

**TOWN OF PLYMOUTH CAPITAL IMPROVEMENT PLAN REQUEST
FY25 SPRING ANNUAL TOWN MEETING**

Department: DPW, Engineering Division	Priority #:	1
Project Title and Description: Implementation of MS4 Stormwater Discharge Compliance Program and Annual Reporting	Total Project Cost:	\$190,000.00

Department/Division Head: James Downey, Acting Town Engineer

Check if project is: New Resubmitted Cost estimate was developed: Internally Externally

For project re-submittals, list prior year(s):

List any funding sources and amounts already granted:

Basis of Estimated Costs (attach additional information if available)			If project has impact on 5 Year Plan and future operating budgets, insert estimated amounts.		
Capital:	Cost	Comments	Fiscal Year:	Capital	Operations & Maintenance
<i>Planning and Design</i>			<i>FY26</i>		
<i>Labor and Materials</i>			<i>FY27</i>	\$230,000.00	
<i>Administration</i>	\$190,000.00		<i>FY28</i>		
<i>Land Acquisition</i>			<i>FY29</i>	\$250,000.00	
<i>Equipment</i>			<i>FY30</i>		
<i>Other</i>					
<i>Contingency</i>					
Total Capital	\$190,000.00				

Project Justification and Objective: The Town of Plymouth will continue its MS4 Stormwater Discharge Compliance and Annual Reporting Program that went into effect on July 1, 2018 as required by the Environmental Protection Agency (EPA) and Massachusetts Department of Environmental Protection (Mass DEP).

For Capital Project Requests:

Will this project be phased over more than one fiscal year? If yes, enter it on the 5 Year Plan
Can this project be phased over more than one fiscal year?

Yes No
Yes No

For Capital Equipment Requests:

Check if equipment requested is replacement and enter the year, make & model, VIN and present condition of existing equipment

What is the expected lifespan of this new/replacement equipment: _____
--

Attach backup information, estimates, or justification to support this request.

MS4 Stormwater Discharge Compliance and Annual Reporting Program

Year 1	\$ 92,600
Year 2	\$ 94,000
Year 3	\$ 100,000
Year 4	\$ 66,500
Year 5	\$ 74,000
	\$ 427,100

Year 6	\$ 88,200
Year 7	\$ 101,800

\$ 190,000 FY25 Spring Town Meeting

Year 8	\$ 111,980
Year 9	\$ 118,020

\$ 230,000 FY27

Year 10	\$ 123,921
Year 11	\$ 126,079

\$ 250,000 FY29

SENT VIA EMAIL TO: jdowney@plymouth-ma.gov

November 1, 2023

James Downey
Acting Town Engineer
Town of Plymouth Engineering Department
26 Court Street
Plymouth, MA 02360
United States

Proposal: Site Civil Consulting Services
Town of Plymouth MS4 – Year 6
Town of Plymouth, Massachusetts

Dear Mr. Downey,

On behalf of EnviroBusiness, Inc. (dba EBI Consulting, hereinafter “EBI”), I am pleased to submit this proposal and information defining the scope of services for consulting services to aid in the Town of Plymouth MS4 Program. Thank you for the opportunity to be of continued assistance to the Town of Plymouth (the “Client”).

1.0 PROJECT UNDERSTANDING

The Town of Plymouth is continuing its MS4 reporting as required by the Environmental Protection Agency within the limits of the Town of Plymouth (the “Site”). The below Scope of work will detail the anticipated work to be completed as part of the year six of the MS4 program.

2.0 SCOPE OF WORK

A. MS4 Year 6 Annual Report

The EBI team will prepare the annual report for year six. The permit year closes on June 30, 2024, with the annual report due by September 30, 2024, of the same calendar year. The sixth year's annual report period is July 2023 to June 2024. The EBI team will collect and summarize required information. It is expected that the US EPA will provide a template for the annual report. The EBI team will submit a Draft Annual Report to the Town thirty (30) days prior to the required submittal date. Following review, the EBI team will finalize the report and provide it to the Town for submittal to US EPA and MADEP. The following tasks are examples of tasks completed for previous annual reports:

- Create public education and outreach program.
- Create annual training program for employees.
- Update inventory of all known locations where SSOs discharged to the MS4.
- Keep records and summarize catch basins cleaned or inspected.
- Continue investigations of catchments associated with Problem Outfalls.
- Review O&M programs for all permittee owned facilities, update if necessary.

B. MS4 YEAR 6 Outfall catchment investigation report

Investigating outfall catchment area for all flagged outfalls during year 3 and 4. This includes:

- Mapping of catchment areas for each problematic outfall.
- Sampling of effluent at drainage structures upstream of said outfalls. To determine the source of the problem.
- Report summarizing findings and recommendations.

Note: This task will be multi-year and needs to be completed by year 7.

C. Record Keeping for Town Tasks

The below information is required to complete the annual report using Annual Requirements (by Town).

- Annual opportunity for public participation in review and implementation of SWMP
- Annual Employee Training
- Update any SSOs discharge to the MS4
- Review site plans of construction sites as part of the construction stormwater runoff control program
- Conduct site inspection of construction sites as necessary
- Log catch basins cleaned or inspected
- Sweep all curbed street at least annually
- Continue investigations of catchments associate with problem outfalls
- Review inventory of all permittee owned facilities in categories of parks and open space, buildings and facilities, and vehicles and equipment
- Implement program for MS4 infrastructure maintenance to reduce the discharge of pollutants
- Enclose all road salt storage piles or facilities and implements 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 by laws, regulations, or regulatory mechanism consistent with permit requirements
- Inspect all permittee owed treatment structures (excluding catch basins)

EBI assumes that coordination and record keeping will be approximately 8 hours a month for the 6-month work period for a total of 48 hours. Any time above and beyond this number will be billed at \$225 /hr.

D. Meeting and Coordination

- Monthly coordination calls (May -October- 6 calls@ 1 hours per call)
- Onsite meetings as necessary (assume 4 meetings @ 4 hours per meeting for the year)

EBI assumes a total of 22 hours for meetings and coordination.

E. Reimbursable Expenses

Reimbursable expenses including but not limited to travel, laboratory sampling, police details and field materials will be including in the lump sum milestone amounts.

3.0 FEE ESTIMATE AND ASSUMPTIONS

Unless otherwise noted, the Scope of Work in this proposal will be billed on a percentage complete basis for a total lump sum fee as identified in the Fee Estimate below.

FEE ESTIMATE

A. MS4 Year 6 Annual Report	\$8,000.00
B. MS4 Year 6 Outfall catchment investigation report.....	\$64,700.00
C. Record Keeping for Town Tasks.....	\$10,550.00
D. Meetings and Coordination.....	\$4,950.00

TOTAL FEE **\$88,200.00**



21 B Street
Burlington, MA 01803
www.ebiconsulting.com

Billing Rates:

The Fee Estimate for this proposal was prepared with the following billing rates for EBI personnel:

- Director: \$225.00/ hour
- Project Engineer: \$200.00/ hour

ASSUMPTIONS

The Scope of Work and Fee Estimate for this proposal were prepared with the following assumptions:

1. Site Civil Engineering design and permitting are not included in this proposal. A contract amendment can be provided in the event that the Project moves forward to the design and permitting phases.
2. For changes in design or scope by the Client, or modification requests by representatives of the Plymouth EBI will notify the Client and provide an estimated time-and-materials fee for their approval.
3. Reimbursable expenses including but not limited to travel, laboratory sampling, police details and field materials will be including in the lump sum milestone amounts.

