

# **Town of Ayer Stormwater Utility Advisory Workgroup**

## **Stormwater Utility Frequently Asked Questions**

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## What is Stormwater Runoff?

Stormwater runoff is generated from rain and snowmelt that flows over land or impervious surfaces, such as paved streets, parking lots, and building rooftops, and does not soak into the ground. Runoff can pick up and deposit harmful pollutants like trash, chemicals, and dirt/sediment into streams, lakes, and groundwater. (Source: U.S. EPA, [\*Urbanization and Stormwater Runoff\*](#).)

## Where Does Ayer's Stormwater Go?

Unlike a sanitary sewer system, stormwater is not collected and treated at a central treatment plant. Stormwater flows through drain pipelines and structures (stormwater infrastructure) before discharging into low-lying areas, typically a wetland or waterway (such as Sandy Pond or Grove Pond). In some cases, stormwater is treated before being discharged.

Stormwater in Ayer ultimately flows into the Nashua Merrimack River.

Ayer's Stormwater Map is shown here: <http://bit.ly/AyerMS4Map>

## What is Stormwater Infrastructure?

Stormwater infrastructure collects stormwater from impervious surfaces and conveys it toward low-lying areas. This infrastructure consists of inlets (catch basins), pipelines, structures (manholes, outfalls, culverts), and treatment units (such as oil/water separators, infiltration structures). Below are photos from Ayer's stormwater system.



Culvert: Groton School Road at James Brook



Figure 3-5 Example of a Precast Drain Manhole (Left) and Brick/Block Catch Basin (Right)



Figure 3-7 Example of a RCP in Excellent Condition (Left) and CMP in Poor Condition (Right)

## Who Manages Stormwater in Ayer?

The Ayer Department of Public Works (DPW) is responsible for the maintenance and replacement of stormwater infrastructure within public ways. The Town recently completed a Stormwater Asset Management Plan. The Plan provides information about the existing infrastructure and recommendations to adequately maintain the system. The DPW is using the Plan as a guide for managing the stormwater infrastructure. A copy of the plan can be found at the following link: <https://bit.ly/AyerStormwaterPlan>

Ayer DPW maintains approximately 1,080 catch basins, 22 miles of drainage pipe, 85 culverts, 375 drainage manholes, 140 drainage outfalls, and 20 stormwater treatment units within the town limits. **The total estimated replacement value of this infrastructure is over \$90 million.**

Ayer DPW is also responsible for complying with Federal stormwater regulations, which includes public education, annual reports to EPA, employee training, and more. See [How Is Stormwater Regulated?](#)

## How Is Stormwater Regulated?

Since 2003, Ayer's stormwater has been regulated under a Municipal Separate Storm Sewer System (MS4) permit with the EPA (Environmental Protection Agency) under the provisions of the Clean Water Act. The MS4 permit holds permittees accountable for discharges of polluted stormwater into our environment.

Permit requirements include:

- Cleaning and inspection of stormwater infrastructure
- Review, inspection, and enforcement of construction activities
- Adopt [bylaws and regulations](#) for local oversight of post-construction stormwater management for new development and redevelopment projects
- Detection and removal of illicit discharges (such as sewage, wash water, or illegal dumping) from stormwater infrastructure
- Public outreach and education

Ayer submits [reports to the EPA](#) documenting compliance. More information is available at the [DPW Stormwater Department website](#).

EPA's stormwater requirements have become significantly more stringent and costly to comply with over time. This trend will likely continue into the near and distant future, and it will be important to have a dedicated source of annual revenue to fund this program.

## What are the Benefits of Stormwater Management?

Both the public and the environment are impacted when stormwater isn't managed properly.

Flooding can occur when stormwater infrastructure is overwhelmed, meaning that the rate of stormwater runoff exceeds the drainage capacity of stormwater infrastructure. Flooding can also occur when stormwater infrastructure isn't adequately maintained. For example, a

clogged or collapsed drain pipeline can back up, leading it to flow onto private property.

**Hazards associated with flooding include damage to homes and buildings, damage to roadways, closure of main transportation routes, disruption to local businesses and institutions, and disruption of utilities including electric power, natural gas, and water supply.**

Drainage built in the past was not designed for the magnitude and intensity of today's storms. The town will need a long-term program of drainage renewal and reinvestment to upgrade critical infrastructure.

Stormwater management also benefits natural resources and water bodies by making runoff cleaner and cooler.

Stormwater runoff can "pick up" **pollutants** such as oils, fertilizers, sand, and trash. Polluted stormwater impacts the health of wildlife and waterways. Residents enjoy fishing and swimming in Ayer's ponds. See this [video from Think Blue Massachusetts](#) about reducing stormwater pollution.

Ayer's stormwater permit requires certain levels of treatment to its stormwater before it is discharged to waterways. If not in compliance with permit requirements, Ayer could be subject to costly fines or corrective orders by the EPA.



