

**Year 3 Annual Report**  
**Massachusetts Small MS4 General Permit**  
**Reporting Period: July 1, 2020-June 30, 2021**

*\*\*Please DO NOT attach any documents to this form. Instead, attach all requested documents to an email when submitting the form\*\**

*Unless otherwise noted, all fields are required to be filled out. If a field is left blank, it will be assumed the requirement or task has not been completed. Please ONLY report on activities between July 1, 2020 and June 30, 2021 unless otherwise requested.*

**Part I: Contact Information**

Name of Municipality or Organization:

EPA NPDES Permit Number:

**Primary MS4 Program Manager Contact Information**

Name:  Title:

Street Address Line 1:

Street Address Line 2:

City:  State:  Zip Code:

Email:  Phone Number:

**Stormwater Management Program (SWMP) Information**

SWMP Location (web address):

Date SWMP was Last Updated:

If the SWMP is not available on the web please provide the physical address:

## Part II: Self-Assessment

First, in the box below, select the impairment(s) and/or TMDL(s) that are applicable to your MS4. Make sure you are referring to the most recent EPA approved Section 303(d) Impaired Waters List which can be found here: <https://www.epa.gov/tmdl/region-1-impaired-waters-and-303d-lists-state>

**Impairment(s)**

Bacteria/Pathogens       Chloride       Nitrogen       Phosphorus  
 Solids/ Oil/ Grease (Hydrocarbons)/ Metals

**TMDL(s)**

*In State:*       Assabet River Phosphorus       Bacteria and Pathogen       Cape Cod Nitrogen  
 Charles River Watershed Phosphorus       Lake and Pond Phosphorus

*Out of State:*       Bacteria/Pathogens       Metals       Nitrogen       Phosphorus

Clear Impairments and TMDLs

Next, check off all requirements below that have been completed. **By checking each box you are certifying that you have completed that permit requirement fully.** If you have not completed a requirement leave the box unchecked. Additional information will be requested in later sections.

### Year 3 Requirements

- Inspected and screened all outfalls/interconnections (excluding Problem and Excluded outfalls)
- Updated outfall/interconnection priority ranking based on the information collected during the dry weather inspections as necessary
- Post-construction bylaw, ordinance, or other regulatory mechanism was updated and adopted consistent with permit requirements

*Optional:* If you would like to describe progress made on any incomplete requirements listed above, provide any additional information, and/or if any of the above year 3 requirements could not be completed due to the impacts of COVID-19, please identify the requirement that could not be completed, any actions taken to attempt to complete the requirement, and reason the requirement could not be completed below:

All outfalls and interconnections have been inspected during dry weather. There were a number of structures that were previously mapped as outfalls that upon field inspection do not appear to be MS4 outfalls. The City is continuing to confirm the types of structures.

### Annual Requirements

- Provided an opportunity for public participation in review and implementation of SWMP and complied with State Public Notice requirements
- Kept records relating to the permit available for 5 years and made available to the public
- The SSO inventory has been updated, including the status of mitigation and corrective measures implemented
  - This is not applicable because we do not have sanitary sewer
  - This is not applicable because we did not find any new SSOs

- The updated SSO inventory is attached to the email submission
- The updated SSO inventory can be found at the following website:

The SSO inventory can also be found on the City's Stormwater Webpage

- Properly stored and disposed of catch basin cleanings and street sweepings so they did not discharge to receiving waters
- Provided training to employees involved in IDDE program within the reporting period
- All curbed roadways were swept at least once within the reporting period
- Updated system map due in year 2 as necessary
- Enclosed all road salt storage piles or facilities and implemented winter road maintenance procedures to minimize the use of road salt
- Implemented SWPPPs for all permittee owned or operated maintenance garages, public works yards, transfer stations, and other waste handling facilities
- Updated inventory of all permittee owned facilities as necessary
- O&M programs for all permittee owned facilities have been completed and updated as necessary
- Implemented all maintenance procedures for permittee owned facilities in accordance with O&M programs
- Implemented program for MS4 infrastructure maintenance to reduce the discharge of pollutants
- Inspected all permittee owned treatment structures (excluding catch basins)

*Optional:* If you would like to describe progress made on any incomplete requirements listed above, provide any additional information, and/or if any of the above annual requirements could not be completed due to the impacts of COVID-19, please identify the requirement that could not be completed, any actions taken to attempt to complete the requirement, and reason the requirement could not be completed below:

