77	0.06	5111-00-1-L1	0.51	0.5	0.2	0.0	0.0	0.0
82	0.29	5208-11-1	3.58	3.6	1.8	0.7	0.3	0.1
1211.05	10.45	5112-00-2-L2	6.09	6.1	3.5	1.5	0.9	0.4
767.71	0.21	5111-02-1	1.66	1.7	0.7	0.2	0.1	0.0
25.17	0.41	5112-08-1	8.84	8.8	5.5	2.6	1.6	0.8
27.04	0.40	5112-09-1	8.31	8.3	5.1	2.4	1.5	0.7
6.82	0.13	5112-00-2-R6	9.72	9.7	6.1	3.0	1.9	0.9
69.91	3.63	5112-00-2-R7	13.92	13.9	9.4	5.2	3.5	1.9
64.37	0.75	5112-00-2-R8	7.28	7.3	4.3	2.0	1.2	0.5
189.28	13.12	5112-00-2-R9	16.87	16.9	11.9	6.9	4.9	2.8
87.91	11.05	5112-00-2-D4	17.69	17.7	12.6	7.4	5.3	3.1
1053.3	79.46	5112-10-1	11.56	11.6	7.5	3.9	2.6	1.3
18.44	0.23	5111-10-1	11.07	11.1	7.2	3.7	2.4	1.2
222.48	12.12	5111-09-1-L2	14.37	14.4	9.8	5.4	3.7	2.1
294.23	14.81	5111-09-1-L1	13.63	13.6	9.2	5.0	3.4	1.9
18.44	0.68	5111-10-1	11.07	11.1	7.2	3.7	2.4	1.2
187.62	33.50	5111-07-1	23.70	23.7	17.9	11.5	8.7	5.6
58.44	13.52	5111-00-3-R1	29.41	29.4	23.1	15.9	12.5	8.6
404.72	10.21	5111-00-1	8.60	8.6	5.3	2.5	1.6	0.7
1070.49	98.67	5111-03-2-R1	13.66	13.7	9.2	5.0	3.4	1.9
172.47	2.53	5111-03-1	8.33	8.3	5.1	2.4	1.5	0.7
44.56	3.31	5111-04-1	17.67	17.7	12.6	7.4	5.3	3.1
34.52	1.47	5111-04-1-L2	12.21	12.2	8.1	4.3	2.8	1.5
236.57	2.67	5111-06-1	5.03	5.0	2.8	1.1	0.6	0.3
622.6	9.64	5111-05-2-R1	8.59	8.6	5.3	2.5	1.5	0.7
232.53	10.54	5111-00-2-R1	12.71	12.7	8.5	4.5	3.0	1.6
17251.46	480.40							

LEGEND

* Calculations include State roads, State property, & Amtrak property
= DCIA Equation used
X.X = Optional DCIA

DCIA EQUATION TABLE		
Connectivity Level	**Description Of**	**Land Use type**
1. Fully Connected (default)	100% storm sewered	High density mixed use, commerical
2. Wicked Connected	Mostly storm sewered with curb and gutter,	High density residential, commercial, industrial, institutional
3. Moderately Connected	Mostly storm sewered with curb and gutter, residential	Medium density residential, commercial, industrial, institutional, open land
4. Sorta Connected	50% storm sewered with some infiltration and	Low density residential, open land
5. Slightly Connected	Small % of urban area storm sewered or mostly	Agricultural, forested, natural areas

BASELINE REPORT

Townwide area (acres) = 17,231.60

Townwide IC (acres) (7.93%) = 1,366.47
Townwide DCIA Baseline (%) = 2.79

Townwide DCIA Baseline (acres) = 480.40
2022 Goal
Disconnecting 2% of DCIA (acres) = 9.61

Revised 11 / 2021: Accounted for DOT Roads (%) Impervious Cover

Attachment E

Part I: Summary of Minimum Control Measure Activities

6. Pollution Prevention / Good Housekeeping

6.1 BMP Summary

6-1 MS4 Employee Training Component

6-9 Impervious Cover Tracking Spreadsheet

6-13 Recycling / Trash Information card

6.2 Pollution Prevention/Good Housekeeping

Best Management Practices for Disposal of Snow Accumulations from Roadways and Parking Lots, CT DEEP

Guideline for Municipal Management Practices for Street Sweepings & Catch Basin Cleanings

6.3 Pollution Prevention / Good Housekeeping

Snow Management - Magic-0 (minus zero) Safety Data Sheets

Snow Management - Pro Melt Ultra 1000 Safety Data Sheets

Victor Benni

From: Victor Benni
Sent: Tuesday, February 14, 2023 2:11 PM
To: Town Department Heads
Subject: MS4 Employee Training Component - Preventing Stormwater Pollution

The CT DEEP General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4 General Permit) is the product of a mandate by the U.S. Environmental Protection Agency as part of its Stormwater Phase II rules (1999). This permit requires each municipality to take steps to keep the stormwater entering its storm sewer systems clean before that stormwater enters water bodies.

This formal employee training program is meant to increase awareness of water quality related issues in management of the Town's MS4.

Even though the following YouTube video is from the Minnesota MS4 training program, it covers the same topics required of us. It's about 10 minutes long and meant to be quirky; enjoy the show!
https://www.youtube.com/watch?v=6eD29UBINqE

This video in addition to an in-person PowerPoint presentation will be arranged with the Public Works personnel.

Feel free to share the video with your staff as you see fit (not required) and let me know if you have any questions or comments.

Thanks, Vic

Victor A. Benni, P.E., Town Engineer
North Branford Town Hall
909 Foxon Road
North Branford, CT 06471
Phone # 203 484-6009
Fax # 203 484-6018
Email: townengineer@townofnorthbranfordct.com

Victor Benni

Subject:	Training
Location:	290 Forest Rd (290 Forest Rd, Northford, Connecticut 06472)
Start:	Wed 3/1/2023 2:30 PM
End:	Wed 3/1/2023 3:00 PM
Recurrence:	(none)
Meeting Status:	Meeting organizer
Organizer:	Victor Benni
Required Attendees:	Dan Celentano
Optional Attendees:	Fran Merola; geri krista

Public Works, Grounds & Mechanics personnel

MS4 Employee Training Component - Preventing Stormwater Pollution

Presented Custom Slide Show Presentation

Town of North Branford Impervious Cover Tracking Spreadsheet

Town: North Branford
Town area (ac): 17,232

PROJECT INFORMATION				NEW DEVELOPMENT		REDEVELOPMENT		RETROFITS	CHANGE			CUMULATIVE TOTALS				NOTES & REFERENCES
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
date	practice #	project	practice	Total IC added (ac)	Connected IC added (ac)	added or subtracted (ac)	added or subtracted (ac)	IC disconnected (ac)	Change in Total IC (ac)	Change in Connected IC (ac)	Net change (ac)	TOWN TOTAL IC (ac)	TOWN TOTAL IC (%)	TOWN CONNECTED IC (ac)	TOWN CONNECTED IC (%)	Notes & References
6/1/2012	Townwide BASELINE											1366.5	7.9%	480.4	2.79%	from baseline report [note: total town area is 17,232 acres]
6/1/2012	12-1	909 Foxon Rd (Town Hall)	Imp Cover Disconnect, LID - Detention Basin					(0.5)	0.0	(0.5)	(0.5)	1366.5	7.9%	479.9	2.78%	Pavement, sidewalk, & roof areas to existing detention basin & grass surface
1/1/2017	17-1	1599 Foxon Rd (Old Town Hall)	Demo Buildings					(0.4)	0.0	(0.4)	(0.4)	1366.5	7.9%	479.5	2.78%	Two existing buildings demolished, grass planted
5/7/2013	13-1	Wood Chase Lane & Joe Stone Way	Imp Cover Disconnect, LID - Detention Basin					(1.2)	0.0	(1.2)	(1.2)	1366.5	7.9%	478.3	2.78%	Pavement, sidewalk, & roof areas to existing detention basin
4/7/2022	22-3	1536 Middletown Avenue (P&Z 2012-13-8 & 2022-3)	Imp Cover Disconnect, LID - Detention Basin			0.3	(0.4)		0.3	(0.4)	(0.1)	1366.7	7.9%	477.9	2.77%	pond treats for water quality, portion of existing gravel parking area added to stormwater
	12-2	Maria Todd and portion of Oxbow Lane (138-149)	Imp Cover Disconnect, LID - Detention Basin					(1.8)	0.0	(1.8)	(1.8)	1366.7	7.9%	476.1	2.76%	Existing detention basin treats water quality per original development
	12-3	Portion of Oxbow Lane (140-140)	Imp Cover Disconnect, LID - Detention Basin					(0.9)	0.0	(0.9)	(0.9)	1366.7	7.9%	475.2	2.76%	Existing detention basin treats water quality per original development
	12-4	Portion of Venta Drive (5-66)	Imp Cover Disconnect, LID - Detention Basin					(1.8)	0.0	(1.8)	(1.8)	1366.7	7.9%	473.4	2.75%	Existing detention basin treats water quality per original development
	12-5	Ashley Park Drive & Cinnamon Ridge Road	Imp Cover Disconnect, LID - Detention Basin					(4.6)	0.0	(4.6)	(4.6)	1366.7	7.9%	468.9	2.72%	Existing detention basin treats water quality per original development
	12-6	Tumblebrook Drive	Imp Cover Disconnect, LID - Detention Basin					(1.2)	0.0	(1.2)	(1.2)	1366.7	7.9%	467.7	2.71%	Existing detention basin treats water quality per original development
	12-7	335 Foxon Road (Merrick Drive)	Imp Cover Disconnect, LID - Detention Basin					(4.3)	0.0	(4.3)	(4.3)	1366.7	7.9%	463.4	2.69%	
12/10/2019	12-8	824 Foxon Road (Quarry Road)	Imp Cover Disconnect					(0.1)	0.0	(0.1)	(0.1)	1366.7	7.9%	463.3	2.69%	Existing houses demolished and paved driveways removed
4/20/2022	22-1	290 & 298 Forest Road	Imp Cover Disconnect, LID - Detention Basin					(1.3)	0.0	(1.3)	(1.3)	1366.7	7.9%	462.0	2.68%	Street pavement, gravel parking area to retrofitted detention basin & grass level spreader
2/17/2023	23-1	87 Ciro Road	Imp Cover Disconnect, LID - Detention Basin					(0.1)	0.0	(0.1)	(0.1)	1366.7	7.9%	462.0	2.68%	Exisitng gravel & proposed roof area to proposed detention pond
8/29/2023	23-3	108 Old Post Road (Lucia Lane)	Imp Cover Disconnect, LID - Detention Basins			0.9	(1.0)		0.9	(1.0)	(0.1)	1367.6	7.9%	460.9	2.67%	Residential Subdivision, 6 Lots, Private Drive
10/1/2023	23-3	Jerz Lane	Imp Cover Disconnect, Reduce Paved Road Width					(0.1)	0.0	(0.1)	(0.1)	1367.6	7.9%	460.8	2.67%	Reduced pavement road width from 30' width to 26' width; reclaim & pave.
10/30/2023	23-4	290 Forest Road	Imp Cover Disconnect, LID - Detention Basins					(0.1)	0.0	(0.1)	(0.1)	1367.6	7.9%	460.7	2.67%	New building on existing gravel area to detention basin & grass level spreader
12/18/2023	23-5	5 Foxon Road	Imp Cover Disconnect, Underground Infiltration					(1.4)	0.0	(1.4)	(1.4)	1367.6	7.9%	459.3	2.67%	Exisitng underground infiltration system servicing paved parking area and roof runoff
											(20.0)					

