

Town of Holden Small Municipal Separate Storm Sewer Systems (2016 small MS4 permit)



Update of the Stormwater Management Plan (SWMP)

Presented by

The Holden DPW

October 5, 2020



Holden has developed a Stormwater Management Program (SWMP) to meet the terms and requirements of the MS4 Permit, submitted to the USEPA and MassDEP on June 28, 2019.

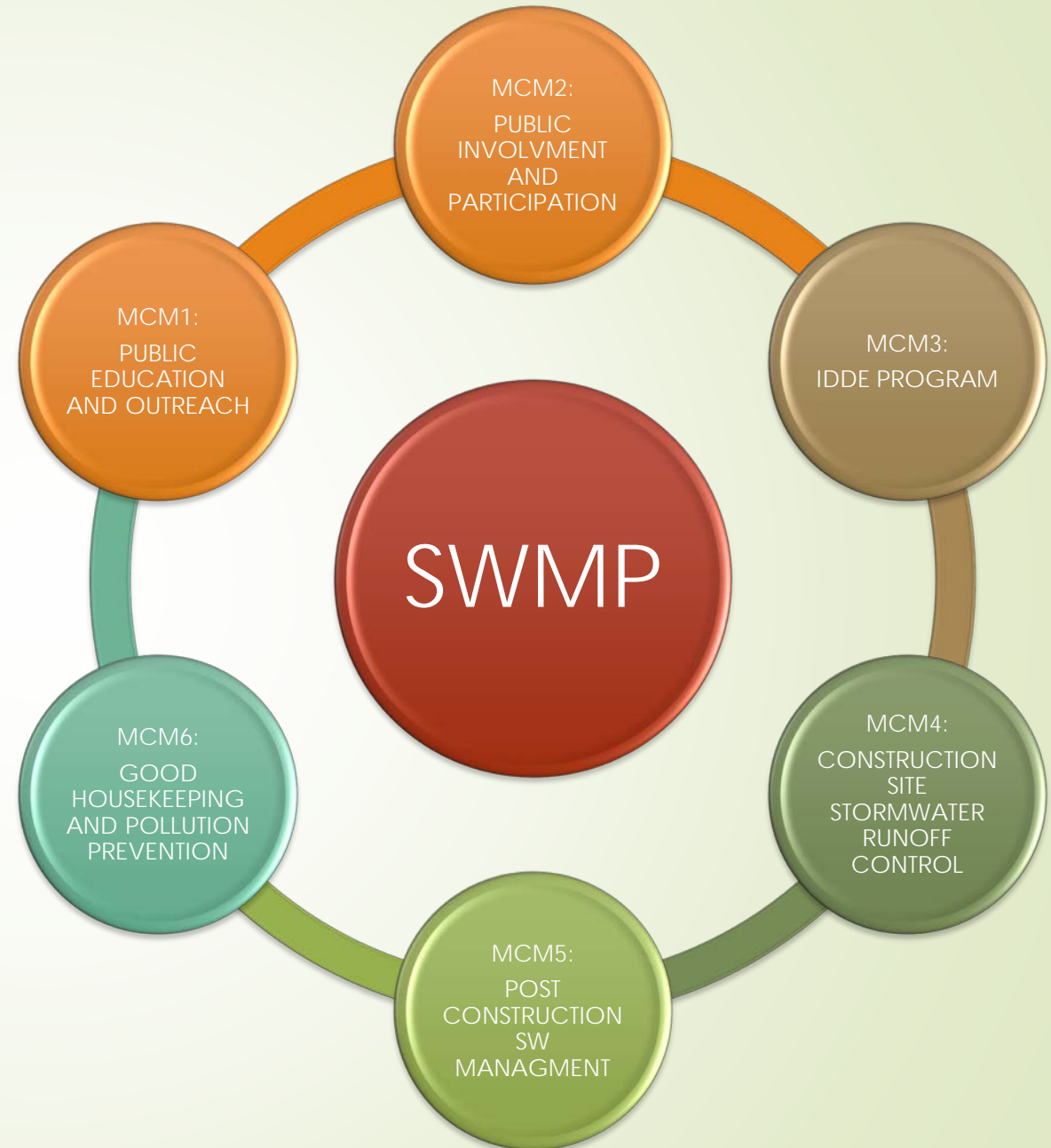
The SWMP Plan is fluid. Each Year, new requirements are achieved and the SWMP is updated accordingly

MS4 Year 2 Annual Report

- Reporting Period July 1, 2019 – June 30, 2020
- Submitted to EPA and DEP on September 24, 2020
- All Year 2 requirements have been met

Review of the SWMP

- 6 Minimum Control Measures (MCMs) are targeted annually
- MCMs are achieved using Best Management Practices (BMPs), and detailed in the SWMP.
- Annual report summarizes the BMP goals that were achieved for each MCM
- Holden has exceeded the original number of planned Best Management Practices (BMPs) for each Minimum Control Measure (MCM)

