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SERVICES



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## 2017 ANNUAL REPORT

TOWN OF AVON  
60 WEST MAIN STREET  
AVON, CONNECTICUT

2017 MS4 GENERAL PERMIT  
EXISTING PERMITTEE  
PERMIT NUMBER GSM000044

FEBRUARY 2018

PREPARED FOR:

TOWN OF AVON  
60 WEST MAIN STREET  
AVON, CONNECTICUT 06001

PREPARED BY:

CMG ENVIRONMENTAL, INC.  
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## INTRODUCTION

This Annual Report has been prepared for the Town of Avon 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 Avon 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 Avon 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.

- Chidsey Brook (waterbody ID 4306-01\_01) and Hawley Brook (waterbody ID 4300-19\_01) were not included in the list of waterbodies present in town, but should have been. Neither waterbody is listed as impaired in either the 2014 IWQR or 2016 IWQR.
- The Farmington River was included in the list of waterbodies present in town, but waterbody segment ID 4300-00\_02 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.
- Nod Brook (waterbody ID 4317-00\_01) was correctly included in the list of waterbodies present in town. This waterbody was listed as a Category 4a impaired water in the 2014 IWQR, but is listed as a Category 2 impaired water in the 2016 IWQR, and as such, no longer needs to be listed as an impaired waterbody.
- 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 Avon 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 with a link to CT DEEP website for more MS4 General Permit information	SWMP posted to website	Public Works	July 1, 2018	July 1, 2018	Town website will be further updated to include additional links and printed info will be provided in public library. Town continues to support Farmington River Watershed Assoc. in its efforts to designate Lower Farmington River/ Salmon Brook as "Wild and Scenic".
1-2 Address education/outreach for pollutants of concern	In progress	Stormwater Management Plan has been posted on Town website with a link to CT DEEP website for more MS4 General Permit information	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.

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

<b>Program Element/Activity</b>	<b>Audience (and number of people reached)</b>	<b>Topic(s) covered</b>	<b>Pollutant of Concern addressed (if applicable)</b>	<b>Responsible dept. or partner org.</b>
Information available on DPW page of Town website.	General public	MS4 General Permit	NA	Public Works
Literature is available in Town Hall and the public library.	General public	Stormwater pollution prevention and waste minimization	NA	Public Works
Erosion is discussed during Physical Sciences class in schools.	Students in grades K thru 5	How water changes the slope of land	NA	Education

## 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. 15, 2018	After posting, a banner was added to website indicating new info.
2-2 Promote community stormwater management efforts	In progress	The Secret Lake community conducts annual harvesting of weeds from lake. The Farmington Valley Academy Montessori removed invasive plants along the Farmington River. The Farmington River Watershed Assoc. removed invasive plants from Fisher Meadows. Annual Rails to Trails cleanup by Farmington Valley Trails Council. Posting of Carry In/ Carry Out signs in all Avon parks by Farmington River/ Salmon Brook Assoc. Tagged geese banned from Fisher Meadow Spring Lake by DEEP. Avon Old Farms (AOF) School students in outdoor club clean up streams around campus regularly. AOF seniors clean up roadways on Community Service Day in April.	Events conducted throughout year	Planning & Community Development; Recreation and Parks; Avon Old Farms School	Annually	In progress	

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

Continuation of community stormwater management efforts listed above.

**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	2/15/18	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	Application for use in field to capture outfall locations developed	Develop list and map	Engineering	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. Drainage complaints are handled by Engineering. The Fire Marshal and Fire Inspector also conduct illicit discharge inspections.	Citizen reports logged and investigated	Engineering; Public Works	July 1, 2017	July 1, 2017	
3-4 Establish legal authority to prohibit illicit discharges	Complete	Ordinance enforcement	Illicit discharges investigated and remediated	Planning & Community Development	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	Engineering; Public Works	July 1, 2017	July 1, 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	Engineering; Public Works	Not specified	In progress	
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 Departments of Public Works and Engineering.

**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
System replaced at 77 Burnham Rd. due to "age/run back".	New tank and leaching fields installed.	Chidsey Brook
System replaced at 140 Huckleberry Hill Rd. due to "back up and break out".	New tank and leaching fields installed	Hawley Brook
"Sewage to surface in backyard" at 211 Burnham Rd.	Evaluation completed; no repair work yet.	Chidsey Brook
"Puddling/flooding" at 129 Juniper Dr.	Soil tests conducted with PE; no plan yet.	Roaring Brook



### 3.7 IDDE REPORTING METRICS

Metrics	
Estimated or actual number of MS4 outfalls	~430
Estimated or actual number of interconnections	Unknown
Outfall mapping complete	80%
Interconnection mapping complete	0%
System-wide mapping complete (detailed MS4 infrastructure)	60%
Outfall assessment and priority ranking	0%
Dry weather screening of all High and Low priority outfalls complete	0
Catchment investigations complete	0
Estimated percentage of MS4 catchment area investigated	0%