*Flooding along McPherson Road in Devens, Nov. 2021. Source: [June 2023 Hazard Mitigation Plan Public Information Forum](#).*



*Keeping stormwater clean allows residents to enjoy recreation in and around Ayer's water bodies. Photo: Swimming at Sandy Pond Beach from [Parks & Recreation Swimming Lessons page](#).*

## How is Ayer's Stormwater Funded Now?

There is no dedicated source of stormwater funding in Ayer. Ayer currently pays for stormwater related expenses using the General Fund (tax base). This is subject to an annual appropriation at Town Meeting, and stormwater funds compete with other priorities each year like schools and emergency services.

## What is a Stormwater Utility? Why is Ayer Considering One?

Similar to a water, electric, or sewer utility, a stormwater utility is an enterprise fund, which means that a service (stormwater) is provided for a fee.

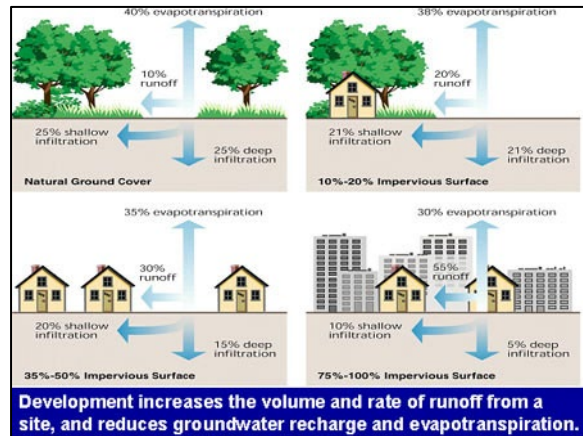
Stormwater utilities are not a new concept and have become increasingly popular in recent years. There are over 2,000 total stormwater utilities in the United States. Communities near Ayer with a stormwater utility include [Chelmsford](#), Dracut, Groton, [Pepperell](#), Tewksbury, and [Westford](#).

A stormwater utility is considered an **equitable** method for funding stormwater because the fee is based on impervious area, which is strongly correlated with stormwater impact. Watch this short video, [The Impervious Problem](#), for more information. Under a stormwater utility,

properties generating significant stormwater runoff (such as commercial properties with a large parking area and building footprint) pay a higher fee than those properties generating less stormwater runoff (such as a single-family home).

A stormwater utility is **stable** as funds are consistently provided each year through fees. **Consistent stormwater funding is needed for Ayer to remain compliant with its stormwater permit and replace aging stormwater infrastructure before failure.**

Ayer currently provides funds for stormwater through its General Fund (i.e., tax base). The current level of funding for stormwater is not enough to meet the Town's needs, and a stormwater enterprise fund will allow the town to more consistently and transparently raise revenue for the stormwater program. The Town will still have an opportunity to approve the stormwater enterprise budget at the Annual Town Meeting, and rates will be set by the Select Board at an annual public hearing.



Source: U.S. EPA Watershed Academy, Growth and Water Resources. [Impervious Surfaces and the Hydrologic Balance of Watersheds](#)

## What Would the Stormwater Utility Pay For?

The Town has projected its yearly stormwater related expenditures through 2028. **Approximately 75% of the projected expenses are for the repair and replacement of drainage infrastructure.** This includes replacement of large drainage culverts near the end of their useful life.

The remaining portion of these expenses are for a variety of tasks, including:

- Cleaning, inspection, and maintenance of stormwater infrastructure
- Compliance with Federal regulations
- Long-term planning

A Stormwater Utility does not preclude Ayer from seeking grants and loans. Ayer will continue to look for opportunities for State or Federal funding to help defray the impact to rate payers.

## How are Stormwater Utility Fees Determined?

Each property's stormwater fee is based on its impervious area. Stormwater billing units, called ERU's (Equivalent Residential Unit), are based on a property's impervious area. One ERU is equivalent to 3,200 square feet of impervious area on a property (3,200 square feet is the median impervious area of a single-family residential property in Ayer).

This total cost per ERU (\$/ERU) is calculated as follows:

Ayer's projected yearly stormwater costs divided by the total number of ERU's in Ayer.

**Single-Family Residential properties would be charged a flat fee equivalent to one (1) ERU.** The process would not involve detailed measurements of the impervious area for each parcel. A draft rate schedule will be posted on the DPW page and later presented at a public hearing for adoption.

### **Which Properties Would Be Charged the Stormwater Fee?**

The stormwater fee would be charged to all developed parcel owners in the Town of Ayer, including residential and commercial properties, as well as non-profit and tax-exempt properties. Municipal properties, public roadways, and Devens would not be subject to the fee.

### **Could I Reduce My Fee?**

A credit policy is in development and will be available for properties with approved onsite stormwater controls.