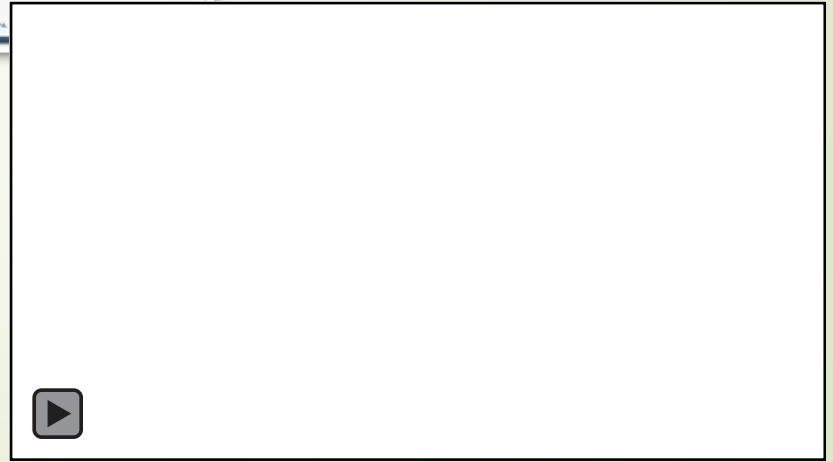
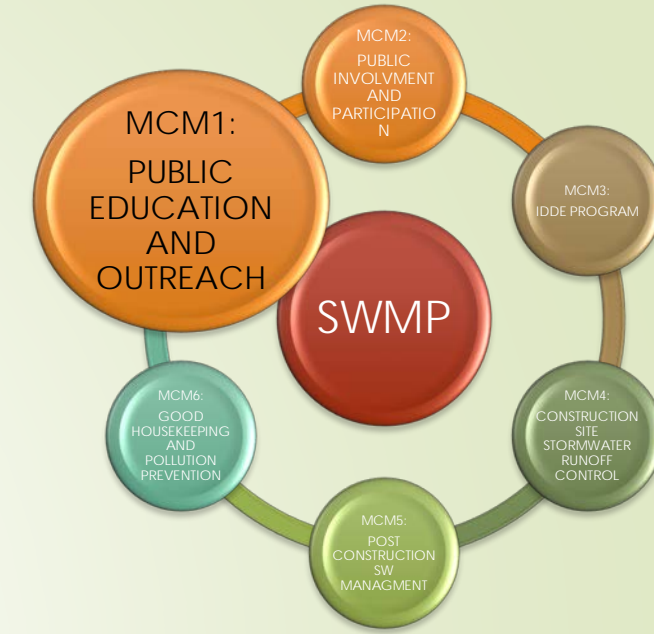




Quick update on the Year 2 MCM Achievements

MCM1: Public Education and Outreach

- Objective – Implement an educational program that includes goals to educate the public on SW issues.
- Ultimate objective is to increase knowledge and change behavior of the public to reduce SW pollution
- ❖ 9 Educational messages to the public were completed (2 were originally expected)
 - ❖ Flyers on Town of Holden Website:
<https://www.holdenma.gov/departments-public-works/stormwater-information>
 - ❖ Fowl Water Ad - Over 50,000 impressions tracked for the CMRSC
 - ❖ Think Blue Massachusetts Campaign shared posts on Facebook
 - ❖ Proper lawn maintenance
 - ❖ Scope the Poop
 - ❖ Annual septic maintenance message
 - ❖ Salt usage for de-icing
- ❖ With the help of the Town Clerk, the DPW mailed out “Scoop Your Poop” brochures to all residents with dog licenses.
 - ❖ 1,300 were distributed



MCM2: Public Involvement and Participation

Objective – Provide Opportunities to engage public participation in the review and implementation of the SWMP

- ❖ Held the first Annual SWMP Public Meeting during the BOS meeting last August, 2019
- ❖ A copy of the SWMP is posted on the Town Website for public comments and questions
- ❖ Holden Truck Day (July 25, 2019)
- ❖ Holden Days (August 24, 2019)
- ❖ As a result of the COVID-19 pandemic, The Town of Holden and CMRSWC halted participation in public events for 2020

Stormwater Management Program (SWMP)

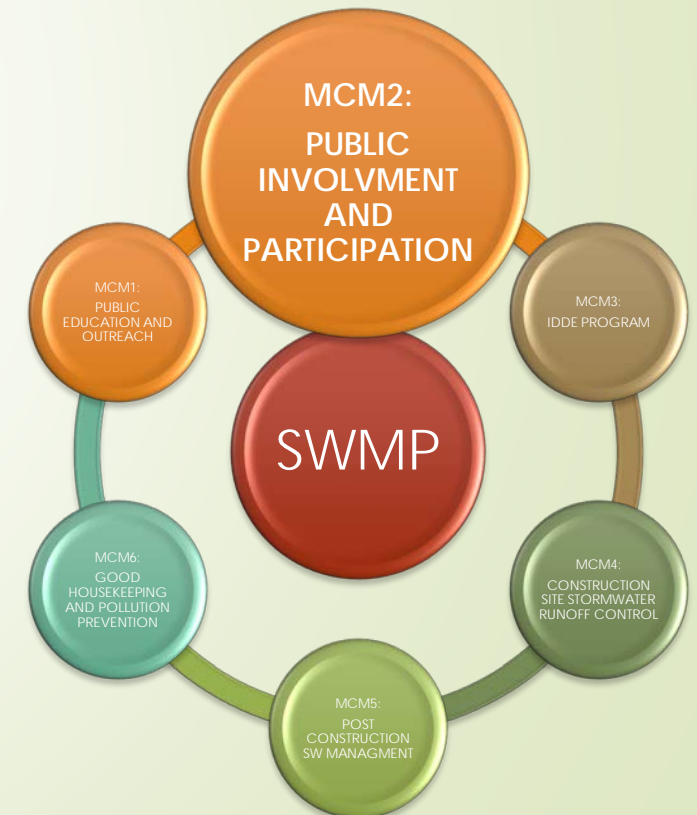
The Town has developed a SWMP under the requirements of the 2016 EPA's National Pollutant Discharge Elimination System (NPDES) Small Municipal Separate Storm Sewer System (MS4) General Permit.