4.0 SCHEDULE AND TERMS

If a job is to be cancelled or is placed on hold, the Client must notify EBI immediately so we can suspend all work. Jobs cancelled or placed on hold for more than one month will be invoiced for the charges incurred to date, billed on a time and materials basis.

Significant Scope of Work or schedule alterations requested by the Client after authorization to proceed will be considered an additional service.

EBI proposes to perform the work outlined above in accordance with our Standard Terms & Conditions for Consulting Services. No work other than the above-mentioned Scope of Work will be undertaken, or costs charged other than the cost quoted above, without written approval from Town of Plymouth. This contract is based upon the knowledge EBI has to date of the above referenced property. If additional information becomes available, EBI will discuss this with you and refine our contract accordingly.

EBI looks forward to the opportunity to continue to work with you on this important assignment. EBI is prepared to commence preparation necessary to initiate work upon receipt of this authorization. **Please note that all pages of this contract must be initialed and returned with the signed authorization prior to the start of work on this project.**

Should you have questions, please contact me at (978) 835-8619.

Sincerely,
EBI Consulting,

Authorization and acceptance of terms:
Town of Plymouth

Kevin Sanders
Director of Civil Engineering

Signature

Date

Name



STANDARD TERMS AND CONDITIONS FOR CONSULTING SERVICES

The Client and EnviroBusiness, Inc. (dba EBI Consulting, hereinafter "EBI") hereby agree as follows:

1. **CONTRACT**- The Contract is the Proposal or Contract document that is signed and dated by EBI and the Client including these Standard Terms and Conditions for Consulting Services which are appended and incorporated by reference. The Client is defined as the entity that signs the Proposal or Contract.

2. **COMPENSATION FOR SERVICES AND PAYMENT TERMS**- The Client agrees to pay EBI in accordance with the payment terms provided in the Contract.

Invoices will be submitted monthly or as described in the Proposal.

Invoices are due and payable upon receipt. If payments are not made as agreed, the Client agrees to pay reasonable collection costs and a handling charge of one and one-half percent (1 1/2 %) per month.

3. **RIGHT OF ENTRY**- The Client agrees to furnish EBI with the right-of-entry on the land and into any structures or represents and warrants, if the site is not owned by the Client, that permission has been granted to make site reconnaissance and observations pursuant to the scope of services in the Contract.

EBI will take reasonable precautions to minimize damage to the land and structures from activities related to its services but has not included in the fee the cost for restoration of damage that may result from EBI's operations, unless specifically stated in the Contract.

4. **DOCUMENTS**- All reports, drawings, field data and notes, laboratory test data, calculations, estimates, and other documents that EBI prepares as instruments of service as part of this Agreement shall remain EBI's property. The Client agrees that EBI's services are on behalf of and for the exclusive use of the Client and that all reports and other documents furnished to the Client or its agents shall be utilized solely for this project. Client shall indemnify and hold harmless EBI, its officers, directors, employees and subconsultants (collectively, EBI) against any damages, liabilities, including reasonable attorneys' fees and defense costs, arising from or alleging arising from or in any way connected with the unauthorized use of EBI's documents or instruments of services by the Client or any person or entity that acquires or obtains EBI's instruments of service from or through the client without the written authorization of EBI. EBI will retain pertinent records relating to the services performed for a period of three (3) years following submission of our report or other documents.

5. **STANDARD OF CARE**- EBI's services will be performed in accordance with generally accepted practices of members of the same profession providing similar services at the same time, in the same locale, and under like circumstances. EBI makes no other representations or warranties, whether express or implied, with respect to the services rendered hereunder.

6. **CONSTRUCTION SERVICES**- If EBI's construction observations services are included as part of the scope of services in the Contract, EBI will provide personnel to observe construction to ascertain that it is being performed, in general, in accordance with the plans and specifications.

EBI cannot provide its opinion on the suitability of any part of the work performed unless measurements and observations of that part of the construction are made by EBI personnel.

EBI's services do not make EBI a guarantor of the contractor's work, and the contractor will continue to be responsible for the accuracy and adequacy of all construction or other activities performed by the contractor. The contractor will be solely responsible for the methods of construction; supervision of personnel and construction; control, of machinery; false work, scaffolding, or other temporary construction aids; safety in, on, or about the job site; and compliance with OSHA regulations.

In consideration of EBI's performance of its obligations to review and evaluate the various bidders and bid submissions and to make recommendations to the Owner regarding the award of the construction contract, the Owner agrees to hold harmless and indemnify EBI for all costs, expenses, damages, and attorneys' fees which are incurred by EBI as a result of any claims, allegations, administrative or court proceedings, arising out of or relating to any bid protest or such other action taken by any person or entity with respect to the review and evaluation of bidders and bid submissions and/ or recommendations concerning the award of the construction contract. Although this paragraph shall not apply in circumstances in which EBI is finally adjudicated by a court to have actually engaged in intentional and willful conduct without any legitimate justification, privilege or immunity, the Owner shall be obligated to indemnify EBI for all such indemnification obligations incurred by EBI until any such final adjudication has been made by a court of competent jurisdiction.

7. **DISPUTE RESOLUTION**- Prior to the initiation of any legal proceedings, the parties to this Agreement agree to submit all claims, disputes or controversies arising out of or in relation to the interpretation, application or enforcement of this Agreement to non-binding mediation. Such mediation shall be conducted under the auspices of the American Arbitration Association or such other mediation service or mediator upon which the parties agree. The Party seeking to initiate mediation shall do so by submitting a formal, written request to the other party to this Agreement. This section shall survive completion or termination of this Agreement, but under no circumstances shall either party call for mediation of any claim or dispute arising out of this Agreement after such period of time as would normally bar the initiation of legal proceedings to litigate such claim or dispute under the laws of the Commonwealth of Massachusetts.

8. **INSURANCE**- EBI is protected by Worker's Compensation Insurance, Professional Liability and General Commercial Liability Insurance. EBI will furnish certification upon written request. The Client agrees that EBI will not be liable or responsible to the Client for any loss, damage, or liability beyond the amounts, limits, exclusions, and conditions of such insurance.

9. **LIMITS OF LIABILITY**- The Client agrees to limit liability to an amount of \$50,000 or EBI's fee, whichever is less and to indemnify EBI for any claims or costs from any construction contractor or subcontractor who performs work for which EBI has provided reports, plans, and specifications. The Client shall not be liable to EBI and EBI shall not be liable to the Client for any special, indirect or consequential damages whatsoever, incurred by either due to the fault of the other, regardless of the nature of this fault, or whether it was committed by the Client or EBI, their employees, agents or subcontractors. Consequential damages include, but are not limited to, loss of use and loss of profit. The Client

agrees to extend any and all limitations, indemnifications, and waivers provided by the Client to EBI to those individuals and organizations EBI retains for proper execution of the work. These shall be deemed to include but not necessarily limited to EBI's officers and employees and their heirs and assigns, as well as EBI's agents, subconsultants, and subcontractors and their officers, employees, heirs, and assigns.

