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## 2017 ANNUAL REPORT

TOWN OF TOLLAND  
21 TOLLAND GREEN  
TOLLAND, CONNECTICUT

2017 MS4 GENERAL PERMIT  
EXISTING PERMITTEE  
PERMIT NUMBER GSM000100

FEBRUARY 2018

PREPARED FOR:

TOWN OF TOLLAND  
21 TOLLAND GREEN  
TOLLAND, CONNECTICUT 06084

PREPARED BY:

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## INTRODUCTION

This Annual Report has been prepared for the Town of Tolland in compliance with the Connecticut Department of Energy & Environmental Protection (CT DEEP) General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4) (MS4 General Permit), effective July 1, 2017. This report documents the efforts of the Town of Tolland to comply with the conditions of the MS4 General Permit to the maximum extent practicable (MEP) for the period of January 1, 2017 to December 31, 2017.

In compliance with the MS4 General Permit, the Town of Tolland prepared and submitted to CT DEEP a General Permit Registration Form and a Stormwater Management Plan (SWMP). During the preparation of each, various references including the DEEP Environmental Conditions Online (ECO) maps and the 2014 State of Connecticut Integrated Water Quality Report (IWQR) were consulted. Following a review of the University of Connecticut (UConn) Nonpoint Education for Municipal Officials (NEMO) Program MS4 Map and the 2016 IWQR, some amendments to the registration and SWMP are required as follows.

- Bonemill Brook (waterbody ID 3100-03\_01 & 02), Gages Brook (waterbody ID 4503-01\_01) and Spice Brook (waterbody ID 3106-07\_01) were not included in the list of waterbodies present in town, but should have been. None of the waterbodies are listed as impaired in either the 2014 IWQR or 2016 IWQR.
- Charter Brook was included in the list of waterbodies present in town, but waterbody segment ID 4501-00\_1 was not included and should have been. This waterbody was listed as a Category 2 impaired water in the 2014 IWQR, and as such, did not need to be listed as an impaired waterbody in either the registration or the SWMP. This waterbody is still listed as a Category 2 impaired water in the 2016 IWQR.
- A table listing the waterbodies in town and a map showing them are attached.

Following a review of the MS4 General Permit, it appears that the registration and SWMP incorrectly stated that the Annual Report will be posted to the Town website annually by January 31. This date should be February 15.

The 2017 Annual Report for the Town of Tolland is presented on the following pages. Parts II and III are not included as they are not required until next year.

## PART I: SUMMARY OF MINIMUM CONTROL MEASURE ACTIVITIES

### 1. PUBLIC EDUCATION AND OUTREACH (Section 6 (a)(1) / page 19)

#### 1.1 BMP SUMMARY

BMP	Status	Activities in current reporting period	Measurable goal	Department responsible	Due	Completion date	Additional details
1-1 Implement public education and outreach	In progress	Stormwater Management Plan has been posted on Town website	SWMP posted to website	Public Works	July 1, 2018	July 1, 2018	Town website contains info regarding stormwater pollution prevention, a link to EPA Nonpoint Source Pollution webpage and a link to UConn NEMO webpage. Printed info available at town hall.
1-2 Address education/outreach for pollutants of concern	In progress	Stormwater Management Plan has been posted on Town website	SWMP posted to website	Public Works	July 1, 2018	July 1, 2018	Info regarding IDDE program will be posted to website.

#### 1.2 DESCRIBE ANY PUBLIC EDUCATION AND OUTREACH ACTIVITIES PLANNED FOR THE NEXT YEAR, IF APPLICABLE.

Town website will be further updated to include the following info:

- Links to EPA Stormwater Discharges from Municipal Sources website and the UConn NEMO Connecticut MS4 Guide
- Link to Annual Report
- Info regarding IDDE program will be posted to website. Once posted, a banner on website indicating new info will be added.

The Planning & Development Office will add information on best practices to its webpage.