NET	(20.0)	Acres disconnected
%	4.2	% disconnected

* 2023 *
Recycling/Trash Information

Town of North Branford
909 Foxon Road
North Branford, CT 06471

Recycling Hotline: 203-484-4091 Town Manager's Office: 203-484-6000
John's Refuse: 203-484-0281 (missed and/or other pickup issues)
www.townofnorthbranfordct.com - Click Government; Boards and Commissions; Hazardous Waste & Recycling Committee

For additional information, check the Recycling Hotline, *Totoket Times*, North Branford CT Hazardous Waste & Recycling Committee on Facebook, or Town Website

Curbside Pickup Dates to Remember

The following special pickups will take place on your scheduled pickup day.

Bulky Waste Pickup

During the week of April 17 on your scheduled pickup day; place curbside up to a week before your scheduled pickup day.
No home cleanouts.
Check Town website for information regarding Fall 2023.

Scrap Metal Pickup (Twice a Year)

During the weeks of April 3 and October 23 on your scheduled pickup day; place curbside up to a week before your scheduled pickup day.

Curbside Leaf Pickup

Leaves must be placed in an untaped biodegradable paper bag.
Place curbside on your scheduled pickup day during the May 1 to May 5 and November 27 to December 8 periods.

Christmas Tree Pickup

2023: January 2 to 13 2024: January 2 to 12
On your scheduled pickup days.

Annual Trash Holidays

New Year's Day (2024)	Memorial Day	July 4th
Labor Day	Thanksgiving	Christmas

Pickups will be delayed one day following trash holidays.

* * * UNACCEPTABLE CURBSIDE WASTE * * *

Tires • Construction Waste • Grass Clippings
Land Clearing/Demolition Debris • Propane Tanks
Helium Tanks • Computers • Monitors
Printers • TVs • Riding Lawn Mowers
Scrap Vehicles or Parts • Cans or Drums larger than 5 gallons • Home Cleanouts
Other large machinery-related items may not be placed curbside at any time.

Recycling Locations

North Branford Recycling Center

Public Works Facility, Route 22
9 AM to Noon - - March 4, July 8 and November 4
Electronics Waste: (e.g., TV's, CD/DVD Players, VCR's, computers, monitors, printers)
Mattresses and Box Springs
Empty Propane Tanks - Size based fee charged
Tires (on Nov.4 only) - Size based fee charged
Call the Recycling Hotline for additional information.

Leaf Dropoff Area

Near Public Works Facility; follow the signs: 9 AM to 3 PM
April 1, 8, 15, 22; Oct. 14, 21, 28 and Nov. 4, 11, 18.
NO COMMERCIAL VEHICLES ALLOWED.

HazWaste Central Dropoff

90 Sargent Dr., (Long Wharf) New Haven
Saturdays 9 AM to Noon; May 20 through October 28.
For more information call 203-401-2712 or register for material drop-off at: **https://www.rwater.com/in-the-community/hazwaste-central**
HazWaste Central is closed on the weekends of Memorial Day (May 27), July 4th (July 1) and Labor Day (September 2).

HazWaste Central Accepts:

Aerosol containers, batteries, bug sprays, car fluids, cleaners, cooking oil, disinfectants, drain openers, floor-care products, fluorescent bulbs, furniture polish, gasoline, kerosene, lawn & garden chemicals, mercury thermometers & thermostats, metal polish, moth balls, paint & paint products, oven cleaners, pool & photography chemicals, spot remover, and waste oil.

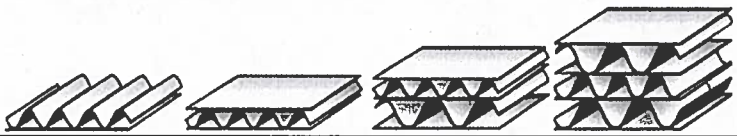
See **http://www.recyclect.com/** for additional recycling options and **www.recyclerfinder.com** for additional recycling locations using ZIP code and radius

Brown Totes: Trash ONLY; Blue Totes: Recyclables ONLY
Please place totes at least 4 feet from mailboxes with space between them within 24 hours of pickup
Reminder: Put your trash out the night before or by 5:30 AM on day of pickup
Please Do Not Place Trash and Recycle Bins in the Street
Please store totes away from streets and sidewalks after pickup

Printed on recycled paper

Put Your Recycling and Trash Totes Curbside *Every* Week

Please remember to keep the tote lids closed, placed as close to the curb as possible and oriented as shown on the tote lids. Leave space between the Recycling Tote and the Trash Tote.

What to Recycle at Curbside in the Blue Tote	How to Recycle	What NOT to Recycle
Glass Containers: Bottles and jars with lids and caps in place.	Rinse clean. Labels, lids, and caps should be left on.	Light bulbs, mirrors, window glass, plate glass, white/opal glass, Pyrex, pottery, ceramics and cork stoppers.
Metal: Food, beverage and other containers made only of aluminum, tin, steel or some combination of these three metals; empty aerosol cans; clean aluminum foil.	Rinse clean. Flatten clean aluminum foil.	Paint cans, coat hangers or wire. Metals other than aluminum, steel, tin or some combination of these three metals.
Paperboard Boxes/Cartons: Includes food boxes, gift boxes, shoe boxes, shirt paperboard, paper roll cores, milk and orange juice cartons. Aseptic food packages (e.g., juice boxes, tomato sauce, broth and soup). Boxes must have foil or wax paper removed from insides.	Flatten. Remove any foil or wax paper interior packaging.	Paperboard that is contaminated with residue (e.g., portions of pizza boxes with food residue).
Plastic Containers and Trays: All plastic containers, trays lids, must have one of the recycling symbols on each item: 1 2 3 4 5 6 7 Plastic plant containers, plastic flower or plant pots may also be recycled. However, **NO BLACK PLASTIC.**	Rinse clean. Containers may be flattened.	Plastic grocery bags, caps, items smaller than 2", **Styrofoam** (even if it has a recycling symbol and/or number on it), black plastic.
Paper: Includes newspapers, mail, envelopes, clean paper plates, magazines, catalogues, office and school paper, file folders, paperback books, telephone directories, paper bags, and cards.	Place in blue tote with your recyclables.	Any paper contaminated with food residue, holiday wrapping paper, shredded paper, paper cups, bubble-lined paper mailers.
Corrugated Cardboard: Corrugated cardboard looks like this: 	Flatten boxes – must fit completely in blue tote. Remove Styrofoam or other packing material.	Corrugated cardboard with wax coating and/or foil or plastic film lamination. Corrugated cardboard that is contaminated with residue (e.g., portions of pizza boxes with food residue).

What to do with other recyclables not collected in blue totes

Clothing, Shoes, Accessories	Leaves	Grass Clippings	Household Batteries	Vehicle Batteries	Waste Oil	Plastic Film & Grocery Bags	Empty Propane Tanks
Donate to the charitable organization of your choice	Backyard compost Leaf Dropoff Area See detail on front of card for curbside pickup	Backyard compost	HazWaste Central	HazWaste Central Public Works Facility*	Uncontaminated Public Works Facility* Retail Store Contaminated HazWaste Central	Without food residue – see Plastic Film Recycling Program on Town website for list of Town, grocery, and retailer dropoff locations	North Branford Recycling Center Size-based fee charged

Oil and water-based paints should preferably be disposed of at Paint Dropoff Locations listed at: https://www.paintcare.org/drop-off-sites/

*** The Public Works Facility is open Monday through Friday from 7 AM to 3:30 PM with Summer Hours from 6 AM to 2:30 PM**

Definitions

Bulky Waste: Tree limbs, tree branches, scrap wood, rugs (tree limbs, tree branches, scrap wood, and rugs all need to be less than 4 feet long, no thicker than 4 inches and need to be bundled and tied), couches, mattresses, box springs, picnic tables and wooden furniture. **No scrap vehicle parts. No home cleanouts.**

Construction Waste: An item affixed to a dwelling, including but not limited to windows, doors, wood or vinyl siding, sheetrock, roofing, decks, sinks, toilets, showers, bathtubs, counters, concrete. **Never Acceptable Curbside.**

Electronics Waste: (e.g., TV's, CD/DVD Players, VCR's, computers, monitors, printers)

Household Batteries: Any battery used for normal household use, e.g., AA, AAA, C, D, 9 volt and Hearing Aid, as well as rechargeable, and non-automotive batteries

Scrap Metal: Air conditioners, dehumidifiers, microwaves, large appliances (refrigerators, with doors removed), metal lawn furniture, hot water tanks, tools, metal fencing, filing cabinets, furnaces, garbage pails, non-riding lawn mowers with gas removed, outdoor grills, small machines and aluminum siding.

(/DEEP)

Connecticut
Department of Energy & Environmental Protection

Best Management Practices for Disposal of Snow Accumulations from Roadways and Parking Lots

Purpose: These guidelines have been developed to clarify DEEP recommendations to state and municipal officials, and others regarding the removal and disposal of snow accumulations from roadways and parking lots. For purposes of this guidance snow accumulations refers to snow banks and snowpiles that are removed by front-end loader or by loading on trucks for disposal. This guidance does not apply to normal snow plowing operations that must, inevitably, discharge some snow into wetlands and watercourses.

Implementation: While following these guidelines does not constitute a permit or authorization, the Department recognizes there is a considerable need for flexibility in implementation of this policy, particularly in emergency situations. There is no intent to interfere with snow plowing operations. Where trucking and snow dumping operations are undertaken the Department recommends these guidelines be followed.