10. **INDEMNIFICATION FOR HAZARDOUS MATERIALS-** The Client agrees that EBI has not contributed to the presence of hazardous wastes, oils, asbestos or other hazardous materials that may exist or be discovered in the future at the site and that EBI does not assume any liability for the known or unknown presence of such materials. The Client further agrees that EBI is not responsible for the disposal of any hazardous wastes generated in the course of work covered by this agreement, and that all such wastes are the sole property and responsibility of the Client. Client recognizes that EBI is working as a bailee and at no time assumes title to waste or samples or any responsibility as generator of said waste or samples.

Therefore, the Client shall defend, indemnify, and hold harmless EBI, its consultants, subcontractors, agents, and employees from and against all claims, damages, losses, and expenses including defense costs and lawyer's fees including those that result from the failure to detect or from the actual, alleged, or threatened discharge, dispersal, release, or escape of any solid, liquid, gaseous or thermal irritant, asbestos in any form, or contaminants including smoke, vapor, soot, fumes, acids, alkalies, chemicals, waste, oil or other hazardous material. The Client shall be liable under this paragraph for claims, damages, losses, and expenses including defense costs and attorney's fees, unless such claims, damages and losses and expenses are caused by EBI's gross negligence.

11. **PUBLIC RESPONSIBILITY-** The Client acknowledges that the Client or the Site Owner, as the case may be, is now and shall remain in control of the Site for all purposes at all times. Except as required by law, EBI does not undertake to report to any federal, state, county, or local public agencies having jurisdiction over the subject matter any conditions existing at the Site from time to time that may present a potential danger to public health, safety, or the environment. The Client agrees to notify each appropriate federal, state, county, and local public agency, as they each may require, of the existence of any condition at the Site that may present a potential danger to public health, safety, or the environment.

Notwithstanding the provisions of the foregoing, EBI will comply with subpoenas, judicial orders or government directives, and federal, state, county and local laws, regulations and ordinances, and applicable codes regarding the reporting to the appropriate public agencies of findings with respect to potential dangers to public health, safety, or the environment. EBI shall have no liability or responsibility to the Client or to any other person or entity for reports or disclosures made in accordance with such statutory or other lawful requirements. The Client shall defend, indemnify, and hold EBI harmless from and against any and all claims, demands, liabilities and expenses, including reasonable attorneys' fees incurred by EBI and arising directly or indirectly out of EBI's reporting such information under a bona fide belief or upon advice of counsel that such reporting or disclosure is required by law.

12. **CLIENT INFORMATION-** The Client accepts the liability for the accuracy and completeness of information, including, but not limited to, specifications, drawings, maps, laboratory analyses, surveys, reports, historical land usage and operations, results of previous site investigations and surface or subsurface conditions affecting the site, supplied by it or its agents to EBI. Client acknowledges that EBI is relying upon such information or data in the preparation of this proposal without further verification by EBI as to its accuracy or completeness.

13. **SUSPENSION OF WORK-** The Client may, at any time, by a ten (10) day written notice, suspend further work for EBI as defined by this Agreement. The Client shall remain fully liable for and shall promptly pay EBI the full amount for all services rendered by EBI to the date of suspension of services plus suspension charges. Suspension charges shall include the cost of putting documents and analyses in order, personnel and equipment rescheduling or reassignment adjustments, and all other related costs and charges directly attributable to suspension. If payment of invoices by the Client is not maintained on a thirty (30) day current basis, EBI may, by providing a ten (10) day written notice to the Client, suspend further work until payments are restored to a current basis. In the event EBI engages counsel to enforce overdue payments, the Client shall reimburse EBI for all reasonable attorney's fees and court costs related to enforcement of overdue payments. The Client shall indemnify and save harmless EBI from any claim or liability resulting from suspension of the work due to non-current payments.

14. **INSTRUMENTS OF SERVICE-** The Client agrees to waive any claim against EBI and defend, indemnify, and hold harmless from any claim or liability for injury or loss allegedly arising from unauthorized re-use of EBI's instruments of service. The Client further agrees to compensate EBI for any time spent or expenses incurred by EBI in defense of such claim, in accordance with EBI's prevailing fee schedule and expense reimbursement policy. Notwithstanding any other provision to the contrary, EBI retains the rights of ownership of any patentable or copyrightable concepts arising from EBI services.

15. **TERMINATION-** Either party may terminate this Agreement for cause upon giving the other party not less than seven (7) calendar days written notice for any of the following reasons: substantial failure by the other party to perform in accordance with the terms of this agreement and through no fault of the terminating party and/or material changes in the conditions under which this Agreement was entered into, the scope of services or the nature of the project or the failure of the parties to reach agreement on the compensation and schedule adjustments necessitated by such changes.

16. **GOVERNING LAW-** This Agreement shall be deemed executed and delivered within the Commonwealth of Massachusetts, and all rights and obligations of the parties under this Agreement, and any disputes hereunder, shall be governed by the law of the Commonwealth of Massachusetts.

17. **DRAFTING NOT TO BE CONSTRUED AGAINST ANY PARTY-** The parties acknowledge and agree that each has had a full opportunity to review and have input into this Contract and that any ambiguity found shall not be construed against any party as drafter.

18. **INFORMATION-** Client will use reasonable efforts to provide to EBI information in Client's possession that EBI deems necessary to EBI's completion of the Scope of Work.

19. **INDEPENDENT CONTRACTOR-** EBI is being retained by Client pursuant to this Contract as an independent contractor, and nothing herein or otherwise shall be construed to make EBI an employee of Client. EBI shall not represent to third parties that it represents



EBI Consulting

environmental | engineering | due diligence

21 B Street
Burlington, MA 01803
www.ebiconsulting.com

Client or is the agent of Client, unless specifically requested by Client in writing. EBI is responsible for and shall have complete control over all necessary labor, equipment, insurance and materials to perform the Services, and for determining the best means to perform the Services subject to, and in order to satisfy, the requirements of this Contract.

20. **ASSIGNMENT-** This Contract may not be assigned by either party hereto without the prior written consent of the other party.
21. **SURVIVAL-** The provisions of this Contract shall survive the completion of the Services and the Scope of Work for each Project or the earlier termination of this Contract and/or the Scope of Work.
22. **FORCE MAJEURE-** A delay in or failure of performance of either party hereto shall not constitute default hereunder or give rise to any claim for damages if and to the extent such delay or failure is caused by occurrences beyond the control of the party affected, including but not limited to: acts of God or the public enemy; compliance with any order, action, or request of a governmental authority affecting to a degree, not presently existing, the supply, availability, or use of information, materials or labor; acts of war; public disorders; rebellion or sabotage; floods; riots; strikes; labor or employment difficulties whether direct or indirect; or any causes, whether or not the class or kind of those specifically named above, not within the control of the party affected and which, by the exercise of a reasonable diligence, said party is unable to prevent.
A party which is prevented from performing, for any reason, shall immediately notify the other party in writing of the cause for such non-performance and within a reasonable time set forth the anticipated extent of the delay. Should either party's performance hereunder be delayed beyond the control of or without the fault or negligence of such party, the parties to this Contract shall confer to reach an agreement on the conditions upon which the work shall be continued, or otherwise terminated.
23. **SEVERABILITY.** Any article or provision of this contract which may be deemed in violation of law shall not affect in any manner the remaining provisions of this contract.
24. **ENTIRE AGREEMENT** - This Contract constitutes the entire agreement between Client and EBI with respect to the Scope of Work and supersedes all prior negotiations, representations and agreements. This Contract may only be amended by a written instrument signed by the parties hereto.