#### 1.3 DETAILS OF ACTIVITIES IMPLEMENTED TO EDUCATE THE COMMUNITY ON STORMWATER

Program Element/Activity	Audience (and number of people reached)	Topic(s) covered	Pollutant of Concern addressed (if applicable)	Responsible dept. or partner org.
Hand-outs available at Planning & Development Office	General public	Rain gardens; Manure management	NA	Planning & Development

## 2. PUBLIC INVOLVEMENT/PARTICIPATION (Section 6(a)(2) / page 21)

### 2.1 BMP SUMMARY

BMP	Status	Activities in current reporting period	Measurable goal	Department responsible	Due	Completion date	Additional details
2-1 Comply with public notice requirements for the Stormwater Management Plan	Complete	Stormwater Management Plan has been posted on Town website	SWMP posted to website	Public Works	April 3, 2017	April 3, 2017	None
2-1 Comply with public notice requirements for Annual Reports	In progress	Annual Report has been posted on Town website	Annual Report posted to website	Public Works	Feb. 15, 2018	Feb. 26, 2018	After posting, a banner was added to website indicating new info.

### 2.2 DESCRIBE ANY PUBLIC INVOLVEMENT/PARTICIPATION ACTIVITIES PLANNED FOR THE NEXT YEAR, IF APPLICABLE.

Identify if any areas warrant a clean-up and coordinate such as necessary.

### 2.3 PUBLIC INVOLVEMENT/PARTICIPATION REPORTING METRICS

Metrics	Implemented	Date	Posted
Availability of the Stormwater Management Plan announced to public	Yes	4/15/17	Town website
Availability of Annual Report announced to public	Yes	2/26/18	Town website

### 3. ILLICIT DISCHARGE DETECTION AND ELIMINATION (Section 6(a)(3) and Appendix B / page 22)

#### 3.1 BMP SUMMARY

BMP	Status	Activities in current reporting period	Measurable goal	Department responsible	Due	Completion date	Additional details
3-1 Develop written IDDE program	In progress	Town is in process of completing written IDDE program using the CT IDDE program template	Develop written IDDE program	Public Works	July 1, 2018	July 1, 2018	Once complete, program will be posted to town website with a banner indicating new info added.
3-2 Develop list and maps of all MS4 stormwater outfalls in priority areas	In progress	Stormwater drainage lines and outfalls mapping completed	Develop list and map	Planning & Development	July 1, 2019	July 1, 2019	Map of Priority Areas has been developed using NEMO MS4 mapping tool
3-3 Implement citizen reporting program	In progress	Public Works investigates suspected illicit discharges.	Citizen reports logged and investigated	Public Works	July 1, 2017	July 1, 2017	No reports made in 2017
3-4 Establish legal authority to prohibit illicit discharges	Complete	Ordinance enforcement	Illicit discharges investigated and remediated	Public Works	July 1, 2018	July 1, 2017	
3-5 Develop record keeping system for IDDE tracking	Complete	Systems in place and functioning properly	Illicit discharges investigated, logged, tracked and remediated	Public Works	July 1, 2017	July 1, 2017	No reports made in 2017
3-6 Address IDDE in areas with pollutants of concern	In progress	IDDE complaints investigated, logged and tracked	Illicit discharges investigated, logged, tracked and remediated	Public Works	Not specified	In progress	No reports made in 2017
3-7 Household hazardous waste collection	In progress	Participation in Household Hazardous Waste Collection Day with partner towns	Household hazardous waste collected and recycled/ disposed	Public Works	Annually	Annually	

**3.2 DESCRIBE ANY IDDE ACTIVITIES PLANNED FOR THE NEXT YEAR, IF APPLICABLE.**

The written program will be posted to the Town website and a link listed in next year's Annual Report. The written IDDE program will be updated as needed throughout the term of the General Permit.

A master IDDE tracking spreadsheet will be maintained, and all employees involved in the IDDE program will be trained regarding the logging process.

