

# Stormwater Facility Maintenance Guide



## What is a stormwater facility?

A stormwater facility is an engineered depression constructed to capture and treat polluted stormwater flowing from roads, parking lots, and driveways. Maintenance of stormwater facilities is necessary to ensure their proper function, reducing negative impacts on local waterways and flooding.



Image 1 - Stormwater Basin

## What is the benefit of a stormwater facility?

A stormwater facility:

- ❖ Controls the rate of stormwater runoff flowing into streams, reducing flooding and erosion.
- ❖ Removes stormwater pollutants, such as sediment, fertilizers, pet waste, metals, and oils, protecting the public and the environment.

## Who is responsible for stormwater facility maintenance?

Typically, the City requires developers to create and implement a stormwater facility maintenance plan when constructing a subdivision or property. Home Owner Associations (HOAs) assume responsibility when the subdivision changes ownership, and the developer is no longer involved.

## How do I maintain a stormwater facility?

The City recommends HOAs complete the following:

- ❖ Compile relevant documents, such as infrastructure plans, maintenance plans, and contracts.
- ❖ Complete a facility inventory, documenting facility location, and condition information.
- ❖ Develop a comprehensive plan, including budget, inspection frequency, and a record-keeping process. Assistance from a qualified professional may be helpful.

Important stormwater facility characteristics to consider include:

- ❖ Capacity: Excess vegetation and sediment reduces capacity and affects performance.
- ❖ Soil infiltration: Compaction and accumulated sediment reduce infiltration rates, resulting in stagnant, standing water that can breed mosquitos and algae.
- ❖ Vegetation height: 6" or taller reduces flow velocity and provides water treatment.

Images 2 through 5 show the results of inadequate stormwater facility maintenance.



Image 2 - Overgrown vegetation



Image 3 - Erosion causing channelized flow



Image 4 - Obstructed inlet pipe



Image 5 - Water 3-days after rain event

## Recommended Maintenance Strategy

HOAs should complete routine inspections and maintenance to ensure a stormwater facility functions as designed, reducing pollution, costly repairs, and flood risks. The City recommends the following maintenance strategy:

### 1. Routine Maintenance Activities (1-3 Months)

- ❖ Designate “no-cut zones” in the bottom of the facility
- ❖ Remove trash, leaves, grass clippings, and debris
- ❖ Establish a chemical-free zone in and around the facility
- ❖ Inspect for uniform ponding, and that water disappears three days after rain events

### 2. Annual Maintenance Activities (Annually)

- ❖ Cut vegetation to 6” in fall, remove clippings
- ❖ Re-establish vegetation on eroded and barren areas
- ❖ Remove excess sediment buildup
- ❖ Update maintenance plan and inspection log

### 3. Long-Term Maintenance Activities (10-15 Years)

- ❖ Consult a qualified professional to inspect and return the facility back to its initial design and capacity
- ❖ Dredge facility if sediment buildup is greater than 6”
- ❖ Re-establish vegetation along the facility’s banks and bottom



Image 6 – No cut zone



Image 7 – Annual Maintenance



Image 8 – Long-Term Maintenance

## Contact Information

It is important HOAs maintain their stormwater facilities to ensure Bozeman continues to be “The Most Livable Place”. Please contact the Stormwater Division for more information or to schedule a voluntary inspection.

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