Last Reviewed 7.1.2022 MMcC

Compliance process underway for MS4 permits

By Arilea Lovett

After a one-year postponement, the new five-year permit for Municipal Separate Storm Sewer Systems, issued jointly by the U.S. Environmental Protection Agency and Massachusetts Department of Environment Protection, went into effect on July 1.

The first required action by municipalities covered under the new MS4 permit is the submission of a Notice of Intent for coverage, due by Oct. 1.

More than 250 municipalities in urbanized areas are covered under the permit and must comply with federal and state laws and regulations regarding the proper discharge of stormwater to waterways. Municipalities must develop,

implement and enforce a stormwater management program that controls pollutants to the maximum extent practicable, protects water quality, and satisfies appropriate requirements of the federal Clean Water Act.

The new permit, which replaces the 2008 permit, adheres to the same six minimum control measures: pollution prevention for municipal operations; illicit discharge detection and elimination; construction site runoff control; post-construction runoff control; public education and outreach; and public participation and involvement.

By next June 30, permitted municipalities must develop a Stormwater Management Program that details the

activities and measures that will be implemented to meet the requirements of the permit. Municipalities must also produce annual reports that document their permit compliance; the first report will cover a 14-month period from May 1, 2018 through June 30, 2019.

The MassDEP provides low-interest loans to help municipalities comply with federal and state water quality requirements through the Clean Water State Revolving Loan Fund. Eligible uses include stormwater management, watershed management, and green infrastructure projects. The application deadline for the next round of funding is Oct. 15. ●

MMA to offer first-time Annual Meeting attendee orientation

The MMA will hold a special orientation session for first-time attendees of its Annual Meeting & Trade Show on Friday morning, Jan. 18.

The session will provide an opportunity to learn from seasoned association members about the best strategies for making the most of the Annual Meeting experience as well as MMA membership. This includes best practices for workshop attendance, how to take advantage of the Trade Show, valuable networking opportunities, and more.

The orientation, to be held from 8 to 9 a.m. in the Hall C Foyer on the second floor of the Hynes Convention Center, will include breakfast and networking.

MMA members and staff will give a presentation on the history and value of MMA membership. A group of selectmen, councillors, mayors and town managers will explain how they take advantage of resources provided by the MMA, and they will connect the first-



North Adams Mayor Thomas Bernard (right), elected in November 2017, speaks with Lynnfield Town Administrator Rob Dolan, a 15-year former mayor of Melrose, at the first-time attendee orientation session before the start of the 2018 MMA Annual Meeting & Trade Show.

time attendees to appropriate MMA staff for more information.

If you are planning to attend the MMA Annual Meeting for the first time, or

have any questions about the event or the first-time attendee session, contact Devon Elizabeth Williams at dwilliams@mma.org or 617-426-7272, ext. 104. ●

MMPA to cover OSHA rules at holiday meeting on Dec. 6

At its holiday meeting on Dec. 6 in Wrentham, the Massachusetts Municipal Personnel Association will host a panel presentation on Occupational Health and Safety Administration best practices.

Panelists will include certified trainers, human resources professionals, and experts from MIA to prepare members with

training, policies and procedures ahead of the changing workplace safety regulations.

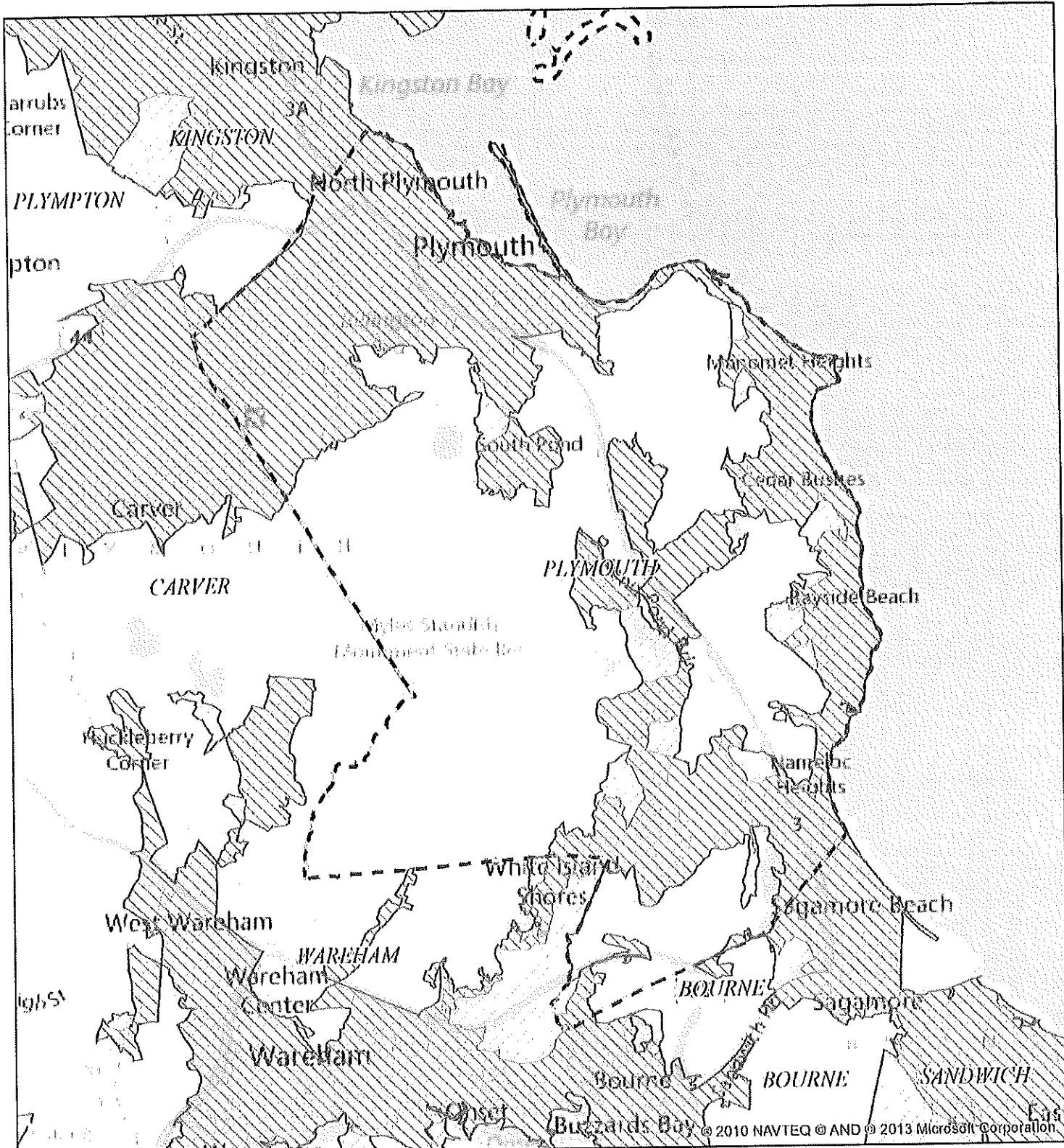
Registration and a networking breakfast will begin at 8:30 a.m., with the program starting at 9:30 a.m. and concluding at 1 p.m. with lunch.