Problem: Current road maintenance activities include removal of snow accumulations from bridges, roads and parking areas for th purpose of providing more space for subsequent snow storms and for ease of travel and parking. Sometimes this snow is moved b truck or with a front-end loader and deposited directly into surface waters of the state including streams, wetlands and Long Islanc Sound. This practice is not recommended due to the presence of dirt, salt, litter and other debris, which are routinely mixed in the accumulated snow.

Under normal conditions of snowmelt, the majority of these contaminants remains on or next to the paved surface or may be captured in stormwater catch basins. These contaminants can then be swept from streets and bridges or vacuumed from catch basin sumps. However, when accumulated snow is collected and dumped into surface waters, this mixture of snow, sand and debris may smother aquatic life in the bottom of streams and rivers and degrade the aesthetics of the surface water with silt plumes and litter. Large quantities of snow (and the sand and debris) may also cause blockage of storm drainage systems, resulting in increased chance for localized flooding.

Recommended Management Practice: Snow accumulations removed from roadways, bridges, and parking lots should be placed in upland areas only, where sand and other debris will remain after snowmelt for later removal. Care must be exercised not to deposit snow in the following areas:

- freshwater or tidal wetlands or in areas immediately adjacent to such areas where sand and debris may be flushed during rainstorms;
- on top of storm drain catch basins;
- in storm drainage swales;
- on stream or river banks which slope toward the water, where sand and debris can get into the watercourse; and
- in areas immediately adjacent (within at least 100 feet) of private or public drinking water well supplies (due to the possible presence of road salt).

For Governmental Entities: In normal winter conditions, governmental entities should follow the recommended management practices outlined above. In extraordinary winter conditions, the commissioner may, upon public notification, offer governmental entities the flexibility of limited in-water disposal. When such flexibility is offered, governmental entities who have determined that extraordinary circumstances exist where all upland, land-based disposal options have been fully exhausted (i.e., disposal capacity is not available) and snow needs to be removed to meet public safety demands (i.e., clear access ways for police, emergency medical and fire responders), may use certain waterways for snow disposal in accordance with the following conditions:

- Upland storage and disposal of snow (i.e., athletic fields, parks and other flat, open-field sites) and other snow management methods (i.e., snow melting equipment) must be the first alternatives explored and exhausted. Environmentally sensitive areas must be avoided;
- This guidance applies only to snow and ice which is not visibly contaminated with material other than salt and sand from road clearing activities;
- For coastal communities, preference should be given to snow disposal in salt water where available;
- Disposal in rivers or streams must be limited to those water bodies that have adequate flow and mixing and are not prone to ice jams;
- The disposal must occur only in open water in areas that will not interfere with navigation;
- Disposal must be conducted in a manner so as to prevent ice dam formation or damage to bridges, docks or other structures;
- Disposal in ponds and lakes is discouraged;
- There shall be no disposal in coastal or freshwater wetlands, eelgrass beds, vegetated shallows, vernal pools, shellfish beds mudflats, public water supply reservoirs and their tributaries, or others areas designated as being environmentally sensitive;
- The activity must comply with local laws and requirements;
- Precautions must be taken to avoid shoreline or stream bank damage or erosion from truck/equipment activity; and
- Governmental entities must notify DEEP's Water Permitting and Enforcement Division by email (deep.waterpermittingenforcement@ct.gov (mailto:deep.waterpermittingenforcement@ct.gov)) prior to disposing of snow and ice in waterways or, if advance notification is not possible, then the Department must be contacted as soon as possible after sr disposal has begun.

FEEDBACK +

Notification: Notification can be made by addressing an email to DEEP's Water Permitting and Enforcement Division (deep.waterpermittingenforcement@ct.gov (mailto:deep.waterpermittingenforcement@ct.gov)). The notification must include t following: (1) the name of the governmental entity making the notification; (2) contact information for the governmental entity including name, email address and phone number; (3) the street address where the snow disposal activity will occur; (4) the name of the waterbody where the snow will be disposed; (5) the estimated quantity of snow to be disposed; (6) the dates during which the disposal activity will occur; and (7) a statement that the governmental entity has exhausted all disposal alternatives and snow management methods and will make best efforts to adhere to these snow disposal guidelines.

Information: For further information, please email the Water Permitting and Enforcement Division (deep.waterpermittingenforcement@ct.gov (mailto:deep.waterpermittingenforcement@ct.gov)).

Content Last Updated November 14, 2023

GUIDELINE FOR MUNICIPAL MANAGEMENT PRACTICES FOR STREET SWEEPINGS & CATCH BASIN CLEANINGS

STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION
79 Elm Street, Hartford, CT 06106-5127
Gina McCarthy, Commissioner
http://www.ct.gov/dep

August 2007

Purpose: These guidelines have been developed to assist municipal officials in managing the use and/or disposal of street sweepings and catch basin cleanings. Sweeping streets and cleaning catch basins to remove accumulated sediments, trash, and debris reduces the amount of pollutants entering Connecticut's watercourses and waterbodies. Regularly cleaning catch basins also reduced the threat of local flooding. In fact, addressing Best Management Practices (BMPs) for street sweeping residuals is a necessary part of the *stormwater management plan* required by the General Permit for the Discharge of Stormwater from Small Municipal Storm Sewer Systems (MS4 Stormwater Permit). Approximately 130 municipalities are required to obtain the MS4 Stormwater Permit and even municipalities who are not required to obtain that permit should plan for and implement best management practices for handling street sweepings and catch basin cleanings.

Municipalities that collect street sweepings or clean out catch basins must keep in mind that the debris they collect may not be clean fill. Therefore, if a municipality uses both street sweepings and catch basin cleanings in a manner that is not consistent with this guidance, the municipality may inadvertently incur environmental liability. Following the recommended guidelines should aid in the prevention of inadvertent filling of wetlands, sedimentation of surface water resources, and the potential for exposing people to levels of pollutants in the debris that poses a risk to public health. *Municipal officials planning on implementing measures other than those presented here should first consult with the Department. Contact information is provided at the end of this guidance.*

Street Sweepings and Catch Basin Cleanings Defined:

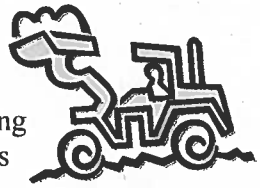
- ***Street sweepings*** are materials such as sand, salt, leaves, broken glass, small pieces of metal, and other litter and debris removed from streets, parking lots and sidewalks in order to prevent these materials from being washed into storm sewers and surface waters, and to improve the appearance and safety of public roadways. Street sweepings are not as clean as virgin earth materials and should be handled with a certain degree of care. Street sweepings usually contain low levels of chemical compounds associated with stormwater runoff. Zinc

and copper have surpassed lead as being the most common metal contained in road sediments. Sodium and compounds associated with asphalt and motor oils can also be found. A vehicular accident or spill can result in high levels of these hazardous compounds.

- ***Catch basin cleanings*** are the materials such as sand, silt, leaves and debris that accumulate in and are removed from catch basins. Materials that are removed from other drainage structures such as swirl concentrators, separators, detention and retention basins are often similar to catch basin cleanings and generally should be handled in a similar manner. The material removed from catch basins generally contains a higher percentage of fine-grained material such as silt and clay. They are usually wet and usually have higher organic content from decomposing wet leaves than do street sweepings. Catch basin cleanings generally have higher levels of pollutants than street sweepings. The finer grained sediments in catch basins and other drainage structures adsorb more metals and other pollutants than the coarser sand typically found in street sweepings. Catch basins are also more likely to have been affected by spills and polluted runoff than street sweepings.

Street sweepings and catch basin cleanings that have been affected by spills of gasoline or hazardous waste should not be handled in accordance with this guidance. Materials from these sources, whether or not they are removed by a sweeping process, must be tested to determine if they are hazardous. If hazardous, they must be managed in accordance with hazardous waste disposal requirements. If such materials are not hazardous, they must be either *disposed* of at a permitted waste disposal facility in accordance with an authorization issued by DEP under section 22a-209-8 of the Regulations of Connecticut State Agencies or *reused* in accordance with the requirements for reuse of polluted soils under Section 22a-133k-2(h).

Planning Considerations for Street Sweepings and Catch Basin Cleanings:



All municipalities are encouraged to develop a comprehensive management plan for collecting street sweepings and catch basin cleanings, for safely storing such materials, for reusing such materials locally in a manner that does not pose a risk to public health or a risk to wetland and water quality and, if necessary, for disposing of the material. Municipalities must keep in mind that some of the street sweepings and, more likely, catch basin cleanings may be so polluted that they cannot be safely reused. In developing the comprehensive plan for the management of street sweepings and catch basin cleanings, municipalities should identify and implement practices that will optimize the opportunities for reuse. Generally, this will involve the following planning considerations:

1. *Planning for when and how often street sweeping should be done and catch basins cleaned* – There are a number of factors that municipalities should take into account when determining the timing and frequency of sweeping streets and cleaning catch basins. For instance, Section 6(a)(6) of the MS4 Stormwater Permit dictates the minimum frequency for cleaning and sweeping to be once a year. Another requirement is the evaluation of areas/structures to determine those that may require more frequent cleaning. Factors to consider for evaluation may consist of categorizing roads for traffic volumes, number of accidents (which can contribute to spills), number of catch basins, proximity to watercourses and wetlands, litter frequency (which can lead to clogged catch basins) and overhead vegetation, e.g. tree canopies (which may contribute to clogged catch basins in the fall). Additional guidance on

best management practices for the timing and frequency of sweeping streets and cleaning catch basins is in the Best Management Practices sections of this document.

2. *Planning for the volumes of street sweepings and catch basin cleanings* – In order to develop a plan for managing street sweepings and catch basin cleanings, the municipality should estimate the volumes of materials generated in a year. A textbook formula for estimating street sweepings says that the quantity of material can be estimated either on a ton-per-street-mile or on a pounds-per capita basis. The former is preferred. An average figure for urban areas is 20.25 tons-per street-mile. The amount of street sweepings will be a direct result of how much sand is applied during the winter season. A simple way to calculate this amount is to divide the yearly average amount of sand purchased by the miles of road within the municipality. Then, figure that anywhere from one third to one half of the sand applied will be collected in the spring. For catch basins in urban areas, an acceptable estimating value is 0.1 pounds-per-calendar-day.