[The SWMP is available here.](#)

[Click Here to submit a comment on the SWMP.](#)

Taken from the DPW Stormwater Page

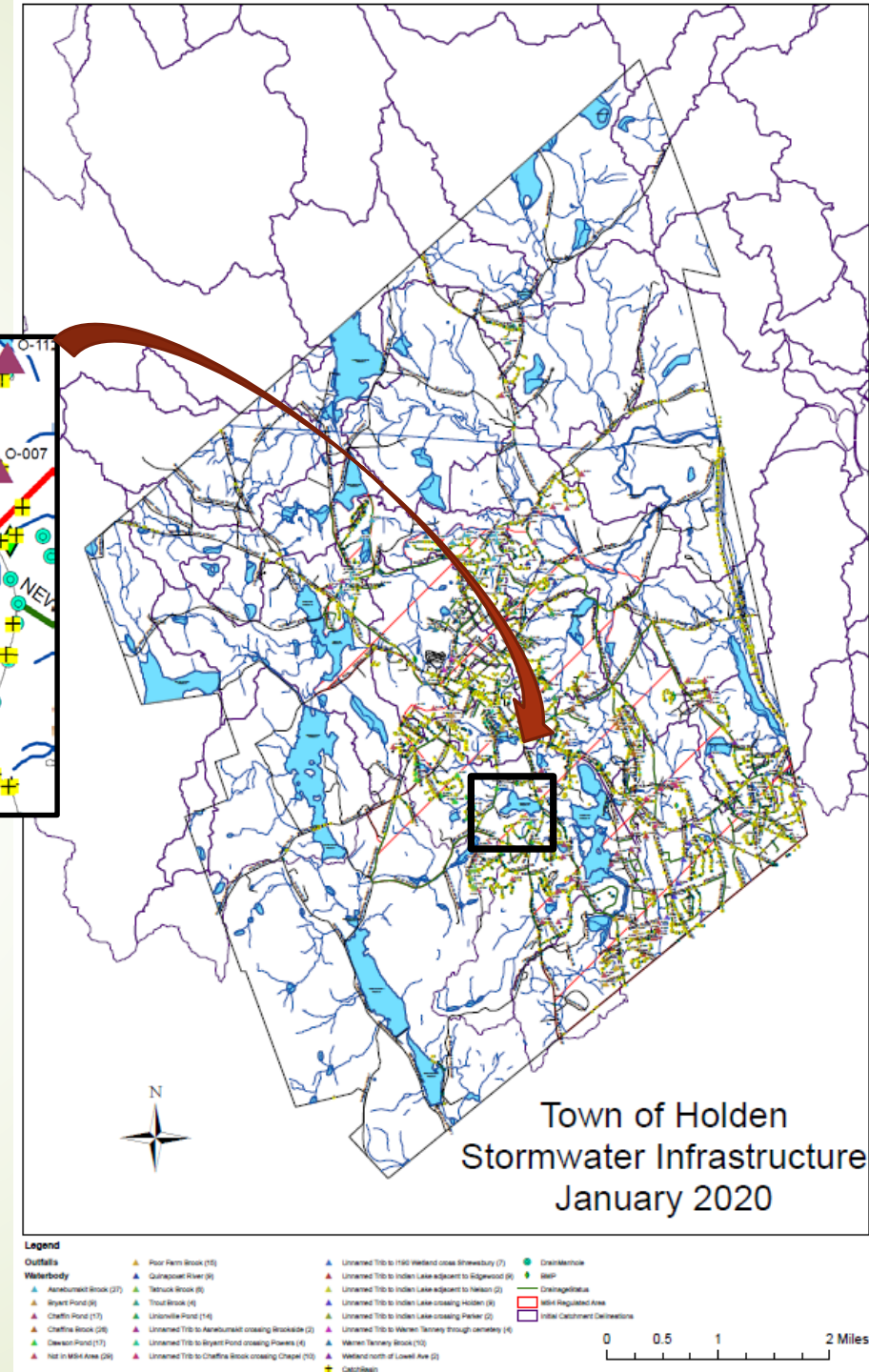
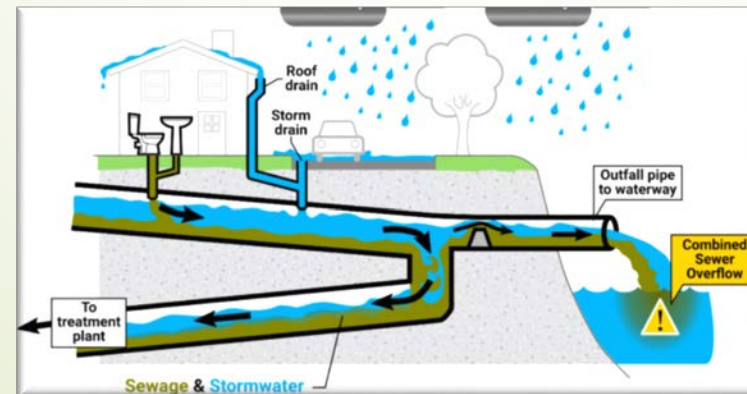
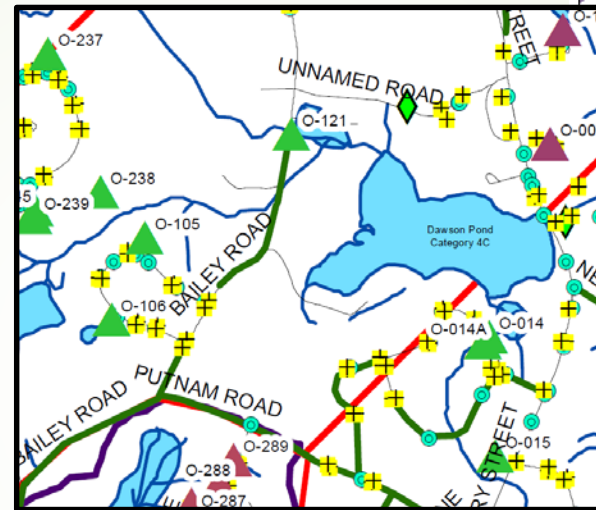
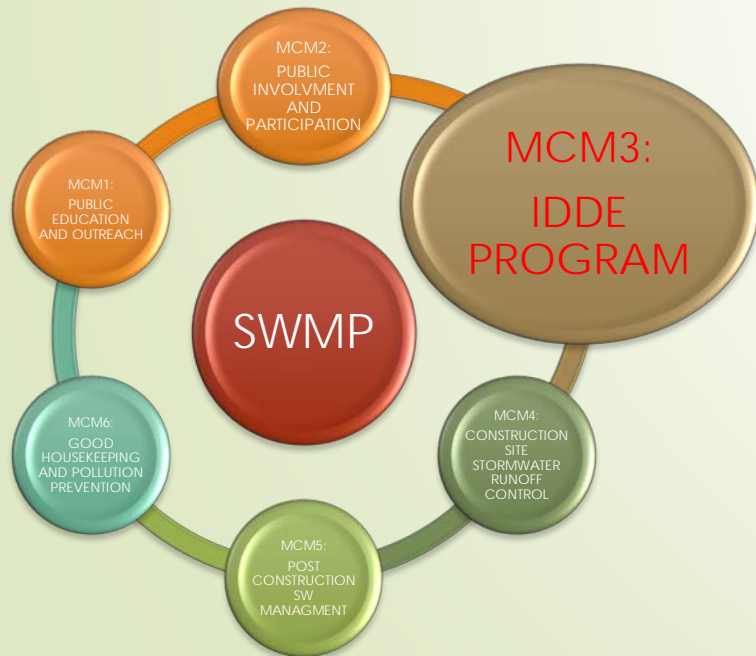
<https://www.holdenma.gov/departments-of-public-works/pages/stormwater-information>