At the conclusion of lunch, there will be an optional holiday swap for MMPA members

and meeting attendees. The swap gift limit is \$15.

The meeting will be held at Lake Pearl, 299 Creek St. in Wrentham. To register, visit www.mmpa.org.

Contact: MMA Member Services Coordinator Devon Elizabeth Williams at dwilliams@mma.org or 617-426-7272, ext. 104

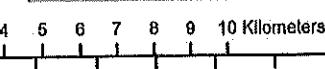


NPDES Phase II Stormwater Program Automatically Designated MS4 Areas

Plymouth MA

Regulated Area:

UA Based on 2000 Census	UA Based on 2010 Census
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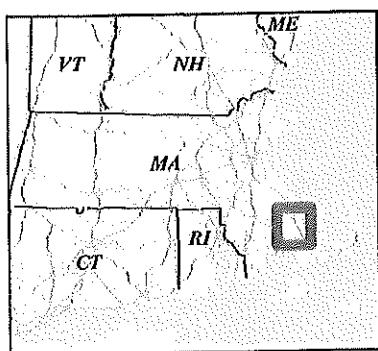
Town Population: **56463**

Regulated Population: **51365**

(Populations estimated from 2010 Census)



Urbanized Areas, Town Boundaries:
US Census (2000, 2010)
Base map © 2013 Microsoft Corporation
and its data suppliers





HELP KEEP OUR LOCAL WATERS CLEAN AND HEALTHY

- POLLUTION PREVENTION FOR CONSTRUCTION SITES

Plymouth Stormwater Management Team

*[Following include excerpts from a
MassDCR fact sheet]*

Stormwater Pollution Prevention

Contaminated stormwater is a source of pollutants in many of our ponds, lakes, rivers and harbors. Storm drains carry runoff from streets, businesses, homes, industrial uses, and construction sites into freshwater and marine waterbodies.

Construction activities are only one contributor to this problem, but they are known to be a source of sediments, oily wastes, and other substances.

Reducing or eliminating the exposure of construction operations to rainfall and runoff is a proven way to reduce pollution that damages our local waters.

What Is a Stormwater Pollution Prevention Plan?

The EPA Construction General Permit is needed if more than one acre of disturbance is proposed and stormwater may runoff from construction site. This permit requires a Stormwater Pollution Prevention Plan (SWPPP) before any work begins.

A SWPPP is a plan to control stormwater discharges from the site. It is broader and more complicated than a typical sediment and erosion control plan. A SWPPP needs to be updated as work progresses, and the plan must be available on site. For detail refer to: www.epa.gov/npdes/npdes-stormwater-program.

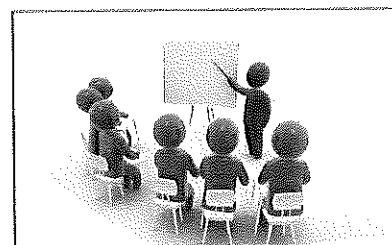
Plan in Advance to Prevent Pollution

Legally, the only thing that should leave the project site and enter a storm drain is clean, unpolluted rain runoff. Effective stormwater management requires that all potential pollutants are recognized, and a plan is designed to protect the health of local waters.

- Remove existing vegetation only as needed.
- Schedule excavation, grading and paving work for dry weather periods.
- Designate specific areas of site, well away from storm drains or waterways, for material storage and equipment maintenance.
- Have extra erosion controls (such as hay bales and silt fence/silt sock) on site for emergency.
- Develop and implement a combination of effective erosion and sediment controls for site.

Employee training program

Train employees and subcontractors about their responsibilities for pollution prevention.



Good housekeeping and Best Management Practices will prevent and reduce pollutant discharges from construction sites.

Spill prevention and response procedures enable a rapid response to spills that may occur. Typical spill prevention and response procedures include:

- Identifying potential discharge locations.
- Training employees in proper spill prevention and response techniques.
- Respond to small spills immediately using dry clean-up methods and sweep as soon as possible.
- Posting contact information for all individuals who need to be notified in the event of a spill.
- Promptly reporting and documenting any spills or leaks to appropriate individuals.

Erosion and sediment control management

Where soils are exposed to water, wind, or ice, erosion can result. Typical non-structural BMPs that can be implemented to control sediment include:

- Protecting all storm drain inlets and any streams, ponds and wetlands near the construction site.
- Limiting access to and from the site and stabilize construction entrances and exits.
- Minimizing the length of time bare soil is exposed
- Diverting or preventing runoff from flowing across exposed areas.
- Stabilizing disturbed soils as soon as possible.
- Maintaining all haybales and silt fence to ensure no materials escape and replace if necessary.

Dust control

Dust comes from stockpiles, cleared ground, gravel roads, and open areas. Non-structural methods to control dust include:

- Protect stockpiles by storing under a roof, tarp or plastic sheeting.
- Spraying controlled amounts of uncontaminated stormwater to dampen dust-generating areas.
- Sweep frequently.

Equipment and Materials Management

- Wash out concrete mixers only in designated washout areas away from brooks or ponds, and setup small mixers on tarps.
- Perform major maintenance and repairs of vehicles off the site.
- Remove trash, debris and wastes on frequent basis and ensure that dumpsters are covered.

Fertilizing grass to stabilize construction site

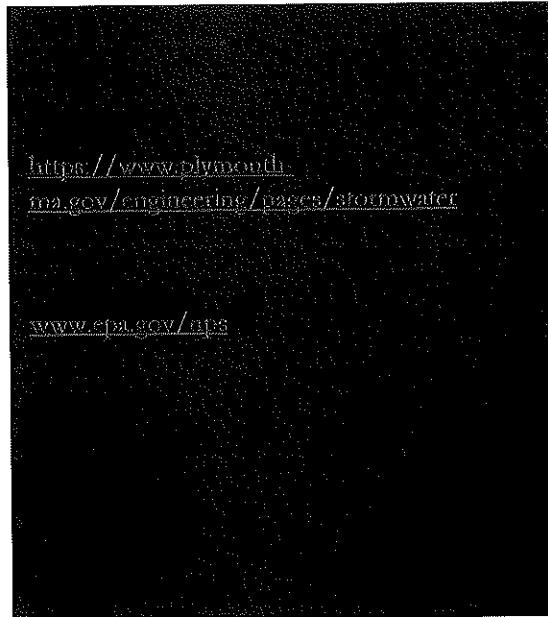
Grass clippings contain high amounts of nitrogen, a key ingredient in fertilizer. Use grass clippings by mulching in place. It may be all the fertilizer you need, and it will save time and money.

