

## What Do I Have To Do To Be Compliant?

BMPs require weekly, monthly, and yearly maintenance, depending on the type of BMP. Much of this maintenance is done by observing the area and keeping it clear of obvious pollution. Remove trash, grass clippings, and diseased or invasive plants monthly, and look for accumulated sediment and standing water to determine if more involved maintenance is needed.

See the City Of Lorain Post-Construction Minimum Maintenance Standards for explicit instructions on maintaining your BMP.

## Why Do I Need To Do Maintenance On My BMP?

Over time, the pollution that has been carried to the BMP begins to build up, clogging inlet and outlet structures and potentially causing damage to stormwater infrastructure. If a BMP is unable to discharge water as designed, flooding and property damage are likely to occur.

Due to the land use within its watershed, Lake Erie is more susceptible to the effects of pollution and algal blooms than the other Great Lakes; it receives more sediment, nutrients, fertilizer, pesticides and sewage. Maintaining your BMP helps to filter out and contain those pollutants that would otherwise harm Lake Erie's ecosystem.

## Who We Are

### Mission Statement

The mission of the City of Lorain Engineering Department is to provide expedient technical engineering services and advice to all city departments, the administration, and the general public. Generally the technical support is related to design, inspection, and contract administration of public improvements and subdivisions, plan review, grading, draining, and general construction information.



**City of Lorain  
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**Only Rain Down the Drain**  
City of Lorain Storm Water Management Program



City of Lorain  
Engineering  
Department

Maintaining  
Post-Construction  
Stormwater Best  
Management  
Practices

## What Are Post-Construction Stormwater Best Management Practices?

When hard surfaces such as pavement or buildings are installed or constructed, water that used to be absorbed into the ground is now displaced. Since water running over a hard surface moves more quickly than water on vegetated surfaces, this fast-moving water gathers sediment, chemicals, and solid waste from our everyday activities. In Lorain, the risk of those pollutants ending up in Lake Erie makes it all the more important to filter and control runoff using stormwater best management practices.



During and after construction, state and local regulations govern how water from our community is stored and managed in order to prevent increased water pollution and flooding. We call these methods Best Management Practices, or BMPs. As defined by Ohio EPA, a stormwater BMP removes pollutants from stormwater runoff through gravitational settling, filtration, chemical, or biological processes. Since one BMP does not fit all situations, understanding which BMP you have – and how to maintain it – is crucial to meeting Ohio's compliance standards.

## What Kind Of Stormwater BMP Do I Have?

### Dry Extended Detention Basin

A dry extended detention basin temporarily collects water during a storm event, allowing pollutants that were transported by the runoff to settle at the bottom of the basin while also protecting the surrounding area from flooding. The water is slowly discharged to an outlet structure over a specified period of time. Between storms, the basin is generally dry.

### Wet Extended Detention Basin

Wet extended detention basins have a minimum water surface elevation, irrelevant of recent storm events, and are commonly mistaken for ponds. During a storm event, the water level in the basin rises, allowing pollutants to settle at the bottom, and the surrounding area is protected from flooding. Similar to a dry extended detention basin, an outlet structure then discharges the excess water volume over a specified time period.



Wet Extended Basin at Cornerstone Farms During Construction  
Image: © 2023 Google

### Bioretention Cell

A bioretention cell is a small depression in the ground that allows stormwater to pool and filter through soil and plants to an underdrain connected to the storm sewer system. The vegetation helps to absorb or break down pollutants carried by stormwater runoff and protects the surrounding area from flooding. This practice is generally used for smaller contributing drainage areas.



Bioretention Cell  
Image: Ohio EPA Rainwater and Land Development Manual

### Underground Detention

Underground detention is a subsurface reservoir installed beneath pavement and functions in a manner similar to a dry extended detention basin. During dry periods, the underground chambers remain empty, but during rain events, these chambers store stormwater. Following the storm event, water is slowly discharged from the chambers, with the settled pollutants remaining behind. Because these facilities are underground, they require unique maintenance that varies from that required in the more traditional extended detention and bioretention facilities.