

**Year 4 Annual Report**  
**Massachusetts Small MS4 General Permit**  
**Reporting Period: July 1, 2021-June 30, 2022**

*\*\*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, 2021 and June 30, 2022 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>

<b>Impairment(s)</b>			
<input checked="" type="checkbox"/> Bacteria/Pathogens	<input type="checkbox"/> Chloride	<input type="checkbox"/> Nitrogen	<input type="checkbox"/> Phosphorus
<input checked="" type="checkbox"/> Solids/ Oil/ Grease (Hydrocarbons)/ Metals			
<b>TMDL(s)</b>			
<i>In State:</i>	<input type="checkbox"/> Assabet River Phosphorus	<input type="checkbox"/> Bacteria and Pathogen	<input type="checkbox"/> Cape Cod Nitrogen
	<input type="checkbox"/> Charles River Watershed Phosphorus	<input type="checkbox"/> Lake and Pond Phosphorus	
<i>Out of State:</i>	<input type="checkbox"/> Bacteria/Pathogens	<input type="checkbox"/> Metals	<input type="checkbox"/> Nitrogen
			<input type="checkbox"/> Phosphorus
			<b>Clear Impairments and TMDLs</b>

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 4 Requirements

Developed a report assessing current street design and parking lot guidelines and other local requirements within the municipality that affect the creation of impervious cover, made it available as part of the SWMP, and:

- No updates were recommended
- Updates were recommended. The anticipated date or date of completion for updates is/was:

Chelsea anticipates to implement changes within 5-10 years.

Developed a report assessing local regulations to determine the feasibility of making green infrastructure practices allowable when appropriate site conditions exist, made it available as part of the SWMP, and:

- No updates were recommended
- Updates were recommended. The anticipated date or date of completion for updates is/was:

Chelsea anticipates to implement changes within 5-10 years.

Identified a minimum of 5 permittee-owned properties that could potentially be modified or retrofitted with BMPs to reduce impervious cover

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

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:

- Updated system map due in year 2 as necessary
- Provided training to employees involved in IDDE program within the reporting period
- Properly stored and disposed of catch basin cleanings and street sweepings so they did not discharge to receiving waters
- All curbed roadways were swept at least once within the reporting period
- 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 or provide any additional details, please use the box below:

Chelsea has added one tree box and permeable pavement systems in several parks. These systems are inspected on a regular basis. We are working on developing a standard operating procedure for various systems. This should be completed by the end of this calendar year.

**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:

An interactive map of all 35 dog waste stations and cigarette butlers is located on the city web page along with educational material identifying the importance of using them. The busiest stations are emptied weekly.

Chelsea does not allow septic systems.

**Solids, Oil and Grease (Hydrocarbons), or Metals**

Annual Requirements

*Good Housekeeping and Pollution Prevention for Permittee Owned Operations*

- Increased street sweeping frequency of all municipal owned streets and parking lots to a schedule that targets areas with potential for high pollutant loads
  - The street sweeping schedule is attached to the email submission
  - The street sweeping schedule can be found at the following website:

Chelsea's streets are swept 2x's per side per month. Broadway and Hawthorne Street along with others are swept each weekend. Street sweeping runs from March 1st through December 31st. It would not be practicable to increase this.  
<https://www.chelseama.gov/streetsweeping>

- Prioritized inspection and maintenance for catch basins to ensure that no sump shall be more than 50 percent full; Cleaned catch basins more frequently if inspection and maintenance activities indicated excessive sediment or debris loadings

*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:

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

Chelsea's busiest dog waste stations have been identified and are emptied every week. To view information regarding Trash, Recycling, Hazardous Waste, Yard Waste, Dog Waste Stations, Cigarette Butt Map, and more. Please follow the link below.

<https://www.chelseama.gov/WasteCollection>

### 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:

The City of Chelsea reviewed the Final 2018/2020 Integrated List of Waters to confirm existing impairments and TMDLs. As stated in our NOI, the City continues to address bacteria/pathogen and Solids/ Oil/ Grease (Hydrocarbons)/ Metals impairments. However, in previous annual reports we also indicated the City was subject to a chloride impairment and to a Pathogen TMDL. The newest Integrated List does not identify a chloride impairment that applies to any of our receiving waterbodies. While Part II of our previous annual reports identified this impairment, it has been unchecked as it does not apply. While there is a Final Pathogen TMDL for the Boston Harbor, Weymouth-Weir, and Mystic Watersheds, that TMDL was approved October 2018. Per Part 2.2.1.a, our discharges are not subject to requirements related to this TMDL because it was not approved before the date of issuance of the MS4 General Permit. That box has also been unchecked in Part II of our annual report as it does not apply.