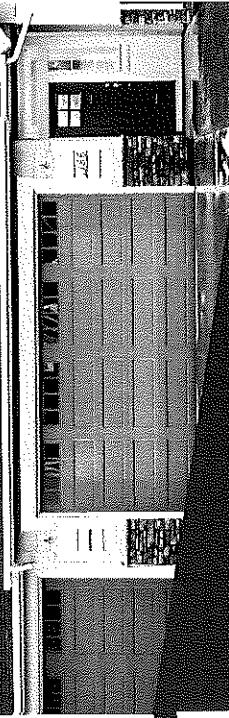
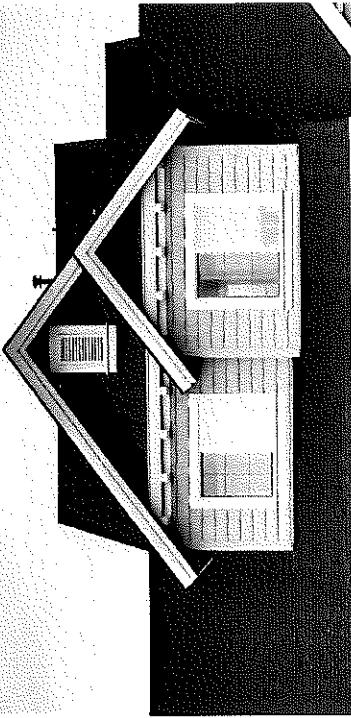
If you do apply fertilizer:

- Use organic or slow-release fertilizers that are less likely to runoff than fast-release fertilizers.
- Fertilize in the fall but beware of weather patterns. Although light rainfall is helpful in distributing fertilizer, a heavy downpour will wash the fertilizer into nearby waters.
- Be careful not to apply more than recommended amount of fertilizer. Too much fertilizer can burn the grass, damage the soil, and attract pests.

For a more comprehensive listing of Best Management Practices for the construction industry, go to EPA's website www.epa.gov and search construction stormwater.

Allowing stormwater sediment or other pollutants to runoff the construction site and enter a storm drain or waterway is a violation of federal, state and local water quality regulations.





Help Keep Our Waterways Clean!

The U.S. Environmental Protection Agency estimates that contaminants in stormwater runoff cause over half of the pollution in our nation's waterways.

Stormwater pollution begins when rain or snowmelt washes over pavement and other impervious surfaces, picks up contaminants, and flows down storm drains to the waterways we rely on for drinking and recreation.

Common pollutants include antifreeze, detergents, fertilizers, gasoline, household chemicals, motor oil, paints, pesticides, pet waste, road salt, solvents, and yard waste.

To learn more visit:

www.epa.gov/npdes/stormwater/
NPDES
Stormwater
Program

Storm Water Pollution Prevention Guide

For Homeowners

EBI Consulting
environmental | engineering | due diligence

2 Battremarch Park, Suite 10
Quincy, MA 02169
Tel: (781) 273-2500
www.ebiconsulting.com



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Department of Environmental Protection and
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Stormwater Pollution is the toxic mix of bacteria, chemical, metals, nutrients and other contaminants that washes over pavement and other impervious surfaces and flows down storm drains to the waterways we rely on for drinking and recreation.

PICK-UP AFTER YOUR DOG

Dog waste carries high levels of harmful *E. coli* bacteria and other pathogens and is a major contributor to local water pollution.

- Pick up the poop! Always carry a plastic bag when you walk your dog and dispose of pet waste in a trash can.

LAWN & GARDEN

- Choose organic lawn chemicals whenever possible
- Use lawn chemicals sparingly and never use more than the directions call for
- Sweep up dry chemical spills and dispose in trash.
- Don't pile yard waste near streams, wetlands, or storm drains.
- Start a compost pile.
- Don't allow irrigation to spray onto pavement. Water that ends up on the pavement contributes to polluted runoff and is wasted.
- Make sure that your landscaper/irrigation contractor follows rules for preventing stormwater runoff.
- Redirect downspouts toward grassy areas, trees, and shrubs, so that runoff from your roof can soak in the ground.

• Use **permeable materials** in landscape designs. Bricks, pavers, and stones allow water to slowly filter into the ground.

- Set the **rain barrel** under your downspout to capture water for another use.

- Plant **rain gardens** to help filter and soak up water before it runs onto the street.

HOME / BUSINESS

- Use the **least toxic** products available for cleaning, etc.
- Avoid **liquid chemical spills** such as oil, gasoline, antifreeze, paint, etc. on paved areas.

If liquid chemical spill occurs, clean with rags and absorbent material such as **sand** or **kitty litter**. Sweep up absorbents and dispose in the trash.

- Never use a **hose** to wash down the driveway or sidewalk. This washes pollutants into storm drains and is a waste of water.
- Dispose of household hazardous waste through your local DPW/ Household Hazardous Waste Program.
- Never pour wash water or chemicals down storm drains.
- Store chemicals in **leak proof containers** inside a building or shed, or under cover way from rainwater.
- Avoid oversalting walkways and driveways in the winter and use non-toxic products whenever possible.
- Sweep up all **construction areas** on a regular basis and dispose of debris in the trash.

WASHING CARS AND BOATS

- Park your vehicle in a spot where the soap will run off onto grass, rather than into the street and down the storm drain. If practical, park your vehicle on your lawn when washing it.

- Use **organic or mild soaps** and detergents

- Never clean or pressure wash the **undercarriage** of a car at home. The oil, grease and other pollutants from this activity can contaminate shallow ground water.

- Always use a **hose nozzle with a trigger**, and shut it off when you're not using to conserve water
- Skip the home treatment and **wash your car professionally** but use a car wash that recycles water!

AUTOMOTIVE REPAIR

- Store automotive parts, such as batteries, engines, transmissions and parts that may have oily or greasy residue on them, under cover and off the ground, to **minimize rainwater contact**. Rainwater can wash pollutants off these parts and into storm drains.

- Collect all used oil, antifreeze, and other vehicle fluids in containers with tight fitting lids and recycle at a local service station.
- Never discharge pool water directly into a storm drain.

- Dechlorinated pool, hot tub, or spa water with **neutralizing chemicals**, if water is to be discharged into the ground. If water cannot be dechlorinated, it must be collected by a pool maintenance company.

SWIMMING POOLS AND HOT TUBS

MS4 Stormwater Compliance Training

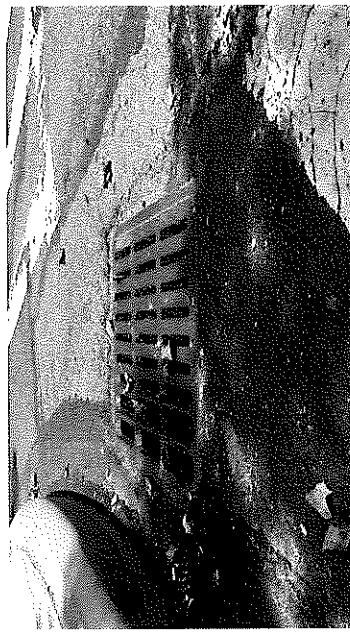
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DDE PROGRAM



environmental | engineering | due diligence

Key Words

Catch Basin - A catch basin is a curbside drain with the sole function of collecting rainwater from properties and streets and transporting it to local waterways through a system of underground piping, culverts and/or drainage ditches. Catch basins can also be found in parking lots and serve the same purpose.



Example of a Catch Basin

Image source: https://live.staticflickr.com/4319/35885256210_5476106ac_b.jpg

Best Management Practices (BMPs) – schedules of activities, practices (and prohibitions of practices), structures, vegetation, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants into bodies of water in the United States. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Total Maximum Daily Loads (TMDLs) - A TMDL is a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources.