### **Bacteria/ Pathogens** (Combination of Impaired Waters Requirements and TMDL Requirements as Applicable)

#### Annual Requirements

##### *Public Education and Outreach\**

- Annual message was distributed encouraging the proper management of pet waste, including noting any existing ordinances where appropriate
- Permittee or its agents disseminated educational material to dog owners at the time of issuance or renewal of dog license, or other appropriate time
- Provided information to owners of septic systems about proper maintenance in any catchment that discharges to a water body impaired for bacteria

*\* Public education messages can be combined with other public education requirements as applicable (see Appendix H and F for more information)*

*Optional:* If you would like to describe progress made on any incomplete requirements listed above or provide any additional details, please use the box below:

The Pet Waste pamphlet and factsheet for septic system owners is posted on the City's Stormwater website.

## **Phosphorus** (Combination of Impaired Waters Requirements and TMDL Requirements as Applicable)

### Annual Requirements

#### *Public Education and Outreach\**

- Distributed an annual message in the spring (April/May) encouraging the proper use and disposal of grass clippings and encouraging the proper use of slow-release and phosphorus-free fertilizers
- Distributed an annual message in the summer (June/July) encouraging the proper management of pet waste, including noting any existing ordinances where appropriate
- Distributed an annual message in the fall (August/September/October) encouraging the proper disposal of leaf litter

\* *Public education messages can be combined with other public education requirements as applicable (see Appendix H and F for more information)*

#### *Good Housekeeping and Pollution Prevention for Permittee Owned Operations*

- Increased street sweeping frequency of all municipal owned streets and parking lots subject to Permit part 2.3.7.a.iii.(c) to a minimum of two times per year (spring and fall)

#### *Potential structural BMPs*

Any structural BMPs already existing or installed in the regulated area by the permittee or its agents was tracked and the phosphorus removal by the BMP was estimated consistent with Attachment 3 to Appendix F. The BMP type, total area treated by the BMP, the design storage volume of the BMP and the estimated phosphorus removed in mass per year by the BMP were documented.

- The BMP information is attached to the email submission
- The BMP information can be found at the following website:

*Optional:* If you would like to describe progress made on any incomplete requirements listed above or provide any additional details, please use the box below:

Structural BMPs have been identified and mapped. Due to Covid-19 funding for stormwater permit compliance was delayed and phosphorus calculations are anticipated to be completed in Year 4.

*Optional:* Use the box below to provide any additional information you would like to share as part of your self-assessment:

As part of the Massachusetts Vulnerability Preparedness Program, Fitchburg has received an Action Grant to design improvements to John Fitch Highway. Improvements include the design of green infrastructure and other stormwater BMP's to improve water quality in the receiving water body (Baker Brook) and reduce flooding, and other roadway work to improve traffic flow and facilitate improved pedestrian access. The City will estimate the phosphorus removal of these BMP's both during design and after they are constructed.

Lawn and Garden Care factsheet and Tips for Creating a Healthy Yard factsheet are posted on the City's Stormwater Webpage.

Due to Covid-19 and City staffing shortages, public education messages were distributed by website only.

The City completed the following for drainage infrastructure repairs, improvements, and maintenance:

- Fixed 10 sinkholes that were broken drain lines
- Installed new swale and culverts in Oak Hill Road
- Rebuilt culverts at Williams Road and McIntire Road
- Cleaned inlets for culverts before heavy rain events
- Rebuilt 40 catch basins
- Repaired one old/damaged paved waterway/catch basin feature and installed 5 new catch basins on Summer Street ahead of a sidewalk/paving project
- Began construction of a roughly \$9 million dollar combined sewer separation project to eliminate a total of nearly one mile of combined sewers.
- Separated 18 (est.) combination manholes (drain and sanitary separated by a weir wall).
- Installed a 1000 LF riprap swale to control runoff and prevent erosion along Oak Hill Road and completed various catch basin and cross culvert replacements ahead of a paving project

### Part III: Receiving Waters/Impaired Waters/TMDL

Have you made any changes to your lists of receiving waters, outfalls, or impairments since the NOI was submitted?

- Yes
- No

If yes, describe below, including any relevant impairments or TMDLs:

## Part IV: Minimum Control Measures

Please fill out all of the metrics below. If applicable, include in the description who completed the task if completed by a third party.

### MCM1: Public Education

Number of educational messages completed **during this reporting period:**

Below, report on the educational messages completed **during this reporting period**. For the measurable goal(s) please describe the method/measures used to assess the overall effectiveness of the educational program.