Chelsea's total number of outfalls is 24.

As noted in the annual report for year 1, the total number of outfalls has changed from 27 to 24. One outfall at the Chelsea River was determined not to be owned by Chelsea. One at the Island End was determined to not be an outfall. One outfall at Mill Creek was determined to not be owned by Chelsea.

Additionally, the city has no interconnections. Inter-municipal connections originating in Everett and entering Chelsea's MS4 were previously classified as "interconnections" in annual storm water monitoring reports and Chelsea's NOI, despite meeting the MS4 permit's definition of interconnection.

## 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: Facebook**

Message Description and Distribution Method:

https://www.facebook.com/CityOfChelsea/videos/409522324608846/  
 https://www.facebook.com/CityOfChelsea/videos/764558241251748  
 https://www.youtube.com/watch?v=oP6P5Ce2jIU  
 https://www.youtube.com/watch?v=sv8u3JN3-J4

Targeted Audience:

Responsible Department/Parties:

Measurable Goal(s):

Materials supplied by the Mystic River Watershed Association are frequently posted on the City's Facebook page.

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:

**BMP: City Web Page**

Message Description and Distribution Method:

Materials have been supplied to the City of Chelsea through ongoing partnerships with the Mystic River Watershed Association (www.mysticriver.org).  
 Proper Disposal of Pool Water [Sept 2022], Leaf Litter [November 2022], Salt and Deicer [January 2022], General Stormwater Education for Families [February 2022], Trash [March 2022], General Stormwater Education for Families [June 2022], Street Sweeping [April 2022], General Stormwater: Rubber Ducky PSA [April 2022], Fertilizer [May 2022], Dog Waste [June 2022], Grass Clippings [June 2022], General Stormwater [June 2022],

Targeted Audience: Residents

Responsible Department/Parties: DPW Operations

Measurable Goal(s):

Chelsea is working to make improvements to our web page. These changes will make information more readily available to the public. We continued to work with local and national environmental groups that develop educational materials for Chelsea to disseminate.

Message Date(s): The City web page and facebook pages are updated throughout the year.

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:

### **BMP:Mail**

Message Description and Distribution Method:

This past June, a new bilingual brochure was produced and sent to all dog owners in Chelsea entitled "Do Your Doody, Scoop the Poop".

Targeted Audience: Residents

Responsible Department/Parties: DPW Operations

Measurable Goal(s):

Every dog-owner in the city received a flyer that describes the reasons why you should pick up after your pet.

Message Date(s): Mailed out in June of 2022

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:

### **BMP://www.thinkbluemassachusetts.org**

Message Description and Distribution Method:

Think Blue Massachusetts (<https://www.thinkbluemassachusetts.org/>) is a statewide educational campaign to help residents and businesses do their part to reduce polluted runoff and keep our state's lakes, rivers, and

streams clean and healthy.

Targeted Audience: Residents

Responsible Department/Parties: DPW Operations

Measurable Goal(s):

Message Date(s): information is posted throughout the year.

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:

**BMP:**

Message Description and Distribution Method:

Targeted Audience:

Responsible Department/Parties:

Measurable Goal(s):

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:

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:

The SWMP is posted on the City web page.

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:

Chelsea held the Annual Hazardous Waste Day on Saturday July 23, 2022 from 9am to 1pm. The event was held at the Mary C. Burke Complex, 300 Crescent Avenue. The DPW collected and disposed of the following items: anything labeled as hazardous, poison, danger, warning, or caution. Chemicals, latex and oil-based paints, medications, florescent bulbs, propane tanks, fire extinguishers, car batteries. Yard waste pick up schedule is posted on the City web page. <https://www.chelseama.gov/public-works/pages/yard-waste-schedule-2022>  
 Yard Waste Drop-Off Hours:  
 If you just can't wait for a pickup week, yard waste can be dropped off at the City Yard, 380 Beacham Street [Monday- Friday 8:am-2:00pm] and most Saturdays 8:00am- 12:00 noon. Please call before going (617-466-4300)  
 our 2022 Rain Barrel Program was a great success. We plan on repeating the program each year as long as there is interest.  
<https://www.chelseama.gov/public-works/news/2022-rain-barrel-program>

### 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:

All mapping was completed in prior years and is updated on a continuous basis. Chelsea has prioritized updating GIS mapping of all assets including storm-water drains and structures.