MCM3: Illicit Discharge and Detection Elimination (IDDE) Program

Objective –Implement IDDE Program to systematically find and eliminate illicit discharges

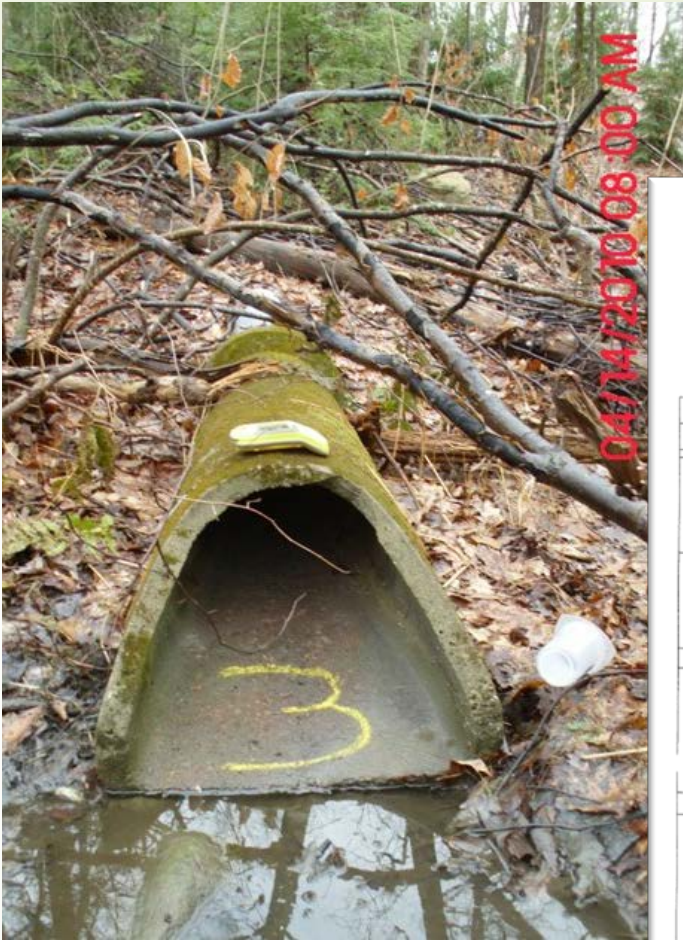
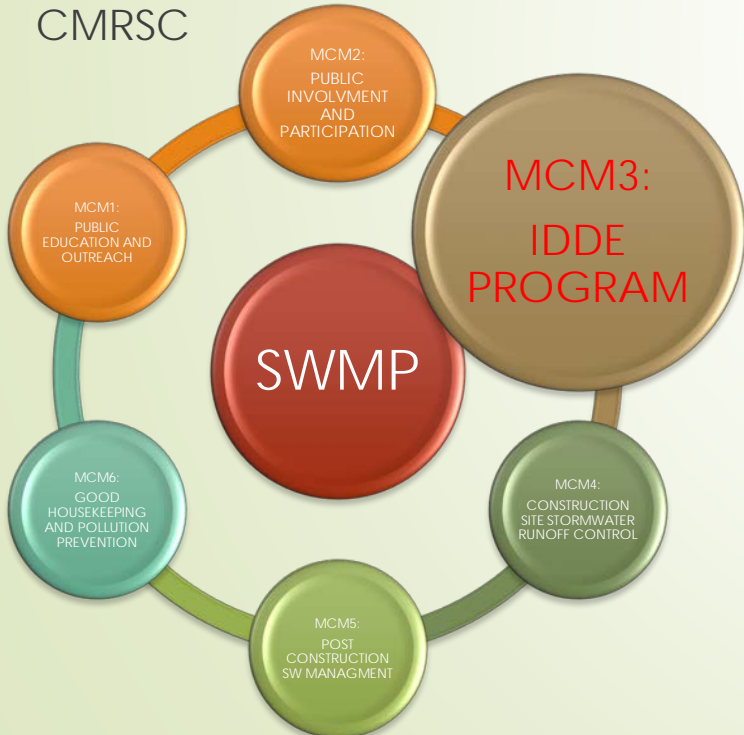
- ❖ No Sanitary Sewer Overflows (SSOs) found this reporting period
 - ❖ 9 SSOs since 2007
- ❖ Phase I Mapping completed
 - ❖ Outfalls
 - ❖ Open Channels
 - ❖ Municipally-owned SW treatment structures
 - ❖ Waterbodies Identified by name and impairments
 - ❖ Initial catchment areas were delineated with information from DCR



MCM3: Illicit Discharge and Detection Elimination (IDDE) Program

(Cont.)

- ❖ Outfall Screening – To date ~83% of known outfalls have been screened
- ❖ IDDE trainings were held on April 24, 2020 online
 - ❖ Presented by Fuss and O'Neil through the CMRSC



Outfall ID: _____ Town: _____
Inspector: _____ Date: _____
Street Name: _____
Last rainfall event: _____

