

# Stormwater Management Plan 2016 Annual Report

City of Meriden  
Meriden, Connecticut



December 2016



146 Hartford Road  
Manchester, Connecticut 06040

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## Stormwater Management Plan 2016 Annual Report City of Meriden

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# 1 Introduction

On December 8, 1999, the U.S. Environmental Protection Agency (USEPA) promulgated Phase II of its National Pollution Discharge Elimination System (NPDES) stormwater regulations. Phase I of the USEPA stormwater program established regulations for stormwater discharges from municipal separate storm sewer systems (MS4s) in municipalities with populations of 100,000 or greater, construction activities disturbing five or more acres of land, and ten categories of industrial facilities. The Phase II Final Rule expanded the Phase I program by requiring smaller communities with MS4s in urbanized areas to implement programs and practices to control polluted stormwater runoff through the use of NPDES permits.

The City of Meriden is one of approximately 121 municipalities in Connecticut that are located either completely or partially within an urbanized area. These communities were mandated to seek permit coverage under the Connecticut Department of Energy and Environmental Protection's (CT DEEP) Phase II Stormwater Program. CT DEEP issued the original *General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems* on January 9, 2004. The permit was extended without changes through June 30, 2017. A copy of the City's current permit registration certificate (#GSM000038) is included as *Appendix A*.

A revised CT DEEP MS4 General Permit was released in 2016 and will become effective on July 1, 2017. Meriden will work to implement the requirements of the 2016 MS4 General Permit moving forward (as reflected in the "Activities Planned for 2017" subsections of this Annual Report). The initial permit requirements include submitting a new registration form to CT DEEP and updating the City's Stormwater Management Plan (SWMP) (first drafted and submitted to CT DEEP as required by the 2004 MS4 General Permit) by April 1, 2017. The SWMP will continue to address how the City will comply with the six minimum control measures required by the CT DEEP permit. These six minimum measures include:

- Public Education and Outreach
- Public Involvement/Participation
- Illicit Discharge Detection and Elimination
- Construction Site Stormwater Runoff Control
- Post-Construction Stormwater Management
- Pollution Prevention/Good Housekeeping

As required by the 2004 MS4 General Permit (reissued and extended), this Annual Report for calendar year 2016 (year 13 of the permit) outlines the City's compliance with the permit, provides an assessment of the appropriateness of the identified best management practices and the City's progress towards achieving the implementation of each minimum control measure, provides copies of monitoring data which may have been collected and analyzed, summarizes stormwater activities the City plans to undertake during the next reporting cycle, and outlines any changes in identified measurable goals, implementation dates, or other changes.



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## 1.1 Total Maximum Daily Load

CT DEEP prepared and finalized a Total Maximum Daily Load (TMDL) for the Quinnipiac River Regional Basin on June 8, 2008. The TMDL is required since water bodies in this watershed, including Harbor Brook, Misery Brook, Quinnipiac River, and Sodom Brook, have exceeded the allowable levels of bacteria based on their designated uses. As required by the Clean Water Act, a TMDL identifies the maximum quantity of pollutants that can be discharged while still meeting water quality standards, or in the case of this TMDL, the required reductions in bacteria loadings from various sources. The TMDL is required to be implemented through municipal stormwater management programs and other regulatory and non-regulatory mechanisms using a watershed-based framework.

## 2 Public Education and Outreach

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### 2.1 Education to the Public

The City of Meriden is involved in ongoing public education and outreach efforts. To date, the City, in partnership with other governmental agencies, businesses, concerned citizens and non-profit organizations such as the Quinnipiac River Watershed Association (QRWA), has extended its public education and outreach efforts to include:

1. Brochures on stormwater and related environmental topics including:
  - Bristol Resource Recovery Facility Operating Committee and Tunxis Recycling Operating Committee, *Household Hazardous Product Disposal Information*, and *Recycling Guide* (both in English and Spanish languages).
  - CT DEEP, *Composting Has A-Peal*
  - Meriden Department of Health & Human Services, *Storm Drain: Where Does the Water Go?*
  - Quinnipiac River Watershed Association has produced educational documents describing stream quality and benthic organisms, pesticides, riparian health, and related other subjects. Documents include *Stream Biosurveys*, *Environmental Risks of Pesticides in a Residential Setting*, *What Good are Streamside Woods?*, *Muddy Waters*, and *Thickets and Edges*, *The Abridged Greenway Landowners' Guide to the Quinnipiac River & its Tributaries: A primer for the care of the Quinnipiac Greenway rivers and streams*.
2. Newsletters to raise public awareness such as:
  - Meriden Department of Health Semi-Annual Newsletter – “Food For Thought”. For example, the April 2016 newsletter included an article on a restaurant owner’s responsibility to clean up litter around their facility. In 2016, the Department of Health also attached a stormwater specific handout to the newsletter. Over 200 facilities receive this newsletter (see copy of this newsletter and handout in *Appendix B*).
  - Meriden’s Water Division Annual Water Quality Report. Although drinking water is the primary focus, sections of the flyer describe how humans affect the quality of water and water conservation tips. Past years’ reports have been included with past years’ annual reports. The 2015 Annual Report (distributed in 2016) can be found in *Appendix B*.

3. Articles in the local newspaper included, but were not limited to, those related to clean-up activities, Earth Day, community gardens, littering (multiple under the Woods 'n' Water articles on this topic in the Record Journal), Land Trust public hikes, the City's linear trail project, and the City's transformation of a brownfield site into the "Meriden Green" (Primarily impervious contaminated area converted to functioning green space designed to accept and then retain excess stormwater in times of flooding. Officially opened to the public on September 10, 2016).
4. Monthly City Meetings (including Conservation Commission, Inland Wetlands and Watercourse Commission, Meriden Linear Trails Committee, Meriden Land Trust, Flood Control Implementation Agency, and Public Works and Parks & Recreation Committee), many of which pertain to environmental protection and preservation, stormwater, and flood control and allow for monthly public comment on the City's activities and programs.
5. The City of Meriden received the Connecticut Department of Education (CTDOE) *Core Science Curriculum Framework*. This curriculum includes educational units discussing "Land and Water Interactions," "Water Quality," the shaping effects of water, how water moving across and through the earth carries with it the products of human activities, how humans can improve water quality, and the accumulation of mercury, phosphates and nitrates in river, lakes, and oceans and its effects on water quality.
6. The City Department of Health and Human Services continued to implement a Fats, Oils, & Grease (FOG) permitting program in 2016 in which the City reaches out to restaurants and requires updating grease trap units in all food service establishments. Approximately 85% of the regulated food service establishments in Meriden have been permitted under this program to date. During 2016, City staff inspected approximately 6 sites to ensure compliance with the program.
7. As mentioned above, in 2016, the City Department of Health and Human Services disseminated a stormwater specific handout allow with their semi-annual newsletter. The handout was also shared with the Records Journal and posted on the City's Facebook page.
8. In 2016, the South Central Regional Council of Governments in collaboration with the City and the Meriden Land Trust, updated the recreational trail maps for four City parks: Guiffrida Park, Hanover Pond Trail, Hubbard Park, and Quinnipiac River Gorge.
9. In 2016, the City's Public Utilities staff led approximately 6 groups of college and high school students (~30 people) on a tour through the City's Water Pollution Control Facility. The City also participated in New England Water Works Association's Operators Exchange where in 2016, approximately 4 people came to tour the City's facilities and learn from Public Utilities staff.
10. The City's website also includes links to EPA and CT DEEP stormwater websites as well as the City's floodplain mapping.

11. The City has also been collaborating with the MidState Medical Center to reduce the amount of road salt they use on the property. The City has provided MidState staff with education material including multiple best management practices that could be used onsite. The City's educational program with the hospital has been very successful – reducing salt application rates from 300 tons in the winter of 2013/2014 and 180 tons in 2014/2015 to only 90 tons used during the 2015/2016 winter season.

Copies of selected materials available in 2016 are included in *Appendix B*.

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## 2.2 Education Materials Distributed

The brochures and newsletters outlined in *Section 2.1* have been distributed to citizens in Meriden. The *Household Hazardous Product Disposal Information, Recycling Guide* (both in English and Spanish languages), *Composting Has A-Peal*, Transfer Station and Meriden Landfill information are available at the Department of Public Works administrative offices.

The 2015 Stormwater Annual Report was made available to the public for review. No requests to view the report were received. The 2016 report was made available for public review for 30-days prior to submission to CT DEEP. A public notice was placed in the Record Journal on November 30, 2016 as well as notice of the draft report on the City's website and social media starting on November 29, 2016 (see Public Notice found in *Appendix C*).

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## 2.3 Stormwater Committee

A meeting of the Meriden Stormwater Committee, including staff members from the Engineering, Public Utilities, Planning, Heath, and Public Works Departments was held on June 1, 2016 and November 1, 2016 to discuss the new CT DEEP MS4 General Permit (effective July 1, 2017), the 2016 annual report, and the City's plans for 2017 activities. The sign-in sheets, located in *Appendix B*, list the current Stormwater Committee members responsible for the implementation of the City's MS4 SWMP and compliance with the 2004 General Permit. The City Mayor is also a member of the Stormwater Committee but was unable to attend. There have been no significant changes to the Stormwater Committee membership or those responsible for SWMP implementation in 2016.

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## 2.4 Miscellaneous

In Year 1 of the permit, the stewardship of Dossin Beach was passed to the QRWA from the City. This area will be used for on-land and in-the-water (kayak & canoes) educational classes for primarily school age children. The first phase of the Quinnipiac River Gorge Trail was completed during Years 2 and 3 of the permit. This phase includes a 1.2-mile section of trail along the Quinnipiac River. Construction of Phase II of the Quinnipiac River Gorge Trail began in October 2012 and was completed in October 2013. This second phase included constructing a trail connecting Dossin Beach and Platt High School. This trail runs adjacent to Sodom Brook and includes environmental signage. In 2016, the City began Phase III of the project, attempting to secure grant funding to construct a 0.5mi section from Platt High

School to Cook Avenue (estimated cost of \$1.5 million)(see *Appendix B* for an article on this project). The final outcome of the project will include a trail system throughout the City.

The City plans to plant riparian vegetation at Brookside Park as part of the Harbor Brook flood control project. It will consist of approximately ½ mile of plantings. Funding is in place for this project; however, the City must first spray the area for invasive species. It is anticipated that the planting of riparian plants will begin in 2017.

The City is also planning riparian plants at the newly opened 'Meriden Green' to stabilize stream banks to prevent soil erosion and also to provide shade to the watercourse.

The City continued to support the work of the Southwest Conservation District through a monetary contribution and the work of the QRWA by providing them with land and office space for minimal rent. The QRWA held many meetings during 2016 that dealt with environmental topics. Starting in 2014, QRWA's Education Center began offering Environmental Education Programs to area high schools to increase awareness and understanding of the environment by providing hands-on-learning experiences. On March 30, 2016, QRWA received an award of \$48,000 from 3M to help fund their student environmental education program.

In 2016, the local elementary schools continued a recycling program for the students and staff.

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## 2.5 Modifications to Plan

In 2017, the City will modify the public education component of the Stormwater Management Plan to reflect the requirements within the revised 2016 General Permit.

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## 2.6 Activities Planned for 2017

CT DEEP released a revised MS4 General Permit in 2016 that will become effective on July 1, 2017. The City will continue to implement the existing SWMP according to the requirements of the current general permit until the effective date of the new permit. The initial requirements of the 2016 MS4 General Permit include submitting a new registration form to CT DEEP and updating the City's SWMP (first drafted and submitted to CT DEEP as required by the 2004 MS4 General Permit) by April 1, 2017. The SWMP will continue to address how the City will comply with the six minimum control measures, including public education and outreach, as required by the CT DEEP permit. The revised SWMP will document the activities to be undertaken by the City in 2017 and future permit years.

## 3 Public Involvement/Participation

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### 3.1 Public Meetings Conducted

- *Monthly City Meetings.* Many of these meetings include issues pertaining to stormwater and flood control. Meetings include the Inland Wetlands and Watercourses Commission, Land Trust Committee, and Flood Control Implementation Agency meetings.
- *City Code Walk.* These monthly meetings are performed by various city staff, department heads, and members of the public, who walk inner-city neighborhoods and look for areas of improvement (litter, evidence of pollution, maintenance issues, drainage issues etc.). These walks have been performed since 1994. The walks cover 525 acres of the City core via 20 miles of roadway.
- *Meriden Linear Trail Advisory Committee.* Monthly meetings are held to discuss the Linear Trail Project.
- *Meriden Conservation (Land) Commission.* Monthly meetings are held to discuss environmental topics and issues
- *Meriden Land Trust.* Monthly meetings are held to discuss their projects to protect the natural environment of Meriden.
- In 2016, the City hosted public meetings to discuss a range of topics including improvements to Harbor Brook, microhydro power generation, Save the Sound's project to remove a dam on the Quinnipiac River, and a meeting discussing reestablishing a canoe trail on the Quinnipiac River.

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### 3.2 Notices Published

The 2015 Stormwater Annual Report was made available to the public for review. No requests to view the report were received. The 2016 report was made available for public review for 30-days prior to submission to CT DEEP. A public notice was placed in the Record Journal on November 30, 2016 as well as notice of the draft report on the City's website and social media starting on November 29, 2016 (see Public Notice found in *Appendix C*). No requests to view the report were received during this 30-day period.

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### 3.3 Public Events

The following activities were conducted in Meriden in 2016:

- QRWA Canoe Race and Paddling Outings
- Monthly City Code Walks
- Community Clean-up Day – The City organized a clean-up event on October 15, 2016. The City provided gloves, bags, t-shirts, and lunch for the event. During this event, 130 volunteers collected litter from 18 sites throughout the City. The City paid for the proper disposal of the collected litter.

- QRWA River Clean-ups – QRWA completed three (3) clean up events in 2016 – April 23<sup>rd</sup>, October 1<sup>st</sup>, and October 15<sup>th</sup>. Efforts were coordinated throughout the watershed across municipal boundaries. A significant quantity of material was removed from the river during these events. The municipalities in the watershed shared in the cost of the disposal. During the April event, 44 people (including members of the local Boy Scouts Troop) collected litter from Hanover Pond and Harbor and Sodom Brooks. During the final clean-up in October, QRWA led a group of volunteers to collect trash exposed during the draining of Hanover Pond (for maintenance).
- QRWA Fish Stocking – In April 2016, volunteers participated in the stocking of almost 200 rainbow and brook trout along the Quinnipiac River Gorge Trail.
- National Trails Day – On June 12, 2016, the Meriden Linear Trails Committee held a trails day event on the Meriden Linear Trail. Meriden Linear Trail partners were at the event to distribute informational handouts and to answer questions on the future plans for the trail, natural resources, and environmental issues. The Meriden Land Trust also led a public hike on October 29, 2016.
- Meriden Rod & Gun Club Clean-ups – Twice per year members from the Rod & Gun club clean up litter for the areas that they hunt (mostly Meriden watershed land). They typically fill up ½ of a 30 yard trash roll off during each event. The City pays for the proper disposal of all collected litter.
- In 2016, a new community group called 'Meriden Altruism' formed. The goal of the grassroots group is to improve the City's image and the lives of residents. During this permit year some of their activities included a June 6<sup>th</sup> clean-up of Washington Park and surrounding streets by 20 people and a June 18<sup>th</sup> clean-up event of 20 people at Hanover Pond where 6 contractor bags of litter were collected.

See *Appendix C* for more information on these events.

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### 3.4 Public Participation Programs

The following public involvement programs were active in Meriden in 2016:

- QRWA "Friends of the River" Program – QRWA established a program to recognize the businesses and individuals who have committed to implement best management practices (BMPs) to protect the water quality of the Quinnipiac River. To date, over 13 businesses and 64 individual stakeholders (citizens) within Meriden have signed the "Friends of the River" pledge. In addition to approaching commercial businesses directly, the QRWA has approached the Meriden Chamber of Commerce to share information about the program with their members (see past year's annual reports for a copy of the "Friends of the River" pledge and poster).
- Q River-WATCH Program – QRWA launched a program in March 2015 to encourage residents to report issues like possible pollution along the river.
- Beat the Street Community Center Community Garden (also called Liberty Neighborhood Community Garden) –The goal of the garden is to educate children on nutrition, gardening, teamwork and sustainability. This garden continued in 2016.

- North End Garden – In 2016, the North Meriden Neighborhood Association transformed a City-owned vacant lot on Tremont Street into a community garden. In preparation for the garden the neighborhood association and the members of Community Partners in Action cleaned up trash and debris. The goal of the garden is to bring the community together, grow vegetables, and educate area kids. The topsoil for the garden was donated by City Councilor Joe Carabetta.

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### 3.5 Website

The City of Meriden's website has links to the City's stormwater documents (such as the Stormwater Management Plan and Annual Reports). The Quinnipiac River Watershed Association's website ([www.qrwa.org](http://www.qrwa.org)) is also linked to the City's page. The QRWA website includes watershed information, programs, and other educational items.

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### 3.6 Modifications to Plan

In 2017, the City will modify the public involvement/participation component of the Stormwater Management Plan to reflect the requirements within the revised 2016 General Permit.

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### 3.7 Activities Planned for 2017

CT DEEP released a revised MS4 General Permit in 2016 that will become effective on July 1, 2017. The City will continue to implement the existing SWMP according to the requirements of the current general permit until the effective date of the new permit. The initial requirements of the 2016 MS4 General Permit include submitting a new registration form to CT DEEP and updating the City's SWMP (first drafted and submitted to CT DEEP as required by the 2004 MS4 General Permit) by April 1, 2017. The SWMP will continue to address how the City will comply with the six minimum control measures, including public involvement/participation, as required by the CT DEEP permit. The revised SWMP will document the activities to be undertaken by the City in 2017 and future permit years.

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## 4 Illicit Discharge Detection/Elimination

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### 4.1 Illicit Discharge Investigation Activities

The City of Meriden has formalized a process and procedures for logging and responding to complaints associated with illicit discharges. The City has incorporated procedures that include information received from the Meriden Department of Health and Human Services and other government and citizen groups and agencies.

Citizens that wish to report illicit discharges can call the Mayor's Hotline, which then contacts the appropriate department. The complaints are recorded by the Department of Parks and the Department of Public Works as they are detected and reported.



The information is maintained in the Department of Public Works administrative offices located at 142 East Main Street, Meriden, Connecticut. The information is accessible to the public during normal business hours, Monday through Friday. The Department's clerical staff is responsible for accepting and recording public written or telephone complaints for potential illicit discharges. These complaints are referred through the Department of Public Works to field personnel for proper assessment and correction (as necessary).

The Department of Public Works Engineering Services clerical staff also receive and record illicit discharge detection information received from the Mayor's hotline, Department of Health and Human Services, QRWA, and City website. This is currently a public bulletin board on the City's website allowing citizens to post questions. These postings are read by MIS staff and directed to the appropriate department. In the case of stormwater questions/concerns, the Department of Public Works would be notified. The questions posted are answered directly on the website, providing public access to the information.

The City has completed mapping stormwater outfalls within the City. As the outfalls are mapped, discharges detected are evaluated to determine if an illicit discharge could be occurring. A form that was used to identify and describe each outfall was submitted in a prior annual report as was an initial map of the identified outfalls. The City is working on mapping the storm drainage piping network to better manage the City's stormwater infrastructure, which will also help identify potential sources of illicit discharges. Since the submission of the 2013 annual report the City has significantly revised the MS4 outfall map. Additional features from as-built and aerial photography were added to the stormwater layer including detention ponds, sediment chambers, vaults, and leeching chambers (currently about 27). The MIS Department is also in the process of identifying each catch basin in the City and noting if it is a single, double, or triple (627 were added since October 2013). Currently there are 571 outfall points including flared ends, headwalls, and pipes, 4,351 catch basins owned and maintained by the City (7,931 total including State and private), and 385 "other" features including clean outs, culvert inlets and outlets, drainage manholes, oil separators, weirs and yard drains. MIS is also collecting data about the pipe network within the City. To date, they have mapped 2,924 pipes (including culverts and swales) in the total length of 271,621 ft. A copy of the current stormwater map was submitted with the 2014 Annual Report.