3. *Planning for the quality of street sweepings and catch basin cleanings* – In general the quality of street sweepings and catch basin cleanings will determine the options a municipality has for reuse of the material. Sweepings that are generated from the same road or type of road under much the same conditions are likely to have fairly consistent pollutant levels. The MS4 Stormwater Permit requires, within urbanized areas, that municipalities develop and implement a program to evaluate and prioritize those streets that may require sweeping more than once a year. For instance, municipalities may categorize streets and roads in the more intensely developed areas as "urban" and streets in less dense residential areas as "non-urban". Street sweepings from urban roads will typically have more debris and higher levels of pollutants. Such street sweepings may require more testing, and a higher level of processing prior to reuse. Municipalities may want to consider managing street sweepings from the urban streets separately from non-urban street sweepings. Guidance on testing the quality of street sweepings and catch basin cleanings is provided in the Best Management Practices sections of this document. Guidance on limited reuse options for street sweepings without any chemical testing is also provided in that section. *Because catch basin cleanings are generally more polluted than street sweepings, unless a municipality plans to dispose of the material at a waste disposal facility, catch basin cleanings should not be mixed with street sweepings.* However, if testing data shows that the catch basin cleanings are similar to street sweepings, municipalities should consult with the Department about mixing the materials. Contact information for consulting the Department is provided at the end of this guidance.

4. *Planning for appropriate storage areas* – A critical aspect of management is the selection of the location of sites for storing and processing street sweepings and catch basin cleanings. Such locations should be sized to handle the expected volume of material to be collected and allow for any testing or processing necessary for reusing the material. The storage area should be designed in a manner that will not result in the erosion of storage piles, the generation of excessive dust and debris and that will properly control stormwater runoff from the site.

5. *Planning for reuse and disposal options* – Guidance on options for reusing street sweepings or catch basin cleanings is provided below.

BEST MANAGEMENT PRACTICES FOR STREET SWEEPINGS

When to sweep streets: The department recommends that municipalities conduct street sweeping as soon as possible after snow melt. The longer the sand is on the road, the more the coarse sand particles are abraded, rounded and reduced in size. Since the finer particles are more likely to absorb pollutants, prompt sweeping reduces not only the amount of silt levels in catch basins and watercourses but also reduces the amount of pollutants entering surface water bodies. Prompt spring cleanup may also reduce the amount of incidental debris associated with the sand. Prompt pick up before the sand is rounded and abraded also increases the opportunity to reuse the material for road sanding the following winter by blending a portion of the sweepings, after processing, into new street sand.

Municipalities that are required to obtain the MS4 Stormwater Permit should be guided by their stormwater management plan's evaluation/prioritization of streets and roads to effectively know which are in high traffic or urban areas and as a result, may require sweeping more than once a year.

How to sweep streets: As the preferred BMPs, the Department recommends applying a light spray of water to minimize dust before sweeping. Wetting the surface and promptly sweeping up the sand, salt, and other fines limits immediate air quality problems. A preferred alternative to sweeping is vacuuming.

In addition, the Department does not recommend the use of high velocity blowers. The blowers often create violations of the Air Regulations as well as defeat the basic purpose of sweeping and managing the sweepings in an environmentally sound manner. In some instances debris may be blown from the streets onto adjoining property. Owners then may simply push the debris back onto the roads, from which it can then enter a nearby watercourse.

Temporary storage site: Temporary storage (less than one year) of street sweepings prior to reuse or disposal should be located in an area where the sweepings will not wash into wetlands or watercourses. Good temporary storage sites include:

a. an empty salt storage shed if available;
b. a municipal site where sand and salt are normally handled; or
c. a paved area that is more than 100 feet from a wetland or watercourse.

Piles of the collected sweepings must be stockpiled on a paved or other sufficiently impervious surface if within an aquifer protection area, or an area where drinking water wells are located, and should be located more than 100 feet from any wetland or watercourse. If a municipality wants to consider a storage area closer than 100 feet from a wetland or watercourse, they should first consult with the Department and evaluate what additional precautions should be implemented to prevent any impact to the wetland or watercourse.

The Department recommends that storage piles be covered with a tarpaulin or, at least, 10 mil plastic sheeting to minimize erosion, dust and runoff. Municipalities may want to limit the height of storage piles, to the extent space allows, to no higher than 10 to15 feet as stockpiles higher than that will be difficult to cover and manage for dust and erosion control.

Preparing Street Sweepings for Reuse: Prior to reuse, materials such as trash, leaves and debris should be removed from the street sweepings by screening or other appropriate method and such materials should either be disposed of at a permitted solid waste facility, recycled (e.g. aluminum cans) or taken to a composting facility (e.g. leaves). A 3/4-inch mesh will screen out much of the debris from collected street sweepings prior to mixing. If a municipality chooses to rinse the sweepings to remove the fine particles and debris so that the sand may be reused on roads during the following winter, be sure to contact the department for additional guidance and discharge requirements.

Reuse Options for Screened Street Sweepings without Analytical Testing: It is acceptable to reuse screened street sweepings without analyzing the concentration of chemical compounds in the followings ways:

- Mixed with new salt/sand mixture for winter application to roads, parking lots or sidewalks,
- As daily cover on an active permitted lined or unlined landfill;
- As the sub-grade beneath a paved municipal road or parking lot, or for filling potholes provided the sweepings are covered by asphalt,
- As fill in the median strip of a divided highway; or as fill along road shoulders within the municipally owned *public right-of-way** provided that the completed fill is covered with asphalt or, if unpaved, with a minimum of four (4) feet of uncontaminated soil. Sweepings used in this manner should be located more than 100 feet from a wetland, watercourse, or water supply well.
- As aggregate in concrete or asphalt;

* The *public right-of-way* means the strip of land under a publicly owned paved road or highway and includes the publicly owned land adjacent to the road or highway. *Screened street sweepings for which the concentration of chemical compounds has not been determined should not be used as fill on any land that is not owned by the municipality.*

Reuse Options for Screened Street Sweepings with Analytical Testing: In order to use street sweepings as fill in the following circumstances, the screened sweepings should be tested for the following chemical compounds at a frequency of one sample per 500 yards of sweepings:

- Heavy metals, including copper, zinc, lead and arsenic;
- Semi-volatile Organic Compounds.

The analytical results should be compared to the direct exposure criteria established in the Remediation Standard Regulations, Section 22a-133k-1 through 3, Appendix A of the Regulations of Connecticut State Agencies. If some samples exceed the applicable direct exposure criteria, the municipality should determine the average concentration at the 95% upper confidence limit, and compare the average to the appropriate criteria.

1. *As Fill* – Screened street sweepings may be used for fill material on an industrial or commercial property, provided the testing shows that concentrations or the average concentration is below the industrial/commercial direct exposure criteria established in Appendix A of the Remediation Standard Regulations and provided the municipality obtains the permission of the owner of the property.

Screened street sweeping should not be used as fill that could be easily exposed or is at the surface on residential property, public playgrounds, or recreational facilities, because broken glass of other sharp debris may be present. However, screened street sweepings that has concentrations of pollutants below the residential direct exposure criteria established in Appendix A of the Remediation Standard Regulations, may be used on residential property, provided the fill is covered with at least two to four feet of natural soil to protect residents from sharp debris, or is used beneath a paved driveway or road and provided the municipality obtains the permission of the property owner. The department also recommends that when municipal sweepings are used as fill on a residential property, the municipality do an inspection to ensure that the sweepings are properly buried or covered with asphalt.

Fill areas must be stabilized using appropriate erosion and sediment control techniques as described in "Connecticut Guidelines for Soil Erosion and Sediment Control, as revised by the Department of Environmental Protection and the Connecticut Council on Soil and Water Conservation.

The practice of using street sweepings as fill should also be coordinated with the municipal inland wetland enforcement officer, the town sanitarian, and other appropriate officials (local health department, water department or water company) to determine approximate locations of potable water supply wells and minimize risks to surface water resources. Fill should be placed only with the consent and permits required under applicable regulatory programs but in general, be located as follows:

a. more than 100 feet from any wetland or watercourse;
b. more than 100 feet from any private potable water supply well;
c. more than 250 feet from any public potable water supply well;
d. placed above the seasonal high ground water table; and
e. outside areas designated "No Salt Areas".

2. *For Spill Cleanups* - Street sweepings that have been determined to be non-hazardous may be used as absorptive material to contain or to absorb hazardous materials in emergency situations. Following such use, the road cleanup material must be immediately handled in accordance with all requirements for hazardous materials. The road cleanup material can not be permitted to wash into surface waters. If road cleanup materials are used in the form of embankments to contain larger spills, the road cleanup material must be stabilized to prevent surface water contamination, and be collected and managed appropriately as a contaminated material.

3. *Disposal Options* - Street sweepings that are not used in the manner described above should be disposed of at a permitted solid waste disposal facility. However, if a municipality finds that the analytical testing of screened street sweepings routinely averages only slightly more than the direct exposure criteria, the municipality should consult with the Department about options for reducing the concentrations to acceptable levels.

BEST MANAGEMENT PRACTICES FOR CATCH BASIN CLEANINGS

When to clean catch basins: Municipalities are advised to develop and implement a program to evaluate and, if necessary, clean catch basins and other stormwater structures that accumulate sediment at least once a year, including a provision to identify and prioritize those structures that may require cleaning more than once a year. This task is a required condition of the *"pollution prevention/good housekeeping for municipal operations"* section in the development of a municipal stormwater management plan as outlined in the MS4 Stormwater Permit. Late fall is an ideal routine time to clean basins - after the leaves have fallen and before the first snowfall. Then, another cleaning in the spring is helpful to remove the buildup of sand, leaves, and other debris that accumulated during the winter months. Areas which may contribute to higher pollutant loadings or which discharge to surface waters should be cleaned more frequently.

Catch Basin Evaluation: Before removing sediment and debris from a catch basin or other drainage structure, public works staff or contractors hired by a municipality should evaluate whether the there is any evidence that the sediment and debris was polluted by a spill of oil or other hazardous substance. The catch basin evaluation will aid in determining if waste should be handled as an extremely contaminated waste or hazardous waste and determine what to test for if hazardous waste is suspected. The three keys words in field evaluation include *awareness, reporting, and segregation.*

Public works staff or contractors conducting a field evaluation or engaged in cleaning catch basins should be *aware* of sediment in catch basins with obvious contamination such as unusual color, staining, corrosion, unusual odors, fumes and oily sheen. If the public works staff or the contractor believes that a spill has occurred, it must be *reported* by immediately notifying the D.E.P. Oil and Chemical Spill Response Division at 424-3338. A DEP emergency response coordinator may assist in investigating the source of the spill and will provide instructions for addressing any emergency conditions. Once the emergency conditions have been addressed, any remaining material in the catch basin should be *segregated* until tested for all probable contaminants, then cleaned separately from non-contaminated catch basins.

