

# Low Impact Development Policy Report

TOWN OF BRAINTREE  
STORMWATER DIVISION

## Introduction

In 1987, the US Environmental Protection Agency (EPA) amended the Clean Water Act to require a two-phased national program to address water pollution from stormwater. Phase I, promulgated in 1990, addressed stormwater discharges in approximately 900 of the nation's largest cities. Phase II regulations, promulgated in 1999, require operators of municipal separate storm sewer systems (MS4s) located in urbanized areas with populations of fewer than 100,000 people to obtain a NPDES permit for their stormwater discharges. In Massachusetts, permits are issued jointly by EPA Region 1 and the Massachusetts Department of Environmental Protection (MassDEP).

On May 1, 2003, EPA Region 1 issued its Final General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (2003 small MS4 permit) consistent with the Phase II rule, which covered Massachusetts cities and towns, including Braintree. This permit expired on May 1, 2008 but remained in effect until operators were authorized under the 2016 MS4 general permit, which became effective on July 1, 2018.

Under the guidelines of the US EPA and MassDEP, the entire Town of Braintree is an automatically designated MS4 area (see Figure ES-1) and the town must obtain a Phase II permit. More information about the Massachusetts Small MS4 General Permit may be found at <https://www.epa.gov/npdes-permits/massachusetts-small-ms4-general-permit> .

Under the 2016 Permit, the Town of Braintree must develop and execute a comprehensive Stormwater Management Plan, which includes best practices to reduce nonpoint source pollution from Braintree's MS4. One of the requirements of the permit is to develop a report assessing existing local regulations to determine the feasibility of making, at a minimum, the following practices allowable when appropriate site conditions exist:

- i. Green roofs;
- ii. Infiltration practices such as rain gardens, curb extensions, planter gardens, porous and pervious pavements, and other designs to manage stormwater using landscaping and structured or augmented soils; and
- iii. Water harvesting devices such as rain barrels and cisterns, and the use of stormwater for nonpotable uses.

The assessment should indicate if the practices are allowed in Braintree and under what circumstances are they allowed. If the practices are not allowed, the Town will determine what factors hinder the use of these practices, what changes in local regulations may be made to make them allowable, and provide a schedule for implementation of recommendations. The Town will report in each annual report on its findings and progress towards making the practices allowable.

This report was prepared in partnership with the Braintree Department of Planning and Community Development and serves to satisfy the requirements of Section 2.3.6(c) of the 2016 MS4 general permit.

## Regulatory Assessment

In general, Low Impact Development (LID) practices are allowable in Braintree. Use of LID is encouraged where appropriate during the permitting process.

Projects that must obtain stormwater permits are required to describe any LID practices considered during the design process, and if LID practices are not used, to explain why these practices were not selected. More information is available in the [Braintree Stormwater Regulations](#).

If LID practices are selected, permittees must submit an operation and maintenance plan that describes the future maintenance of the practices and names individuals responsible for that maintenance.

Information about many LID practices is available on the Town website at <https://braintreema.gov/850/Developers>.

In many cases, the Town refers permittees and potential permittees to the Massachusetts Stormwater Handbook and the Metropolitan Area Planning Council (MAPC) LID Toolkit to suggest LID practices.

## Green Roofs

Green roofs are allowed in Braintree, however, use of green roofs is not a common development strategy within the Town. There are no ordinances or regulations that prohibit the use of green roofs.

The practice is allowed, and the current regulatory framework allows for flexibility on the part of the Planning Board, developers, and other permitting authorities. The Town's authorities, including the Building Division, Planning Board, Conservation Commission, Department of Public Works, and Stormwater Division may require permits for construction of green roofs.

The Town generally evaluates most development projects for their ability to meet the Massachusetts Stormwater Standards, and does allow for green roofs to help meet the standards where appropriate.

Should the Town evaluate a proposal including a green roof, the following best practices will be required:

- Runoff from a green roof must be kept separate from the runoff from any land uses with higher potential pollutant loads.
- Runoff from a green roof, like the runoff from non-metal roofs, may be discharged to the ground via a dry well without further treatment.
- Green roof owners/operators should provide an operation and maintenance plan.

## Infiltration Practices

There are no ordinances or regulations that prohibit the use of infiltration practices, including rain gardens, curb extensions, planter gardens, porous and pervious pavements, and other designs to manage stormwater using landscaping and structured or augmented soils. Infiltration is often required during the permitting process for suitable sites.

The practice is allowed, and the current regulatory framework allows for flexibility on the part of the Planning Board, developers, and other permitting authorities. The Town's authorities, including the Building Division, Planning Board, Conservation Commission, Department of Public Works, and Stormwater Division may require permits for construction of infiltration practices.

When the Town evaluates a proposal including infiltration practices, the following best practices are generally required:

- Massachusetts Stormwater Standards for flow attenuation and runoff capture and treatment must be met for new development or redevelopment as applicable.
- Infiltration must be a suitable strategy for the site based on soil testing and groundwater levels.
- Developers proposing infiltration systems must prepare and operation and maintenance plan for the systems and certify maintenance annually.

## Water harvesting devices

The term “water harvesting devices” encompasses devices such as rain barrels, cisterns, and the use of stormwater for non-potable uses (for example, watering gardens).

The Town of Braintree does not prohibit use of such devices through ordinance or regulation.

The Town encourages the use of rain barrels in residential applications and holds an annual sale of rain barrels for residents. Residents receive a 40% discount on retail price of rain barrels during the sale. In 2021, 211 barrels were sold.

The practice is allowed, and the current regulatory framework allows for flexibility on the part of the Planning Board, developers, and other permitting authorities. Accordingly, the Town does not propose any recommended change to allow for water harvesting devices.

## Conclusion

The Town of Braintree has evaluated the allowability of Low Impact Development strategies as required by the 2016 MS4 permit, and has determined that all practices evaluated are currently allowed in Braintree. The Town will continue to refer developers to resources with information about LID practices and requiring permittees to use and evaluate LID where appropriate.

The Braintree Department of Planning and Community Development and Department of Public Works engage in regular communication with developers in Braintree. Both departments will continue to encourage LID practices through the permitting process where appropriate.