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## 4.2 Illicit Discharge Removal Activities

Once a suspected illicit discharge has been detected and logged, the Department of Public Works, in conjunction with the Meriden Department of Health and Human Services, Water Pollution Control, or other governmental agencies, as appropriate, will take necessary actions to diagnose and eliminate the discharge as necessary. The actions taken to correct and/or eliminate the illicit discharges are documented and maintained by the Department of Public Works.

The Meriden Department of Health and Human Service and Department of Public responded to eighteen (18) illicit discharges in 2016. Seventeen (17) of the situations have been successfully resolved and the one that is pending is still under investigation. The resolved discharges were all sewer related.



The pending case is a sheen and solvent odor that was witnessed and investigated by the City staff, CT DEEP, CT DOT, and City firefighters. The site was revisited many times and the source was never found nor was the sheen and odor witnessed again.

Meriden requires that residents place leaf waste in paper bags for municipal pick-up and disposal, thus limiting the amount of yard waste that is deposited in the municipal storm sewer system. The Department of Public Works also sends out a street sweeper prior to impending storms in the fall to further reduce the amount of leaves and yard waste that enters the storm sewer system.

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### 4.3 Municipal Litter Removal

The City maintains a 'blight list' and has the ability to hire a contractor to clean-up blighted or neglected properties at the expense of the owner (i.e., a 'clean and lien' program). The City will perform this type of work when the house or property is in a noticeable state of disarray or presents a health or safety issue. When a property is put on the 'blight list,' the owner may receive a fine of \$99 a day after 30 days if the owner does not agree to work with the City to clean-up their property. This program prevents a significant amount of litter and other debris from impacting the stormwater drainage system.

City staff collects approximately 10 yards of material per week (2 staff people, 4 hours/week) from various illegal dumping sites throughout the City.

In 2016, the City allocated \$8,000 for a City Parks Litter Patrol Program.

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### 4.4 Modifications to Plan

In 2017, the City will modify the illicit discharge detection and elimination component of the Stormwater Management Plan to reflect the requirements within the revised 2016 General Permit.

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### 4.5 Activities Planned for 2017

CT DEEP released a revised MS4 General Permit in 2016 that will become effective on July 1, 2017. The City will continue to implement the existing SWMP according to the requirements of the current general permit until the effective date of the new permit. The initial requirements of the 2016 MS4 General Permit include submitting a new registration form to CT DEEP and updating the City's SWMP (first drafted and submitted to CT DEEP as required by the 2004 MS4 General Permit) by April 1, 2017. The SWMP will continue to address how the City will comply with the six minimum control measures, including illicit discharge detection and elimination, as required by the CT DEEP permit. The revised SWMP will document the activities to be undertaken by the City in 2017 and future permit years.

## 5 Construction Site Stormwater Runoff Control

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### 5.1 Construction Plans Reviewed

The Administrative Development Review Board reviews all construction plans for new construction, redevelopment projects, and/or alterations. During 2016, nineteen (19) proposed projects were received and reviewed by the Planning Commission/Inland Wetlands Agency. Of these applications, five (5) were for projects with more than one acre of land disturbance and fourteen (14) had erosion and sediment control BMPs proposed and reviewed by the City (see list in *Appendix D*). Review and approvals included review of erosion and sediment control plans for consistency with the *2002 Connecticut Guidelines for Erosion and Sediment Control*, as amended. The City regulates construction projects that result in ½ acres or more of disturbance.

### 5.2 Construction Sites Inspected

On-site inspections are made by Engineering and Planning Department staff throughout the construction process (including prior to each significant rain storm and after every major construction state) to ensure compliance with the City's Soil Erosion and Sediment Control Ordinance. Sites are inspected with regard to the approved construction plans by City staff or by a consultant hired to complete inspections on the City's behalf. Consultants are hired for larger projects that need to be inspected frequently. Enforcement actions are taken when necessary, and issues/concerns are addressed by the site contractors or developers. One (1) enforcement action was taken by the City in 2016. A Notice of Violation was given to a property owner who was clearing land illegally and then dumping the debris (fill) into the adjacent wetland. The enforcement action was successful in correcting the situation.

### 5.3 Employee Training

In 2016, one City employee attended the Connecticut Association of Conservation and Inland Wetland Commissioners annual meeting. Nine (9) employees attended the Connecticut Association of Wetland Scientists annual meeting and/or training session. City staff also attended a CT DEEP training on wetlands and septic systems.

### 5.4 Modifications to Plans

In 2017, the City will modify the construction site runoff controls component of the Stormwater Management Plan to reflect the requirements within the revised 2016 General Permit.

### 5.5 Activities Planned for 2017

CT DEEP released a revised MS4 General Permit in 2016 that will become effective on July 1, 2017. The City will continue to implement the existing SWMP according to the requirements of the current general permit until the effective date of the new permit. The initial requirements of the 2016 MS4 General Permit include submitting a new registration form to CT DEEP and updating the City's SWMP

(first drafted and submitted to CT DEEP as required by the 2004 MS4 General Permit) by April 1, 2017. The SWMP will continue to address how the City will comply with the six minimum control measures, including construction site stormwater runoff control, as required by the CT DEEP permit. The revised SWMP will document the activities to be undertaken by the City in 2017 and future permit years.

## 6 Post-Construction Stormwater Management

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### 6.1 Plan Review

The Administrative Development Review Board reviews all construction plans for new construction, redevelopment projects, and/or alterations. During 2016, 19 applications were received and reviewed by the Planning Commission/Inland Wetlands Agency, six (6) of the applications included the review of stormwater treatment BMPs (see list in *Appendix D*). Reviews for stormwater management issues are based on guidance contained in the *2004 Connecticut Stormwater Quality Manual*, as amended, and the City's Low Impact Development stormwater management requirements.

### 6.2 Structures Installed

The City requires that developers file maintenance agreements and details regarding structural stormwater controls for a construction or reconstruction project on the City's Land Records for the parcels affected. These agreements also require the owner to maintain and retain records of maintenance activities on their structure(s).

Other than stormwater retention and treatment devices that have been installed as part of a City project, the City has not assumed responsibility for the maintenance of privately installed stormwater structures. These structures are instead privately maintained.

In 2016, various Low Impact Development (LID) and other stormwater management practices were installed in the City including deep sump catch basins, rain gardens (2), and an underground treatment and retention system.

### 6.3 Structures Inspected

The structural control measures noted above were inspected during and after completion for compliance with the approved plans.

In 2016, the Meriden Department of Health and Human Services staff continued to conduct Fats, Oils, and Grease (FOG) related compliance inspections (approximately 6 completed in 2016).

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## 6.4 Natural Resource Protection

The City continued to implement regulatory controls to promote the use of Low Impact Development (LID) and further protect the natural resources within its boundaries. These standards were set to protect and preserve water resources from nonpoint source pollution through the proper management of stormwater flows and minimization of inputs of suspended solid, pathogens, toxic contaminants, nitrogen and floatable debris to these flows, as well as to reduce flooding. These standards include:

- Stormwater Management Planning for construction, development, or redevelopment projects disturbing one or more acres of total land area on a site.
- LID standards for very low density, rural streets, which reduce road width and size of cul-de-sacs.
- LID standards including descriptions of vegetated swales, buffers, and filter strips, bioretention/rain gardens, dry wells/leaching trenches, rainwater harvesting, and vegetated roof covers (e.g., green roofs).

The City is also partnering with neighboring municipalities in the Quinnipiac River watershed, with grant funding from the Connecticut Fund for the Environment, on a regional green infrastructure implementation project that will address water quality and aquifer recharge objectives.

In 2014, sections of City Code were rewritten to reducing parking requirements and allowing for shared parking. These changes will reduce the impervious cover within the City.

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## 6.5 Employee Training

In 2016, City staff attended a workshop on the product called FlexiPave (an impervious hard surface).

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## 6.6 Modifications to Plan

In 2017, the City will modify the post construction stormwater management component of the Stormwater Management Plan to reflect the requirements within the revised 2016 General Permit.

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## 6.7 Activities Planned for 2017

CT DEEP released a revised MS4 General Permit in 2016 that will become effective on July 1, 2017. The City will continue to implement the existing SWMP according to the requirements of the current general permit until the effective date of the new permit. The initial requirements of the 2016 MS4 General Permit include submitting a new registration form to CT DEEP and updating the City's SWMP (first drafted and submitted to CT DEEP as required by the 2004 MS4 General Permit) by April 1, 2017. The SWMP will continue to address how the City will comply with the six minimum control measures, including post-construction stormwater management, as required by the CT DEEP permit. The revised SWMP will document the activities to be undertaken by the City in 2017 and future permit years.

## 7 Pollution Prevention/Good Housekeeping

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### 7.1 Employee Training Conducted

Meriden Fire Department response staff members receive hazardous materials training, including 98 career personnel of which 21 are on duty at all times. The Department responds to hazardous material incidents at the operational level, which allows Department staff to properly use spill containment equipment including booms, pads, meters, and sand.

When responding to an incident, the Fire Department relies on the Department of Energy and Environmental Protection, Oil and Spill Response Division for technical and regulatory assistance. During 2016, the Meriden Fire Department responded to various spills of gasoline or other flammable liquid, combustible liquids, and other chemicals. Spills that exceed reporting thresholds are reported to CT DEEP and/or other agencies as applicable.

Fire Department staff members have received “cameo” training, which is a computer aided spill response method that allows the operator to predict the movement of pollutants in the environment (e.g., air, water) and thereby react to a spill and evacuate residences (as necessary) in a more directed and effective manner.

As a result of implementing a Stormwater Pollution Prevention Plan (SWPPP) and Spill Prevention, Control and Countermeasure (SPCC) Plan for the Central Maintenance Garage on Michaels Drive the garage employees are equipped to address incidental oil or petroleum spills with on-site spill response resources.

Public Works and Public Utilities staff members (65 employees) received training related to health and safety in 2016.

The Highway employees involved with road salt application have been made aware of the City's aquifer protection regulation, which has resulted in greater awareness and improved road salt application practices. In 2014, signage was installed to indicate the boundaries of the reduced salt use area. In 2015, the equipment vendor provided training to City staff on the self-regulating, ground speed controls for salt application. In 2016, the City improved this training and awareness program by installing additional signage, reminding the drivers of best management practices, and then monitoring the amount of material used by each driver.

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### 7.2 Street Sweeping

The City continues to sweep all streets using the four City owned sweepers (one sweeper purchased in 2015) at a minimum frequency of once each year beginning in the spring to remove winter road sand and debris. There is a large effort in the early spring to sweep all roads in the City. Sweeping then continues through the fall. The inner district is swept weekly (approx.).

During 2016, 189 miles of roads were swept at least once (once per year), with some major roadways receiving multiple sweepings, this represents 100% of City roadways. Approximately 50% of the City was swept twice or more times during 2016. In total, over 650 tons of material was removed from City streets by street sweeping or catch basin cleaning activities.

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### 7.3 Snow Removal

The City continues to use environmentally responsible salt application practices. During the 2015/2016 winter season, the City used approximately 3,000 tons of salt on City roads. The City's brine maker and truck were used during the 2015/2016 winter season. The City currently stores salt in a "shelter logic" building which is larger than the City's previous domed salt shed.

When there is an excessive amount of snow, the City transports snow to a designated storage area (corner of Miller and Center Street). Snow was not stored at this location during the winter of 2015/2016. Snow is not placed directly within waters or wetland areas without CT DEEP authorization.

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### 7.4 Catch Basin Cleaning

The City cleans catch basins and drainage lines during the spring, summer, and fall each year. In Year 4, the City purchased a new vacuum truck.

In 2016, approximately 70% of the City's catch basins (and the associated laterals) were cleaned out. In total, over 650 tons of material was removed from City streets by street sweeping or catch basin cleaning activities.

In addition to general cleaning, catch basins are rebuilt or otherwise repaired by the City (many of the City's catch basins are being replaced with deep-sump catch basins. City staff also installed 300 storm drain markers, to date, in various locations throughout the City

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### 7.5 Vehicle Washing

In 2009, the Highway Department completed the construction of a recycling vehicle wash rack. The wash rack allows the City to wash its fleet vehicles while avoiding the generation of wash water discharges.

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### 7.6 Construction Activities

The Highway Department uses erosion and sediment controls as necessary for City construction projects. These controls are installed and maintained throughout the duration of construction projects.

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## 7.7 System Upgrades/Repairs

The City repaired or replaced numerous catch basins in 2016. A drainage channel (rip-rap/grass combination) near CVS was also repaired to remove accumulated debris and to stabilize the banks to minimize soil erosion.

In 2016, the City began the design process to upgrade the Water Pollution Control Facility for phosphorus removal. The City also upgraded (or lined) over 5,000 linear feet of the existing sanitary sewer.

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## 7.8 Habitat Restoration & Retrofits

In 2016, Save the Sound removed the Carpenter Dam on the Quinnipiac River thus reconnecting upstream and downstream habitats. The City and area groups are looking for ways to reestablish a canoe trail on the river.

In 2016, the City opened the 'Meriden Green' to public use. This centralized parcel of land used to be impervious parking lots and contaminated soils. Now the site is a remediated pervious greenspace specially designed and landscaped to absorb and then retain excess stormwater runoff in times of flooding. The plantings for this project were specially chosen for their ability to minimize soil erosion and to be able to handle temporary flooding.

In 2016, two solar farms at the City Transfer Station and the Water Pollution Control Facility also went online. A hydropower plan is also currently under construction and the Hanover Pond Dam.

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## 7.9 Complaint Responses

Complaints to the City regarding the general housekeeping of municipal facilities are directed to the appropriate department for investigation and response. Requests from the public are usually received in the early spring for prompt sweeping of winter road sand and cleaning of catch basins.

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## 7.10 Spill Response Activities

Significant spills are handled by the Meriden Fire Department. CT DEEP is notified of these situations as they happen. The Fire Department has a tactical unit that is prepared to respond to hazardous spills within the City. During 2016, the Meriden Fire Department responded to various spills of gasoline or other flammable liquid, oil or other combustible liquid, and other chemicals. Spills are reported to the CT DEEP Oil and Chemical Spill Division, as necessary, which, in turn, responds as appropriate. In 2016, Highway staff also responded to a request from the Fire Department to assist with the cleanup of a petroleum spill (leaking car) on a City roadway.

Both the Highway Department facility and Central Maintenance Garage maintain spill containment supplies including speedi-dry, absorbent pads, and containment booms within the facilities.

In 2014, the fuel system at the Central Maintenance Garage was completely replaced including new fueling stations (covered), tanks, piping, and leak protections. In 2015, The City removed 2, 10,000 gallon petroleum tanks and replaced them with 2, 10,000 gallon aboveground double walled tanks.

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## 7.11 Transfer Station

Managerial oversight of the City's Transfer Station falls under the jurisdiction of the Highway Department. Municipal residential bulk waste is received at the Transfer Station before being hauled to a certified facility for disposal. During several weekends throughout the year, the City waives the cost to the residents to utilize the transfer station. Freon is removed by a certified company prior to final disposal. Upgrades to the transfer station were completed in 2010.

In 2016, nearly 25,000 tons of waste was collected and properly disposed of by the City.

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## 7.12 Municipal Recycling

The City continues to promote City-wide residential materials recycling. Residential recyclables are picked up (curb-side) by a City-hired contractor in the inner tax district and by private haulers in the outer tax district.

In 2010, the City initiated a single stream recycling program in the inner tax district, which allows residents to place all of their recycling into a single container rather than using multiple containers. Approximately 2,800 tons of recyclables were collected from the inner residential district in 2016 (outer district and commercial entities are not collected by the City and are, thus, an unknown amount).

In addition to single stream recycling, approximately 2,000 tons of leaves and brush, 11 tons of tires, and 57 tons of scrap metal and white goods were recycled.

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## 7.13 Household Hazardous Waste Collection

In 2016, 110 Meriden residents disposed of material through the hazardous waste collection events in hazardous waste collection events in the area. Residents may dispose of their e-waste at the Transfer Station located on Evansville Avenue at no cost. In 2016, approximately 73 tons of e-waste was collected and recycled by the City.

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## 7.14 Municipal Facility Inspection

The City performs routine inspections of its facilities to maintain them in a neat and orderly condition. The Highway Department performs monthly inspections and cleaning of their facilities. The Central Maintenance Garage foreman conducts monthly inspections of waste management areas, secondary



containment, oil/water separator, and waste streams. Inspection records are maintained by the foreman as part of the SWPPP/SPCC implementation program.

United Waste Oil Recovery prepared a waste management plan that documents the waste streams within the Central Garage Facility and recommends management measures for these waste streams.

CT DEEP inspected the Central Maintenance Garage in the fall of 2016 and had no comments regarding pollution prevention and good housekeeping measures.

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## 7.15 Modification to Plan

In 2017, the City will modify the pollution prevention/good housekeeping component of the Stormwater Management Plan to reflect the requirements within the revised 2016 General Permit.

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## 7.16 Activities Planned for 2017

CT DEEP released a revised MS4 General Permit in 2016 that will become effective on July 1, 2017. The City will continue to implement the existing SWMP according to the requirements of the current general permit until the effective date of the new permit. The initial requirements of the 2016 MS4 General Permit include submitting a new registration form to CT DEEP and updating the City's SWMP (first drafted and submitted to CT DEEP as required by the 2004 MS4 General Permit) by April 1, 2017. The SWMP will continue to address how the City will comply with the six minimum control measures, including pollution prevention/good housekeeping, as required by the CT DEEP permit. The revised SWMP will document the activities to be undertaken by the City in 2017 and future permit years.

# 8 Annual Stormwater Monitoring

The CT DEEP Phase II General Permit requires annual stormwater monitoring of at least two outfalls from each of three land uses (industrial, commercial, and residential) for a total of six (6) outfall locations. Monitoring parameters, procedures, and storm event criteria are described in the General Permit.

The City has selected sampling outfalls based on the land use(s) within the drainage areas of the outfalls as well as practical considerations including accessibility and proximity to other sampling locations. A field sampling plan describing the sampling objectives, outfall locations, sampling parameters, and monitoring procedures for the annual monitoring program has been submitted in prior annual reports. Monitoring results for the 2016 event are included in *Appendix E*. Results from this event are similar to those from past sampling years. There were no significant observations made during this sampling event.

## Appendix A

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### General Permit for Stormwater – Small Municipal Separate Storm Sewer Systems (#GSM000038) – City of Meriden



STATE OF CONNECTICUT  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

TOTAL P. 01

# Certificate of Registration

Issued To:

CITY OF MERIDEN

For The

**STORMWATER - SMALL MUNICIPAL SEPARATE STORM  
SEWER SYSTEMS**

**General Permit**

Arthur J. Rocque, Jr.

Permit No. GSM000038

**Facility Information**

MERIDEN, CITY OF  
MS4 PERMIT  
MERIDEN CT 06450

Commissioner

Application No.: 200401130

Issue Date: 13-APR-04

Exp. Date: 09-JAN-09

Site No.: 80-266

## Appendix B

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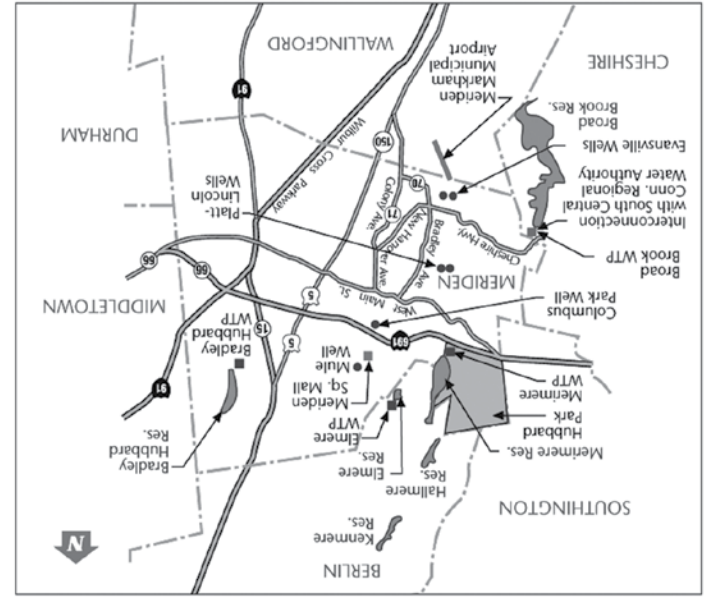
### Educational and Outreach Materials



## Meriden Water Division Answers Your Drinking Water Questions

**Q:** Where does my water come from?

**A:** Water supplied to you from the Meriden Water Division actually has several different sources. Each of these sources is shown on the map below. These sources include four reservoirs on the Meriden-Berlin town line, the Broad Brook Reservoir on the Meriden-Cheshire town line, the Bradley-Hubard Reservoir in the northeast corner of Meriden, and six groundwater wells located throughout the City. Depending on system requirements, the City also purchases water from the South Central Connecticut Regional Water Authority. Water from the reservoirs is treated at one of Meriden's four water treatment plants. Water from each well is treated at each individual well and businesses through a vast network of underground pipelines.