**3.3 LIST OF CITIZEN REPORTS OF SUSPECTED ILLICIT DISCHARGES RECEIVED DURING THIS REPORTING PERIOD.**

Date of Report	Location / suspected source	Response taken
None		

**3.4 PROVIDE A RECORD OF ILLICIT DISCHARGES OCCURRING DURING THE REPORTING PERIOD AND SSOs OCCURRING JULY 2012 THROUGH END OF REPORTING PERIOD USING THE FOLLOWING TABLE.**

Location (Lat long/ street crossing /address and receiving water)	Date and duration of occurrence	Discharge to MS4 or surface water	Estimated volume discharged	Known or suspected cause / Responsible party	Corrective measures planned and completed (include dates)	Sampling data (if applicable)
None						

**3.5 BRIEFLY DESCRIBE THE METHOD USED TO TRACK ILLICIT DISCHARGE REPORTS, RESPONSES TO THOSE REPORTS AND WHO WAS RESPONSIBLE FOR TRACKING THIS INFORMATION.**

Reports of illicit discharges are received and investigated by the Department of Public Works. CMG Environmental is copied.

**3.6 PROVIDE A SUMMARY OF ACTIONS TAKEN TO ADDRESS SEPTIC FAILURES USING THE TABLE BELOW.**

Location and nature of structure with failing septic systems	Actions taken to respond to and address the failures	Impacted waterbody or watershed, if known
Dog kennel at 665 Old Stafford Rd. has no septic system, but should. Dog waste washed to ground.	Town issued NOV.	Brooks Brook

### 3.7 IDDE REPORTING METRICS

Metrics	
Estimated or actual number of MS4 outfalls	#
Estimated or actual number of interconnections	Unknown
Outfall mapping complete	100%
Interconnection mapping complete	0%
System-wide mapping complete (detailed MS4 infrastructure)	100%
Outfall assessment and priority ranking	0%
Dry weather screening of all High and Low priority outfalls complete	0%
Catchment investigations complete	10%
Estimated percentage of MS4 catchment area investigated	10%

### 3.8 BRIEFLY DESCRIBE THE IDDE TRAINING FOR EMPLOYEES INVOLVED IN CARRYING OUT IDDE TASKS INCLUDING WHAT TYPE OF TRAINING IS PROVIDED AND HOW OFTEN IS IT GIVEN (MINIMUM ONCE PER YEAR).

Annual training of Public Works and Parks Department employees on the following topics:

- MS4 General Permit
- SWMP and who has responsibility for implementation
- Discussion of IDDE, Post-Construction SW Management and Pollution Prevention / Good Housekeeping MCMs and what Town is required to do under each

#### 4. CONSTRUCTION SITE RUNOFF CONTROL (Section 6(a)(4) / page 25)

##### 4.1 BMP SUMMARY

BMP	Status	Activities in current reporting period	Measurable goal	Department responsible	Due	Completion date	Additional details
4-1 Implement, upgrade and enforce land use regulations or other legal authority to meet requirements of MS4 General Permit	In progress	<ul style="list-style-type: none"> <li>Review by consulting engineer for development that entails new drainage systems</li> <li>Pre-construction meetings of all projects requiring E&amp;S</li> <li>Implemented inspection tracking</li> <li>Inspections of 20 sites for E&amp;S compliance</li> <li>Tolland requires E&amp;S for ½ acre or more of disturbance</li> <li>Implement LID regulations</li> <li>Staff training</li> </ul>	Have clear, concise and enforceable regulations	Planning & Development; Planning & Zoning Commission; Inland Wetlands Commission	July 1, 2019	On-going	Pre-construction meetings have substantially reduced issues of non-compliance with E&S regulations
4-2 Develop/implement plan for interdepartmental coordination in site plan review and approval	Complete	Ongoing interdepartmental coordination	Gather all relevant expertise during plan review and convey to applicant in a timely manner	Planning & Development	July 1, 2017	July 1, 2017	3 staff members, 2 commissions and consulting engineer responsible for reviewing some or all permits for land disturbances and stormwater discharge. Planning & Development is the lead entity. Director of Planning & Development refers applications to Consulting Engineer and Director of Public Works as needed. Comments are transmitted to applicant and, as necessary, the applicable commission. Being a small town, it is a straight-forward and simple process that has worked well. For larger projects, team meetings are held which may also include the Building Official, Fire Marshal, Director of Public Safety and others.



