



# Stormwater Bioswales

Town of Hillsborough Fact Sheet

## What are bioswales?

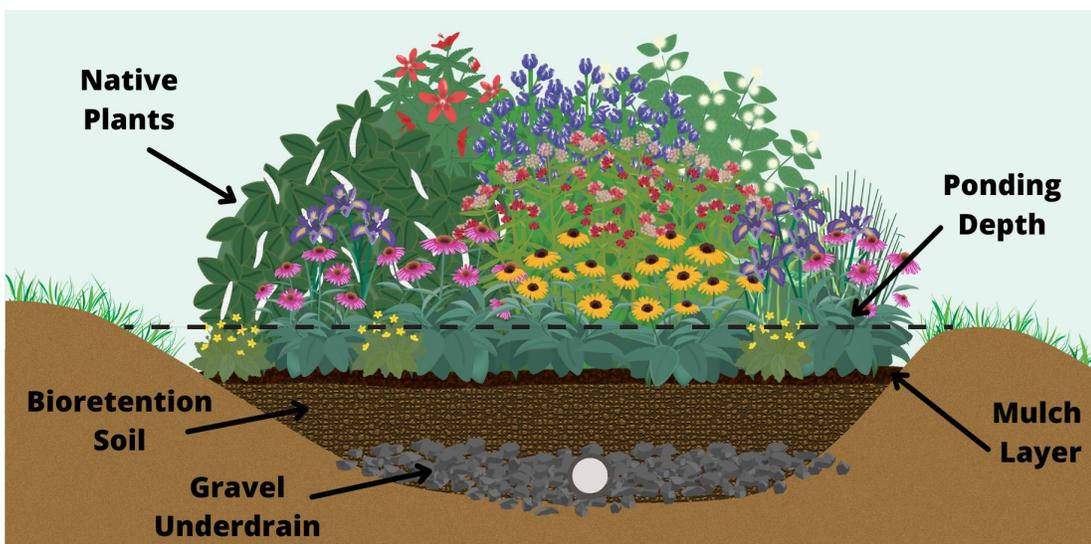
Bioswales are gently sloping, vegetated ditches that allow for the collection, conveyance and filtration of stormwater. Bioswales help because the plants and special soil layers in the ditch slow stormwater infiltration and filter out pollutants before the water reaches nearby streams or rivers.



## Where are bioswales used?

Bioswales can be located alongside roadways or in low-lying areas where stormwater tends to gather. The town has installed bioswales on Odie Street in Hillsborough (pictured above), in partnership with others. Grass grows in some bioswales, while native plants grow in others, depending on the homeowner's preference.

## How are bioswales made?



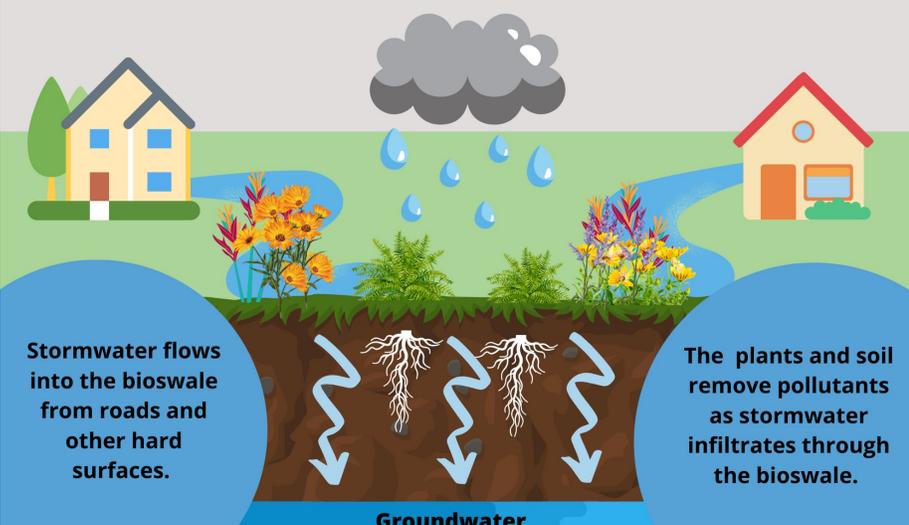
Bioswales are typically constructed by digging a deep trench and adding layers of gravel and a bioretention soil mixture. This special mixture allows water to flow gradually through the bioswale. A gravel underdrain at the bottom of the trench helps control overflow during heavy rainfall.

*Illustration courtesy of City of Durham*

## What benefits do bioswales provide?

Once stormwater infiltrates the soil, it eventually joins the groundwater in the earth. Bioswales are constructed with a special soil mixture to allow stormwater to slowly infiltrate the layers, leaving pollutants behind. Plants and microorganisms in the garden also help remove pollutants. By keeping pollutants out of stormwater, we are improving the water quality of our streams and rivers.

### Benefits of Bioswales



The diagram illustrates the process of stormwater infiltration through a bioswale. On the left, a house is shown with a driveway. Rain falls from a cloud onto a bioswale area containing various plants. Arrows indicate water flowing from the driveway into the bioswale. Below the surface, roots of plants are shown filtering the water as it moves down to a layer labeled 'Groundwater'. On the right, another house is shown with a lawn. A circular callout on the right side of the diagram states: 'The plants and soil remove pollutants as stormwater infiltrates through the bioswale.'

- Adds biodiversity and interest to the landscape
- Reduces erosion by slowing stormwater runoff
- Removes excess nutrients and other pollutants
- Reduces effects of drought by encouraging infiltration
- Helps reduce flooding downstream

Illustration courtesy of Brenda Palacios Rodriguez

## Where does our stormwater go?

In Hillsborough, stormwater flows through our storm drains and ditches into our streams and creeks and eventually into the Eno River. From the Eno River, our stormwater flows into Falls Lake and the Neuse River, eventually reaching the Pamlico Sound and the Atlantic Ocean.



Eno River



## Hillsborough Stormwater and Environmental Services

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