**Q:** What is being done to improve the system?

**A:** The Meriden Water Division is constantly trying to enhance both the quality and taste of your water.

Routine maintenance such as water main flushing is performed to clean the pipes of iron and other deposits that accumulate over time. Capital improvement projects also can improve the water. We have recently completed a significant upgrade to the Broad Brook Water Treatment Plant, which is our largest surface water treatment plant. Distribution system improvements are performed on a yearly basis. These improvements include cleaning and cement lining of water mains along with valve and fire hydrant repairs or replacement.

**Q:** Why does the taste and odor of my water vary?

**A:** Water naturally varies in taste and odor at different times of the year and will vary due to different sources. Typically, taste and odor compounds in water sources are more common during the summer. Because Meriden utilizes different sources based on the need and time of the year, certain customers will notice the different tastes and odors as the sources and seasons change.

**Q:** Could there be lead in my water?

**A:** Lead was not detected in samples from our drinking water plants above state and federal regulated levels. The Meriden Water Division adds a phosphate-based corrosion inhibitor that aids in reducing lead and copper corrosion in the distribution system. Regularly monitored levels of the corrosion inhibitor were consistently within the range desired for corrosion control. The addition of this chemical helps to provide the safest drinking water possible. Even though we use a corrosion inhibitor, lead can leach from common household plumbing fixtures, which is the likely cause of low levels of lead detected within our distribution system. Older homes are more likely to have fixtures that contain lead. To minimize exposure to lead in your tap water, run the water until it is cold (about 30 to 60 seconds) if it has been standing in the pipes for more than six hours.

**Q:** Does our water contain fluoride?

**A:** Fluoride is added to your water to help prevent tooth decay. Levels of fluoride are consistently within limits set by state and federal regulation.

### How we treat your reservoir water



## Together We Can Safeguard Our Water Supply

### The Water Division is constantly checking water quality

Through the federal Safe Drinking Water Act (SDWA), the U.S. Environmental Protection Agency (U.S. EPA) sets national limits for hundreds of substances in drinking water and also specifies various treatments that water systems must use to remove those substances. The Meriden Water Division continually monitors for these substances, using sophisticated equipment and advanced procedures.

### The public has a part to play too

The SDWA requires that we provide you with detailed information on water quality each year. We are happy to do this, because customers who are informed are our best allies in supporting improvements necessary for the long-term health of our water system. And remember—our City Council meetings are open to the public. You are always welcome to attend and to voice your views on our drinking water. For information on meeting times and location, please contact the City Clerk at 203-630-4030. For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at 800-426-4791.

## Water Conservation Tips

Conservation is an important first step in preserving our water supply. Using these measures can also save you money by reducing your water and sewer bills. Here are a few suggestions.

### Conservation measures you can use inside your home

- Fix leaking faucets, pipes, and toilets
- Install water-saving devices in faucets, toilets and appliances
- Replace high-water-use fixtures
- Wash only full loads of laundry
- Do not use the toilet for trash disposal
- Take shorter showers
- Do not let the water run while shaving or brushing teeth
- Run the dishwasher only when full

### You can conserve outdoors as well

- Water the lawn and garden in the early morning or evening
- Use mulch around plants and shrubs
- Repair leaks in faucets and hoses
- Use water-saving nozzles and sprinkler heads
- Use water from a bucket to wash your car and save the hose for rinsing



City of Meriden  
Connecticut

## 2015 Annual Water Quality Report



In 2015, water supplied by the Meriden Water Division met or surpassed all federal and state standards. See inside for the results of our tests on a wide range of contaminants.

This annual "consumer confidence report" also includes information on topics such as where our water comes from, what is being done to improve the water system, and how you can help preserve our water supply.

# What's In My Water? – Meriden Water-Quality Analysis

| Contaminant                          | Date Tested         | Units       | MCL                                | MCLG                | Max Detected Level | Range Detected | Major Sources   | Violation         |
|--------------------------------------|---------------------|-------------|------------------------------------|---------------------|--------------------|----------------|---|-------------------|
| <b>Inorganic Contaminants</b>        |                     |             |                                    |                     |                    |                |   |                   |
| Copper                               | 2015                | mg/l        | AL=1.3                             | 1.3                 | 0.378              | ND – 0.378     | Corrosion of household plumbing systems; erosion of natural deposits  | No                |
| Fluoride                             | 2015                | mg/l        | 4.0                                | 4.0                 | 1.20               | 0.08 – 1.20    | Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories | No                |
| Nitrate                              | 2015                | mg/l        | 10                                 | 10                  | 3.01               | ND – 3.01      | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits                               | No                |
| Barium                               | 2015                | mg/l        | 2                                  | 2                   | 0.265              | 0.005 – 0.265  | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits                                | No                |
| Chlorine                             | 2015                | mg/l        | 4                                  | 4                   | 1.80               | 0.03 – 1.80    | Water additive used to control microbes   | No                |
| Sodium                               | 2015                | mg/l        | AL=28 <sup>(1)</sup>               | NR                  | 104.0              | 8.83 – 104.0   | Stormwater runoff containing road salt  | No <sup>(1)</sup> |
| Lead                                 | 2015                | mg/l        | AL=0.015                           | 0                   | 0.007              | ND - 0.007     | Corrosion of household plumbing Systems, erosion of natural deposits  | No                |
| Iron                                 | 2015                | mg/l        | NR                                 | 0.3 <sup>(2)</sup>  | 0.027              | ND – 0.027     | Naturally occurring   | No                |
| Manganese                            | 2015                | mg/l        | NR                                 | 0.05 <sup>(2)</sup> | 0.04               | ND – 0.04      | Naturally occurring   | No                |
| Sulfate                              | 2015                | mg/l        | NR                                 | 250 <sup>(2)</sup>  | 13.3               | 5.0 – 13.3     | Naturally occurring   | No                |
| Chloride                             | 2015                | mg/l        | NR                                 | 250 <sup>(2)</sup>  | 62.6               | 4.6 – 62.6     | Water additive used to control microbes   | No                |
| Asbestos                             | 2010 <sup>(3)</sup> | mfl         | 7                                  | 7                   | <0.145             | <0.145         | Decay of asbestos cement in water mains; erosion of natural deposits  | No                |
| <b>Radioactive Contaminants</b>      |                     |             |                                    |                     |                    |                |   |                   |
| Radium (combined)                    | 2014 <sup>(4)</sup> | pci/l       | 5                                  | 0                   | 1.7                | ND – 1.7       | Erosion of natural deposits   | No                |
| <b>Microorganisms</b>                |                     |             |                                    |                     |                    |                |   |                   |
| Turbidity (point of entry)           | 2015                | NTU % > 0.3 | 1 <sup>(5)</sup> 5% <sup>(5)</sup> | NR NR               | 0.30 0%            | 0.03 – 0.30 0% | Soil runoff   | No                |
| Total Coliforms                      | 2015                | %           | 5%                                 | 0                   | 0%                 | 0%             | Bacteria naturally present in the environment   | No                |
| <b>Volatile Organic Contaminants</b> |                     |             |                                    |                     |                    |                |   |                   |
| Total TTHM                           | 2015                | ug/l        | 80 <sup>(6)</sup>                  | NR                  | 61                 | 21 – 61        | Byproduct of drinking water disinfection  | No                |
| Total HAA5                           | 2015                | ug/l        | 60 <sup>(6)</sup>                  | NR                  | 33                 | 4 – 33         | Byproduct of drinking water disinfection  | No                |
| <b>Unregulated Contaminants</b>      |                     |             |                                    |                     |                    |                |   |                   |
| 1, 1 -dichloroethane                 | 2014 <sup>(7)</sup> | ug/l        | NR                                 | NR                  | 0.08               | ND - 0.08      | Manufacturing of chemicals such as vinyl chloride   | N/A               |
| 1, 4 -dioxane                        | 2014 <sup>(7)</sup> | ug/l        | NR                                 | NR                  | 0.49               | ND - 0.49      | Solvent used in the manufacture of resins, oils, and waxes  | N/A               |
| Vanadium                             | 2014 <sup>(7)</sup> | ug/l        | NR                                 | NR                  | 1.5                | ND - 1.5       | Erosion of natural deposits   | N/A               |
| Molybdenum                           | 2014 <sup>(7)</sup> | ug/l        | NR                                 | NR                  | 1.2                | ND - 1.2       | Naturally occurring   | N/A               |
| Strontium                            | 2014 <sup>(7)</sup> | ug/l        | NR                                 | NR                  | 310                | 19 - 310       | Naturally occurring   | N/A               |
| Chromium                             | 2014 <sup>(7)</sup> | ug/l        | NR                                 | NR                  | 0.2                | ND - 0.2       | Naturally occurring   | N/A               |
| Chromium-6                           | 2014 <sup>(7)</sup> | ug/l        | NR                                 | NR                  | 0.24               | ND - 0.24      | Erosion of natural deposits   | N/A               |
| Chlorate                             | 2014 <sup>(7)</sup> | ug/l        | NR                                 | NR                  | 600                | ND - 600       | Byproduct of drinking water disinfection  | N/A               |

We are pleased to report that during the past year, the water delivered to your home or business complied with, or did better than, all state and federal drinking water requirements. Each year we analyze thousands of water samples for bacteria, turbidity, inorganic contaminants, lead and copper, nitrate, volatile organic contaminants, total trihalomethanes, and synthetic organic contaminants. For your information, we have listed in the table on the left the substances that were detected in our drinking water during the year. Although all of the substances listed are under the Maximum Contaminant Level (MCL) set by U.S. EPA, we believe it is important that you know exactly what was detected and how much of the substance was present in the water.

Notes:

- (1) Although sodium does not have a MCL, the State requires that the water supplier provide notification to customers of levels exceeding 28.0 ppm. Therefore, if levels of sodium were recorded from a supply source in your area you were previously provided notification of the event. Elevated levels of sodium encountered are believed to be caused by road salt.
- (2) The EPA has established these National Secondary Drinking Water Regulations (NSDWRs) for contaminants that may cause cosmetic or aesthetic effects in drinking water. These standards are recommendations, not requirements, but the City of Meriden strives to comply with them.
- (3) Asbestos is not tested for every year; the most recent results available are given.
- (4) Radioactive contaminants are not tested for every year; the most recent results available are given.
- (5) Turbidity: As of January 1, 2002, turbidity may never exceed 1 NTU, and must not exceed 0.3 NTU in 95% of daily samples in any month.
- (6) These standards refer to locational running averages. Data from 2015 and the last three quarters of 2014 are included in figuring these averages.
- (7) The EPA established the Unregulated Contaminant Monitoring Rule to monitor and collect data for contaminants suspected to be present in drinking water, but that do not have health-based standards set under the Safe Drinking Water Act. Unregulated contaminants are not tested for every year, the most recent results available are given.

Key To Table

AL = Action Level  
MCL = Maximum Contaminant Level  
MCLG = Maximum Contaminant Level Goal  
NTU = Nephelometric Turbidity Units  
ND = non-detectable  
NR= Not Regulated  
mg/l = milligrams per liter  
ug/l = micrograms per liter  
pci/l = Picocuries per liter  
mfl = Million fibers per liter  
n/a = not applicable  
TTHM = total trihalomethanes  
five haloacetic acids  
N/A = Not Applicable

## Understanding Contaminants

To ensure that tap water is safe to drink, U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

The sources of both tap and bottled drinking water include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water from these sources travels over the surface of the land or through the ground, it can acquire naturally occurring minerals (which in some cases could be radioactive) and substances resulting from the presence of animals or from a wide variety of human and industrial activities. Substances that may be present in source water include:

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may result from such things as urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, or mining. This category of contaminants also includes the pesticides and herbicides used primarily in agriculture.

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

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

Volatile Organic (and Synthetic) Contaminants, which are typically by-products of industrial processes and petroleum production, and may also come from gas stations, urban stormwater runoff, and septic systems.

As the table above demonstrates, the Meriden Water Division removes these contaminants prior to distribution. Meriden water meets or surpasses all state and federal drinking water requirements

### Regulated Contaminants

Meriden Water Division tests for a large number of contaminants, though only detected contaminants are noted. Every regulated contaminant that we detected in the water is listed in the water-quality table above. In 2015, the Meriden Water Division's drinking water met or surpassed all federal and state drinking water standards.

### Unregulated Contaminants

Meriden Water Division tested for Cryptosporidium in 2015 and the results are available as required.

The Meriden Water Division also utilizes a phosphate-based corrosion inhibitor as part of a lead and copper control program. The Division regularly monitors ortho-phosphate total levels; during 2015, levels ranged from 0.09 mg/l to 1.71

## Health Matters

The presence of contaminants in drinking water does not necessarily indicate that the water poses a potential health threat.

A few contaminants, like copper, are in fact essential nutrients at appropriate, very low concentrations. However, some people who drink water that contains copper in excess of the EPA's Action Level could experience gastrointestinal distress over a relatively short period of time. Over many years, ingesting water that contains copper in excess of the Action Level could lead to liver or kidney damage. People with Wilson's disease should consult their personal doctor about their water consumption.

Lead is also a concern. Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits

in attention span and learning abilities. Adults who drink water containing lead in excess of the action level over many years could develop kidney problems or high blood pressure.

Some people may be more vulnerable to contaminants in drinking water than is the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline (800-426-4791).

## Source Water Assessment

Source Water Assessment Reports were completed by the Department of Public Health, Drinking Water Division for the Meriden Water Division. The assessment report can be found on the DPH's website: <http://www.dir.ct.gov/dph/Water/SWAP/community/CT0800011.pdf>. The assessment found that the public drinking water sources have susceptibility to potential sources of contamination, low for the reservoir sources, and ranging from moderate to high for the groundwater sources.

# EDITORIAL: Do your part on Earth Day (Friday)

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Diantha Morse of Meriden uses a bin to collect trash Saturday during the QRWA clean up around Hanover Pond in Meriden Apr. 16, 2016 | Justin Weekes / For the Record-Journal

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April 21, 2016 09:18PM

In the United States nary a week goes by without an official holiday on the calendar.

Did you know Belly Laugh Day was Jan. 24 and Stepfamily Day is Sept. 16? And don't forget Boss's Day on Oct. 17.

The list goes on: Rosa Parks Day (Feb. 4), Read Across America Day (March 2), National Library Workers' Day (April 12) ...

Clearly, some observances are more serious than others. And Friday, April 22, is one of the important ones: Earth Day.

First celebrated in 1970, Earth Day events are held worldwide to demonstrate support for environmental protection.

“Millions of people in dozens of different countries will become lifelong environmentalists this and every Earth Day,” Kathleen Rogers, president of Earth Day Network, said. “Hundreds of thousands will be children — our planet's future. They will join the more than 1 billion people who already use Earth Day to focus on the urgent need to stabilize and reduce global greenhouse gas emissions, fight climate change, act locally, become climate voters, and protect their children's futures.”

To do our part for the environment at the micro level, the Earth Day Network suggests, among other things, eating less meat, composting, using less plastic, buying local produce, ending junk mail delivery, and properly disposing of e-waste.

Getting our hands dirty sprucing up the land close to home and throughout our communities is another way to show respect for Mother Nature.

The Quinnipiac River Watershed Association, with the help of many others, did just this in the lead up to Earth Day. On Saturday, April 16, some 40 selfless volunteers cleaned up at Hanover Pond, and Harbor and Sodom brooks in Meriden and parts of the Quinnipiac River in Meriden, Cheshire and Southington.

David James is president of the Quinnipiac River Watershed Association. The 64-year-old told the Record-Journal, “What keeps me going? I live in Meriden. It’s my hometown. I actually grew up on Hanover Pond. My brothers and I used to raft the pond. We fished it. My dad used to swim in it back in the day. I’ve used it my whole life. I’m not willing to give up on it.”

Speaking of the volunteers who pitched in Saturday, James said, “These folks do care about the environment. They want to do something other than just take. They realize that if you want an enjoyable outdoors it doesn’t come automatically.”

This is a message we all should ponder on Earth Day.



# Third phase of linear trail in Meriden will connect Platt High School to Cook Avenue

November 7, 2016 03:17PM

By Leigh Tauss Record-Journal staff

MERIDEN — The linear trail’s latest expansion will connect Platt High School to Cook Avenue, extending the trail by half a mile.

The plans were presented to the Linear Trails Advisory Committee on Thursday night by Howard Weissberg, associate city engineer. The committee is applying for grants from the Department of Energy and Environmental Protection and the Transportation Alternatives Program to fund the project, estimated to cost \$1.5 million.

The third phase calls for modifying roads to allow for paths 8 to 15 feet wide for cyclists and walkers.

The new section will start at the edge of the existing trail near Platt and run about 600 feet along the school parking lot. It will then go 1,200 feet along Coe Avenue from Hamilton Street to Bradley Avenue. The final stretch will be 1,000 feet, linking to the bridge on Hanover Road.

“The nice thing is this really starts going through residential neighborhoods,” Weissberg said. “Residents can actually get on the trail easily without having to drive through a parking lot and get on.”

The trail will consist of 8-foot wide sidewalks along the first section from Platt to Bradley Avenue. The trail will then morph into a 12-foot path divided from the road by either a grass strip or wood barrier to separate traffic from pedestrians, Weissberg said.

The plan is designed to enhance safety for students walking or biking to school and reduce traffic on the road.

“The idea is by building a walkable, bikeable section we can reduce some of the traffic and obviously make it safer for people to walk,” Weissberg said.

A big component will be modifying traffic flow at the intersections of Highland, Coe and Hanover, which Weissberg called “a fairly major project.”

If funding is secured, Weissberg said construction on the first section near Platt could begin as early as next summer.

Mayor Kevin Scarpati said he was excited to see the project begin to take shape.

“It’s going to make things safer for our students and residents in that area,” Scarpati said. “Right now those sidewalks are not in the best conditions in that area.”

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# Meriden Green project honored by economic development group

November 9, 2016 07:18PM

By **Mary Ellen Godin Record-Journal staff**

MERIDEN — The Meriden Green flood control and economic development project has been recognized for its impact and influence on the community and the state by the Connecticut Economic Resource Center, one of 22 projects to receive the honor in 2016.

The \$14 million city-owned Meriden Green project, engineered by Milone & MacBroom Inc., utilized federal brownfield cleanup, flood control grants, and state and local transportation funding to create a key piece of the city's downtown transformation. The 14-acre park, formerly known as the Hub, includes several key features including a pedestrian evacuation bridge, an amphitheater, walking and biking paths and a water channel aimed to control severe flooding. The Meriden Green has spurred millions in state housing and private investment funding for residential and commercial development along its boundaries. Construction on the Meriden Commons and 177 State St. projects is expected to begin in a year.

"It's a nice recognition," said city Economic Development Director Juliet Burdelski. "I was aware they were taking note of us. These are communities taking on critical projects. It's a nice honor."

Burdelski is among a core group of city officials involved in the Meriden Green's planning and execution for more than a decade. Two other key members, former City Manager Lawrence J. Kendzior and former City Planner Dominick Caruso recently retired. Their replacements have pledged to continue the city's transformation plan.

Burdelski is working with representatives from Milone & MacBroom on a packet detailing the project for the annual Celebrate CT event in Hartford where recipients will be honored on Nov. 30.

The 22 honorees were selected by economic development officials in each of 11 regions across the state for contributions to the state's economy. Some of the contributions included growing employment levels, playing a critical role in changing the character of its community or civic engagement, strong public/private collaboration to encourage new investment, or leadership resulting in growth or improvements, said CERC spokeswoman Kristi Sullivan.