What is Stormwater Runoff?

Stormwater runoff is what is generated when precipitation from rain and snowmelt flows over land and does not soak into the ground. As runoff flows over impervious surfaces (paved streets, parking lots, and building rooftops), it accumulates debris, oil, pet waste, chemicals, sediment or other pollutants that could adversely affect the quality of nearby waterways if untreated.

Pollutants in stormwater is a major cause of :

1. Impairment of water quality and flow in local waters
2. Contamination of drinking water supplies
3. Alteration or destruction of aquatic and wildlife habitat



Image: <https://www.townofmaynard-ma.gov/p-c-content/uploads/2013/05/stormwater-diagram.jpg>

What is MS4?

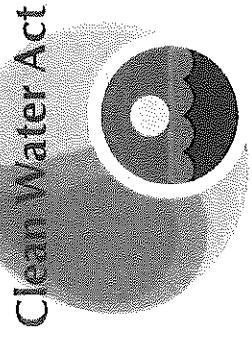
Municipal Separate Storm Sewer System Regulation (**MS4**) is a conveyance or system of conveyances that is

- Owned by a state, city, town, village or other public entity
- Designed to collect and convey stormwater (e.g., storm drains, catch basins, pipes, outfalls, culverts)
- Not a combined sewer
- Not part of a sewage treatment plant, or publicly owned treatment works

Massachusetts MS4 Permit:

Regulates the discharges of stormwater to protect water resources. The MS4 Program is administered by the USEPA in Massachusetts

History of Stormwater Regulation



- 1948 - Federal Water Pollution Act
- 1972 - Clean Water Act
- 2003 - EPA issued Final General Permit for Stormwater Discharges From Small MS4 to focus on water quality with the goal to reduce erosion, sedimentation, and scour as well as eliminate cross connections
 - Covers - "traditional" (cities and towns) and non-traditional (Federal and State agencies) MS4 Operators
- 2018 - EPA issues 2016 MS4 General Permit (Effective in 2018)

Storm Water Management Plan (SWMP)

The SWMP details the activities and measures that will be implemented to meet the terms and conditions of the permit.

The main elements of the Storm Water Management Program are

1. 6 Minimum Control Measures (MCM's) -Specific actions to reduce pollutant loading
 - i. MCM1: Public Education and Outreach
 - ii. MCM2: Public Involvement and Participation
 - iii. MCM3: Illicit Discharge Detection and Elimination
 - iv. MCM4: Construction Site Runoff Control
 - v. MCM5: Post Construction Stormwater Management
 - vi. MCM6: Pollution Prevention and Good Housekeeping for Municipal Operations
2. Water Quality Based Effluent Limitations -Specifies the requirements to achieve approved Total Maximum Daily Loads (TMDL's)
 - i. Nitrogen
 - ii. Phosphorous
 - iii. Metals
 - iv. Solids
 - v. Bacteria or pathogens
 - vi. Chloride
 - vii. Oil and Grease

2. Water Quality Based Effluent Limitations -Specifies the requirements to achieve approved Total Maximum Daily Loads (TMDL's)

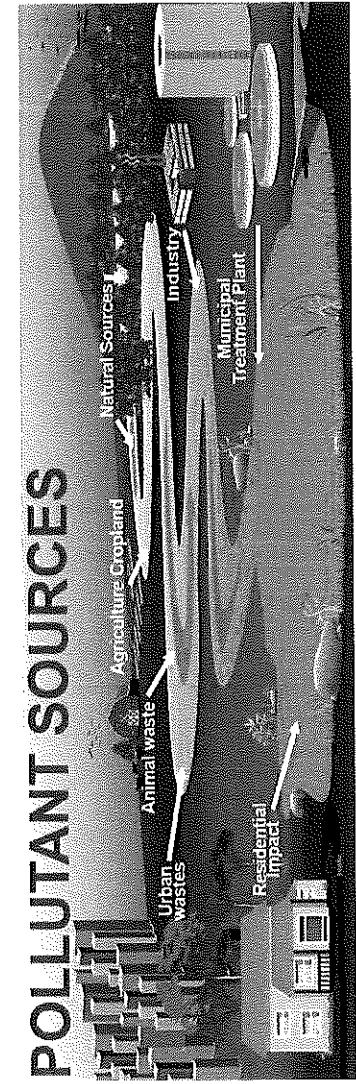


Image source: <https://www.state.nj.us/dep/wms/bears/images/tmdl-main.png>

1. MCM1 : Public Outreach

Focused messages aimed at different audiences.

1. Residential

- Do not dump oil in catch basins;
- Wash cars on grass and
- Pick up after your dog

2. Commercial

- Salt Application
- Catch Basin Maintenance
- Materials Storage

3. Construction

- Parking Lot Maintenance
- IDDE
- Materials Storage

4. Industrial

- Regulated under MS General Permit
- Materials storage

Stormwater MS4 Permit

NPDES

National Pollutant Discharge Elimination System (NPDES) Stormwater information for the Town of Plymouth

Plymouth Stormwater Management Plan

DRAFT Guide for the Design of Storm Drainage Facilities in the Town of Plymouth, Massachusetts (updated June 2021)

Notice of Intent

Annual Reports:

- Year 1 - 2019
- Year 2 - 2020

Public Education:

- Pet Waste
- Septic Systems
- Yard Waste
- Lawns and Landscapes
- Construction Sites
- Homeowners

Public Outreach

Information

Contact Info

2. MCM2 : Public Improvement/Participation

The public are stakeholders in the community's water quality, this measure facilitates a forum for the public to participate in the review and implementation of the SWMP

You can find the information on the Town Of Plymouth Webpage under Engineering — Stormwater MS4 Permit
<https://www.plymouth-ma.gov/engineering/pages/stormwater-ms4-permit>

Public Involvement includes:

- Public Review of SWMP
- All reports made available for public for **review and comment**

Stormwater MS4 Permit

NPDES

National Pollutant Discharge Elimination System (NPDES) Stormwater information for the Town of Plymouth

Stormwater Management Plan for the Town of Plymouth, Massachusetts, dated June 2021

Table of Contents

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Master Street List

Open Street Reclassification

Pavement Management Program

Plymouth Street Atlas (Map Block)

Snow Removal Requests

Snow Removal Plan

Stormwater MS4 Permit

Street Improvement, Permit Form

Street Crossing Forms

Water Street Intercept Replacement

Contact Info

Phone: 508-434-3000

3 MCM 3 – ILLICIT DISCHARGE DETECTION AND ELIMINATION

An illicit discharge is any discharge to a municipal separate sewer that is not composed entirely of stormwater, except discharges pursuant to a NPDES Permit and discharges resulting from firefighting activities

- Direct:- Sewage, Industrial, Commercial cross-connection, Direct pipe
- Indirect:- Groundwater seepage, Spills, Dumping, Outdoor washing activities

Municipalities are required to find and eliminate sources of non-stormwater from their storm sewer system.