BMP	Status	Activities in current reporting period	Measurable goal	Department responsible	Due	Completion date	Additional details
4-3 Review site plans for stormwater quality concerns	In progress	Per BMP 4-2, staff reviews all site plans with disturbance of ½ acre or more and all site plan, special permit, & wetland permit applications.	Ensure stormwater management is properly designed to avoid issues post-construction	Planning & Development	July 1, 2017	July 1, 2017	Consulting engineer reviews plans when required. See BMP 4-2.
4-4 Conduct site inspections	In progress	20 site inspections	Ensure compliance; identify potential problems before they worsen	Planning & Development	July 1, 2017	July 1, 2017	Site inspections for E&S compliance.
4-5 Implement procedure to allow public comment on site development	Complete	Public hearings with local land use commissions; applications posted to town website; website asks public to notify staff if questions about disturbances	Obtain information on issues from those who live near a site	Planning & Development	July 1, 2017	Most completed before July 1, 2017; web language was added before Dec. 31, 2017	Web page for Zoning and Wetlands alerts public to contact staff if they have a question about land disturbances.
4-6 Implement procedure to notify developers about DEEP Construction Stormwater General Permit	Complete	Flyer added to website and posted in Planning & Development Office.	Ensure landowners understand their obligations	Planning & Development	July 1, 2017	Dec. 31, 2017	

**4.2 DESCRIBE ANY CONSTRUCTION SITE RUNOFF CONTROL ACTIVITIES PLANNED FOR THE NEXT YEAR, IF APPLICABLE.**

E&S and stormwater requirements are found in multiple documents. Planning & Development has a Scope or Work from its consulting engineer to consolidate into one document for ease of use and implementation. We expect to begin this in 2018.

## 5. POST-CONSTRUCTION STORMWATER MANAGEMENT (Section 6(a)(5) / page 27)

### 5.1 BMP SUMMARY

BMP	Status	Activities in current reporting period	Measurable goal	Department responsible	Due	Completion date	Additional details
5-1 Establish and/or update legal authority and guidelines regarding LID and runoff reduction in site development planning.	In progress	Initial discussions with town attorney regarding post-construction inspections of privately owned facilities.	Implement LID (completed); Determine post-construction inspection legal authority	Planning & Development	July 1, 2021	July 1, 2021	Town adopted LID regulations, with revisions to 2011.
5-2 Enforce LID/runoff reduction requirements for development and redevelopment projects.	In progress	Begun examining new requirements.	Adopt updated regulations and ordinances to implement	Planning & Development; Town Council	July 1, 2019	July 1, 2019	As noted, Town has LID. Have not yet updated to meet new requirements.
5-3 Identify retention and detention ponds in priority areas.	In progress	Staff has mapped drainage basins.	Have an up-to-date map showing public and private drainage basins	Public Works; Planning & Development	July 1, 2019	July 1, 2019	Mapped drainage basins using air photos.
5-4 Implement long-term maintenance plan for stormwater basins and treatment structures.	In progress		Develop and implement long-term maintenance plan.	Public Works	July 1, 2019	July 1, 2019	
5-5 DCIA mapping.	In progress	Town is in process of completing IDDE program including DCIA calculations.	Perform calculations and complete mapping.	Planning & Development	July 1, 2020	July 1, 2020	Map developed using NEMO MS4 mapping tool
5-6 Address post-construction issues in areas with pollutants of concern.	In progress		Post-construction issues will be identified and addressed.	Engineering; Planning & Development; Public Works	Not specified		

**5.2 DESCRIBE ANY POST-CONSTRUCTION STORMWATER MANAGEMENT ACTIVITIES PLANNED FOR THE NEXT YEAR, IF APPLICABLE.**

Determine approach to post-construction inspections of private drainage facilities.