The Meriden Green and the Madison Center Project were nominated for inclusion by the South Central Regional Economic Development Corp. (Rex Development) and the Greater New Haven Chamber of Commerce.

“You’re probably very well aware of Meriden’s challenges,” said Ginny Kozlowski, executive director of Rex Development. “Clearly this project could be the catalyst to expand its transit oriented district. This is such a transformation it should put Meriden on its way to its goals; and it looks great.”

In addition to the Meriden Green, other honorees include a Hartford rezoning project, the Metro Realty group’s investment along Farmington Avenue, KidsPlay Children’s Museum in Torrington, Borinquen Bakery in New Britain and Indeed.com, a global job seeking site founded in Stamford.

“These awards acknowledge key people, programs and projects that are stimulating new jobs and investment in our economy,” said CERC President Robert Santy in a statement announcing the honorees “They are well earned and well-deserved, and CERC is proud to recognize the 2016 honorees and their noteworthy accomplishments that are having a positive impact on Connecticut’s business environment.”

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# FOOD 4 THOUGHT

CITY OF MERIDEN, DEPARTMENT OF HEALTH & HUMAN SERVICES APRIL 2016

## NEWS

It's been a while since our last newsletter, but the Environmental Health Department's "Food for Thought" is back.

There's been some staff changes in our department since our last "Food for Thought" issue. Most of you have already met **Jill Stross**, our new health inspector. Also, **Rodney Delgado**; who has been trained in food service, but is currently focusing on lead issues.

## FOG (FATS, OILS AND GREASE)

Now that you have a grease trap that meets CT DEEP's regulations, it is important that those grease traps are properly maintained. As you are well aware, every Class 3 & 4 food service establishment has to have either a 1,000 gallon grease trap or an internal grease recovery unit(s). The following is a list of inspection items:



- Grease trap maintenance log
- Grease trap functioning properly
- Renderable grease container
- Prohibited chemicals used (no grease trap maintenance chemicals)
- Improper grease handling procedures
- Unauthorized equipment use/modification
- Improper equipment installation
- Excessive odors

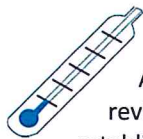


It is important that the units are properly maintained so that grease is not discharged into the city sewer system as this can cause sewer back-ups. Meriden has seen a significant drop in the number of back-ups caused by grease since the new grease trap regulations went into effect. The program is working and it is up to you to keep it working by maintaining your grease trap in good working order.

If you have any questions about the maintenance of your grease trap or the inspection process of the grease trap, please contact the Water Pollution Control Facility (WPCF) at 203-630-4261.

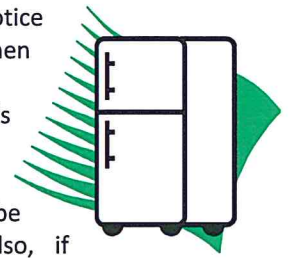
**\*\* Please remember to dump your dirty mop water into your mop sink; or for those without a mop sink, your toilet and not a storm drain or out your back door.**

## THERMOMETERS



A valuable topic worth revisiting with our food service establishments is refrigerator thermometers. Accurate thermometers are required in all refrigerators. Thermometers should be located in the warmest part of the unit (front/by door). The temperature inside refrigerators must be 45° F or less.

Food handlers should regularly check the temperature of the thermometers in their refrigerators. If you are proactive, you will notice quickly when your refrigerator is not working properly and may need to be repaired. Also, if



you notice the refrigerator is running a few degrees high, you can pull all potentially hazardous food out of the unit and put it into another unit. We should not be telling you that your refrigerator is not working and that all the potentially hazardous food needs to be discarded. During your food service inspection, you will not only be marked for the faulty refrigerator, but also for a temperature violation. This would be an automatic failure and would require a reinspection.

## HANDWASHING

The importance of handwashing is another topic to address in food service because a lack of proper handwashing is one of the leading causes of food borne illness. Handwashing is considered a 4-point "risk factor" violation and is #13 on the inspection form. Several examples of when hands should be washed are: after using the toilet room; after coughing, sneezing, smoking cigarettes, or eating/drinking; after handling money; when changing gloves; after touching bare human body parts.





Hands should be washed with warm running water and soap. Lather the soap on your hands, ensuring that hands are scrubbed

for at least 20 seconds (approximately the length of singing the "Happy Birthday" song two times). A hand sink should always be accessible and convenient to use. A hand sink should also never be used for anything other than hand washing.

### SANITIZERS

All equipment, kitchenware, food contact surfaces, and eating and drinking utensils should be washed, rinsed and sanitized after use. Sanitizing can take place in a high temperature dish machine, a chemical dish machine, or a 3-bay sink. Sanitizing is important and required to help make sure the equipment is as free as possible from microorganisms that cause foodborne illness.

When sanitizing in a 3-bay sink:

**Sanitizers can be either Quaternary Ammonium Compounds or Chlorine.**

When looking for a sanitizer, make sure it has an EPA registration number and mixing instructions for food contact surfaces. Also, make sure the chlorine product is scent free.

Use test strips to test the strength of the sanitizer. If the sanitizer is too strong, it leaves a toxic residue; if it is too weak, it is not effective. The strength of a chlorine sanitizer shall read 50 ppm-200 ppm. The strength of a Quaternary Ammonium sanitizer shall read 200 ppm-400 ppm.

### KEEP MERIDEN CLEAN

As part of the education and awareness process, we would like to familiarize you with **Meriden City Code Section 176-4D and 176-4E** which state:



*"Owners of any food establishment which sells food for consumption on premises or off premises is hereby required to keep the public walkways and roadways, driveways, yards, parking areas, work areas, including but not limited to loading and unloading areas, and lots adjacent thereto clean at all times and to place sweepings in a container to prevent rescattering within a radius of 200 feet. Pursuant to Connecticut General Statutes, Section 22a-226d(b), any police officer and any other person so authorized by the Chief Executive Officer may issue a citation to any person who commits a violation under this section. Each day a violation persists shall constitute a separate offense. This penalty shall be in addition to any civil penalties applicable under the Connecticut General Statutes, Section 22a-220a(i). Three citations in one year may result in the revocation of any permits, certifications and/or licenses issued by the City."*

Therefore, it is up to the food service establishment's owners/managers to control litter within a 200 foot radius around the property. During a routine inspection, sanitarians will check that the grounds around the establishment are being properly maintained.

We receive referrals from the Police, Housing, Fire Marshal's office, and other City Officials when they observe litter and debris. We also receive complaints from residents.

In an effort to help keep litter under control, it is recommended, especially for convenience

stores, to place a garbage can in the front of the store with a cover that has a small opening in the top. The small opening in the top is to prevent people from dumping large amounts of garbage in the container, while promoting people to throw their cans, wrappers and other single service type waste into the container.



Again, it is up to all of us to help keep Meriden litter free and thus improve our environment.

Remember we are just a phone call away....

**203-630-4226**



**Meriden Department of Health and Human Services**

**165 Miller Street**

**Meriden, CT 06450**

**203-630-4226**



Meriden Department of Health and Human Services



**Lea Crown, MPH**  
Director of Health

**Scott Bryden, R.S.**  
Environmental Health Administrator

**Carrie Buckley, R.S.**  
**Jennifer Henaire, R.S.**

**Jill Stross**  
**Rodney Delgado**  
Environmental Health Sanitarians

**Linda Tschupp, Environmental Secretary**



**Tuesday, April 12, 2016 at 7:00p.m.**  
at the **Augusta Curtis Cultural Center**  
175 East Main Street, Meriden



**The Meriden Land Trust**  
&  
**The Augusta Curtis Cultural Center**  
present

*Peter Picone, Wildlife Biologist, and author of Wildlife is My Passion in a talk:*

**"You Can Make A Difference For Wildlife:  
Enhancing Habitat One Native Plant at a Time."**



**Doors open at 6pm; refreshments will be served.  
There is no cost to attend!**

[www.meridenlandtrust.com](http://www.meridenlandtrust.com)





## Quinnipiac River Watershed Association

Dedicated to the preservation of the Quinnipiac River and its watershed

### Environmental Education & Stewardship

#### 3M/QRWA/High School Environmental Education Programs

The 3M/QRWA/High School Environmental Education Program includes field trips to the QRWA headquarters where students from area high schools can participate in "hands on" projects both physical and chemical testing for water quality, and also receive lessons in kayaking, fishing and tie-fly instructions. Students also experience raising trout in the classroom with a release of the trout celebration at Hanover Pond and Red Bridge in Meriden.

**The Quinnipiac River Watershed Association** has received **\$70,000 in grant funding from 3M** to enhance its Biodiversity and Ecology Education Programs for the Quinnipiac River. QRWA and 3M continue their long standing relationship by adding the **Aquatic Science Awareness Program (ASAP) which now includes K- 8 grades**. Both the 3M/QRWA High School Environmental Education Program and the Aquatic Science Awareness Program provide environmental education programs where students in the watershed and beyond will be able to participate in field trips, classroom activities, hands on projects, and independent studies, that will connect them to the environment, the community and the river.



The programs are offered during regular school hours utilizing the schools buses to transport students to site locations. With these educational programs students will be able to participate in experiments to support theories and concepts explained in the classroom. The QRWA Headquarters, located on the shore of Hanover Pond, the Quinnipiac River and the Meriden Linear Trail provides the perfect staging area for field trips, hands-on projects and water quality studies. **Maloney, Platt and Lyman Hall high schools students are currently participating in these programs.**

From the New Haven area, students from Solar Youths after school and summer camp visit QRWA for paddling and "hands on" experiments. The 2016-2017 programs will include 5th grade students in both Ben Franklin and Hanover schools.

3M Purification Inc. is located in Meriden, CT at 400 Research Parkway. For more information about 3Mgives visit [www.3Mgives.com](http://www.3Mgives.com)

On behalf of the QRWA board of directors we would like to extend our heartfelt thanks to Joe Struble at 3M Purification Inc. in Meriden for his continued encouragement and support of the QRWA and its mission.

#### Student Training Programs

QRWA volunteers teach canoeing skills to area schools, youth clubs and Quinnipiac University students demonstrating how to become stewards of the river. QRWA also trains students CT DEEP protocol in collecting samples from the river to monitoring water quality.





## Quinnipiac River Watershed Association

Dedicated to the preservation of the Quinnipiac River and its watershed

### Paddle Committee Events for August/September

- August 20 - New Haven Bioregional Group Paddle - folks should meet at the bottom of Clifton Street, off Quinnipiac Avenue in New Haven for 10:00am.. Paddling will be down the Quinnipiac River then up river on Mill River and back (approx. 2 hours).
- August 27 - New Haven Land Trust - folks should meet at the bottom of Clifton Street, off Quinnipiac Avenue in New Haven for 10:00am. Paddling will be up the Quinnipiac River and paddle around Fair Haven area ( approx. 1 1/2 to 2 hours).
- September 10 and 11 - Quinnipiac University Introduction to Canoeing Workshop. 10:00am to 2:00pm both days.
- September 24 and 25 - Quinnipiac University Introduction to Canoeing Workshop.

**QRWA Paddle Committee Members, Steve Theriault, Mike Wieloch and Dan Pelletier are now certified USCA canoe instructors up to class 2 waters.**





## Past Events

### Fall River Clean Up

October 1st, 2016

9:00 AM – Noon

› [Event Details](#)

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### Downriver Classic

Canoe and Kayak Race

5/15/2016

9:00 AM – 4:00 PM

› [Event Details](#)

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### Environmental Education

High School Field Trips

May 4, May 5, May 11, 2016

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### River Clean Up

April 16

RAIN DATE April 23, 2016

9:00 AM – 12:30

› [Event Details](#)

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### Annual Membership Meeting

And Holiday Social

Wednesday, December 9th, 2015

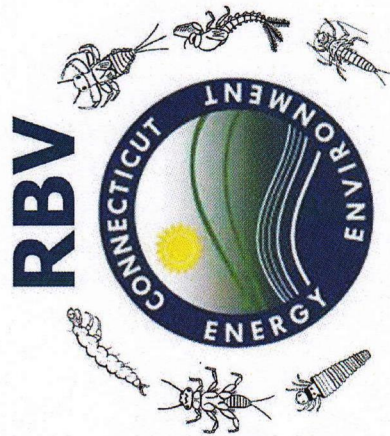
5:30 PM – 8:30 PM

› [Event Details](#)

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# Certified Local RBV Trainer 2016-2020



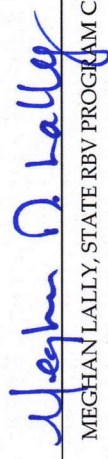
CTDEEP Riffle Bioassessment by  
Volunteers Program



THIS CERTIFICATE CONFIRMS THAT

## Rebecca Martorelli

SUCCESSFULLY COMPLETED THE CT DEEP  
RIFPLE BIOASSESSMENT BY VOLUNTEERS  
LOCAL RBV TRAINER CERTIFICATION COURSE

  
MEGHAN LALLY, STATE RBV PROGRAM COORDINATOR

*August 26, 2016*

DATE OF CERTIFICATION



# Giuffrida Park

Giuffrida Park was originally part of an area farmed in the late 1600's and early 1700's by Jonathan Gilbert and later Captain Andrew Belcher. This farm, the first European settlement in this region, became known as the "Meriden Farm", from which the whole area eventually took its name. Today, the Park contains 598 acres for passive recreation and is adjacent to the Meriden Municipal Golf Course.

Located in the northeast corner of Meriden, the trails connect to the Mattabessett Trail (a Connecticut Blue-Blazed Trail) and are open to the general public. The trails have easy terrain particularly around the Crescent Lake shore with steeper areas along the trap rock ridges ascent of the Metacomet Ridge and approaching Mt. Lamentation.

Mount Lamentation was named in 1636 when a member of Wethersfield Colony became lost and was found by a search party three days later on this ridge, twelve miles from home. There is some controversy whether the Lamentation refers to his behavior or that of those looking for him. In 1735 a group of local men leased land on the western edge of this mountain in an attempt to find gold, as quartz formations there seemed promising. None was ever found.

Mt. Lamentation and its peak, Chauncey Peak, provide spectacular views of Hartford, Middlesex, and New Haven counties.



Photo By Bob Pagini

## Trail Description:

### Easy to Difficult Hike

Giuffrida Park offers everything from a peaceful reservoir to a beautiful wetland meadow to stunning views from Lamentation Mountain and Chauncey Peak. These trap rock ridges are extremely steep, and care should be taken. In addition to trails that climb to ridgelines, there are other trails that follow relatively level terrain.

Total trails distance is approx. 24.8 miles

## Directions and Parking:

To get to Giuffrida Park, travel along I-91 either north or south. Take Exit 20 and proceed west (left off exit from north or left, then right from the south) onto Country Club Road. The Park entrance is on the right. Parking areas are readily available at the Park. Trails start at the Crescent Lake parking lot.

## Permitted/Prohibited Activities:

Hiking and biking are permitted. Picnic tables are also available. Crescent Lake is a reserve water supply therefore, swimming, rock climbing, and boating are prohibited. Fishing is also prohibited.



Photo By the City of Meriden

**Total Trails Length:** Approx. 24.8 miles

**Blue (Mattabessett Trail):** 6.3 miles. Moderate Hike

**Blue/Red (Mattabessett Cut-Off):** 0.04 miles. Easy Hike

**Red (Mt. Lamentation Trail):** 0.6 miles. Moderate to Difficult Hike

**Yellow (Mt. Lamentation Trail):** 0.8 miles. Moderate Hike

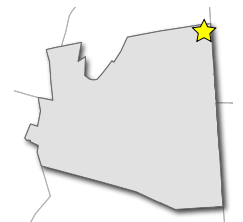
**White (Crescent Lake Loop):** 1.41 miles. Moderate Hike

**Other Trails:** 15.65 miles. Easy to Difficult Hike

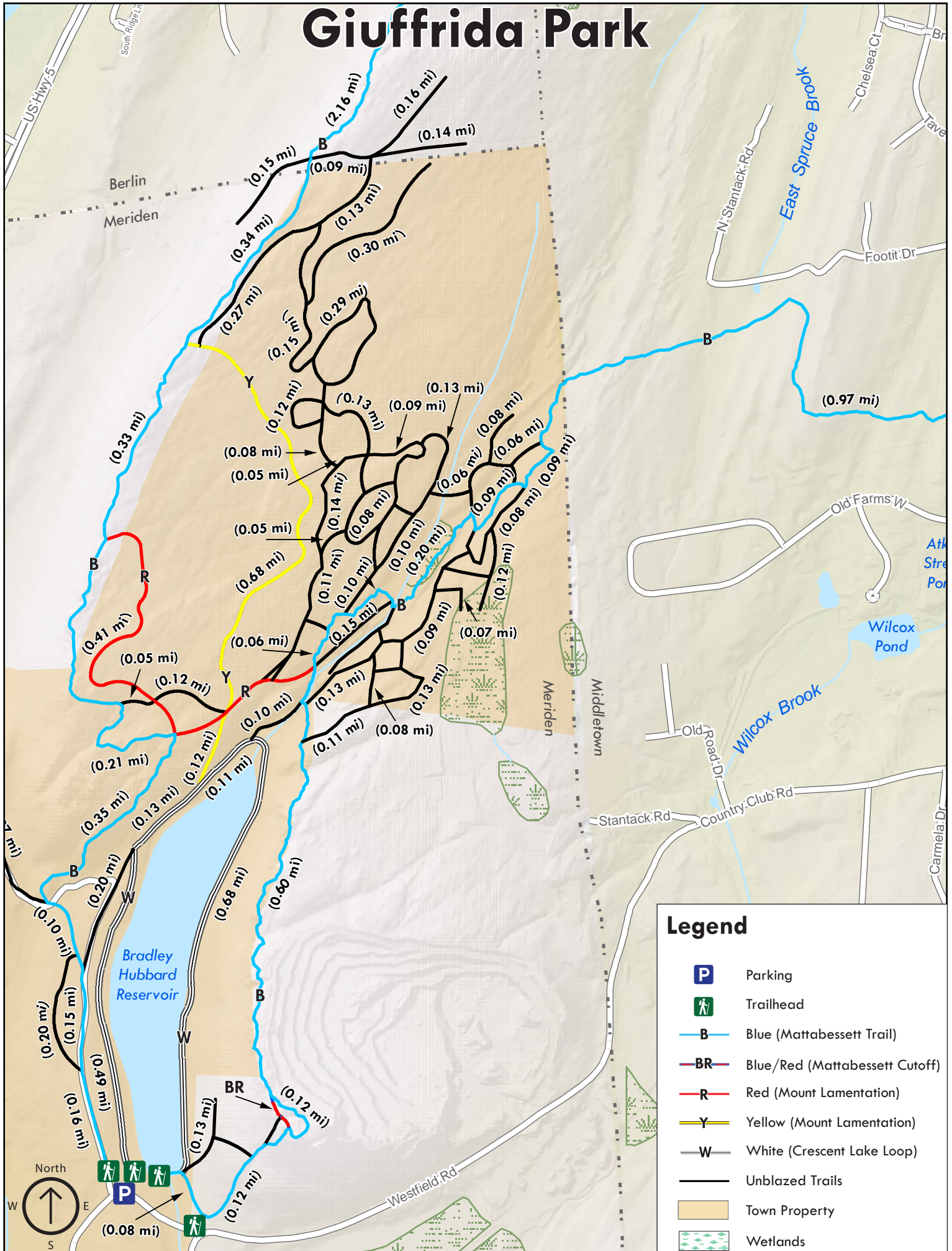


## For more information about this location, contact:


Town of Meriden  
Recreation Program Supervisor  
(203) 630-4259



# Giuffrida Park



## Legend

- P** Parking
-  Trailhead
- B** Blue (Mattabessett Trail)
- BR** Blue/Red (Mattabessett Cutoff)
- R** Red (Mount Lamentation)
- Y** Yellow (Mount Lamentation)
- W** White (Crescent Lake Loop)
- Unblazed Trails
- Town Property
- Wetlands



# Hanover Pond

Hanover Pond was created when a dam was built in 1855 to power the Meriden Cutlery Company. In the winter, pond ice was harvested to support local stores and homes. Several parks were developed around the pond over time.