DRY WEATHER OUTFALL INSPECTION SURVEY

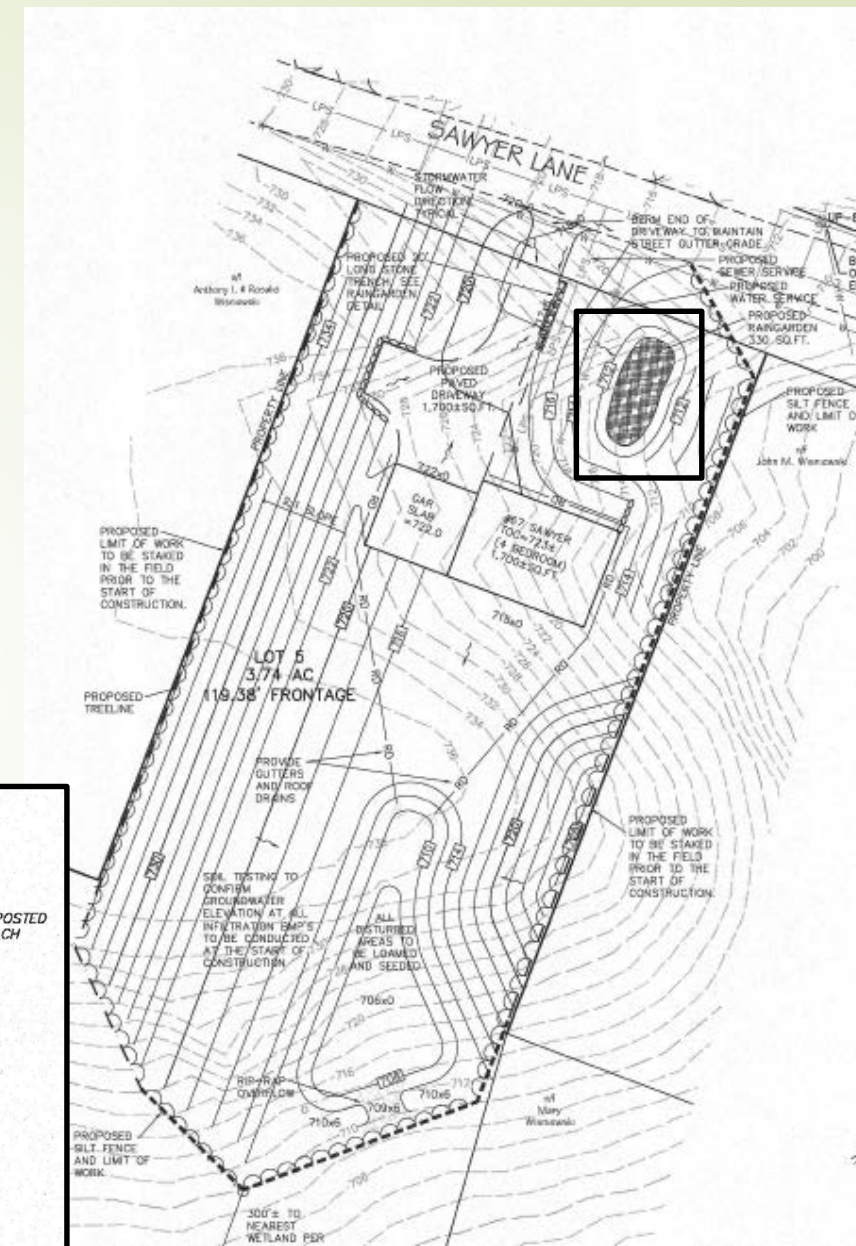
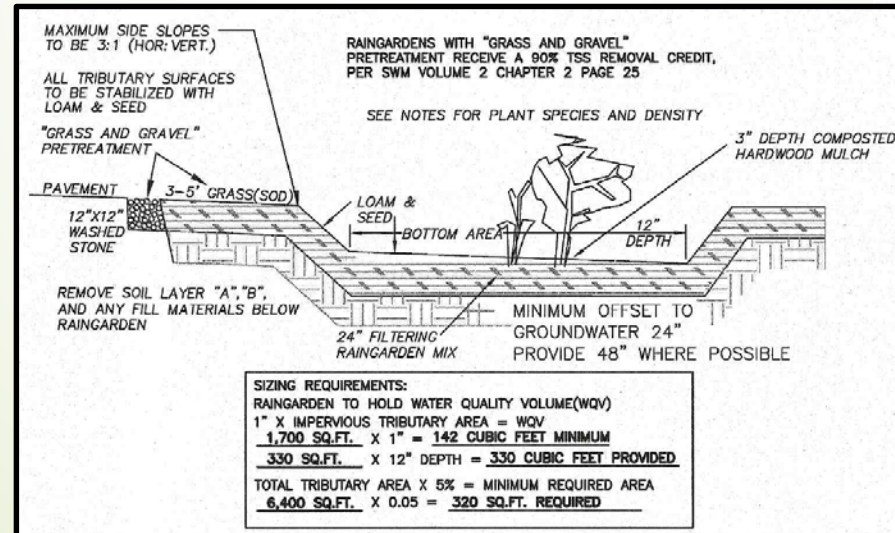
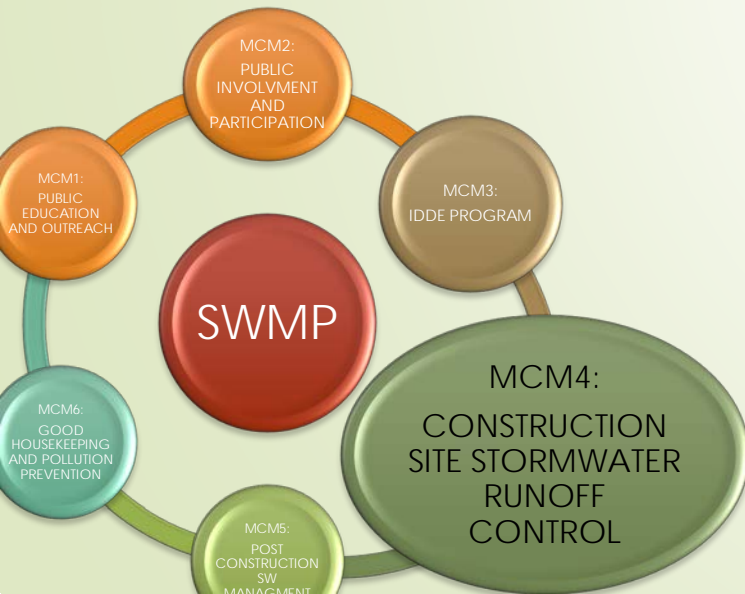
Type of Outfall (check one):		Pipe Outfall <input type="checkbox"/>	Open Swale Outfall <input type="checkbox"/>
Outfall Label: _____	Stencil <input type="checkbox"/>	Ground Inset <input type="checkbox"/>	Sign <input type="checkbox"/> None <input type="checkbox"/> Other _____
Pipe Material: Concrete <input type="checkbox"/> Corrugated metal <input type="checkbox"/> Clay Tile <input type="checkbox"/> Plastic <input type="checkbox"/> Other: _____	Pipe Condition: Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/> Crumbling <input type="checkbox"/>		
Swale Material: Paved (asphalt) <input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> Stone <input type="checkbox"/> Other: _____	Swale Condition: Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/> Crumbling <input type="checkbox"/>		
Shape of Pipe/Swale (check one)			
Rounded Pipe/Swale		Rectangular Pipe/Swale	Triangular Swale
Pipe Measurements: Inner Dia. (in): d= _____ Outer Dia. (in): D= _____ Pipe Width (in): T= _____ Pipe Height (in): H= _____ Flow Width (in): h= _____*		Swale Measurements: Swale Width (in): T= _____ Flow Width (in): t= _____ Swale Height (in): H= _____ Flow Height (in): h= _____* Bottom Width (in): b= _____	Is there a headwall? Yes <input type="checkbox"/> No <input type="checkbox"/> Condition: Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/> Crumbling <input type="checkbox"/>