Management of catch basin cleanings:

The use of an eductor truck (or vactor truck as it is commonly referred to) is typically used for cleaning catch basins. The contents of the vactor truck can be divided into decant liquids and solids which require specific disposal protocol and discharge permits.

Catch basin maintenance using a vactor truck can result in three types of discharges:

1) decant wastewater which is discharged from the vactor truck with a sediment trap and hose;
2) dump wastewater which is the discharge of both sludge and water from the vactor truck; and
3) rinse wastewater which is the discharge resulting from cleaning the inside of the truck after a dump discharge.

The discharge of decant wastewater and/or any other wastewater associated with catch basin maintenance to a watercourse, wetland, or returned to a catch basin or storm drain system is prohibited.

The "General Permit for Discharges from Miscellaneous Industrial Users (MIU GP)" would allow decanting catch basin liquids to a sanitary sewer. Towns without a sanitary sewer could use a regional sewage treatment facility. Approval from the local municipal Water Pollution Control Authority and compliance with all requirements of the general permit must be met.

The discharge of vactor truck sediment, associated with municipal storm catch basin maintenance, including the liquid portion (and rinse water) must be to a location identified in the municipal Stormwater Management Plan. The location must be adequate to contain both sediment and liquid to prevent the discharge to a watercourse or wetland. The discharge to the location identified in the municipal stormwater management plan requires a discharge permit from the Department. Please contact the Bureau of Materials Management and Compliance Assurance, Water Permitting and Enforcement Division for permit assistance and advice at 860 424-3018.

Solids and the Use of Drying Beds - Municipalities may construct drying beds for sludge contents of vactor trucks. In general, a drying bed must be constructed on an impervious surface and include a filtering mechanism through which liquids pass to a catch basin which discharges to a sanitary sewer or into a holding tank. Drying beds that include discharge to a sanitary sewer may also be covered under the General Permit for the Miscellaneous Discharges of Sewer Compatible (MISC) Wastewater. Engineered plans for drying beds should be submitted with the permit application.

The dried solids can then be disposed of at a landfill or used as landfill cover. The Department recommends that if a municipality can separate the organic matter and debris from the sediment, and they wish to explore the potential for reuse of the sediment as fill, they should consult with the Department on an appropriate testing program and reuse options.

Contact Information

For questions concerning:

- Stormwater Best Management Practices:
  Water Permitting and Enforcement Division, Bureau of Materials Management and Compliance Assurance (860) 424-3025

- Storage, disposal and reuse of street sweepings and catch basin cleanings:
  Waste Engineering and Enforcement Division, Bureau of Materials Management and Compliance Assurance (860) 424-3366

- Pollutant characteristics and testing:
  Remediation Division, Bureau of Water Protection and Land Reuse (860) 424-3705

- Spill Reporting and Cleanups (24 hour hotline):
  Emergency Response and Spill Prevention Division, Bureau of Materials Management and Compliance Assurance (860) 424-3338 or 1-866-337-7745

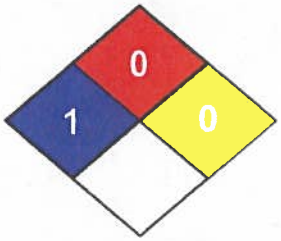
- Decanting vactor truck liquids:
  Water Permitting and Enforcement Division, Bureau of Materials Management and Compliance Assurance (860) 424-3025

Note: A list of companies that engage in aggregate recycling is located under the Business Recycling Program Fact Sheet entitled "Construction and Demolition Aggregate Recycling Facilities".

Safety Data Sheet

Version: 6.0
Preparation Date: June, 2017
Supersedes All Previous Versions

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION



Product Name:	**MAGIC MINUS ZERO / MAGIC - 0**	
Product Use:	De-icing, Anti-icing, Pre-wetting, Stockpile Treatment, Salt Brine Enhancement	
Manufacturer/Distributor:	Innovative Surface Solutions	
	78 Orchard Road Ajax, Ontario L1S 6L1	454 River Road Glenmont, NY 12077
Telephone:	1-800-387-5777	1-800-257-5808
24-Hour Emergency Telephone:	1-800-424-9300	
WHMIS Classification:	Not controlled	
Chemical Family:	Inorganic salt solution	

SECTION 2: HAZARDS IDENTIFICATION

	GHS Classification	
Physical	**Health**	**Environment**
Not Hazardous	Not Hazardous	Not Hazardous

GHS Label Element: Not Hazardous

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Components	CAS #	% by Weight
Magnesium Chloride	7786-30-3	22.4%
Molasses	68476-78-8	20.0%

SECTION 4: FIRST-AID MEASURES

Eye	May cause slight eye irritation, immediately wash with water for 15 minutes. Get medical attention if irritation persists.
Skin	May cause skin irritation, wash skin thoroughly with soap and water. Get medical attention if irritation develops or persists.
Ingestion	Low in toxicity. May cause diarrhea and vomiting when large quantities are ingested.
Inhalation	Not applicable.

SECTION 5: FIRE FIGHTING MEASURES

Suitable Extinguishing Media	Appropriate extinguishing media. This product is not combustible. Choose media depending on surrounding fire. All extinguishing medias are allowed.
Specific Hazards Arising from the Chemical	Expose to temperature above 160 C gives formation of toxic chloride gases
Protective Equipment and Precaution	Protective actions and / or special protective equipment depending on surrounding fire. Aqueous solutions may cause surfaces to be extremely slippery and cause a slip hazard.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Risks and Spills	Small spills can be washed away with water. For large spills cordon off the spill area, collect and or absorb liquid with an inter absorbent and place in appropriate container for disposal. Flush spill area with water Report releases as per local, state and federal authorities
Protective Equipment and Exposure Control	See Section 9 for details

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SECTION 7: HANDLING & STORAGE

Precaution for Safe Handling	Wear protective equipment and equipment. Avoid contact with eyes, skin and clothing. Avoid breathing mist or aerosols Wash your skin thoroughly with soap and water after handling, if product comes in contact.
Safe Storage / Incompatibilities	Store in cool, dry, well-ventilated area away from incompatible material. Carbon Steel, polyester, polyethylene and polypropylene are suitable material for construction.

SECTION 8: EXPOSURE CONTROL / PERSONAL PROTECTION

Exposure Control	Not established, no special precaution required.
Respiratory Protection	For dusty or misty conditions, wear NIOSH approved dust or mist respirator.
Skin Protection	Wear rubber gloves, boots and long sleeve shirts.
Eye Protection	Wear safety goggles.

SECTION 9: PHYSICAL & CHEMICAL PROPERTIES

Physical State:	Liquid
Appearance | Odor:	Brown liquid | Pleasant odor
Odor Threshold:	Not established
Specific Gravity:	1.302g/mL
pH:	3.0 to 5.0
Vapor Pressure:	Not determined
Solubility in Water:	Completely
% Volatile:	Not determined
Vapor Density:	Not determined

SECTION 10: STABILITY & REACTIVITY

Reactivity / Chemical Stability	Not reactive. Stable under normal storage and handling conditions.
Conditions to Avoid	Temperature below or close to product freezing point can give formation of crystals during storage.
Incompatible Material	Strong oxidizing agents, concentrated acids and some metals.
Hazardous Decomposition Products	Above 160 C product decomposes and emits hydrogen chloride, halogenated compounds and chloride gas.

SECTION 11: TOXICOLOGICAL INFORMATION

Ingestion	Ingestion may cause slight irritation with nausea, vomiting and diarrhea.
Inhalation	Inhalation of mist may cause slight irritation of nose, throat and upper respiratory tract.
Eye	May cause minor irritation with pain and tearing.
Skin	May cause slight irritation on prolonged or repeated contact.
Carcinogenicity	None of the component in the product is listed as carcinogen or suspected carcinogen by IARC, NTP or OSHA.
Reproductive Toxicity	None.
Oral (rate) LD 50	8100 mg / Kg
Appraisal	The material is classified as not toxic.

SECTION 12: ECOLOGICAL INFORMATION

Eco toxicity	Fathead minnow NOEC: 1.0 g / L Ceriodaphnia dubia NOEC: 1.00 g / L Selenastrum growth NOEC: 2.0 g / L
Persistence and Degradability	Not applicable.
Bio accumulative Potential	No data available.
Mobility in Soil	No data available.
Other Adverse Effects	None known.

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose in accordance with local, state and federal environmental regulations.

SECTION 14: TRANSPORT INFORMATION

Proper Shipping Name	Not regulated
UN Number	None
Hazard Class / packing Group	None
Label Required	None

SECTION 15: REGULATORY INFORMATION

CERCLA	This product is not subjected to CERCLA release reporting. Many States have more stringent release reporting requirements. Report spills required under federal, state and local regulations.
SARA Hazard Category (311 / 312)	Not Hazardous
SARA 313	None
EPA TSCA Inventory	All of the ingredients in this product are listed on the EPA TSCA Inventory.
CEPA	All the components of this product are listed on the Canadian DSL
WHMIS Classification	Not classified as dangerous.