Hanover Park (once a major regional attraction) was home to a large amusement park, with theater productions, rides, games, and semi-pro baseball.

The bath house for Dossin Beach, built in 1932, is now the Quinnipiac River Watershed Association (QRWA) headquarters building. Boating is returning to this whole area.

The Quinnipiac River is stocked every year with trout. If you are quiet and pay attention, you will see much wildlife (and possibly Bald Eagles) less than one mile from downtown Meriden.

The Meriden Linear Trails network follows an historic rail bed. The Meriden, Waterbury & Connecticut River Railroad was built in 1885 and was used until 1917. The Gorge Trail (Phase I) has many historic sites. Carpenters Dam was home to Hough's Mill. Grist was made here and shipped to the West Indies. Oregon Dam was the home of a Button Factory. Red Bridge was built prior to 1890 as a road passage and continues to be a landmark today.

Phase II follows Sodom Brook. This quadrant of land, originally Coe Farm, was home to the Meriden Ice Company and a civil war training facility called Camp Tyler.



Photo by Bob Pagini

## Trail Description:

### Easy Walk

The Meriden Linear Trails offer beautiful views of the Quinnipiac River, Hanover Pond and Sodom Brook. Bring comfortable walking shoes, bicycles, roller blades, strollers, wheelchairs, etc.

Total trail distance is approx. 1.0 mile

## Directions and Parking:

From I-691: take exit 15 north or south and head south on Chamberlain Highway (Route 71). Turn right where Route 71 connects with West Main St and take the second left onto Centennial Ave. Continue straight and the entrance to Dossin Beach will be on the left. Parking is available at Dossin Beach on the west side of Hanover Pond (with access from Oregon Rd.) and at the end of the trail with access from Coe Ave.

## Permitted/Prohibited Activities:

Hiking, biking and skating are permitted. No motorized vehicles. Wheelchair accessible. Leashed pets are welcome, please clean up any waste.



Photo by Peter Marteka

**Total Trails Length:** *Approx. 1.0 mile*





## For more information about this location, contact:

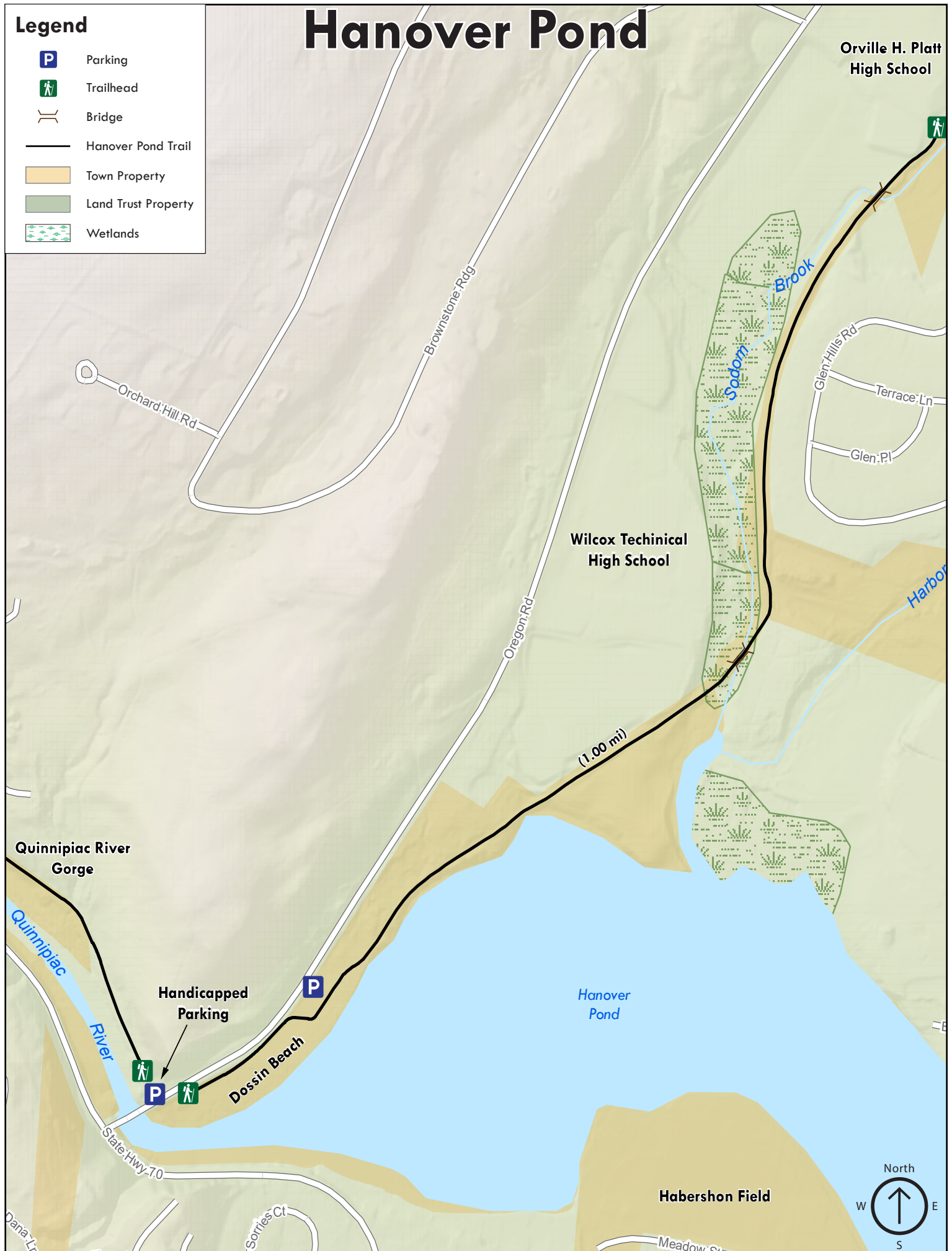
Town of Meriden  
Recreation Program Supervisor  
(203) 630-4259



# Hanover Pond

## Legend

-  Parking
-  Trailhead
-  Bridge
-  Hanover Pond Trail
-  Town Property
-  Land Trust Property
-  Wetlands



Orville H. Platt High School

Wilcox Technical High School

Quinnipiac River Gorge

Quinnipiac River

Handicapped Parking

Dossin Beach

(1.00 mi)

Hanover Pond

Sodom Brook

Harbor

Habershon Field





# Hubbard Park

Hubbard Park is one of the area's great resources with 1,800 acres of parkland available for year-round use. The park includes the East/West Peak which is considered the highest mountain within 25 miles of the coastline from most parts of Maine to Florida. These are also known as the Hanging Hills of Meriden and is part of the Metacomet Ridge that runs from Northampton, MA to Branford, CT.

Volcanoes formed the Ridge nearly 200 million years ago when major lava flows covered Meriden. Although originally covered by other sediments, the process of erosion over time has exposed these volcanic ridges and is a primary part of the regional landscape.

Walter Hubbard, the park's namesake, was the president of the Bradley and Hubbard Manufacturing Company. He gave the land outright with no strings attached except that the park was to remain free for all residents of Meriden and that no concessions for profit are allowed within the park.

The park includes woodland, lake and stream, flower gardens, and picnic areas that were designed and constructed with the help of Frederick Law Olmstead (designer of New York's Central Park). Mirror Lake, at the southerly area of the park, was also constructed as part of this design process. The band shell was built in 1956 and is the site of numerous concerts and outdoor festivals including the Daffodil Festival usually held in April.

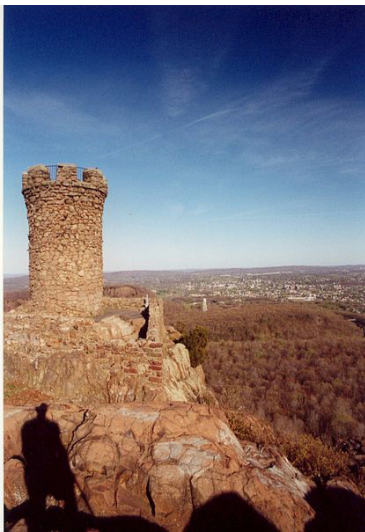


Photo by Paul Gagnon

## Trail Description:

### Easy to Difficult Hike

Hubbard Park offers some of the most spectacular vistas available in Meriden, including views from West Peak, East Peak and South Mountain (which actually lies outside of the park). These trap rock ridges are extremely steep, and care should be taken. In addition to trails that climb to ridgelines, there are other trails that follow relatively level terrain.

Total trails distance is approx. 15.5 miles

## Directions and Parking:

The Park can be accessed via I-91 South to I-691 West to the exit for Southington/Route 322. At the end of the exit, make a left onto West Main Street. Hubbard Park is on the left, approximately 1 mile from the highway exit. As an alternative, you may take I-84 West to I-691 East to the West Main Street exit. At the end of the exit, make a right onto West Main Street and continue as above. Parking areas are readily available at the Park at the start of the trail head adjacent to Mirror Lake.

## Permitted/Prohibited Activities:

Hiking and biking is permitted. Picnic Tables are also available. Swimming, rock climbing, and boating is prohibited. Fishing allowed in Mirror Lake for those aged 15 and under.



Photo by Ben Prepelka

**Total Trails Length:** Approx. 15.5 mile

**Blue (Metacomet Trail):** 7.27 miles. Easy to Difficult Hike

**Red Trail:** 1.0 mile. Easy to Difficult Hike

**Yellow Trail:** 0.34 miles. Easy to Difficult Hike

**White Trail:** 2.15 miles. Easy to Difficult Hike

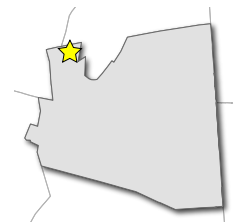
**Orange Trail:** 0.51 miles. Easy to Difficult Hike

**Other Trails:** 3.9 miles. Easy to Difficult Hike



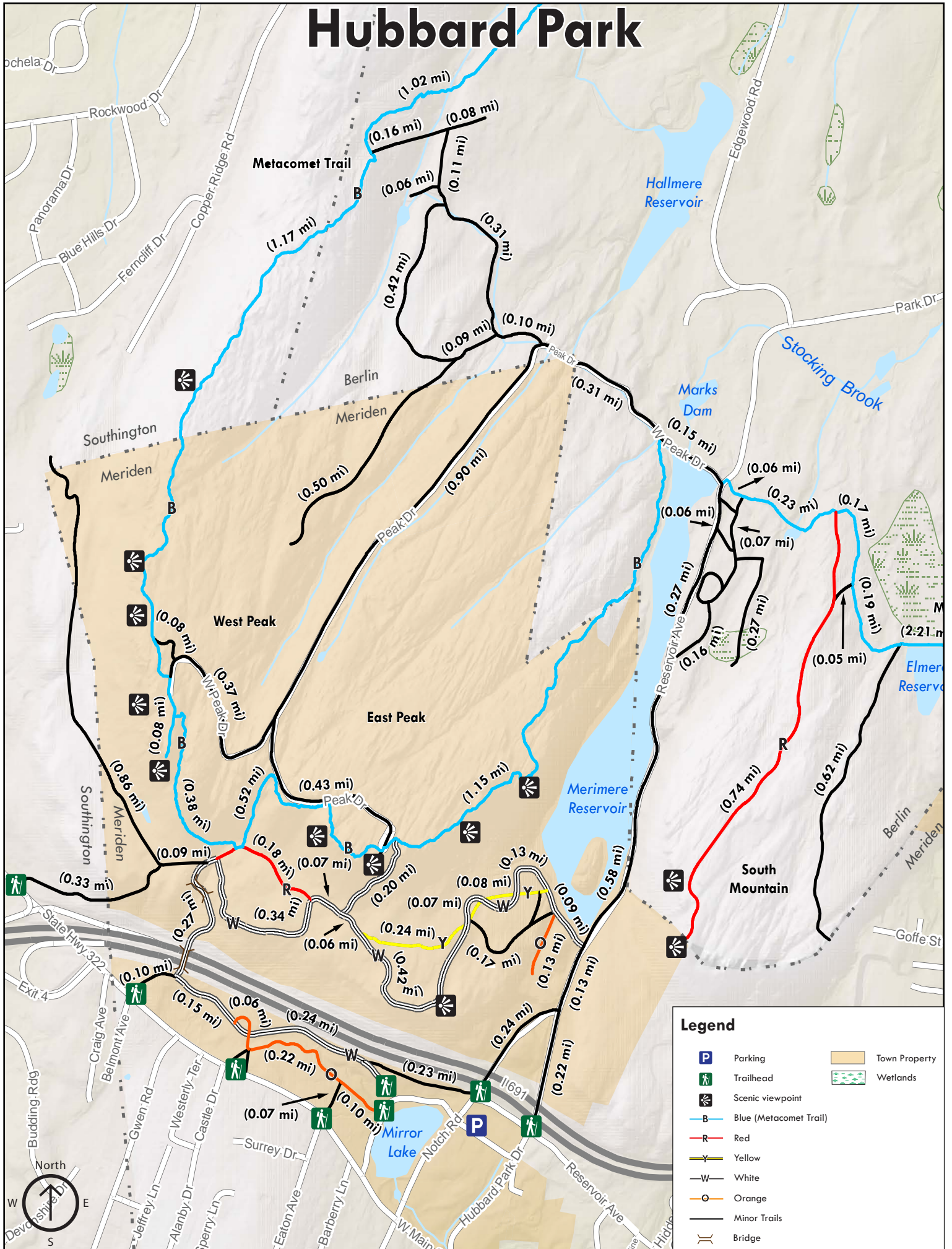
## For more information about this location, contact:

Town of Meriden  
Recreation Program Supervisor  
(203) 630-4259





# Hubbard Park



**Legend**

- Parking
- Trailhead
- Scenic viewpoint
- Blue (Metacomet Trail)
- Red
- Yellow
- White
- Orange
- Minor Trails
- Bridge
- Town Property
- Wetlands



# Quinnipiac River Gorge Trail

The 1.3 mile paved, multi-use Quinnipiac Gorge Trail was completed in 2006 and sits on the rail bed of the Meriden, Waterbury, & Connecticut River Railroad (circa 1890). The trail starts at Lions Club Park - distinguished by two grand granite columns. The trail follows the rail bed westward along the Gorge with several scenic viewing areas of the Quinnipiac River and informational kiosks. Portions of the trail which are steep and susceptible to rock slides are noted by split rail fencing and signage.

Water power spurred industry along the river including the Meriden Gorge Carpenter's Dam, which powered a civil war button factory. The dams formed impounded lakes like Hanover Pond and Wallingford's Community Lake.

Near Hanover Pond, the "Red Bridge" connected Oregon Road to Cheshire and provided access to recreation at the Pond. The Quinnipiac River and the Gorge area is making a strong recovery from its industrial legacy through habitat and river restoration efforts of the City of Meriden and the Inland Fisheries Division. Their work includes two rock vanes which create thermal refuge for trout during hot summer months when the river temperature rises above optimum temperatures for their survival.



Photo by the City of Meriden

## Trail Description:

### Easy Walk

The Gorge Trail offers beautiful views of the Quinnipiac River alongside many historical sites. Bring comfortable walking shoes, bicycles, roller blades strollers or wheelchairs.

Total trail distance is approx. 1.29 miles

## Directions and Parking:

The Quinnipiac River Gorge Trail can be accessed directly off of River Road (State Route 70). Handicap Accessible parking areas are available on Oregon Road at the Red Bridge. General Parking is located at the Dossin Beach parking areas adjacent to Hanover Pond. Additional parking is available in a gravel lot on Finch Avenue at the Cheshire Town line.

## Permitted/Prohibited Activities:

The multi-use trail is fully handicap accessible. Hiking and canoeing is permitted. This part of the Quinnipiac Gorge is stocked with fish. Fishing is allowed by State license. Motorized vehicles are prohibited.



Photo by the City of Meriden

**Total Trails Length:** Approx. 1.29 miles



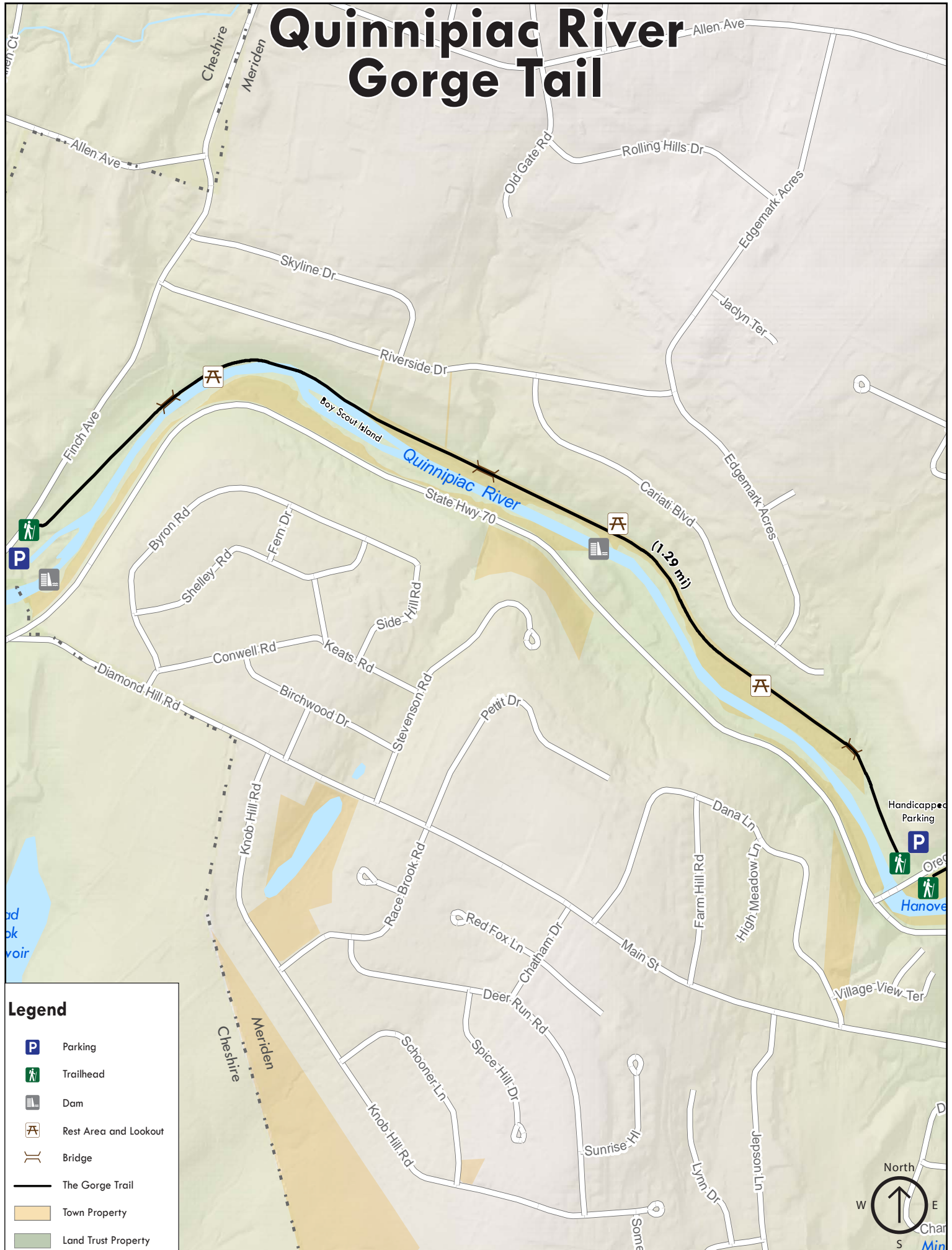
## For more information about this location, contact:

Town of Meriden  
Recreation Program Supervisor  
(203) 630-4259













# Quinnipiac River Gorge Trail



## Legend

-  Parking
-  Trailhead
-  Dam
-  Rest Area and Lookout
-  Bridge
-  The Gorge Trail
-  Town Property
-  Land Trust Property



# ENVIRONMENTAL Fact Sheet



29 Hazen Drive, Concord, New Hampshire 03301 • (603) 271-3503 • [www.des.nh.gov](http://www.des.nh.gov)

WD-WMB-4

2016

## Road Salt and Water Quality

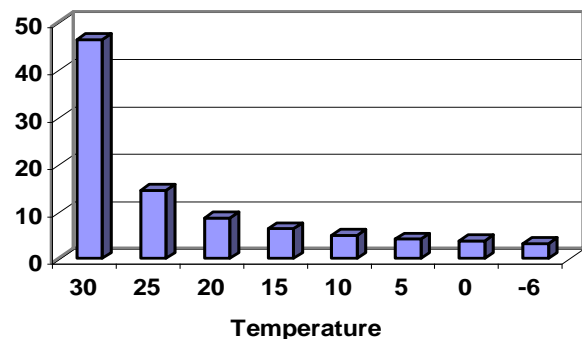
The amount of snowfall in New Hampshire and the necessity of overland travel require winter snow and ice management by the state, the municipalities, and the private sector. Deicing materials are often used in order to keep the public safe during these winter weather events. The most commonly used de-icing chemical is sodium chloride (NaCl) also known more commonly as road salt. Road salt is relatively inexpensive with an average cost of \$50 - \$60 per ton. Road salt is readily available and easy to handle, store, and spread. Its purpose is to reduce the adherence of snow and ice to the pavement, preventing the formation of hard pack. Once hard pack forms, it is difficult to remove by plowing alone.