Description of Flow: Heavy <input type="checkbox"/> Moderate <input type="checkbox"/> Trickling <input type="checkbox"/> Dry <input type="checkbox"/>		Location Sketch	
If the outlet is submerged check yes and indicate approximate height of water above the outlet invert. h above invert (in): _____		Circle All Materials Present:	
Odor: Yes <input type="checkbox"/> No <input type="checkbox"/> Optical enhancers suspected? Yes <input type="checkbox"/> No <input type="checkbox"/> Has channelization occurred? Yes <input type="checkbox"/> No <input type="checkbox"/> Has scouring occurred below the outlet? Yes <input type="checkbox"/> No <input type="checkbox"/>		Rip rap <input type="checkbox"/> Sheen: Bacterial Excessive sediment <input type="checkbox"/> Sheen: Petroleum Foam <input type="checkbox"/> Floatables Sanitary Waste <input type="checkbox"/> Algae Orange Staining <input type="checkbox"/> Excessive Vegetation	
Required Maintenance: Tree Work <input type="checkbox"/> Ditch Work <input type="checkbox"/> Structural Corrosion <input type="checkbox"/> N/A <input type="checkbox"/>		Remove Trash/Debris <input type="checkbox"/> Blocked Pipe <input type="checkbox"/> Erosion at Structure <input type="checkbox"/> Other <input type="checkbox"/>	
Comments: _____			