For new private drainage facilities, require a maintenance plan to be submitted and signed by applicant, providing Town with ability to conduct periodic inspections. Must be a separate document (i.e., not buried in notes on a plan).

Begin drafting any regulatory language that is needed to implement these requirements.

Finalize mapping of drainage facilities, determining which are public and which are private.

**5.3 POST-CONSTRUCTION STORMWATER MANAGEMENT REPORTING METRICS**

Metrics	
Baseline (2012) Directly Connected Impervious Area (DCIA)	acres
DCIA disconnected (redevelopment plus retrofits)	acres this year / acres total
Retrofits completed	#
DCIA disconnected	% this year / % total since 2012
Estimated cost of retrofits	\$
Detention or retention ponds identified	# this year /# total

**5.4 BRIEFLY DESCRIBE THE METHOD TO BE USED TO DETERMINE BASELINE DCIA.**

Consultation of MS4 map on UConn NEMO website.

6. POLLUTION PREVENTION/GOOD HOUSEKEEPING (Section 6(a)(6) / page 31)

6.1 BMP SUMMARY

BMP	Status	Activities in current reporting period	Measurable goal	Department responsible	Due	Completion date	Additional details
6-1 Develop/implement formal employee training program.	In progress	Training program has been established and implemented	Training performed	Public Works	July 1, 2017		
6-2 Implement MS4 property and operations maintenance.	In progress	Town optimizes fertilizer application, properly manages grass clippings and leaves and buildings, vehicles and equipment are properly maintained	Continued program implementation	Public Works	July 1, 2018	July 1, 2018	
6-3 Implement coordination with interconnected MS4s.	In progress		Town will coordinate with interconnected MS4s as necessary	Public Works	Not specified		
6-4 Develop/implement program to control other sources of pollutants to the MS4.	In progress		Program will be developed and implemented as necessary	Public Works	Not specified		
6-5 Evaluate additional measures for discharges to impaired waters.	In progress		Discharges will be evaluated as necessary	Public Works	Not specified		
6-6 Track projects that disconnect DCIA.	In progress	No known disconnections in 2017	Projects will be tracked	Public Works; Planning & Development	July 1, 2017	July 1, 2017	
6-7 Implement infrastructure repair/rehab program.	In progress		Program will continue to be implemented	Public Works	July 1, 2021	July 1, 2021	
6-8 Develop/implement plan to identify/prioritize retrofit projects.	In progress		Projects will be identified and prioritized	Public Works	July 1, 2020	July 1, 2020	

BMP	Status	Activities in current reporting period	Measurable goal	Department responsible	Due	Completion date	Additional details
6-9 Implement retrofit projects to disconnect 2% of DCIA.			Projects will be implemented	Public Works	July 1, 2022	July 1, 2022	
6-10 Develop/implement street sweeping program.	In progress	Streets and parking lots in Priority Areas are inspected annually and swept as needed	Program will continue to be implemented	Public Works	July 1, 2017	July 1, 2017	123 miles of Town streets swept
6-11 Develop/implement catch basin cleaning program.	In progress	Catch basins routinely inspected and cleaned as necessary	Program will continue to be implemented	Public Works	July 1, 2020	July 1, 2020	Approx. 60 catch basins cleaned. Roadside leaf cleanup conducted to ensure unimpeded SW flow
6-12 Develop/implement snow management practices.	In progress	Snow and de-icing agents are properly managed	Program will continue to be implemented	Public Works	July 1, 2018	July 1, 2018	

**6.2 DESCRIBE ANY POLLUTION PREVENTION/GOOD HOUSEKEEPING ACTIVITIES PLANNED FOR THE NEXT YEAR, IF APPLICABLE.**

None other than continuation of those listed above.