SECTION 16: PREPARATION INFORMATION

Prepared By:	Innovative Surface Solutions
Telephone:	905-427-0318
Preparation Date:	June, 2017
Superseded Date:	ALL PREVIOUS VERSIONS

innovative
SURFACE SOLUTIONS

Product Technical Specification Sheet

Product Name: PROMELT ULTRA 1000

Physical Characteristics:

No.	Properties	Test Method	Typical Values	Specification	
				min	**max**
1	Appearance	-	Translucent Tan	-	-
2	pH, deicer 1+4	ASTM D-1293	6.2	6.0	9.0
3	Specific Gravity (15°C | 60°F)	ASTM D-1429	1.290	1.280	1.300
4	Weight (lbs/gal)	ASTM D-1429	10.76	10.68	10.85
5	Freeze Point Temperature	PNS	-65°C | -85°F	-	-
6	% Freezer Settleable Solids	PNS	<1.0	0.0	1.0
7	% Solids Passing #10 Sieve	PNS	>99.0	99.0	100.0
8	Total Dissolved Solids	-	33.0	32.0	37.0

Chemical Characteristics:

No.	Properties	Test Method	Typical Values	Specification	
				min	**max**
9	% Magnesium Chloride	PNS	27.0	26.0	28.0
10	% Sodium Chloride	PNS	-	0.0	1.0
11	% Calcium Chloride	PNS	-	0.0	1.0
12	% Potassium Chloride	PNS	-	0.0	1.0
13	Arsenic (ppm)	EPA 200.7	<1.0	0.0	5.0
14	Barium (ppm)	EPA 200.7	<0.5	0.0	100.0
15	Cadmium (ppm)	EPA 200.7	<0.05	0.0	0.2
16	Chromium (ppm)	EPA 200.7	<0.5	0.0	1.0
17	Copper (ppm)	EPA 200.7	<0.1	0.0	1.0
18	Cyanide (ppm)	EPA 335.4	<0.05	0.0	0.2
19	Lead (ppm)	EPA 200.7	<0.5	0.0	1.0
20	Mercury (ppm)	EPA 245.1	<0.02	0.0	0.05
21	Selenium (ppm)	EPA 200.7	<1.0	0.0	5.0
22	Zinc (ppm)	EPA 200.7	<0.1	0.0	10.0
23	Phosphorus (ppm)	EPA 365.4	< 5.0	0.0	2500.0

78 Orchard Road
Ajax, Ontario L1S 6L1
1-800-387-5777

454 River Road
Glenmont, NY 12077
1-800-257-5808

Attachment F

Part II: Impaired waters investigation and monitoring program

Sections 2 & 4	Screening data for outfalls to impaired waterbodies
Section 3	Small Farms Manure Storage Solutions

Outfall 1

Report Date..... 21-Dec-23
EML Project ID..... 231211-NAF-F
Your Project ID..... Stormwater MS-4
DSN Location..... No Branford #6
Date Sampled..... 11-Dec-23
Date Submitted..... 11-Dec-23

Nafis and Young Engineers
1355 Middletown Avenue
Northford, CT 06472

Attn: Mr. Dave Seitlinger

EML, INC. WALLINGFORD, CT CT CERTIFICATION PH 0500

Values in mg/L unless otherwise noted.
ND = Not Detected. NP = Not Performed.

Parameter	Results	Det Limit	Method	Completed Date	Time	Analyst
Wet Chemistry						
Sample pH (S.U.)	6.27		4500-H+B	11-Dec-23	0950	JC
Hardness	54.13	<1	2340B	11-Dec-23	2042	AB
Sp. Conductivity (umhos)	1030.	<2	2510B	18-Dec-23	0900	AB
Oil & Grease, Total	ND	<1	1664A	15-Dec-23	1700	AB
Chemical Oxygen Demand	ND	<1	5220D	18-Dec-23	1700	AB
Turbidity (N.T.U.)	12.70	<0.02	2130B	11-Dec-23	1000	JC
Total Suspended Solids	17.	<1	2540D	13-Dec-23	1000	JC
Phosphorus as P	ND	<0.05	4500-P E	13-Dec-23	1535	JC
Ammonia as N	ND	<0.1	4500-NH_3 D	15-Dec-23	1730	JC
Total Kjeldahl Nitrogen	0.94	<0.1	4500-N_{org} B	15-Dec-23	1730	JC
Nitrate-Nitrite as N	2.25	<0.1	4500-NO_3 F	12-Dec-23	1640	SM
E.coli (MPN/100mL)	1733		SM9223B	12-Dec-23	0800	JC
Lead	0.004	<0.002	SM 3113B	11-Dec-23	1817	AB
Nickel	ND	<0.02	SM 3120B	11-Dec-23	2042	AB
Copper	0.060	<0.005	SM 3120B	11-Dec-23	2042	AB

Tab: MS4

Technical Reviewer: _____ Title: _____

Transcript Reviewer: _____ Title: AGM

ENVIRONMENTAL MONITORING LABORATORY, INC.

59 N. PLAINS INDUSTRIAL PARK WALLINGFORD, CONNECTICUT 06492
TEL (203) 284-0555
FAX (203) 284-2064

Outfall 4

Report Date..... 21-Dec-23
EML Project ID..... 231211-NAF-E
Your Project ID..... Stormwater MS-4
DSN Location..... No Branford #5
Date Sampled..... 11-Dec-23
Date Submitted..... 11-Dec-23

Nafis and Young Engineers
1355 Middletown Avenue
Northford, CT 06472

Attn: Mr.Dave Seitlinger

Values in mg/L unless otherwise noted.
ND = Not Detected. NP = Not Performed.

Parameter	Results	Det Limit	Method	Completed Date	Time	Analyst
Wet Chemistry						
Sample pH (S.U.)	6.54		4500-H+B	11-Dec-23	0950	JC
Hardness	7.19	<1	2340B	11-Dec-23	2102	AB
Sp. Conductivity (umhos)	1207.	<2	2510B	18-Dec-23	0900	AB
Oil & Grease, Total	7.2	<1	1664A	15-Dec-23	1700	AB
Chemical Oxygen Demand	32.1	<1	5220D	18-Dec-23	1700	AB
Turbidity (N.T.U.)	93.40	<0.02	2130B	11-Dec-23	1000	JC
Total Suspended Solids	78.	<1	2540D	13-Dec-23	1000	JC
Phosphorus as P	0.44	<0.05	4500-P E	13-Dec-23	1535	JC
Ammonia as N	ND	<0.1	4500-NH_3 D	15-Dec-23	1730	JC
Total Kjeldahl Nitrogen	1.70	<0.1	4500-N_{org} B	15-Dec-23	1730	JC
Nitrate-Nitrite as N	1.38	<0.1	4500-NO_3 F	12-Dec-23	1640	SM
E.coli (MPN/100mL)	9		SM9223B	12-Dec-23	0800	JC
Lead	0.007	<0.002	SM 3113B	11-Dec-23	1817	AB
Nickel	ND	<0.02	SM 3120B	11-Dec-23	2102	AB
Copper	0.036	<0.005	SM 3120B	11-Dec-23	2102	AB

Tab:MS4

Technical Reviewer: _____ Title: _____

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ENVIRONMENTAL MONITORING LABORATORY, INC.
59 N. PLAINS INDUSTRIAL PARK WALLINGFORD, CONNECTICUT 06492
TEL (203) 284-0555
FAX (203) 284-2064

Outfall 6

Report Date..... 21-Dec-23
EML Project ID..... 231211-NAF-A
Your Project ID..... Stormwater MS-4
DSN Location..... No Branford #1
Date Sampled..... 11-Dec-23
Date Submitted..... 11-Dec-23

Nafis and Young Engineers
1355 Middletown Avenue
Northford, CT 06472

Attn: Mr. Dave Seitlinger

Values in mg/L unless otherwise noted.
ND = Not Detected. NP = Not Performed.

Parameter	Results	Det Limit	Method	Completed Date	Time	Analyst
Wet Chemistry						
Sample pH (S.U.)	5.80		4500-H+B	11-Dec-23	0950	JC
Hardness	8.99	<1	2340B	11-Dec-23	2003	AB
Sp. Conductivity (umhos)	473.	<2	2510B	18-Dec-23	0900	AB
Oil & Grease, Total	ND	<1	1664A	15-Dec-23	1700	AB
Chemical Oxygen Demand	18.7	<1	5220D	18-Dec-23	1700	AB
Turbidity (N.T.U.)	39.5	<0.02	2130B	11-Dec-23	1000	JC
Total Suspended Solids	48.	<1	2540D	13-Dec-23	1000	JC
Phosphorus as P	0.09	<0.05	4500-P E	13-Dec-23	1532	JC
Ammonia as N	0.57	<0.1	4500-NH_3 D	15-Dec-23	1730	JC
Total Kjeldahl Nitrogen	1.20	<0.1	4500-N_{org} B	15-Dec-23	1730	JC
Nitrate-Nitrite as N	ND	<0.1	4500-NO_3 F	12-Dec-23	1640	SM
E.coli (MPN/100mL)	12		SM9223B	12-Dec-23	0800	JC
Lead	0.002	<0.002	SM 3113B	11-Dec-23	1746	AB
Nickel	ND	<0.02	SM 3120B	11-Dec-23	2003	AB
Copper	0.021	<0.005	SM 3120B	11-Dec-23	2003	AB

Tab:MS4

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ENVIRONMENTAL MONITORING LABORATORY, INC.
59 N. PLAINS INDUSTRIAL PARK WALLINGFORD, CONNECTICUT 06492
TEL (203) 284-0555
FAX (203) 284-2064

Outfall 7

Report Date..... 21-Dec-23
EML Project ID..... 231211-NAF-B
Your Project ID..... Stormwater MS-4
DSN Location..... No Branford #2
Date Sampled..... 11-Dec-23
Date Submitted..... 11-Dec-23

Nafis and Young Engineers
1355 Middletown Avenue
Northford, CT 06472

Attn: Mr.Dave Seitlinger

EML, INC. WALLINGFORD, CT CT CERTIFICATION PH 0569

Values in mg/L unless otherwise noted.
ND = Not Detected. NP = Not Performed.

Parameter	Results	Det Limit	Method	Completed Date	Time	Analyst
Wet Chemistry						
Sample pH (S.U.)	6.23		4500-H+B	11-Dec-23	0950	JC
Hardness	22.95	<1	2340B	11-Dec-23	2014	AB
Sp. Conductivity (umhos)	405.	<2	2510B	18-Dec-23	0900	AB
Oil & Grease, Total	3.2	<1	1664A	15-Dec-23	1700	AB
Chemical Oxygen Demand	38.4	<1	5220D	18-Dec-23	1700	AB
Turbidity (N.T.U.)	13.00	<0.02	2130B	11-Dec-23	1000	JC
Total Suspended Solids	96.	<1	2540D	13-Dec-23	1000	JC
Phosphorus as P	0.21	<0.05	4500-P E	13-Dec-23	1533	JC
Ammonia as N	0.11	<0.1	4500-NH_3 D	15-Dec-23	1730	JC
Total Kjeldahl Nitrogen	1.12	<0.1	4500-N_{org} B	15-Dec-23	1730	JC
Nitrate-Nitrite as N	0.32	<0.1	4500-NO_3 F	12-Dec-23	1640	SM
E.coli (MPN/100mL)	1986		SM9223B	12-Dec-23	0800	JC
Lead	0.005	<0.002	SM 3113B	11-Dec-23	1803	AB
Nickel	ND	<0.02	SM 3120B	11-Dec-23	2014	AB
Copper	0.008	<0.005	SM 3120B	11-Dec-23	2014	AB

Tab:MS4

Technical Reviewer: _____ Title: _____

Transcript Reviewer: _____ Title: _____

ENVIRONMENTAL MONITORING LABORATORY, INC.