July 2013

MCM4: Construction Site Stormwater Runoff Control

Objective – Minimize or eliminate erosion and maintain sediment on site

- ❖ DPW has continued to review site plans, conduct site inspections and with the help from other department, enforce actions to maintain erosion control
- ❖ Land Disturbance Applications and Permits have been utilized for any earth work greater than 20,000 sq.ft. in area

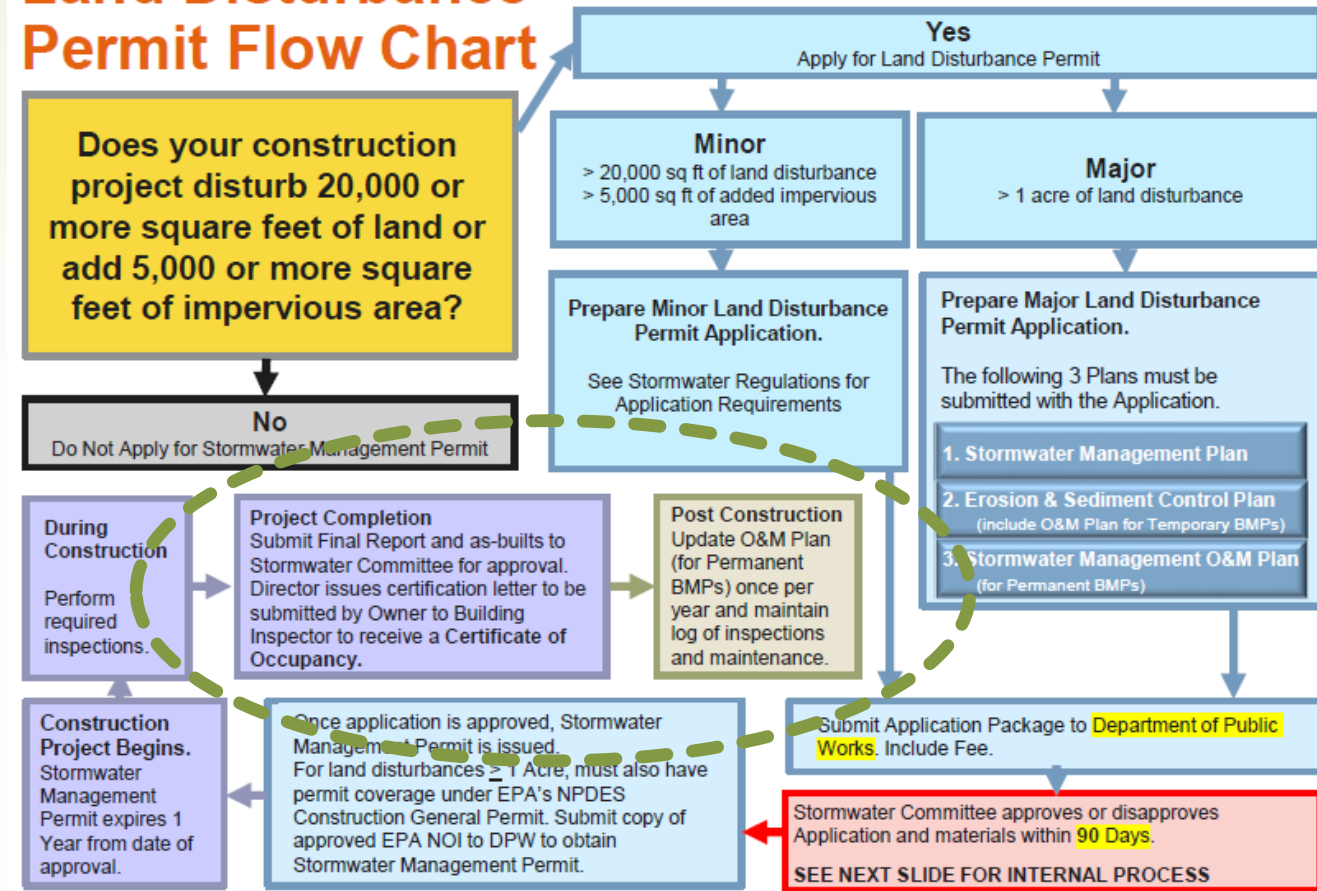


MCM5: Post-Construction Stormwater Management

Objective – Reduce the discharge of pollutants in the SW through retention or treatment after construction and ensure proper maintenance of the SW controls

- ❖ Tasked with creating an Ordinance or Regulatory Mechanism to promote LID planning and enforce MA SW Handbook maintenance guides lines
- ❖ Mechanisms already in place
 - ❖ Subdivision Control Regulations
 - ❖ Site Plan reviews
 - ❖ Any projects that Disturb of 20,000 sq.ft.
- ❖ June 29, 2020 the Town voted to approve Article XXIV "Stormwater Management Bylaw". The new bylaw replaced Article XXV - Illicit Discharge Control and combines SW Management Erosion Control
 - ❖ Applies to and disturbance of 20,000 sq.ft. or greater or new impervious surface over 5,000 sq.ft
- ❖ Currently working on the Rules and Regulations for the Stormwater Management Bylaw to include the latest MS4 requirements and Massachusetts SW Handbook design guidelines