#### **BMP: Fowl Water Campaign**

Message Description and Distribution Method:

CMRSWC and Think Blue Massachusetts held the “Fowl Water” advertisement helps viewers visualize stormwater pollution from motor oil, pet waste, and trash become stormwater pollution.

Targeted Audience:

Responsible Department/Parties:

Measurable Goal(s):

Impressions on social media. PDF with Fitchburg numbers is attached to the submission.

Message Date(s):

Message Completed for: Appendix F Requirements  Appendix H Requirements

Was this message different than what was proposed in your NOI? Yes  No

If yes, describe why the change was made:

Due to Covid-19 and City staffing shortages, public education messages were distributed by website and electronic methods only.

[Add an Educational Message](#)

### MCM2: Public Participation

Describe the opportunity provided for public involvement in the development of the Stormwater Management Program (SWMP) **during this reporting period**:

Consistent with the City's approved NOI, the SWMP was posted to the City web page with the public encouraged to submit comments to DPW Engineering.

Was this opportunity different than what was proposed in your NOI? Yes  No

Describe any other public involvement or participation opportunities conducted **during this reporting period:**

The City conducted a fourth consecutive year of its Rain Barrel Purchase Program. The City's DPW Engineering Division, DPW Wastewater Division, and Conservation Commission partnered with the 'Great American Rain Barrel Company' to facilitate a City-subsidized rain barrel purchase program. In the program's inaugural year, the City sold a total of 98 rain barrels. In the program's second and third year, the City sold a total of 44 rain barrels and 129 rain barrels, respectively. This past year the City sold 128 barrels, with barrels being picked up on June 12, 2021. This program continues to be a key development and networking tool to help grow 'green infrastructure' in the City into other forms that will serve to help attenuate and infiltrate stormwater runoff on private properties.

The City also actively pursued partnerships with several groups on various stormwater topics, including:

-Central MA Regional Stormwater Coalition (CMRSWC): Fitchburg is an active member, with its Civil Engineer sitting on the Steering Committee.

The redesign of John Fitch Highway will employ best practices, including nature-based solutions to reduce flooding (like rain gardens and tree planting) and Complete Streets elements (such as shared use paths and improved crosswalks) within the right of way to improve the Corridor and the city's climate resilience. The current project is developing a preliminary design focused on the roadway's right-of-way. A virtual public meeting was held on June 23rd, 2021 for design review and public feedback. Several public input sessions, an artwork challenge for the kids, and a business focus group has also been held for this project.

The stormwater budget was discussed at City council meetings during this reporting period, and also the need for a sustainable funding source instead of an annual budget appropriation or free cash appropriation.

### **MCM3: Illicit Discharge Detection and Elimination (IDDE)**

#### **Sanitary Sewer Overflows (SSOs)**

Check off the box below if the statement is true.

This SSO section is NOT applicable because we DO NOT have sanitary sewer

Below, report on the number of SSOs identified in the MS4 system and removed **during this reporting period.**

Number of SSOs identified:

Number of SSOs removed:

#### **MS4 System Mapping**

*Optional:* Provide additional status information regarding your map:

Mapping is updated in an ongoing fashion as IDDE inspections are completed.

### **Screening of Outfalls/Interconnections**

*If conducted, please submit any outfall monitoring results from this reporting period. Outfall monitoring results should include the date, outfall/interconnection identifier, location, weather conditions at time of sampling, precipitation in previous 48 hours, field screening parameter results, and results from all analyses. Please also include the updated inventory and ranking of outfalls/interconnections based on monitoring results.*

- No outfalls were inspected
- The outfall screening data is attached to the email submission
- The outfall screening data can be found at the following website:

Attached is the inspection table for inspections conducted in Year 3 period.

*Below, report on the number of outfalls/interconnections screened **during this reporting period.***

Number of outfalls screened:

*Below, report on the percent of outfalls/interconnections screened **to date.***

Percent of outfalls screened:

*Optional: Provide additional information regarding your outfall/interconnection screening:*

Due to COVID-19, City budgeting processes were delayed. Adequate funding was not appropriated for stormwater compliance assistance prior to January 2021 and therefore the City was unable to inspect all outfalls prior to June 30, 2021. Funding has been appropriated and the City has completed dry weather inspections of 100% of the MS4 outfalls and interconnections as of the date of this report. Outfall screening information and reprioritization are included for all outfalls inspected to date.