In the United States from 2005-2009 an average of 23 million tons of salt were applied to our roads, parking lots, sidewalks and driveways each year.<sup>1</sup> Studies have shown that, in urbanized areas, about 95 percent of the chloride inputs to a watershed are from road and parking lot deicing. In four chloride impaired watersheds in the southern I-93 corridor of New Hampshire, road salt sources were 10-15 percent from state roads, 30-35 percent from municipal roads, and 45-50 percent from private roads and parking lots.

### How Salt Works

The first step in melting ice is to lower its freezing point. This is done through the formation of brine where salt crystals pull water molecules out of ice formation. Once the brine is formed, melting is greatly accelerated. The rate at which melting occurs is dependent on the temperature. Sodium chloride loses its effectiveness (has difficulty going into solution) when temperatures fall below 15° F. Applications below this temperature, even at high rates, will not result in significant snow or ice melting; therefore, it is critical to know the current and expected temperature range of the winter weather event.

Pounds of Ice Melted per Pound of Salt



Graph obtained from The Salt Institute FY03 Snow & Ice Fact #20

### What Happens to Salt in the Environment

The applied salt dissolves into 40 percent sodium ions (Na<sup>+</sup>) and 60 percent chloride ions (Cl<sup>-</sup>) in the melting snow and ice and make their way into our environment.

**Chloride(Cl<sup>-</sup>):** Chloride is highly soluble, very mobile, and its density allows for it to settle to the bottom of a waterbody. Chloride is toxic to aquatic life at levels above 230 mg/l, which is the state water quality standard. There is no natural process by which chlorides are broken down, metabolized or taken up by vegetation. In

<sup>1</sup> U.S. Geological Survey, Mineral Commodity Summaries, January 2010

2008, New Hampshire listed 19 water bodies impaired by chloride; by 2016 that number increased to 46. Trends show that chloride levels continue to rise with increasing use of road salt. Although chloride does not pose a human health concern, it can affect the taste of drinking water.

**Sodium (Na<sup>+</sup>):** The transport of sodium in the environment is not as prominent as chloride due to ion exchange; however, this exchange can alter the soil chemistry by replacing and releasing nutrients such as calcium, magnesium and potassium into the groundwater and surface water. This can lead to increased nutrient concentrations and affect the ability of the water to buffer acid deposition impacting the aquatic environment. Contamination of sodium in drinking water is a concern for individuals restricted to low-sodium diets due to hypertension (high blood pressure). The USEPA has set an advisory limit for drinking water for public water systems at 20mg Na/L to assist doctors in making recommendations for those patients on a salt restricted diet.

**Road Salt Additives:** Additives to road salt like ferrocyanide, which is used as an anti-caking compound in large salt supplies, can have impacts on both the environment and human health due to cyanide ions being released by certain types of bacteria as well as from exposure to sunlight. The USEPA in 2003 added this compound to its list of toxic pollutants under section 307(a) of the Clean Water Act.

### **Road Salt Management Issues**

For many road managers and parking lot maintainers the winter maintenance goal is to obtain bare and dry pavements at the earliest practical time following cessation of a storm for effective regular high speed travel and pedestrian safety. Traffic, volume, speed and gradient are the primary factors in determining the level of winter maintenance service for State and municipal roads. Pedestrian travel along with slip and fall liability are the priority for land owners and private sector operators.

A road manager's duty entails awareness of the current and expected weather events, temperatures, equipment capabilities, de-icing chemical inventories, application rates, driving routes, as well as staffing availability for each winter storm event. Expectations from the driving public, property managers and customers along with balancing the environmental effects of de-icing chemicals makes the job of these managers challenging.

Another concern to road managers, property owners, and to citizens is the damage and cost to infrastructure and vehicles associated with road salt use. Corrosion of concrete reinforcing rods in roads, bridges, parking garages along with the cost of corrosion protection practices for highways and the automobile industry cost a staggering \$16 billion-\$19 billion a year.<sup>2</sup> Road salt alternatives that help reduce the cost to infrastructure and limit the environmental impact are critical.

### **Best Management Practices**

Following best management practices and recommendations can help in effective and efficient use of de-icing materials while reducing the impact and preserving the quality of our freshwaters.

#### ***Application of Road Salt***

- Plow, shovel, and blow the snow. Use mechanical means to remove snow, do not use salt or other de-icing chemical to "burn-off" snow and ice.

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<sup>2</sup> Adapted from Report of the Salt Use Subcommittee to the Commission on the Environment on Road Salt Use and Recommendations City of Madison, Wisconsin December 2006

- Calibrate your equipment. Knowing your equipment is calibrated and the application rate is accurate will save chemical cost and will reduce the environmental impacts. Calibrate annually and keep a record in the vehicle for spreader settings.
- Choose the right material and apply the correct amount. Know the limits of deicing chemicals. Rock salt is not effective at temperatures below 15°F no matter how much is applied. Check application rates given the current weather conditions.
- Use ground speed controls on your spreader. Application rates should correspond with vehicles speed.
- Pre-wet the salt. Adding brine to salt before it is applied will jump start the melting process and help keep the salt in place by reducing bounce and scatter. Pre-wetting salt can reduce application rates by 20 percent. Typical rates are 8-10 gallons of pre-wet liquid to 1 ton of salt.
- For road applications place salt in a windrow near the centerline. Less salt is wasted and traffic will help work the salt into brine and move it to the shoulder of the road.
- Use anti-icing. Be proactive by applying de-icing chemical prior to snow and ice accumulation. It can reduce the amount of chemical needed by 30 percent. Know when to take action; time plowing operations to allow maximum melting by salt before snow is plowed off the road or parking lot.
- Don't mix salt and sand. Salt is for melting and sand is for traction on top of the ice, they work against each other.
- Be familiar with sensitive areas, such as public water supplies, impaired waters and other water sources. Consider designating reduced salt areas or identifying safe alternatives to road salt in these areas.
- Create a winter snow and ice control policy. Outlining your levels of service, application rates, and plowing frequency and practices provide a reference for decision makers and staff.
- Keep a winter storm log. Record storm events, time, application rates, and other important information describing maintenance activities and results.
- Attend training workshops, become NH Green SnowPro Certified, and stay up to date with new technologies and practices.
- For additional information on training, please refer to UNH Technology Transfer Center at <http://t2.unh.edu/green-snowpro-training-and-nhdes-certification>

### ***Storage and Handling***

Salt, sand, and snow storage facilities have the potential to cause water pollution due to runoff. For maximum environmental protection, all salt storage facilities and piles should be covered and placed on an impervious surface with adequate drainage controls to prevent runoff. This is also important for sand piles that may contain a small percentage of salt to prevent the pile from freezing. Take care while loading salt, sand or chemicals and clean up any spills that occur. Snow piles should be kept away from water sources and below areas where salt is stored. Vehicle washing facilities should have proper drainage to avoid discharge into surface and ground waters.

To obtain more information, please see the following NHDES fact sheets at:

<http://des.nh.gov/organization/commissioner/pip/factsheets>

- Snow Dumping [WD-WMB-3](#)
- Holding Tanks for Floor Drains [WD-DWGB-22-8](#)
- Wastewater Discharges from Vehicle Washing [WD-DWGB-22-10](#)
- Storage and Management of Salt Deicing Materials [WD-DWGB-22-30](#)

## Alternatives to Road Salt

Environmental impact should be considered when selecting any de-icing chemical or product. Many of the road salt alternatives have a relatively short history or limited amount of use. It is unclear what the potential long term impacts will be for many of these chemicals. Ongoing research, data analysis, and documentation in scientific literature of non-corrosive and environmentally friendly chemicals are necessary.

**Calcium Chloride (CaCl)** – is the second most common used chemical, it is available in flake, pellet or liquid. It is effective at lower temperatures with a practical melting temperature of -20°F. In liquid form it can be used to pre-wet salt or applied directly as an anti-icing technique which can help in preventing snow and ice from bonding to the pavement and reduce the application amount needed. Several disadvantages to CaCl include a higher cost, environmental impact due to chloride, corrosive to metal, it can be difficult to handle and store, and can contribute to slippery conditions if applied incorrectly.

**Potassium chloride (KCl)** – is a naturally occurring material (muriate of potash) that also is used as fertilizer. It is available in liquid or crystal with a practical melting temperature of 20°F. It can be damaging to concrete, has environmental impacts due to chloride and can inhibit plant growth and burn foliage.

**Magnesium Chloride (MgCl)** – is available in liquid or crystal form that melts faster than rock salt; it has a practical melting temperature of 5°F. MgCl attracts moisture and can lead to slippery conditions if applied incorrectly. It is corrosive and contributes to the chloride load in our waters.

**Urea** – is used primarily as fertilizer with a practical melting temperature of 25°F. It releases nitrogen into the soil and can lead to a chemical imbalance in water systems due to nutrient loading. Urea is corrosive and breaks down rapidly into ammonia, which is released into the environment.

**Potassium Acetate (KA)** – has a practical melting temperature of -15°F and is biodegradable and non-corrosive. It can cause slick road conditions if applied in excess and can lower oxygen levels in the waterbody. This is a commonly used deicer in the airline industry and is relatively non corrosive.

**Calcium Magnesium Acetate (CMA)** – is made from limestone and acetic acid. Its lowest practical melt temperature is 20°F. It is less damaging to soils and vegetation, less corrosive to concrete and steel, less toxic to aquatic organisms, and has limited impact on ground water in comparison to road salt. It is much more expensive than road salt but a full cost analysis may show that it is an economically viable choice given its benefits. It is currently being used in environmentally sensitive areas and on bridges prone to salt corrosion.

**Agricultural by-products** – are mostly proprietary to the manufacturer and can be derived from sources such as corn, beet, grain, alcohol, or molasses. These products are not good at melting snow and ice; however, they do slow down the formation of ice crystals by having a lower freezing point. They are less corrosive than conventional materials and in many cases act as tackifiers to keep product on the road surface. These attributes make the product good for anti-icing and pre-treating salt. They do have environmental impacts in aquatic systems due to their organic nature and can lead to biological oxygen demand, heavy metals, and nutrient enrichment by nitrogen and phosphorus in our waters.

### For Additional Information

For more road salt and water quality information, visit the NHDES New Hampshire Road Salt Reduction Initiative website at <http://des.nh.gov/organization/divisions/water/wmb/was/salt-reduction-initiative/index.htm> or contact the NHDES Watershed Assistance Section at (603) 271-7889 or [watershed@des.nh.gov](mailto:watershed@des.nh.gov).

For information on road salt and drinking water, see fact sheet “DWGB-3-17 Sodium and Chloride in Drinking Water” at <http://des.nh.gov/organization/commissioner/pip/factsheets/dwgb/documents/dwgb-3-17.pdf> , or contact the Drinking Water and Ground Water Bureau at (603) 271-2513.

Note: This fact sheet is accurate as of August, 2016. Statutory or regulatory changes or the availability of additional information after this date may render this information inaccurate or incomplete.



Meriden Stormwater Committee  
June 1, 2016

| <u>Name</u>    | <u>Department</u>    | <u>email</u>              |
|----------------|----------------------|---------------------------|
| Michael Lepore | Finance              | ml Lepore@meridenct.gov   |
| Robert Seale   | Planning             | RSeale@meridenct.gov      |
| Rob DiAgostino | Hwy                  | RDiAGOSTINO@meridenct.gov |
| Ben Ennis      | Engineering          | ben.ennis@meridenct.gov   |
| Bob Biss       | DPW                  | rbiss@meridenct.gov       |
| Scott Boyden   | Health               | Sboyden@meridenct.gov     |
| Erik Mas       | Fuss + O'Neill, Inc. | emas@fondo.com            |
| Jen Cavanaugh  | Fuss + O'Neill, Inc. | jcavanaugh@fondo.com      |

**City of Meriden  
Stormwater Management Plan  
2016 Annual Report  
Meeting Attendance  
November 1, 2016**

| Name             | Department       | Phone/e-mail                           |
|------------------|------------------|--|
| Bob Bass         | DPW              | rbass@meridenct.gov<br>2036304019      |
| Brian Bennis     | Engineering      | bennis@meridenct.gov<br>203-630-4256   |
| DENNIS WAZ       | PUBLIC UTILITIES | DWAZ@MERIDENCT.GOV<br>203 630-4282     |
| Scott Bryden     | Health Dept.     | sbryden@meridenct.gov<br>203-537-1087  |
| Rob DiAgostino   | Highway Dept     | ROADIAGOSTINO@MERIDENCT.GOV            |
| Paul Dickson     | Planning         | pdickson@meridenct.gov<br>203-630-4081 |
| Bob Seale        | Planning         | rseale@meridenct.gov<br>203-630-4081   |
| HOWARD WEISSBERG | Engineering      | HWEISSBERG@MERIDENCT.GOV               |
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## Meriden Health & Human Services Department

### Storm Drain: Where Does The Water Go?

Do you know the difference between a "storm drain" and a "sewer drain?" Most people don't realize that these are two separate systems. The sewer drain carries sewage from your house and is processed and treated at the Water Pollution Control Facility. The large circular plates you see in the middle of the street are actually manhole covers for the sewer lines.

Storm drains or catch basins are the open or grated drains you see at the side of the road by the curb. These drains collect all the water run-off from the street to help in flood control. The big difference between these systems is that this water is NOT processed or treated. This water goes directly to streams, brooks and rivers. Some of these water sources are actually part of the public drinking water system.

Many people ask "so why put a storm drain in areas that have the potential to directly pollute our water ways." The answer is that storm drains are designed to reduce the potential for road flooding, including parking lots and highways. It is the responsibility of all residents to protect the water, both drinking and recreational.

How do we do this? Simple: Don't put anything directly into the storm drain that could pollute the water. Some examples include waste oil or other auto fluids generated from routine car maintenance, leaves that you remove from your property, lawn fertilizers, litter, and dog feces. These items are also called "non-point source pollution."

So what do you do with your auto fluids, leaves and dog feces? Auto fluids and yard waste should be properly recycled; contact the Public Works Dept. (203) 630-4259 concerning the location and operation time of the landfill. Lawn fertilizers should be applied as per manufacturer directions; not before heavy rains and be sure to not over-spread into the road or driveway. Dog feces should be bagged and placed with your normal household garbage. Do not throw gum wrappers or other litter into the street.

What should you do if you see someone dumping in a catch basin? First, try to educate the person; maybe they don't realize that they are polluting the water. Second, contact the Health Department (203) 630-4226 so that we may educate the person dumping. If the person continues to dump, they may face legal action. You should contact the Public Works Department if you notice a catch basin in need of cleaning.

**SAFE AND CLEAN WATER IS EVERYONE'S RESPONSIBILITY.**

## Appendix C

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### Public Notices and Public Participation Materials



# Meriden Linear Trails National Trails Day



NOTE  
NEW  
DATE

## Sunday June 12<sup>th</sup>

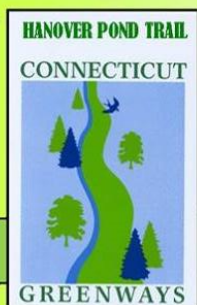
### Meriden's Red Bridge 1:00 pm



### Featuring the Lions Club Duck Race @ 2:30PM

Gathering at Meriden's Historic Red Bridge, the Linear Trail Committee will be on hand celebrating National Trails Day and showcasing educational exhibits. We'll answer your questions on Meriden's plans for trail expansion and the next segment of trail to be developed.

Furnished with a full color Trail Tree Guide, families are invited to a self-guided tour of the mile-long, stroller-friendly, Gorge Linear Trail. With 18 numbered stops highlighted, it adds greatly to the beauty of the Gorge area while identifying the Sycamore and Sassafras Trees, among others.



Fagus  
Grandifolia  
(American Beech)



Castanea  
Dentata  
(American Chestnut)



Call 203.237.7689  
with questions



**City of Meriden  
Notice of Availability  
Stormwater  
Management Plan  
Annual Report**

The City of Meriden announces the availability of the Annual Report for the calendar year 2016, (Year 12 of the permit), for the City's Stormwater Management Plan. This report was developed in accordance with the Connecticut Department of Energy and Environmental Protection's "General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewers" and outlines the City's compliance with the permit, provides an assessment of the appropriateness of the identified best management practices and the City's progress toward achieving the implementation of each minimum control measure, provides copies of all monitoring data which may have been collected and analyzed, summarizes stormwater activities the City plans to undertake during the next reporting cycle, and outlines any change identified measurable goals, implementation dates, or other changes.

Copies of the report are available for review between the hours of 8:00 a.m. and 5:00 p.m. in City Hall, 142 East Main Street, Engineering Bureau, Room 19, Ground Floor (203) 630-4018. Written comments regarding the report may be submitted to Brian Ennis, P.E., Associate City Engineer, until the close of business on December 30, 2016.

56658

**Auto Parts**

SNOW TIRES & RIMS,  
Sz 235/55R17 like  
new, for sale. \$500.  
Call (203) 530-8901

**Automobiles**

2003 Honda Accord LX  
2.4 Vtec, 4cyl, grey,  
243K miles. As Is.  
\$1,800 or best offer.  
Call 475-343-1215.

2004 Jeep Grand Cherokee Laredo. 166K miles, AWD, 4.0 straight 6. \$2,000 or B/O. 475-343-1215.

**STATE OF CONNECTICUT  
COURT OF PROBATE  
Meriden  
NOTICE TO CREDITORS**

ESTATE THOMAS M. WRATHALL, AKA THOMAS WRATHALL (16-0391)

The Hon. Brian T. Mahon, Judge of the Court of Probate, District of Meriden Probate Court, by decree dated November 22, 2016, ordered that all claims must be presented to the fiduciary at the address below. Failure to promptly present any such claim may result in the loss of rights to recover on such claim.

Janet Firulli,  
Chief Clerk

The fiduciary is:  
Dawn Pedevillano  
c/o Ann M. Farrell, Farrell & Grochowski, Esqs.,  
375 Center Street, P.O. Box 369, Wallingford, CT 06492

56704

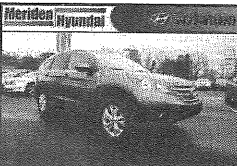
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Advertise with us.

203-317-2312



**Automobiles**



**2012 HONDA CRV**

Stock #p4822, AWD, Nav, Leather, Only 27K

**REDUCED TO \$20,988**

"Best Prices in CT"



203-235-1669



**CERTIFIED HYUNDAI SONATA'S STARTING AT**

**STATE OF CONNECTICUT  
COURT OF PROBATE  
Meriden  
NOTICE TO CREDITORS**

ESTATE OF CHARLES R. MOCK (16-0470)

The Hon. Brian T. Mahon, Judge of the Court of Probate, District of Meriden Probate Court, by decree dated November 28, 2016, ordered that all claims must be presented to the fiduciary at the address below. Failure to promptly present any such claim may result in the loss of rights to recover on such claim.

Janet Firulli,  
Chief Clerk

The fiduciary is:  
Diane C. Mock  
c/o Jeremiah J. Morytko, Giuletta & Morytko, LLC,  
22 Broadway, North Haven, CT 06473

56708

**Automobiles**



**2013 CHEVY CRUZE**

Stock #: P4943  
47k, Auto, AC

**REDUCED TO \$11,988**

"Best Prices in CT"



203-235-1669

Whether it is a lost ring, wallet or a Parrot named Oliver, a Classified ad can help track it down.