59 N. PLAINS INDUSTRIAL PARK WALLINGFORD, CONNECTICUT 06492
TEL (203) 284-0555
FAX (203) 284-2064

Outfall 12

Report Date..... 21-Dec-23
EML Project ID..... 231211-NAF-C
Your Project ID..... Stormwater MS-4
DSN Location..... No Branford #3
Date Sampled..... 11-Dec-23
Date Submitted..... 11-Dec-23

Nafis and Young Engineers
1355 Middletown Avenue
Northford, CT 06472

Attn: Mr.Dave Seitlinger

EML, INC. WALLINGFORD, CT CT CERTIFICATION PH 0569

Values in mg/L unless otherwise noted.
ND = Not Detected. NP = Not Performed.

Parameter	Results	Det Limit	Method	Completed Date	Time	Analyst
Wet Chemistry						
Sample pH (S.U.)	6.26		4500-H+B	11-Dec-23	0950	JC
Hardness	3.64	<1	2340B	11-Dec-23	2021	AB
Sp. Conductivity (umhos)	270.	<2	2510B	18-Dec-23	0900	AB
Oil & Grease, Total	3.6	<1	1664A	15-Dec-23	1700	AB
Chemical Oxygen Demand	7.5	<1	5220D	18-Dec-23	1700	AB
Turbidity (N.T.U.)	19.40	<0.02	2130B	11-Dec-23	1000	JC
Total Suspended Solids	20.	<1	2540D	13-Dec-23	1000	JC
Phosphorus as P	ND	<0.05	4500-P E	13-Dec-23	1534	JC
Ammonia as N	ND	<0.1	4500-NH_3 D	15-Dec-23	1730	JC
Total Kjeldahl Nitrogen	0.68	<0.1	4500-N_{org} B	15-Dec-23	1730	JC
Nitrate-Nitrite as N	ND	<0.1	4500-NO_3 F	12-Dec-23	1640	SM
E.coli (MPN/100mL)	23		SM9223B	12-Dec-23	0800	JC
Lead	0.006	<0.002	SM 3113B	11-Dec-23	1806	AB
Nickel	ND	<0.02	SM 3120B	11-Dec-23	2021	AB
Copper	0.106	<0.005	SM 3120B	11-Dec-23	2021	AB

Tab:MS4

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Transcript Reviewer: _____ Title: _____

ENVIRONMENTAL MONITORING LABORATORY, INC.

59 N. PLAINS INDUSTRIAL PARK WALLINGFORD, CONNECTICUT 06492
TEL (203) 284-0555
FAX (203) 284-2064

Outfall 17

Report Date..... 21-Dec-23
EML Project ID..... 231211-NAF-D
Your Project ID..... Stormwater MS-4
DSN Location..... No Branford #4
Date Sampled..... 11-Dec-23
Date Submitted..... 11-Dec-23

Nafis and Young Engineers
1355 Middletown Avenue
Northford, CT 06472

Attn: Mr.Dave Seitlinger

Values in mg/L unless otherwise noted.
ND = Not Detected. NP = Not Performed.

Parameter	Results	Det Limit	Method	Completed Date	Time	Analyst
Wet Chemistry						
Sample pH (S.U.)	6.67		4500-H+B	11-Dec-23	0950	JC
Hardness	62.68	<1	2340B	11-Dec-23	2031	AB
Sp. Conductivity (umhos)	1113.	<2	2510B	18-Dec-23	0900	AB
Oil & Grease, Total	1.2	<1	1664A	15-Dec-23	1700	AB
Chemical Oxygen Demand	ND	<1	5220D	18-Dec-23	1700	AB
Turbidity (N.T.U.)	36.30	<0.02	2130B	11-Dec-23	1000	JC
Total Suspended Solids	28.	<1	2540D	13-Dec-23	1000	JC
Phosphorus as P	0.06	<0.05	4500-P E	13-Dec-23	1534	JC
Ammonia as N	ND	<0.1	4500-NH_3 D	15-Dec-23	1730	JC
Total Kjeldahl Nitrogen	0.78	<0.1	4500-N_{org} B	15-Dec-23	1730	JC
Nitrate-Nitrite as N	1.26	<0.1	4500-NO_3 F	12-Dec-23	1640	SM
E.coli (MPN/100mL)	649		SM9223B	12-Dec-23	0800	JC
Lead	0.002	<0.002	SM 3113B	11-Dec-23	1809	AB
Nickel	ND	<0.02	SM 3120B	11-Dec-23	2031	AB
Copper	0.007	<0.005	SM 3120B	11-Dec-23	2031	AB

Tab:MS4

Technical Reviewer: _____ Title: _____

Transcript Reviewer: _____ Title: _____

ENVIRONMENTAL MONITORING LABORATORY, INC.
59 N. PLAINS INDUSTRIAL PARK WALLINGFORD, CONNECTICUT 06492
TEL (203) 284-0555
FAX (203) 284-2064

Environmental Monitoring Lab, Inc.
59 N. Plains Industrial Rd.
Wallingford, CT 06492
Tel:203.284.0555 Fax:203.284.2064 email: eml.ct@att.net

CHAIN OF CUSTODY
Laboratory Analysis
ver.MS-4_Nov2015pinkfdld

Client Project Summary

Name of Project: Stormwater - MS-4
Project Number / ID:
Project Site: NB6
Project Manager:
Purchase Order #:
outfall 1

Stormwater - MS-4

Report To:
NAF
Nafis and Young Engineers A
1355 Middletown Ave.
Northford, CT 06472
Attn: Mr. Jim Galligan
Attn:
Telephone:

Mail Invoice To: (if different)
Attn: Accounting Department

Location:

IF NON-ROUTINE DETECTION LIMITS ARE REQUIRED, PLEASE NOTE IN REMARKS SECTION BELOW

DATE & Time	Pres.	MATRIX	TYPE	VOL	COUNT	E. coli*	O&G, COD, TKN, NH3, T-Phos	pH, Hard, Cond, Turb,	TSS, NO2-NO3	Metals	
12-11-23											
6:35AM	ICED	AQ	P	4oz	1	X					* Sample MUST be initiated
	H2SO4	AQ	G	1-L	1		X				within 6 hours of collection.
	ICED	AQ	P	500mL	1			X			
	HNO3	AQ	P	125mL	1					X	

Matrix: AQ = aqueous SS = soil/sediment/sludge OS = other solid
Type: G = glass jar/bottle P = plastic V = EPA vial

Additional Remarks:

Relinquished By:	Date	Time		Date	Time	Time
Nick Nolan	12-11-23	6:45AM				
Patrick Wynne	12-11-23					
		930		12/11/23	0930	

Environmental Monitoring Lab, Inc.
59 N. Plains Industrial Rd.
Wallingford, CT 06492
Tel:203.284.0555 Fax:203.284.2064 email: eml.ct@att.net

CHAIN OF CUSTODY
Laboratory Analysis
ver.MS-4_Nov2015pinkfdld

Client Project Summary

Name of Project: Stormwater - MS-4
Project Number / ID: NB5
Project Site:
Project Manager:
Purchase Order #:
Outfall 4

Stormwater - MS-4

Report To

NAF
Nafis and Young Engineers A
1355 Middletown Ave.
Northford, CT 06472
Attn: Mr. Jim Galligan

Attn:
Telephone:

Mail Invoice To: (if different)

Attn: Accounting Department

Location:

IF NON-ROUTINE DETECTION LIMITS ARE REQUIRED, PLEASE NOTE IN REMARKS SECTION BELOW

DATE & Time	Pres.	MATRIX	TYPE	VOL	COUNT	E. coli*	O&G, COD, TKN, NH3, T-Phos	pH, Hard, Cond, Turb,	TSS, NO2-NO3	Metals	
12-1-23 8.30 AM	ICED	AQ	P	4oz	1	X					* Sample MUST be initiated within 6 hours of collection.
	H2SO4	AQ	G	1-L	1		X				
	ICED	AQ	P	500mL	1			X			
	HNO3	AQ	P	125	1				X		

Matrix: AQ = aqueous SS = soil/sediment/sludge OS = other solid
Type: G = glass jar/bottle P = plastic V = EPA vial

Additional Remarks:

Relinquished By:	Date	Time		Date	Time	Time
Mark McCay EML	12-1-23	6:45AM				
		930am		12/1/23	0930	

pH 11.7

Environmental Monitoring Lab, Inc.
59 N. Plains Industrial Rd.
Wallingford, CT 06492
Tel:203.284.0555 Fax:203.284.2064 email: eml.ct@att.net

CHAIN OF CUSTODY

Laboratory Analysis
ver.MS-4_Nov2015pinkfdld

Client Project Summary

Name of Project: Stormwater - MS-4
Project Number / ID:
Project Site:
Project Manager:
Purchase Order #:

Outfall 6

Stormwater - MS-4

Report To:

NAF
Nafis and Young Engineers A
1355 Middletown Ave.
Northford, CT 06472
Attn: Mr. Jim Galligan

Attn:
Telephone:

Mail Invoice To: (if different)

Attn: Accounting Department

Location:

IF NON-ROUTINE DETECTION LIMITS ARE REQUIRED, PLEASE NOTE IN REMARKS SECTION BELOW

DATE & Time	Pres.	MATRIX	TYPE	VOL	COUNT	E. coli*	O&G, COD, TKN, NH3, T-Phos	pH, Hard, Cond, Turb,	TSS, NO2-NO3	Metals	
12-11-23 8:30 AM	ICED	AQ	P	4oz	1	X					* Sample MUST be initiated within 6 hours of collection.
	H2SO4	AQ	G	1-L	1		X				
	ICED	AQ	P	500mL	1			X			
	HNO3	AQ	P	125	1				X		

Matrix: AQ = aqueous SS = soil/sediment/sludge OS = other solid
Type: G = glass jar/bottle P = plastic V = EPA vial

Additional Remarks:

Temp 11.7

Relinquished By:	Date	Time		Date	Time Time
Nicole Miller	12-11-23	8:45AM			
Patrick Wynne	12-11-23				
	12-11-23	930		12/11/23	0930

Environmental Monitoring Lab, Inc.
59 N. Plains Industrial Rd.
Wallingford, CT 06492
Tel:203.284.0555 Fax:203.284.2064 email: eml.ct@att.net