### **Catchment Investigations**

*If conducted, please submit all data collected during this reporting period as part of the dry and wet weather investigations. Also include the presence or absence of System Vulnerability Factors for each catchment.*

- No catchment investigations were conducted
- The catchment investigation data is attached to the email submission
- The catchment investigation data can be found at the following website:

*Below, report on the number of catchment investigations completed **during this reporting period.***

Number of catchment investigations completed this reporting period:

*Below, report on the percent of catchments investigated **to date.***

Percent of total catchments investigated:

*Optional: Provide any additional information for clarity regarding the catchment investigations below:*

During the reporting period, the City worked with its stormwater consultant Arcadis to continue catchment area investigations. Progress has been made with investigations and supporting documentation can be found in

the attached catchment areas. Investigation planning is also ongoing in an additional 5 catchments.

### **IDDE Progress**

*If illicit discharges were found, please submit a document describing work conducted over this reporting period, and cumulative to date, including location source; description of the discharge; method of discovery; date of discovery; and date of elimination, mitigation, or enforcement OR planned corrective measures and schedule of removal.*

- No illicit discharges were found
- The illicit discharge removal report is attached to the email submission
- The illicit discharge removal report can be found at the following website:

*Below, report on the number of illicit discharges identified and removed, along with the volume of sewage removed **during this reporting period.***

Number of illicit discharges identified:

Number of illicit discharges removed:

Estimated volume of sewage removed:  gallons/day

*Below, report on the total number of illicit discharges identified and removed to date. At a minimum, report on the number of illicit discharges identified and removed **since the effective date of the permit (July 1, 2018).***

Total number of illicit discharges identified:

Total number of illicit discharges removed:

*Optional: Provide any additional information for clarity regarding illicit discharges identified, removed, or planned to be removed below:*

An illicit connection was identified at 550-552 Oak Hill Road and it was removed by the City. 2. 1 known illicit connection was removed on Fairbanks Street. Approximately 18 combination manholes were separated (drain and sanitary separated by a weir wall). These illicit discharges will be added to the Stormwater Webpage.

### **Employee Training**

Describe the frequency and type of employee training conducted **during this reporting period:**

IDDE and Good Housekeeping/Pollution Prevention Training were held virtually on June 21, 2021. Several DPW employees and City Department heads attended this training.

### **MCM4: Construction Site Stormwater Runoff Control**

*Below, report on the construction site plan reviews, inspections, and enforcement actions completed **during this reporting period.***

Number of site plan reviews completed:

Number of inspections completed:

Number of enforcement actions taken:

*Optional:* Enter any additional information relevant to construction site plan reviews, inspections, and enforcement actions:

Remote nature of Planning Board meetings made reviews difficult and site visits/inspections were relatively limited.

## **MCM5: Post-Construction Stormwater Management in New Development and Redevelopment**

### **As-built Drawings**

*Below, report on the number of as-built drawings received during this reporting period.*

Number of as-built drawings received:

*Optional:* Enter any additional information relevant to the submission of as-built drawings:

### **Street Design and Parking Lots Report**

Describe the status of the street design and parking lots assessment due in year 4 of the permit term, including any planned or completed changes to local regulations and guidelines:

Based on funding appropriated as of July 1, 2021 the reports and inventory work have begun. Creation of street design and parking lot assessments have begun; current rules and regulations for wetlands, planning, zoning, and stormwater management have been reviewed and recommendations have been compiled into a summary table and draft report.

### **Green Infrastructure Report**

Describe the status of the green infrastructure report due in year 4 of the permit term, including the findings and progress towards making the practice allowable:

Based on funding appropriated as of July 1, 2021 the reports and inventory work have begun. Creation of green infrastructure report has begun; current rules and regulations for wetlands, planning, zoning, and stormwater management have been reviewed and recommendations have been compiled into a summary table and draft report.

**Retrofit Properties Inventory**

Describe the status of the inventory, due in year 4 of the permit term, of permittee-owned properties that could be modified or retrofitted with BMPs to mitigate impervious areas and report on any properties that have been modified or retrofitted:

Based on funding appropriated as of July 1, 2021 the reports and inventory work have begun. Creation of retrofit properties inventory has begun.

**MCM6: Good Housekeeping****Catch Basin Cleaning**

Below, report on the number of catch basins inspected and cleaned, along with the total volume of material removed from the catch basins **during this reporting period**.

Number of catch basins inspected:

Number of catch basins cleaned:

Total volume or mass of material removed from all catch basins:

Below, report on the total number of catch basins in the MS4 system.

Total number of catch basins:

*If applicable:*

Report on the actions taken if a catch basin sump is more than 50% full during two consecutive routine inspections/cleaning events:

If a catch basin sump is found to be more than 50% full during two consecutive routine inspections/cleanings, the Superintendent of Streets is notified and he or she will re-prioritize the subject area to receive more frequent cleanings.