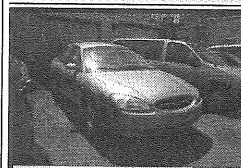
Record-Journal  
myrecordjournal.com



**2012 KIA SOUL**

Stock #: 16-466a

**MERIDEN**



**2001 Ford Taurus**

\$388 + tax and reg down  
\$50/Week

**\$2,288**

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(203) 269-1106

CHEAP AUTO RENTAL CO.



52315-06



**03 Hyundai Sonata**

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CHEAP AUTO RENTAL CO.



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CHEAP AUTO RENTAL CO.



52315-08



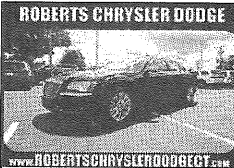
**01 Hyundai Elantra**

\$388 + tax and reg down  
\$50/Week

DOOR MILES, #1017JA  
CALL 203-235-1111

**ROBERTS CHRYSLER**

**DODGE MERIDEN**



**2012 DODGE AVENGER \$11,091**

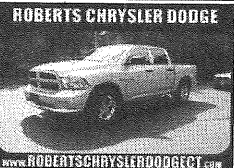
44K MILES, #16257A  
CALL 203-235-1111

**2013 MERCEDES 300**

**\$21,685**  
37K MILES, AWD #16192C  
CALL 203-235-1111

**ROBERTS CHRYSLER**

**DODGE MERIDEN**



**2015 FIAT 500 LOUNGE HATCHBACK \$15,969**

202 MILES, #4336P  
CALL 203-235-1111

**2014 RAM 1500 CREW CAB**

**\$28,769**  
30K MILES, #4323P  
CALL 203-235-1111

**ROBERTS CHRYSLER**

**DODGE MERIDEN**



**2013 CHRYSLER 200 LIMITED \$12,967**

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**ROBERTS CHRYSLER**

**DODGE MERIDEN**



**2013 NISSAN SENTRA S \$10,566**

**2013 CHRYSLER 300 AWD \$18,918**



3120207  
56658

AFFIDAVIT OF PUBLICATION

THIS IS TO CERTIFY that the attached clipping is a true copy of a notice published in the RECORD-JOURNAL NOVEMBER 30, 2016.

**City of Meriden  
Notice of Availability  
Stormwater  
Management Plan  
Annual Report.**

The City of Meriden announces the availability of the Annual Report for the calendar year 2016, (Year 12 of the permit), for the City's Stormwater Management Plan. This report was developed in accordance with the Connecticut Department of Energy and Environmental Protection's "General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewers" and outlines the City's compliance with the permit, provides an assessment of the appropriateness of the identified best management practices and the City's progress toward achieving the implementation of each minimum control measure, provides copies of all monitoring data which may have been collected and analyzed, summarizes stormwater activities the City plans to undertake during the next reporting cycle, and outlines any change identified measurable goals, implementation dates, or other changes.

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The Record-Journal Publishing Company

State of Connecticut

} SS. Meriden  
Pam Adamski, Business Office Manager

Pam Adamski  
Pam Adamski, Business Office Manager

The foregoing affidavit was signed and sworn  
Before me this 1st day  
Of DECEMBER 2016.

Angela Grabiec  
Angela Grabiec  
Notary Public  
My Commission Expires June 30, 2018



**Quinnipiac River Watershed Association**  
 Dedicated to the preservation of the Quinnipiac River and its watershed

**The Quinnipiac River Watershed Association was awarded a \$48,000 Aquatic Science Education Grant by 3M Corporation on Monday, March 21, 2016.**

David James, President of the QRWA and Ginny Chirsky, Director of Grants and Education, accepted the grant on behalf of the river conservation organization located in Meriden, CT Aquatic Science Awareness Program (ASAP) will allow us to expand our current high school programs to elementary grades K-5 with a focus on 5th grade students at Meriden's Ben Franklin and Hanover Schools.

We are equally proud to include 2 classes of Wallingford's Lyman Hall students to this year's field trip program. Students will learn how to collect and ID macro invertebrates, conduct water quality experiments, and release trout they raised in the classroom. At the end of the day QRWA volunteers will give the students an introduction to kayaking where they will test their skills on Hanover Pond. The 3M/QRWA/Environmental Education programs have also made the Trout in the Classroom (TIC) and Personalize Learning Experience (PLE) programs available to students at Meriden's Maloney and Platt High Schools. Summer program to include Solar Youth of New Haven's after school and summer camp students.



The QRWA Headquarters is located in South Meriden, CT at [540 Oregon Road](#), 06451. If you are familiar with the area, our headquarters was once the Meriden Human Society, and formerly the Dossin Beach Bathhouse in 1933. We have restored the building to serve as our headquarters and a regional environmental education center. Office hours Friday, 9 to 3 p.m. office phone 203-237-2237.



**Who Are We and What Do We Do?**



**Daily Announcements**

**The Quinnipiac River Watershed Association Hosts Fall Clean Up & Loosestrife Removal**

**Due to rain in the forecast the EVENT has been postponed until OCTOBER 15th - 9am – 12pm (refreshments at noon)**

**Finally!! After ten years of semi-annual Clean Ups, the Hanover Pond area is clear enough to permit expansion into alternate areas.** This year, in addition to a shoreline clean up, we will be removing invasive loosestrife, which has made incursion into the Hanover Pond area. QRWA will provide trash bags, gloves, hand tools, and some waders. We will also have members on site to guide the event. Participants are advised to wear weather appropriate work clothes and boots.

If you would like to be part of our efforts, you may contact David James directly at [jamesgang7@cox.net](mailto:jamesgang7@cox.net)

The Quinnipiac River Watershed Association provides “hands on” environmental and recreational programs to students in grades K-12 and TWO, 2 day water safety and canoe rescue courses to Quinnipiac University students every September. We also host semi-Annual River clean up events, and provide paddling lessons, guided tours and recreational activities to families within the watershed. We are regulars at the Quinnipiac and West River festivals, and are well known in CT for our 5 mile downriver canoe and kayak race. We are always seeking volunteers to assist with launching boats, experienced paddlers for public events and to expand our river clean up efforts to other towns in the watershed.



**QRWA Receives 3M Environmental Grant - Grant will be used for 3M/QRWA High School Environmental Education Programs.** (photos from May 13, field trip to Hanover Pond)

The Quinnipiac River Watershed Association received a \$20,000 grant from 3M to enhance its Biodiversity and Ecology Education Programs for the Quinnipiac River. QRWA and 3M continue their relationship by adding a partnership with Meriden High Schools in providing environmental education programs where students in the watershed and beyond will be able to participate in field trips, classroom activities, hands on projects, and independent studies, that will connect them to the environment, the community and the river.



With the financial support of 3M, QRWA and Maloney High School Environmental Science teacher Mark Britton will lead the project and invite the other area high schools to participate in these programs and throughout the school year. The

programs will be offered during regular school hours utilizing the schools buses to transport students to site locations. With these educational programs students will be able to participate in experiments to support theories and concepts explained in the classroom. The QRWA Headquarters, located on the shore of Hanover Pond, the Quinnipiac River and the Meriden Linear Trail provides the perfect staging area for field trips, hands-on projects and water quality studies.



The following includes the 3M/QRWA High School Environmental Education Programs but not limited to:

- Expanded Rapid Bioassessment by Volunteers (RBV)
- Independent Study/Personalized Learning Experience
- Create a self-guided nature trail at Hanover Pond
- Create a 100' x 30' educational riparian buffer
- Design & Construct a catamaran research vessel
- Trout in the Classroom Program

or by phone at (203) 237-2845, OR by emailing the QRWA office at [qrwainfo@att.net](mailto:qrwainfo@att.net), or leave a message at (203) 237-2237. **If you are interested in volunteering as a guide or are willing to work from a boat, please get in touch with either of the contact information listed above. Any changes related to date, time or location due to weather will be posted on our Facebook page, so be sure to check before heading out to event.**

### **QRWA to co-sponsor the Connecticut Invasive Plant Working Group (CIPWG) symposium in October.**

The symposium will be held at the UConn Storrs campus on **Tuesday, October 11, 2016 from 8:00 a.m. until 4:30 p.m.** The theme of the symposium is "Invasive Plants in Our Changing World: Learn from the Past, Prepare for the Future". [Click here](#) for more program information and to register for event.

### **[Clark Brothers Dam Removed and What it Means to the Q River](#)**

### **Congratulations to Dan Pelletier, Steve Theirault and Mike Wieloch of the QRWA Paddle Committee who are now USCA Certified Canoe Instructors.**

**Know Your Flow - FYI for paddlers - We have a river gauge located on the left panel.**



### **[Notice to Our Butterfly and Bee Visitors - Record Journal Article/Update](#)**

Our Butterfly & Bee habitat has suffered from extreme weather the past 2 years. Lack of rain for 2 summers has allowed aggressive weeds to take over the butterfly plants and a warm winter caused many plants to emerge early, only to be slammed with sub-zero temperatures on Valentine's weekend in February. The buds on the butterfly bushes died and the shrubs never recovered.

It is our intention to renovate the habitat this fall. Plants that are worth keeping will be dug up, potted and saved. Remaining plants will be removed. The habitat will be divided into sections, and we are hoping that we can recruit individuals or groups to "adopt" a section and care for it throughout the growing season.



3M Purification Inc. is located in Meriden, CT at 400 Research Parkway. For more information about 3Mgives visit [www.3Mgives.com](http://www.3Mgives.com) **On behalf of the QRWA board of directors we would like to extend our heartfelt thanks to Joe Struble at 3M Purification Inc. in Meriden for his continued encouragement and support of the QRWA and its mission.**

## Quinnipiac Watershed Base Plan Updates (QWBP)

As part of the ongoing efforts to improve water quality in the Quinnipiac River watershed, we want to make sure you are kept apprised of various activities going on and continued opportunities for participation in these watershed activities. **We welcome your participation in this project. This is a ten year plan in which all towns in the Quinnipiac Watershed should engage.**

The QRWA Steering Committee met on June 24th, 2014 to discuss the proposed projects in the Quinnipiac Watershed Base Plan. Members of the committee outlined a "plan for the plan", and have done an outreach to the town leaders in which projects have been sited in the plan. QRWA will be seeking funding opportunities and engaging town leaders to participate in discussions about the projects. If you are interested in serving on the committee, or would like a copy of the final plan you may refer to the tab on this website labeled "watershed news" and then click on the watershed base plan.

**This project is funded in part by the CTDEEP through an EPA Section 319 Nonpoint Source Grant, with additional outreach support from The Community Foundation for Greater New Haven through the Quinnipiac River Fund.** Fuss & O'Neill, Inc. was retained to lead the development of the watershed based plan, working with a Project Steering Committee (QRWA, CTDEEP, and EPA) and a Watershed Stakeholders Group consisting of representatives from the watershed municipalities, government organizations, educational institutions, non-profit organizations, and others who live and work within the watershed. City and Town staff and volunteers are currently working with the Quinnipiac River Watershed Association to revise the plan and the latest updated information on your watershed and future actions is available. **For a copy of the final base plan you may refer to tab labeled "watershed news" , and then click on the watershed base plan.**

### [Additional Information on the Q River](#)

#### River Gage

- [Click here](#) for a real time USGS water level gage of the river in Wallingford, Connecticut.
- [Click here](#) for a water level gage of the river in Southington, Connecticut.

We also hope to install some type of watering system so that the plants remain healthy and well hydrated for our pollinators

Anyone wishing to assist with the renovation this fall (date to be determined), please contact QRWA at 203-237-2237 and leave a message. Thank You.

## Clark Brothers and Carpenters Dam Removals

**Connecticut Fund for the Environment/Save the Sound, the U.S. Fish and Wildlife Service and the Connecticut Department of Energy and Environmental Protection are partnering to remove Clark Brothers Dam (Southington), an inactive exposed water line (Cheshire) and Carpenters Dam (Meriden) in order to restore migratory fish passage and more recreational opportunities for paddling. The removal of the Clark Brothers and Carpenters Dam are scheduled for August.**

**Great Give 2016 - Thanks to all who contributed to this fund raising event - [Over \\$2000 Raised](#) by QRWA during the Great Give Event!**

Environmental Education News - [Student Field Trip Coverage](#)

Source to Sound Clean Up 2016 [River Clean Up Coverage - Channel 8 News](#) and [River Clean Up Coverage - Record Journal](#)

**September 10th and 11th** Quinnipiac University Students to visit QRWA. Intro to Canoeing Workshop, and all aspects of the canoe, canoe paddling and canoe safety. 10:00 a.m. to 3:00 p.m. **Contact Dan Pelletier to confirm times and location.**

## QRWA Hosting 3rd Annual 3M/QRWA/Student Environmental Education Field Trips in May

In addition to Maloney and Platt High Schools we are adding Lyman Hall in Wallingford, to our 2016 programs. Students will participate in the 3M/QRWA/High School Environmental Education programs with a field trip to the QRWA facility for a day of "on the water" and "on the shore" activities.

Students will conduct "hands on" experiments in the Lions Club Learning Center Classroom from stream

## ▶ Become A Member

Show your support of  
the QRWA



## ▶ Donate Today

Your contribution can make  
a difference



## ▶ Wildlife

Experience the river corridor's  
wild beauty



and pond water collections, learn how to paddle, observe wildlife on Hanover Pond and walk along both linear trails and learn to identify flora and fauna. Next year environmental education programs will expand to 5th graders at Ben Franklin and Hanover Schools.

### Turtles

We are currently putting together steps you can take if you find an injured or healthy turtle in need of some assistance. for now, you can reach out to Deb Mason at 203-494-7610. We will post names and contact numbers for veterinary care in the near future.

The QRWA BOD is deeply saddened to pass along to you the death of Annette Gattilia. For those of us fortunate enough to have met her, and spend time with her and husband Rico at our headquarters, it was truly an honor. May the Gattilia Family Library serve as constant reminder to all of us that Annette's dedication to the environment truly made a difference. The Gattilia Family has named the Quinnipiac River Watershed Association to receive donations in her memory. [Front Porch NewsGattilia Family Library Dedication click here](#)



## Quinnipiac River Watershed Association

Dedicated to the preservation of the Quinnipiac River and its watershed

### Downriver Classic

#### Canoe and Kayak Race

5/15/2016

9:00 AM – 4:00 PM

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Starting at RT 322 Southington

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[Click here for flyer and details](#) [Click here for registration form](#)





# **QRWA's 36th Annual**

## **QUINNIPIAC DOWNRIVER CLASSIC FIVE MILE CANOE AND KAYAK RACE**

***Longest Running Canoe & Kayak Race in Connecticut!!!***

**Sunday, May 15, 2016**

**11:00 a.m. Start**



### **Awards for Top Three Finishers in Each Class**

**Race Day Registration – 9 a.m. to 10:30 a.m.  
Post Race Cook Out and Raffle at QRWA Headquarters**

**Registration Fee \$18.00 per Paddler**

*Canoes Rentals are available FREE of Charge must reserve, Contact Dan Pelletier 860-754-8702*

### **Start/Registration Station**

**I- 691 West Exit 4 onto Rt. 322 West  
Travel 2 miles to Cheshire/Southington line  
Parking at DOT Lot**

### **Finish Line is Red Bridge, South Meriden**

**Parking on the Lawn at QRWA Building, 540 Oregon Rd. Meriden**

***For More Information or to Pre-Register Visit Our Web Site at;***

***[www.qrwa.org](http://www.qrwa.org)***



**Quinnipiac River Watershed Association**  
Dedicated to the preservation of the Quinnipiac River and its watershed

## Fall River Clean Up

October 1st, 2016

9:00 AM – Noon

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QRWA Headquarters

540 Oregon Road

Meriden, CT 06451

› [Driving Directions](#)

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The Quinnipiac River Watershed Association (QRWA) Hosts Fall Clean Up & Loosestrife Removal

Sat, Oct 1st from 9am – 12pm (refreshments at noon)

RAIN DATE: Sat, Oct 15 (same time & place)

Any changes related to date, time or location due to weather will be posted on our Facebook page, so be sure to check before heading out to event.

\*\*\*\*\*

Finally!! After ten years of semi-annual Clean Ups, the Hanover Pond area is clear enough to permit expansion into alternate areas.

This year, in addition to a shoreline clean up, we will be removing invasive loosestrife, which has made incursion into the Hanover Pond area.

QRWA will provide trash bags, gloves, hand tools, and some waders. We will also have members on site to guide the event. Participants are advised to wear weather appropriate work clothes and boots.

If you would like to be part of our efforts, please email [jamesgang7@cox.net](mailto:jamesgang7@cox.net) or [qrwainfo@att.net](mailto:qrwainfo@att.net), or call (203) 237-2845 or (203) 237-2237 so we can include you in our planning. If you are interested in volunteering as a guide or are willing to work from a boat, please let us know!

Staging Area:

QRWA Headquarters Parking Lot

540 Oregon Road

Meriden, CT

See you there!

Thanks in advance,

David James

Clean Up Coordinator



## Quinnipiac River Watershed Association

Dedicated to the preservation of the Quinnipiac River and its watershed

### River Clean Up

April 16

RAIN DATE April 23, 2016

9:00 AM – 12:30

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Staging Area at QRWA HQ

540 Oregon Road

Meriden, CT 06451

> [Driving Directions](#)

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Any changes related to date, time or location due to weather will be posted on this website please visit website before heading out to event.

Be part of Connecticut's natural resource revitalization. We have valued your participation in the past and would be grateful for it again as we move forward in making our environment healthier and more attractive.

We will be working in Meriden on Harbor and Sodom Brooks, Quinnipiac River and Hanover Pond. River clean up crews will be working both along the banks and in the water from boats, so there is activity for everyone. QRWA will provide trash bags, gloves, hand tools, and some waders. We will also have members on site to guide the event. Participants are advised to wear weather appropriate work clothes and boots.