### 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 Department of Public Works 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	Inspection of construction sites and issuance of notices of violation or stop work orders	Regulations enforcement	Engineering; Planning & Community Development	July 1, 2019	July 1, 2019	Approx. 50 construction sites inspected. Approx. 4 NOVs issued for E&SC issues. Several inspections conducted following significant rainfall events.
4-2 Develop/implement plan for interdepartmental coordination in site plan review and approval	In progress	Engineering, Planning and Wetlands/Zoning Depts. involved in review, permitting and approval of land disturbance projects as necessary	Continued inter-departmental site plan review and approval	Engineering; Planning & Community Development	July 1, 2017	July 1, 2017	
4-3 Review site plans for stormwater quality concerns	In progress	Town conducts plan reviews and inspections of projects disturbing 1 or more acres	Continued review of site plans for stormwater quality concerns	Engineering; Planning & Community Development	July 1, 2017	July 1, 2017	Site inspections are to assess adequacy of installation, maintenance, operation and repair of construction and post-construction control measures
4-4 Conduct site inspections	In progress	Inspection of construction sites and issuance of notices of violation or stop work orders	Inspections conducted	Engineering; Planning & Community Development	July 1, 2017	July 1, 2017	Approx. 50 construction sites inspected. Approx. 4 NOVs issued for E&SC issues. Several inspections conducted following significant rainfall events. Projects $\geq 5$ acres are required to submit weekly reports of E&SC progress.
4-5 Implement procedure to allow public comment on site development	In progress	Hearings and/or public hearings with local land use commissions	Public comment solicited and received	Planning & Community Development	July 1, 2017	July 1, 2017	
4-6 Implement procedure to notify developers about DEEP Construction Stormwater General Permit	In progress	Wetlands Dept. notifies developers and contractors of regulation if projects disturbing 1 or more acres	Continued notification of developers of regulation	Planning & Community Development	July 1, 2017	July 1, 2017	

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

None other than continuation of those listed above.
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## 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	Minor changes to Floodplain and Zoning Regulations	Continued implementation and upgrade of regulations	Planning & Community Development	July 1, 2021	July 1, 2021	Approx. 50 construction sites inspected. Approx. 4 NOVs issued for E&SC issues. Several inspections conducted following significant rainfall events.
5-2 Enforce LID/runoff reduction requirements for development and redevelopment projects.	In progress	Inspection of construction sites and issuance of notices of violation or stop work orders	Continued enforcement of regulations	Engineering; Planning & Community Development	July 1, 2019	July 1, 2019	Approx. 50 construction sites inspected. Approx. 4 NOVs issued for E&SC issues. Several inspections conducted following significant rainfall events.
5-3 Identify retention and detention ponds in priority areas.	In progress		Develop list of retention and detention ponds.	Engineering; Public Works	July 1, 2019	July 1, 2019	
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.	Engineering	July 1, 2020	July 1, 2020	
5-6 Address post-construction issues in areas with pollutants of concern.	In progress		Post-construction issues will be identified and addressed.	Engineering; Planning & Community Development; Public Works	Not specified		

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

None other than continuation of those listed above.

**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 will be 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, manages pet waste and waterfowl, 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		Projects will be tracked	Public Works	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 and swept annually in spring	Program will continue to be implemented	Public Works	July 1, 2017	July 1, 2017	
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	
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	220 miles
Volume (or mass) of material collected	Unknown
Catch basin cleaning	
Total catch basins in priority areas	Unknown
Total catch basins in MS4	~4,500
Catch basins inspected	~2,600
Catch basins cleaned	~2,600
Volume (or mass) of material removed from all catch basins	Unknown
Volume removed from catch basins to impaired waters (if known)	Unknown
Snow management	
Type(s) of deicing material used	Treated salt
Total amount of each deicing material applied	Unknown
Type(s) of deicing equipment used	Truck spreaders
Lane-miles treated	220 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)	Unknown
Reduction in turf area (since start of permit)	Unknown
Lands with high potential to contribute bacteria (dog parks, parks with open water, & sites with failing septic systems)	
Cost of mitigation actions/retrofits	\$650

### 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. Approximately half of all catch basins are cleaned annually, with other half cleaned the following year.