**Street Sweeping**

Report on street sweeping completed **during this reporting period** using one of the three metrics below.

Number of miles cleaned:

Volume of material removed:  [Select Units]

Weight of material removed:

**Stormwater Pollution Prevention Plan (SWPPP)**

Below, report on the number of site inspections for facilities that require a SWPPP completed **during this reporting period**.

Number of site inspections completed:

Describe any corrective actions taken at a facility with a SWPPP:

No corrective actions taken. Due to Covid-19 and staffing shortages at the DPW, SWPPP quarterly inspections were not completed this permit year.

### Additional Information

#### Monitoring or Study Results

*Results from any other stormwater or receiving water quality monitoring or studies conducted during the reporting period not otherwise mentioned above, where the data is being used to inform permit compliance or permit effectiveness must be attached.*

- Not applicable
- The results from additional reports or studies are attached to the email submission
- The results from additional reports or studies can be found at the following website(s):

If such monitoring or studies were conducted on your behalf or if monitoring or studies conducted by other entities were reported to you, a brief description of the type of information gathered or received shall be described below:

The City began a hydrologic and hydraulic study to determine the best way to reroute stormwater flows from an undersized drain line that discharges to Baker Brook on Lunenburg Street. The drain line is owned by MassDOT, who has no plans to address the issue.

The City also began a hydrologic and hydraulic study to build on the John Fitch Highway green infrastructure project and determine potential flood mitigation solutions within the upper reaches of the Baker Brook watershed.

#### Additional Information

*Optional:* Enter any additional information relevant to your stormwater management program implementation during the reporting period. Include any BMP modifications made by the MS4 if not already discussed above:

#### COVID-19 Impacts

*Optional:* If any of the above year 3 requirements could not be completed due to the impacts of COVID-19, please identify the requirement that could not be completed, any actions taken to attempt to complete the requirement, and reason the requirement could not be completed below:

### **Activities Planned for Next Reporting Period**

Please confirm that your SWMP has been, or will be, updated to comply with all applicable permit requirements including but not limited to the year 4 requirements summarized below. (Note: impaired waters and TMDL requirements are not listed below)

Yes, I agree

- Develop a report assessing current street design and parking lot guidelines and other local requirements within the municipality that affect the creation of impervious cover
- Develop a report assessing existing local regulations to determine the feasibility of making green infrastructure practices allowable when appropriate site conditions exist
- Identify a minimum of 5 permittee-owned properties that could potentially be modified or retrofitted with BMPs to reduce impervious areas

### **Annual Requirements**

- Annual report submitted and available to the public
- Annual opportunity for public participation in review and implementation of SWMP
- Keep records relating to the permit available for 5 years and make available to the public
- Properly store and dispose of catch basin cleanings and street sweepings so they do not discharge to receiving waters
- Annual training to employees involved in IDDE program
- Update inventory of all known locations where SSOs have discharged to the MS4
- Continue public education and outreach program
- Update outfall and interconnection inventory and priority ranking and include data collected in connection with the dry weather screening and other relevant inspections conducted
- Implement IDDE program
- Review site plans of construction sites as part of the construction stormwater runoff control program
- Conduct site inspection of construction sites as necessary
- Inspect and maintain stormwater treatment structures
- Log catch basins cleaned or inspected
- Sweep all curbed streets at least annually
- Continue investigations of catchments associated with Problem Outfalls
- Implemented SWPPPs for all permittee owned or operated maintenance garages, public works yards, transfer stations, and other waste handling facilities
- Review inventory of all permittee owned facilities in the categories of parks and open space, buildings and facilities, and vehicles and equipment; update if necessary
- Review O&M programs for all permittee owned facilities; update if necessary
- Implement all maintenance procedures for permittee owned facilities in accordance with O&M

programs

- Implement program for MS4 infrastructure maintenance to reduce the discharge of pollutants
- Enclose all road salt storage piles or facilities and implemented winter road maintenance procedures to minimize the use of road salt
- Review as-built drawings for new and redevelopment to ensure compliance with post construction bylaws, regulations, or regulatory mechanism consistent with permit requirements
- Inspect all permittee owned treatment structures (excluding catch basins)

Provide any additional details on activities planned for permit year 4 below:

## Part V: Certification of Small MS4 Annual Report 2021

### 40 CFR 144.32(d) Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name:

Title:

Signature:

Date:

*[Signatory may be a duly authorized representative]*