### 6.3 POLLUTION PREVENTION/ GOOD HOUSEKEEPING REPORTING METRICS

Metrics	
Employee training provided for key staff	2018
Street sweeping	
Curb miles swept	123 miles
Volume (or mass) of material collected	lbs or tons
Catch basin cleaning	
Total catch basins in priority areas	0
Total catch basins in MS4	0
Catch basins inspected	0
Catch basins cleaned	60
Volume (or mass) of material removed from all catch basins	35 tons
Volume removed from catch basins to impaired waters (if known)	0 tons
Snow management	
Type(s) of deicing material used	MgCl <sub>2</sub> treated salt
Total amount of each deicing material applied	2,700 tons
Type(s) of deicing equipment used	Truck spreaders
Lane-miles treated	123 miles
Snow disposal location	Right of way
Staff training provided on application methods & equipment	Oct. 2017
Municipal turf management program actions (for permittee properties in basins with N/P impairments)	
Reduction in application of fertilizers (since start of permit)	lbs or %
Reduction in turf area (since start of permit)	acres
Lands with high potential to contribute bacteria (dog parks, parks with open water, & sites with failing septic systems)	
Cost of mitigation actions/retrofits	\$

### 6.4 CATCH BASIN CLEANING PROGRAM

<b>Briefly describe the method used to optimize your catch basin inspection and cleaning schedule. [Complete this section for the 2017 Annual Report only]</b>
Visual inspection as part of road maintenance program. Cleaning on an as-needed basis.

## 6.5 RETROFIT PROGRAM

Briefly describe the Retrofit Program identification and prioritization process, the projects selected for implementation, the rationale for the selection of those projects and the total DCIA to be disconnected upon completion of each project. [\[Provide information if available in 2017 report. Section to be completed for the 2019 Annual Report.\]](#)

Information not available.

Describe plans for continuing the Retrofit program and how to achieve a goal of 1% DCIA disconnection in future years. [\[Provide information if available in 2017 report. Section to be completed for the 2019 Annual Report.\]](#)

Information not available.

Describe plans for continuing the Retrofit program beyond this permit term with the goal to disconnect 1% DCIA annually over the next 5 years. [\[Provide information if available in 2017 report. Section to be completed for the 2019 Annual Report.\]](#)

Information not available.