Land Disturbance Permit Flow Chart



MCM6: Good housekeeping and Pollution Prevention

Objective – Implement an Operations and Maintenance program to reduce pollution runoff and protect water quality.

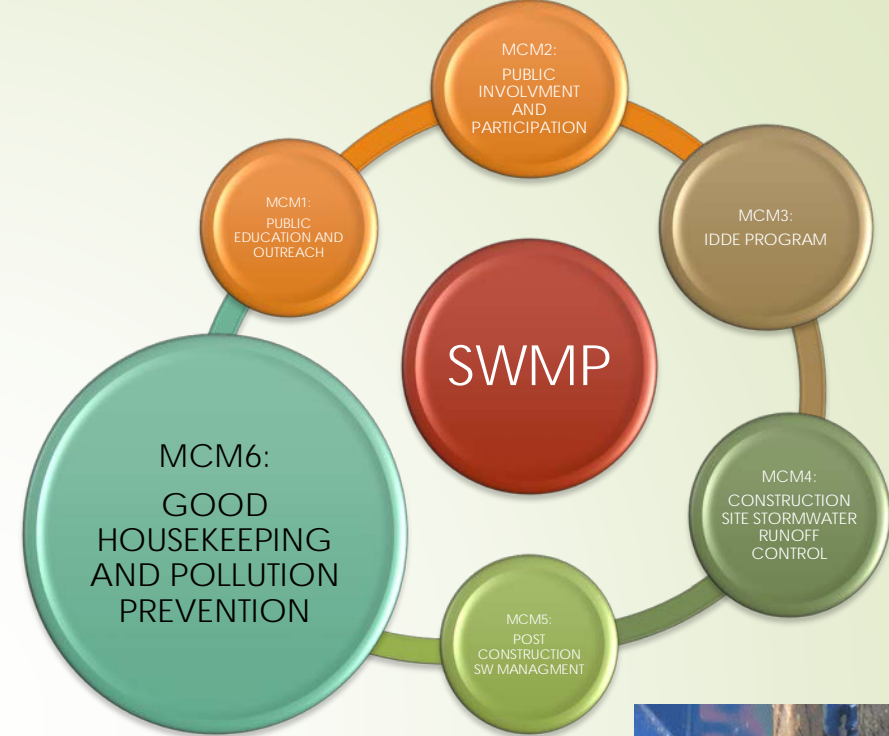
Developed Standard Operating Procedures (SOPs)

- ❖ SOP 19: Operations and Maintenance of Parks and Open Spaces
- ❖ SOP 20: Operations and Maintenance of Municipal Buildings and Facilities
- ❖ SOP 21: Operations and Maintenance of Municipal Vehicles and Equipment

Developed a program for repairing and rehabilitating Town SW Infrastructure

- ❖ Catchbasin Cleaning Program – all CB cleaned in 2020 and inspected the following year to determine priority locations such that no basin is more than 50% full (currently underway)
- ❖ Street sweeping program – document good sweeping practices. 120 miles of Roads swept this reporting period

Developed a list of all Town owned Parks, Buildings and Vehicles.



Central Massachusetts Regional Stormwater Coalition (CMRSWC) was awarded an Environmental Merit Award from EPA Region 1.

Each participating community, including Holden, was recognized as part of the award. The award was presented in September 2019 to John Woodsmall, Co-Chair of the CMRSWC, on behalf of the other 30+ Towns/Cities!