CHAIN OF CUSTODY
Laboratory Analysis
ver.MS-4_Nov2015pinkfdld

Client Project Summary

Name of Project: Stormwater - MS-4
Project Number / ID: NB 2
Project Site:
Project Manager:
Purchase Order #:
Outfall 7

Stormwater - MS-4

Report To:
NAF
Nafis and Young Engineers
1355 Middletown Ave.
Northford, CT 06472
Attn: Mr. Jim Galligan

Attn:
Telephone:

Mail Invoice To: (if different)

Attn: Accounting Department

Location:

IF NON-ROUTINE DETECTION LIMITS ARE REQUIRED, PLEASE NOTE IN REMARKS SECTION BELOW

DATE & Time	Pres.	MATRIX	TYPE	VOL	COUNT	E. coli*	O&G, COD, TKN, NH3, T-Phos	pH, Hard, Cond, Turb,	TSS, NO2-NO3	Metals	
12-11-23											
7:25 AM	ICED	AQ	P	4oz	1	X					*Sample MUST be initiated*
	H2SO4	AQ	G	1-L	1		X				*within 6 hours of collection.*
	ICED	AQ	P	500mL	1			X			
	HNO3	AQ	P	125	1					X	

Matrix: AQ = aqueous SS = soil/sediment/sludge OS = other solid
Type: G = glass jar/bottle P = plastic V = EPA vial

Additional Remarks:

Relinquished By:	Date	Time		Date	Time	Time
[signature]	12-11-23	8:45AM	[signature]			
Patrick Wynne	12-11-23					
[signature]	12-11-23	930	[signature]	12/11/23	0930	

Tup117

Environmental Monitoring Lab, Inc.
59 N. Plains Industrial Rd.
Wallingford, CT 06492
Tel:203.284.0555 Fax:203.284.2064 email: eml.ct@att.net

CHAIN OF CUSTODY

Laboratory Analysis
ver.MS-4_Nov2015pinkfdld

Client Project Summary

Name of Project: Stormwater - MS-4
Project Number / ID:
Project Site: NB3
Project Manager:
Purchase Order #:

Outfall 12

Stormwater - MS-4

Report To:
NAF
Nafis and Young Engineers
1355 Middletown Ave.
Northford, CT 06472
Attn: Mr. Jim Galligan
Attn:
Telephone:

Mail Invoice To: (if different)
Attn: Accounting Department

Location:

IF NON-ROUTINE DETECTION LIMITS ARE REQUIRED, PLEASE NOTE IN REMARKS SECTION BELOW

DATE & Time	Pres.	MATRIX	TYPE	VOL	COUNT	E. coli*	O&G, COD, TKN, NH3, T- Phos	pH, Hard, Cond, Turb,	TSS, NO2-NO3	Metals	
12-11-23 7:50AM	ICED	AQ	P	4oz	1	X					* Sample MUST be initiated
	H2SO4	AQ	G	1-L	1		X				within 6 hours of collection.
	ICED	AQ	P	500mL	1			X			
	HNO3	AQ	P	125	1				X		

Matrix: AQ = aqueous SS = soil/sediment/sludge OS = other solid
Type: G = glass jar/bottle P = plastic V = EPA vial

Additional Remarks:

Relinquished By:	Date	Time		Date	Time Time
Nick McKay	12-11-23	8:10AM			
	12-11-23				
	12-11-23	930		12/11/23	0930

Typ 11.7

Environmental Monitoring Lab, Inc.
59 N. Plains Industrial Rd.
Wallingford, CT 06492
Tel:203.284.0555 Fax:203.284.2064 email: eml.ct@att.net

CHAIN OF CUSTODY
Laboratory Analysis
ver.MS-4_Nov2015pinkfdld

Client Project Summary

Name of Project: Stormwater - MS-4
Project Number / ID: MS 4
Project Site:
Project Manager:
Purchase Order #:
Outfall 17

Stormwater - MS-4

Report To

NAF
Nafis and Young Engineers
1355 Middletown Ave.
Northford, CT 06472
Attn: Mr. Jim Galligan

Attn:
Telephone:

Mail Invoice To: (if different)

Attn: Accounting Department

Location:

IF NON-ROUTINE DETECTION LIMITS ARE REQUIRED, PLEASE NOTE IN REMARKS SECTION BELOW

DATE & Time	Pres.	MATRIX	TYPE	VOL	COUNT	E. coli*	O&G, COD, TKN, NH3, T-Phos	pH, Hard, Cond, Turb,	TSS, NO2-NO3	Metals	
12-1-23 6:25 AM	ICED	AQ	P	4oz	1	X					* Sample MUST be initiated within 6 hours of collection.
	H2SO4	AQ	G	1-L	1		X				
	ICED	AQ	P	500mL	1			X			
	HNO3	AQ	P	125	1				X		

Matrix: AQ = aqueous SS = soil/sediment/sludge OS = other solid
Type: G = glass jar/bottle P = plastic V = EPA vial

Additional Remarks:

Sup 11-7

Relinquished By:	Date	Time		Date	Time	Time
Nick Mc Terry	12-1-23	8:45AM				
Wynne	12-1-23					
	12-1-23	930		12/1/23	0930	

Why leachate from a manure pile is bad for water quality:

Fertilizer values per ton of select animal waste

Manure	Nitrogen	Available Phosphorus	Soluble Potash
Dairy Cow	10	4	8
Beef Cow	11	9	10
Horse	12	5	9
Llama	34	14	13
Chicken	28	24	14

Adapted from the MidWest Plan Service (MWPS) bulletin Manure Characteristics, MWPS-18 Section 1.

In addition to soluble nutrients and organic particles, non-composted manure may also contain fly larvae, bacteria and other pathogens.

Develop a manure management strategy that is both good for your animals as well as environment.

For more information on Small Farm BMPs:

www.ConserveCT.org/Eastern

https://nerc.org/documents/manure_management/manure_management_handbook.pdf

This brochure was funded in part by the Connecticut Department of Energy and Environmental Protection through the US EPA Clean Water Act Section 319 Non-point Source grant program.

Who We Are

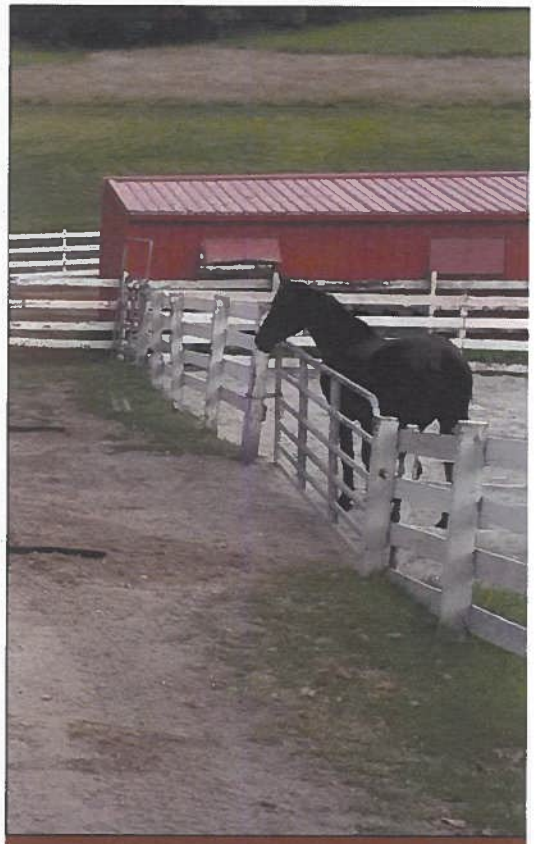
The Eastern Connecticut Conservation District, Inc. (ECCD) is a private, not-for-profit natural resource conservation organization. ECCD offers technical and educational services to the towns of eastern Connecticut. ECCD assists citizens and towns in making sound natural resource decisions, and we promote sustainable use of natural resources. We develop programs that solve natural resource problems and we provide educational opportunities to the public about the interrelationship between human activities and the natural environment.

Where We Are

Contact Us

Norwich: 238 West Town Street
Norwich, CT 06360
860-887-4163, ext. 400
Kate.Johnson.ECCD@comcast.net

Like us on Facebook

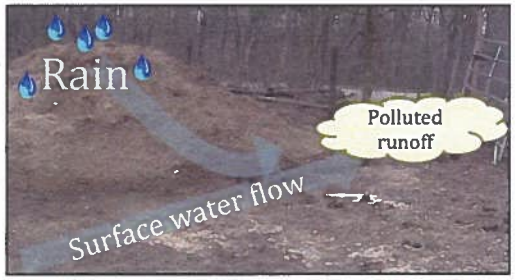


SMALL FARMS MANURE STORAGE SOLUTIONS

Healthier Animals, Healthier Environment

EASTERN CONNECTICUT CONSERVATION DISTRICT
WWW.CONSERVECT.ORG/EASTERN

Keeping Manure Under Cover: A Best Management Practice for Small Farm Owners.



Bad: Uncovered Manure Pile

Uncovered manure piles:

- Act as fly breeding areas
- May contaminate surface and ground water when it rains
  - Soluble nutrients and salts
  - Bacteria and other pathogens
  - Organic particles
- May become too wet or dried out to compost correctly

Good: Cover manure with a tarp

By putting a tarp or compost cover over a manure pile, and locating it away from areas where surface water flows during storm events, you can prevent rain water from filtering through the manure pile and carrying pollutants into local streams and lakes, and keep the pollutants from soaking into the ground and contaminating your well. A cover will also act as a fly barrier.

Better: Manure Composting

This three bay manure composting facility will be covered with a tarp when completed. By building it into a hillside, manure can be added from the high side with a wheel barrow and managed with heavy equipment from the ground level.

Stormwater going through a manure pile will leach out soluble minerals and nutrients and transport them, along with organic particles and pathogens, down slope. Wetlands, streams and lakes are often polluted this way. You wouldn't throw a bag of fertilizer into a lake, but leachate from a manure pile is like the same thing. To help keep our water clean, please cover your manure pile.

Best: Permanent Roof Structure

This manure storage structure has a permanent roof cover and a rear wall of cement blocks. Manure can be transported into the storage area using a wheel barrow. Heavy equipment operators can use the rear wall to help push the manure into the bucket. This option is more expensive, but provides the following benefits:

- Prevents exposure to rainwater
- Sized to store up to a year of manure storage
- Easy access.

The Eastern Connecticut Conservation District is available to help guide small farmers with development of best management practices that will protect soil and water. Call us at 860-887-4163 extension 400.