## PART IV: CERTIFICATION

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

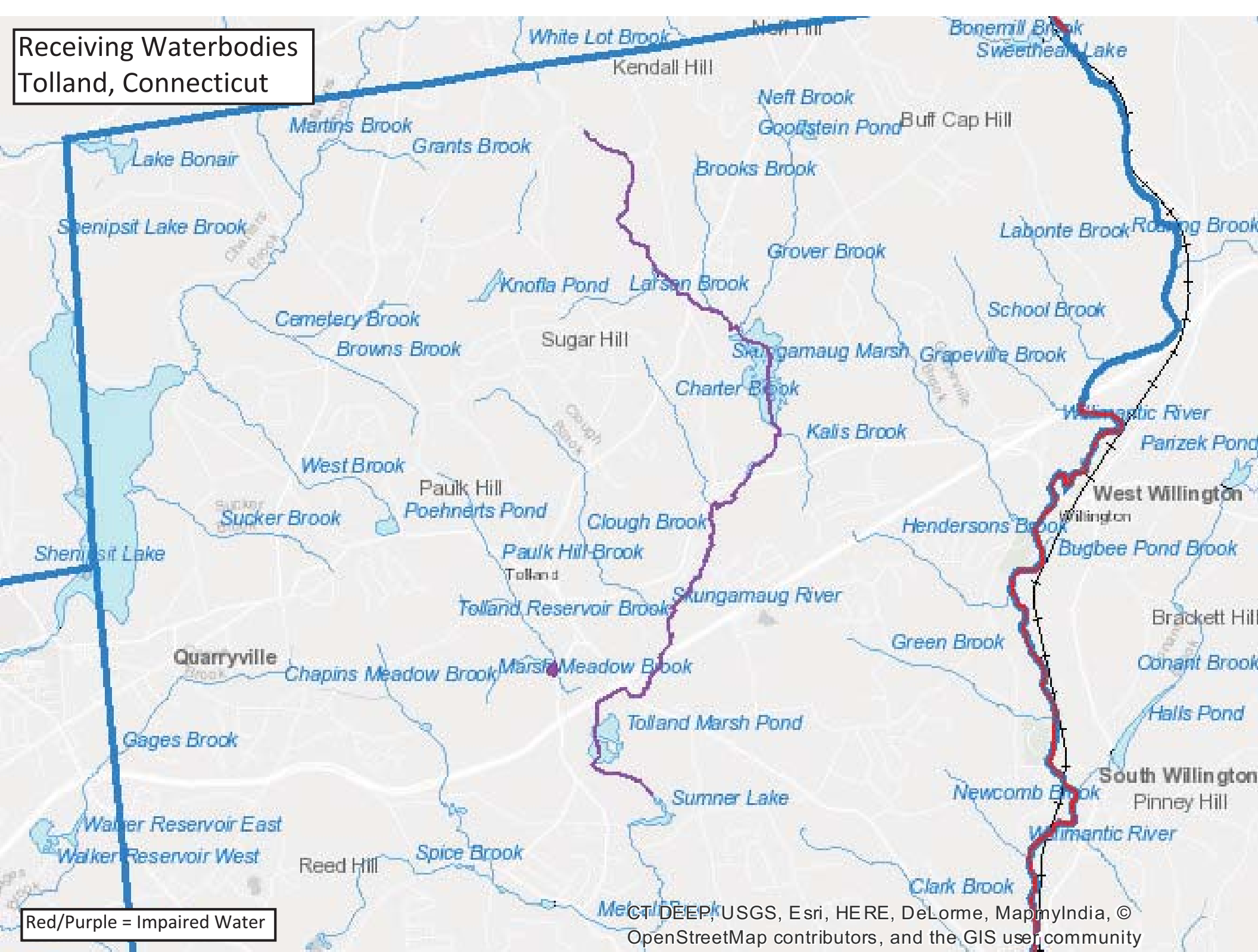
Chief Elected Official or Principal Executive Officer:	Document Prepared by:
Print name	Print name
Steven Werbner, Town Manager	Matthew Reiser, CMG Environmental, Inc.
Signature / Date	Signature / Date
	 3-26-18



**Receiving Waterbodies  
Tolland, Connecticut**

<b>Receiving Waterbody <sup>(1)</sup></b>	<b>Included in Registration?</b>	<b>Should Have Been Included in Registration?</b>	<b>Listed as Impaired in 2014 IWQR? <sup>(2)</sup></b>	<b>Listed as Impaired in 2016 IWQR?</b>
Bonemill Brook (3100-03_01 & 02)	No	Yes	No	No
Charter Brook (4501-00_01)	No	Yes	Yes (Category 2)	Yes (Category 2)
Gages Brook (4503-01_01)	No	Yes	No	No
Skungamaug River (3106-00_01)	Yes	Yes	Yes (Category 5)	Yes (Category 5)
Spice Brook (3106-07_01)	No	Yes	No	No
Willimantic River (3100-00_03)	Yes	Yes	Yes (Category 5)	Yes (Category 5)
<b>Note:</b> 1. Refer to attached map of receiving waterbodies in town. As a note, not all waterbodies listed on map are assessed in 2014 or 2016 IWQR. As such, only assessed waterbodies are included in this table. 2. Per CT DEEP, only Category 4 or 5 Impaired Waters were to be identified as impaired in the Registration and SWMP.				

Receiving Waterbodies  
Tolland, Connecticut



Red/Purple = Impaired Water