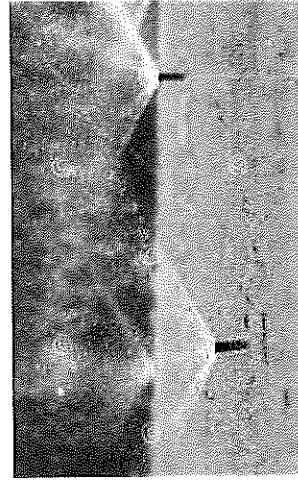
Illicit Discharges are:

- Sand, Salt, and soils
- Garbage, litter and floatable
- Sewage, fecal coliform, pathogens
- Animal waste
- Paints, varnishes, and solvents
- Oil and automotive fluids
- Nonhazardous liquid, solid waste and yard waste
- Pesticides, herbicides and fertilizers
- Hazardous materials and waste
- Dissolved and particulate metals
- Noxious or offensive matter or any kind



What is not an Illicit Discharge:

- Diverted stream flows
- Air conditioning condensation
- Individual resident car washing
- De-chlorinated swimming pool water
- Uncontaminated ground water infiltration
- Residential building wash centers without detergents
- Water line flushing
- Fire fighting
- Landscape irrigation
- Foundation drains
- Irrigation water
- Lawn watering
- Street wash centers





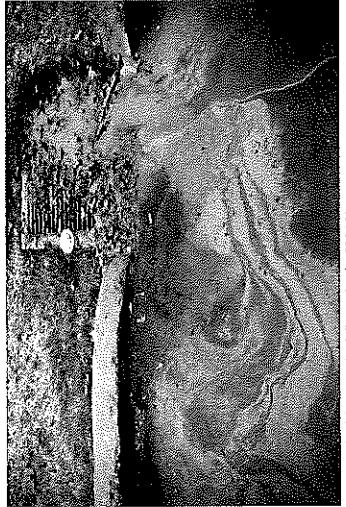
Plymouth Receiving Waters

PLYMOUTH WATERSHED'S

South Coastal, Buzzards Bay and Taunton River

Waterway	Impairment
Plymouth Harbor And Tributaries	Nitrogen, Fecal Coliform, Non-native aquatics (Smelt Pond)
Cape Cod Bay and Tributaries	Fecal Coliform
Beaver Dam Brook and Tributaries	Non-native aquatics Brigs Reservoir & Long Island Pond
Billington Sea and Tributaries	Turbidity

ILLICIT DISCHARGES INDICATORS



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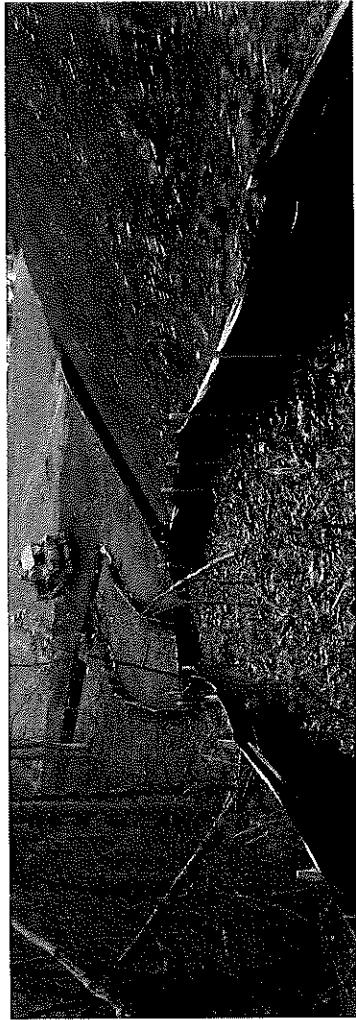
This Photo by [https://www.treehugger.com](#)

- Dog waste bags
- Staining
- Soap suds
- Grease
- Suspicious connections
- Odors at manholes
- Broken sewer pipes

IF YOU SEE IT, REPORT IT!

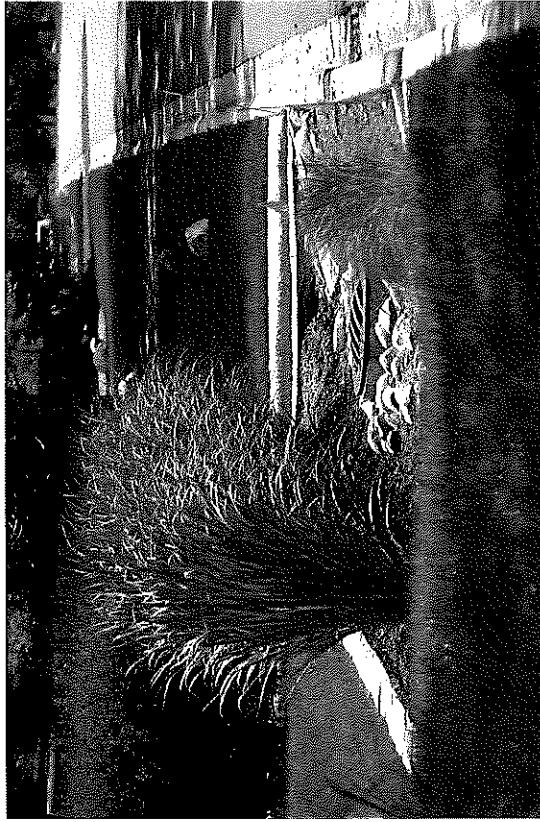
4. MCM 4 : Construction Site Stormwater Runoff

- Measures or actions taken to minimize/eliminate erosion and maintain sediment on construction sites that disturb one or more acres of land.
- Updated bylaws/rule and regulations to include:
 - Requirements for Erosion and Sediment Control BMPs
 - Requirements for Waste Control on Construction Sites
- Created written procedures for:
 - Site Plan Review
 - Site Inspection And Enforcement



5. MCM 5 : Post Construction Site Stormwater Management

- This program addresses stormwater runoff from new development and redevelopments in order to reduce the discharge of pollutants found in stormwater through the retention or treatment of stormwater on site after construction is completed.
- This was addressed by creating updates to bylaws/rules and regulations to include:
 - Requirements for Low-Impact Development (LID) practices
 - Pollutant removal requirements for stormwater treatment BMPs
 - Requirements for long-term operation and maintenance of stormwater
 - Requirements for the submission of as-built plans



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6. MCM 6: Good Housekeeping and Pollution Prevention for Permittee Owned Operations

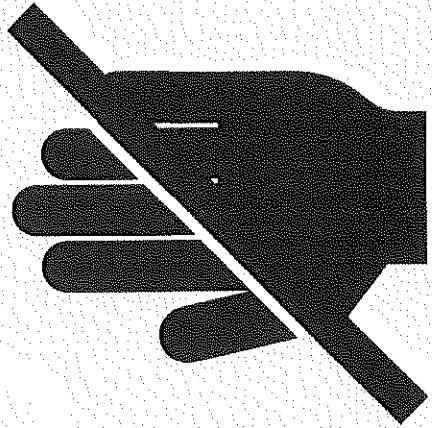
Implement good housekeeping practices in municipal operation such as vehicle maintenance, open space, buildings and infrastructure. The permit requires at least annual street sweeping and optimization of catch basin cleaning with the goal of preventing or reducing pollutant runoff and protecting water quality

Requirements

- O&M Procedures
- Catch Basin Cleaning
- Street Sweeping
- SWPPP (Storm Water Pollution Prevention Plan)



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IF YOU SEE AN ILLICIT
DISCHARGE, REPORT IT!