#### 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.

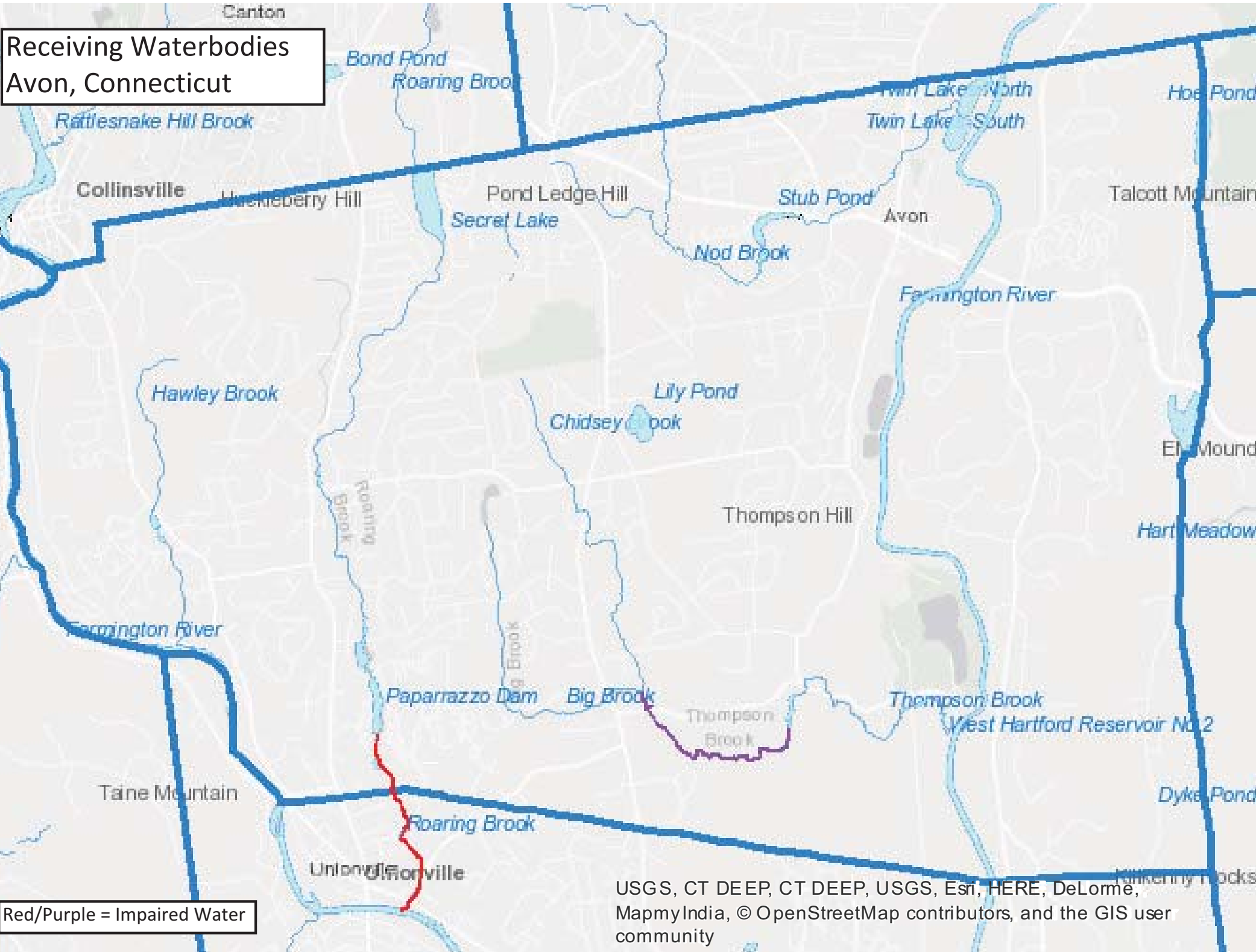
## PART IV: CERTIFICATION

<p>"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."</p>	
<p>Chief Elected Official or Principal Executive Officer:</p>	<p>Document Prepared by:</p>
<p>Print name</p>	<p>Print name</p>
<p>Brandon Robertson, Town Manager</p>	<p>Matthew Reiser, CMG Environmental, Inc.</p>
<p>Signature / Date</p>	<p>Signature / Date</p>
<p><i>Brandon Robertson</i> 3/27/2018</p>	<p><i>Matthew Reiser</i> 3-26-18</p>

**Receiving Waterbodies  
Avon, 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>
Chidsey Brook (4306-01_01)	No	Yes	No	No
Farmington River (4300-00_02)	Yes	Yes	Yes (Category 2)	Yes (Category 2)
Hawley Brook (4300-19_01)	No	Yes	No	No
Nod Brook (4317-00_01)	Yes	Yes	Yes (Category 4a)	No (Category 2)
Roaring Brook (4312-00_01)	Yes	Yes	Yes (Category 4a)	Yes (Category 4a)
Thompson Brook (4316-00_02)	Yes	Yes	Yes (Category 4a)	Yes (Category 4a)
<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 Avon, Connecticut



USGS, CT DEEP, CT DEEP, USGS, Esri, HERE, DeLorme,  
MapmyIndia, © OpenStreetMap contributors, and the GIS user  
community