### **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:

<https://www.chelseama.gov/public-works/pages/stormwater-management-services>

*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:

Chelsea completed its screening per MS4 requirements in previous permit years. In Permit Year 4, Chelsea completed additional screening and sampling. However, due to the ongoing drought conditions wet weather sampling was not completed prior to this reports submittal. An extension until November 1, 2022 was granted by the EPA. All available data is attached to this Year 4 Annual Report.

### **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:

The City of Chelsea has been performing catchment investigations throughout the City's system since 2006. Since then, the City has initiated an investigation in every catchment where dry and/or wet weather outfall sampling results have indicated a presence of likely sewer input. During Permit Year 4, catchment investigations were focused on targeted locations to further identify/confirm sources of illicit connections. During Permit Year 4, the City also continued to reevaluate IDDE work based on annual sampling and other collaborating city priorities related to water quality and recreational use in Mill Creek.

**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:

In permit year 5 Chelsea plans on prioritizing the followup of the illicit discharges identified in prior years.

**Employee Training**

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

Chelsea DPW members attended The Annual MS4 - IDDE training on June 23rd. This training is conducted once a year.

**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:

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

**Ordinance or Regulatory Mechanism**

Date update was completed (due in year 3):

**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:

**Retrofit Properties Inventory**

Below, list the permittee-owned properties that could be modified or retrofitted with BMPs to mitigate impervious areas (at least 5):

Green infrastructure is being considered for the redesign of Bellingham Square plaza, the new park at the base of the Chelsea Street Bridge, and the new park at 88 Clinton Street. These may include a range of green

infrastructure features -- rain gardens, bioswales, permeable pavers, etc. Chelsea is also looking to incorporate green infrastructure into flood resilience measures along Eastern Avenue and The downtown Broadway Redevelopment Plan.

### 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:

When a sump is found to be more than 50% full WSD personnel will document the findings, investigate the contributing drainage area for sources of excessive sediment loading, and if possible, address the contributing sources. If no contributing sources are found, WSD will increase the inspection and cleaning frequencies of the sumpe whe practicable.

#### **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:  [Select Units]

#### **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:

Clean Harbors removed all of the products that had been stored in the paint shed at the DPW yard. Existing worn out silt sacks were replace with new ones. Discarded electronics are now kept in an enclosed shed.

**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:

IDDE/CMOM Progress Report [dated July 31, 2021], IDDE/CMOM Progress Report [dated January 31, 2022] 2021 Stormwater Outfall Monitoring Report [dated October 1, 2021], are attached to this report.

**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 4 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:

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**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 5 requirements summarized below. (Note: impaired waters and TMDL requirements are not listed below)

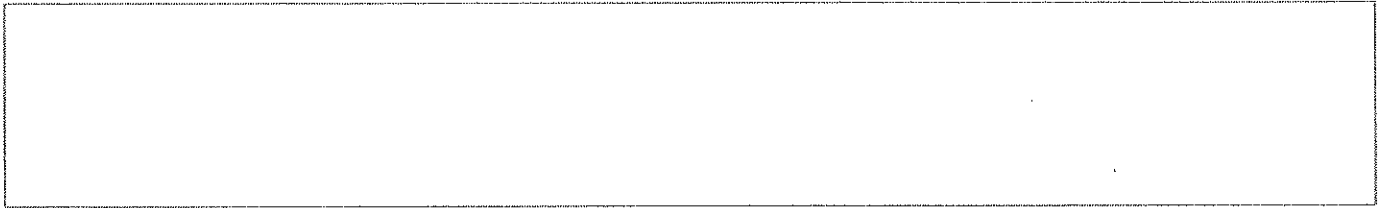
Yes, I agree

**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)
- Identify additional permittee-owned properties that could potentially be modified or retrofitted with BMPs to reduce impervious areas so that the permittee maintains a minimum of 5 sites in their inventory, until such a time when the permittee has less than 5 sites remaining

Provide any additional details on activities planned for permit year 5 below:

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## 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]*