If you would like to be part of our clean up efforts, contact David at [jamesgang7@cox.net](mailto:jamesgang7@cox.net) or by phone at (203) 237-2845. Crews will also be working in Southington and Wallingford. Meriden Staging Area will be at QRWA Headquarters Parking Lot, 540 Oregon Road, Meriden, CT

## Appendix D

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### Construction Site Stormwater Runoff Control Materials

## 2016 Projects

| E & S | Storm water Treatment | Project                         | Site Acreage | Disturbance over 1 Acre? |
|-------|-----------------------|---------------------------------|--------------|--------------------------|
| Y     | Y                     | 1376 EAST MAIN STREET           | 0.92         | N                        |
| Y     | Y                     | 116 EAST VIEW TERRACE           | 0.84         | N                        |
| Y     | Y                     | 50 YALE AVE                     | 5.75         | N                        |
| Y     | Y                     | 105/113 POMEROY AVE             | 6.13         | Y                        |
| Y     | N                     | BEAVER LAKE / BOYS & GIRLS CLUB | 10.47        | Y                        |
| Y     | N                     | 9 CUTLERY AVE                   | 2.7          | N                        |
| Y     | N                     | 630 FINCH / CARPENTER DAM       | 0.25         | N                        |
| Y     | N                     | 46 COOPER ST                    | 10.4         | Y                        |
| Y     | N                     | 435 LEWIS AVE                   | 51.1         | N                        |
| N     | N                     | 369 COOK AVE                    | 0.74         | N                        |
| Y     | N                     | 1388 EAST MAIN STREET           | 1.66         | N                        |
| N     | N                     | 464 PRATT ST R                  | 1.08         | N                        |
| Y     | N                     | 562 BALDWIN AVE #3              | 0.25         | N                        |
| Y     | Y                     | 161/177 STATE STREET            | 2.21         | Y                        |
| Y     | N                     | 875 EAST MAIN STREET            | 1.83         | N                        |
| N     | N                     | 1401 NORTH COLONY RD            | 5.56         | N                        |
| Y     | Y                     | 1440-1460 NORTH BROAD STREET    | 4            | Y                        |
| N     | N                     | 67 POMEROY AVE                  | 6.3          | N                        |
| N     | N                     | 66 PRESTON AVE R                | 9.5          | N                        |

|  |           |
|--|-----------|
| TOTAL PROJECTS                               | 19        |
| <b>Projects with E&amp;S controls</b>        | <b>14</b> |
| <b>Projects with Storm Water Treatment</b>   | <b>6</b>  |
| <b>Site over 1 acre</b>                      | <b>14</b> |
| <b>Projects with Disturbance over 1 Acre</b> | <b>5</b>  |

\*Note: calculations hidden within document columns F-I



## Appendix E

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### Stormwater Monitoring Results



# General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems

## Stormwater Monitoring Report Form

Please send completed form to: STORMWATER GROUP  
 BUREAU OF MATERIALS MANAGEMENT & COMPLIANCE ASSURANCE  
 DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 79 ELM STREET  
 HARTFORD, CT 06106-5127

### PERMITTEE INFORMATION

|   |   |
|---|---|
| Town: <u>Meriden</u>                      |   |
| Mailing Address: <u>142 East Main St.</u> |   |
| Contact Person: <u>Robert J Bass, PE</u>  | Title: <u>Public Work Director</u>      |
| Phone: <u>203-630-4018</u>                | Permit Registration #GSM: <u>000038</u> |

### SAMPLING INFORMATION

|  |                                  |
|--|----------------------------------|
| Discharge Location (Lat/Long or other description): <u>Hanover Ave @ Park Pl (754818.30 982130.19)</u>   |                                  |
| Please check the appropriate area description: <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential |                                  |
| Receiving Water (name, basin): <u>Harbor Brook Watershed</u>   |                                  |
| Time of Start of Discharge: <u>1130</u>  |                                  |
| Date/Time Collected: <u>9/19/16 @ 1240</u>   | Water Temperature: <u>25.5 C</u> |
| Person Collecting Sample: <u>Kyle O'Connor, Fuss &amp; O'Neill</u>   |                                  |
| Storm Magnitude (inches): <u>0.26</u>  | Storm Duration (hours): <u>6</u> |
| Date of Previous Storm Event: <u>9/14/16</u>   |                                  |

### MONITORING RESULTS

| Parameter                        | Method        | Results (units)    | Laboratory                 |
|----------------------------------|---------------|--------------------|----------------------------|
| Sample pH                        | 4500-H B/9040 | 6.72 (SU)          | Phoenix Environmental Labs |
| Rain pH                          |               | 6.98 (SU)          | in-field meter             |
| Hardness                         | E200.7        | 6.8 (mg/L)         | Phoenix Environmental Labs |
| Conductivity                     | SM2510B       | 51 (umhos/cm)      | Phoenix Environmental Labs |
| Oil & Grease                     | EPA 1664A     | <0.1 (mg/L)        | Phoenix Environmental Labs |
| COD                              | SM5220 D      | 46 (mg/L)          | Phoenix Environmental Labs |
| Turbidity                        | SM2130B       | 7.38 (NTU)         | Phoenix Environmental Labs |
| TSS                              | SM2540D       | 21 (mg/L)          | Phoenix Environmental Labs |
| TP                               | SM4500P E     | 0.29 (mg/L)        | Phoenix Environmental Labs |
| Ammonia                          | E350.1        | 0.15 (mg/L)        | Phoenix Environmental Labs |
| TKN                              | E351.1        | 0.99 (mg/L)        | Phoenix Environmental Labs |
| NO <sub>3</sub> +NO <sub>2</sub> | E353.2        | 0.43 (mg/L)        | Phoenix Environmental Labs |
| E. coli                          | SM 9223B      | 2850 (MPN/100 mls) | Phoenix Environmental Labs |

### STATEMENT OF ACKNOWLEDGMENT

|   |                       |
|---|-----------------------|
| I certify that the data reported on this document were prepared under my direction or supervision in accordance with the MS4 General Permit. The information submitted is, to the best of my knowledge and belief, true, accurate and complete. |                       |
| Authorized Official: <u>Robert J. Bass, PE</u>  |                       |
| Signature: <u><i>Robert Bass</i></u>  | Date: <u>10/20/16</u> |



# General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems

## Stormwater Monitoring Report Form

Please send completed form to: STORMWATER GROUP  
BUREAU OF MATERIALS MANAGEMENT & COMPLIANCE ASSURANCE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
79 ELM STREET  
HARTFORD, CT 06106-5127

### PERMITTEE INFORMATION

|   |   |
|---|---|
| Town: <u>Meriden</u>                      |   |
| Mailing Address: <u>142 East Main St.</u> |   |
| Contact Person: <u>Robert J Bass, PE</u>  | Title: <u>Public Work Director</u>      |
| Phone: <u>203-630-4018</u>                | Permit Registration #GSM: <u>000038</u> |

### SAMPLING INFORMATION

|  |                                  |
|--|----------------------------------|
| Discharge Location (Lat/Long or other description): <u>Baldwins Pond-N.Wall St (759951.95 993114.09)</u>   |                                  |
| Please check the appropriate area description: <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential |                                  |
| Receiving Water (name, basin): <u>Baldwins Pond. Harbor Brook Watershed</u>  |                                  |
| Time of Start of Discharge: <u>1130</u>  |                                  |
| Date/Time Collected: <u>9/19/16 @ 1345</u>   | Water Temperature: <u>26.1 C</u> |
| Person Collecting Sample: <u>Kyle O'Connor, Fuss &amp; O'Neill</u>   |                                  |
| Storm Magnitude (inches): <u>0.26</u>  | Storm Duration (hours): <u>6</u> |
| Date of Previous Storm Event: <u>9/14/16</u>   |                                  |

### MONITORING RESULTS

| Parameter                        | Method        | Results (units)     | Laboratory                 |
|----------------------------------|---------------|---------------------|----------------------------|
| Sample pH                        | 4500-H B/9040 | 6.61 (SU)           | Phoenix Environmental Labs |
| Rain pH                          |               | 6.98 (SU)           | in-field meter             |
| Hardness                         | E200.7        | 2.8 (mg/L)          | Phoenix Environmental Labs |
| Conductivity                     | SM2510B       | 34 (umhos/cm)       | Phoenix Environmental Labs |
| Oil & Grease                     | EPA 1664A     | <1.4 (mg/L)         | Phoenix Environmental Labs |
| COD                              | SM5220 D      | 29 (mg/L)           | Phoenix Environmental Labs |
| Turbidity                        | SM2130B       | 8.07 (NTU)          | Phoenix Environmental Labs |
| TSS                              | SM2540D       | 10 (mg/L)           | Phoenix Environmental Labs |
| TP                               | SM4500P E     | 0.23 (mg/L)         | Phoenix Environmental Labs |
| Ammonia                          | E350.1        | 0.77 (mg/L)         | Phoenix Environmental Labs |
| TKN                              | E351.1        | 1.37 (mg/L)         | Phoenix Environmental Labs |
| NO <sub>3</sub> +NO <sub>2</sub> | E353.2        | 0.40 (mg/L)         | Phoenix Environmental Labs |
| E. coli                          | SM 9223B      | 11200 (MPN/100 mls) | Phoenix Environmental Labs |

### STATEMENT OF ACKNOWLEDGMENT

|   |                       |
|---|-----------------------|
| I certify that the data reported on this document were prepared under my direction or supervision in accordance with the MS4 General Permit. The information submitted is, to the best of my knowledge and belief, true, accurate and complete. |                       |
| Authorized Official: <u>Robert J. Bass, PE</u>  |                       |
| (Print Name)  |                       |
| Signature: <u></u>  | Date: <u>10/26/16</u> |





# General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems

## Stormwater Monitoring Report Form

Please send completed form to: STORMWATER GROUP  
 BUREAU OF MATERIALS MANAGEMENT & COMPLIANCE ASSURANCE  
 DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 79 ELM STREET  
 HARTFORD, CT 06106-5127

### PERMITTEE INFORMATION

|   |   |
|---|---|
| Town: <u>Meriden</u>                      |   |
| Mailing Address: <u>142 East Main St.</u> |   |
| Contact Person: <u>Robert J Bass, PE</u>  | Title: <u>Public Work Director</u>      |
| Phone: <u>203-630-4018</u>                | Permit Registration #GSM: <u>000038</u> |

### SAMPLING INFORMATION

|  |                                  |
|--|----------------------------------|
| Discharge Location (Lat/Long or other description): <u>E.Main St@Research Pkwy (752283.58 997431.99)</u>   |                                  |
| Please check the appropriate area description: <input type="checkbox"/> Industrial <input checked="" type="checkbox"/> Commercial <input type="checkbox"/> Residential |                                  |
| Receiving Water (name, basin): <u>Spoon Shop Brook. Harbor Brook Watershed</u>   |                                  |
| Time of Start of Discharge: <u>1130</u>  |                                  |
| Date/Time Collected: <u>9/19/16 @ 1400</u>   | Water Temperature: <u>25.5 C</u> |
| Person Collecting Sample: <u>Kyle O'Connor, Fuss &amp; O'Neill</u>   |                                  |
| Storm Magnitude (inches): <u>0.26</u>  | Storm Duration (hours): <u>6</u> |
| Date of Previous Storm Event: <u>9/14/16</u>   |                                  |

### MONITORING RESULTS

| Parameter                        | Method        | Results (units)    | Laboratory                 |
|----------------------------------|---------------|--------------------|----------------------------|
| Sample pH                        | 4500-H B/9040 | 6.81 (SU)          | Phoenix Environmental Labs |
| Rain pH                          |               | 6.98 (SU)          | in-field meter             |
| Hardness                         | E200.7        | 12.7 (mg/L)        | Phoenix Environmental Labs |
| Conductivity                     | SM2510B       | 91 (umhos/cm)      | Phoenix Environmental Labs |
| Oil & Grease                     | EPA 1664A     | 1.8 (mg/L)         | Phoenix Environmental Labs |
| COD                              | SM5220 D      | 55 (mg/L)          | Phoenix Environmental Labs |
| Turbidity                        | SM2130B       | 37.7 (NTU)         | Phoenix Environmental Labs |
| TSS                              | SM2540D       | 19 (mg/L)          | Phoenix Environmental Labs |
| TP                               | SM4500P E     | 0.16 (mg/L)        | Phoenix Environmental Labs |
| Ammonia                          | E350.1        | 0.36 (mg/L)        | Phoenix Environmental Labs |
| TKN                              | E351.1        | 1.18 (mg/L)        | Phoenix Environmental Labs |
| NO <sub>3</sub> +NO <sub>2</sub> | E353.2        | 0.38 (mg/L)        | Phoenix Environmental Labs |
| E. coli                          | SM 9223B      | 1010 (MPN/100 mls) | Phoenix Environmental Labs |

### STATEMENT OF ACKNOWLEDGMENT

|   |                       |
|---|-----------------------|
| I certify that the data reported on this document were prepared under my direction or supervision in accordance with the MS4 General Permit. The information submitted is, to the best of my knowledge and belief, true, accurate and complete. |                       |
| Authorized Official: <u>Robert J. Bass, PE</u>  |                       |
| (Print Name)  |                       |
| Signature: <u><i>Robert J. Bass</i></u>   | Date: <u>10/26/16</u> |



# General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems

## Stormwater Monitoring Report Form

Please send completed form to: STORMWATER GROUP  
 BUREAU OF MATERIALS MANAGEMENT & COMPLIANCE ASSURANCE  
 DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 79 ELM STREET  
 HARTFORD, CT 06106-5127

### PERMITTEE INFORMATION

Town: Meriden

Mailing Address: 142 East Main St.

Contact Person: Robert J Bass, PE Title: Public Work Director

Phone: 203-630-4018 Permit Registration #GSM: 000038

### SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): Cook Ave @ Summer St (754000.37 984145.79)

Please check the appropriate area description:  Industrial  Commercial  Residential

Receiving Water (name, basin): Harbor Brook Watershed

Time of Start of Discharge: 1130

Date/Time Collected: 9/19/16 @ 1300 Water Temperature: 26 c

Person Collecting Sample: Kyle O'Connor, Fuss & O'Neill

Storm Magnitude (inches): 0.26 Storm Duration (hours): 6

Date of Previous Storm Event: 9/14/16

### MONITORING RESULTS

| Parameter                        | Method        | Results (units)      | Laboratory                 |
|----------------------------------|---------------|----------------------|----------------------------|
| Sample pH                        | 4500-H B/9040 | 6.94 (SU)            | Phoenix Environmental Labs |
| Rain pH                          |               | 6.98 (SU)            | in-field meter             |
| Hardness                         | E200.7        | 35.0 (mg/L)          | Phoenix Environmental Labs |
| Conductivity                     | SM2510B       | 133 (umhos/cm)       | Phoenix Environmental Labs |
| Oil & Grease                     | EPA 1664A     | <1.4 (mg/L)          | Phoenix Environmental Labs |
| COD                              | SM5220 D      | 50 (mg/L)            | Phoenix Environmental Labs |
| Turbidity                        | SM2130B       | 24.0 (NTU)           | Phoenix Environmental Labs |
| TSS                              | SM2540D       | 120 (mg/L)           | Phoenix Environmental Labs |
| TP                               | SM4500P E     | 0.30 (mg/L)          | Phoenix Environmental Labs |
| Ammonia                          | E350.1        | 0.45 (mg/L)          | Phoenix Environmental Labs |
| TKN                              | E351.1        | 1.43 (mg/L)          | Phoenix Environmental Labs |
| NO <sub>3</sub> +NO <sub>2</sub> | E353.2        | 0.65 (mg/L)          | Phoenix Environmental Labs |
| E. coli                          | SM 9223B      | >24200 (MPN/100 mls) | Phoenix Environmental Labs |

### STATEMENT OF ACKNOWLEDGMENT

I certify that the data reported on this document were prepared under my direction or supervision in accordance with the MS4 General Permit. The information submitted is, to the best of my knowledge and belief, true, accurate and complete.

Authorized Official: Robert J. Bass, PE  
 (Print Name)

Signature: *Robert J. Bass* Date: 10/26/16





# General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems

## Stormwater Monitoring Report Form

Please send completed form to: STORMWATER GROUP  
BUREAU OF MATERIALS MANAGEMENT & COMPLIANCE ASSURANCE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
79 ELM STREET  
HARTFORD, CT 06106-5127

### PERMITTEE INFORMATION

|   |  |
|---|--|
| Town: <u>Meriden</u>                      |  |
| Mailing Address: <u>142 East Main St.</u> |  |
| Contact Person: <u>Robert J Bass, PE</u>  | Title: <u>Public Work Director</u>       |
| Phone: <u>203-630-4018</u>                | Permit Registration # <u>GSM: 000038</u> |

### SAMPLING INFORMATION

|  |                                  |
|--|----------------------------------|
| Discharge Location (Lat/Long or other description): <u>Milk St - easterly end (749252.86 978991.86)</u>  |                                  |
| Please check the appropriate area description: <input checked="" type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input type="checkbox"/> Residential |                                  |
| Receiving Water (name, basin): <u>Quinnipiac River Watershed</u>   |                                  |
| Time of Start of Discharge: <u>1130</u>  |                                  |
| Date/Time Collected: <u>9/19/16 @ 1205</u>   | Water Temperature: <u>25.4 C</u> |
| Person Collecting Sample: <u>Kyle O'Connor, Fuss &amp; O'Neill</u>   |                                  |
| Storm Magnitude (inches): <u>0.26</u>  | Storm Duration (hours): <u>6</u> |
| Date of Previous Storm Event: <u>9/14/16</u>   |                                  |

### MONITORING RESULTS

| Parameter                        | Method        | Results (units)      | Laboratory                 |
|----------------------------------|---------------|----------------------|----------------------------|
| Sample pH                        | 4500-H B/9040 | 6.99 (SU)            | Phoenix Environmental Labs |
| Rain pH                          |               | 6.98 (SU)            | in-field meter             |
| Hardness                         | E200.7        | 26.2 (mg/L)          | Phoenix Environmental Labs |
| Conductivity                     | SM2510B       | 46 (umhos/cm)        | Phoenix Environmental Labs |
| Oil & Grease                     | EPA 1664A     | <1.4 (mg/L)          | Phoenix Environmental Labs |
| COD                              | SM5220 D      | 46 (mg/L)            | Phoenix Environmental Labs |
| Turbidity                        | SM2130B       | 16.8 (NTU)           | Phoenix Environmental Labs |
| TSS                              | SM2540D       | 37 (mg/L)            | Phoenix Environmental Labs |
| TP                               | SM4500P E     | 0.28 (mg/L)          | Phoenix Environmental Labs |
| Ammonia                          | E350.1        | 0.30 (mg/L)          | Phoenix Environmental Labs |
| TKN                              | E351.1        | 1.41 (mg/L)          | Phoenix Environmental Labs |
| NO <sub>3</sub> +NO <sub>2</sub> | E353.2        | 0.38 (mg/L)          | Phoenix Environmental Labs |
| E. coli                          | SM 9223B      | >24200 (MPN/100 mls) | Phoenix Environmental Labs |

### STATEMENT OF ACKNOWLEDGMENT

|   |                       |
|---|-----------------------|
| I certify that the data reported on this document were prepared under my direction or supervision in accordance with the MS4 General Permit. The information submitted is, to the best of my knowledge and belief, true, accurate and complete. |                       |
| Authorized Official: <u>Robert J. Bass, PE</u>  |                       |
| Signature: <u><i>Robert J. Bass</i></u>   | Date: <u>10/26/16</u> |



# General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems

## Stormwater Monitoring Report Form

Please send completed form to: STORMWATER GROUP  
 BUREAU OF MATERIALS MANAGEMENT & COMPLIANCE ASSURANCE  
 DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 79 ELM STREET  
 HARTFORD, CT 06106-5127

### PERMITTEE INFORMATION

Town: Meriden

Mailing Address: 142 East Main St.

Contact Person: Robert J Bass, PE Title: Public Work Director

Phone: 203-630-4018 Permit Registration #GSM: 000038

### SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): Center St@Sparten Tool (760841.32 988501.53)

Please check the appropriate area description:  Industrial  Commercial  Residential

Receiving Water (name, basin): Clark Brook. Harbor Brook Watershed

Time of Start of Discharge: 1130

Date/Time Collected: 9/19/16 @ 1325 Water Temperature: 25.8 C

Person Collecting Sample: Kyle O'Connor, Fuss & O'Neill

Storm Magnitude (inches): 0.26 Storm Duration (hours): 6

Date of Previous Storm Event: 9/14/16

### MONITORING RESULTS

| Parameter                        | Method        | Results (units)    | Laboratory                 |
|----------------------------------|---------------|--------------------|----------------------------|
| Sample pH                        | 4500-H B/9040 | 7.46 (SU)          | Phoenix Environmental Labs |
| Rain pH                          |               | 6.98 (SU)          | in-field meter             |
| Hardness                         | E200.7        | 79.9 (mg/L)        | Phoenix Environmental Labs |
| Conductivity                     | SM2510B       | 168 (umhos/cm)     | Phoenix Environmental Labs |
| Oil & Grease                     | EPA 1664A     | 9.9 (mg/L)         | Phoenix Environmental Labs |
| COD                              | SM5220 D      | 174 (mg/L)         | Phoenix Environmental Labs |
| Turbidity                        | SM2130B       | 512 (NTU)          | Phoenix Environmental Labs |
| TSS                              | SM2540D       | 570 (mg/L)         | Phoenix Environmental Labs |
| TP                               | SM4500P E     | 0.37 (mg/L)        | Phoenix Environmental Labs |
| Ammonia                          | E350.1        | <0.10 (mg/L)       | Phoenix Environmental Labs |
| TKN                              | E351.1        | 0.87 (mg/L)        | Phoenix Environmental Labs |
| NO <sub>3</sub> +NO <sub>2</sub> | E353.2        | 0.19 (mg/L)        | Phoenix Environmental Labs |
| E. coli                          | SM 9223B      | 79.9 (MPN/100 mls) | Phoenix Environmental Labs |

### STATEMENT OF ACKNOWLEDGMENT

I certify that the data reported on this document were prepared under my direction or supervision in accordance with the MS4 General Permit. The information submitted is, to the best of my knowledge and belief, true, accurate and complete.

Authorized Official: Robert J. Bass, PE  
 (Print Name)

Signature: *Robert J. Bass* Date: 10/26/16