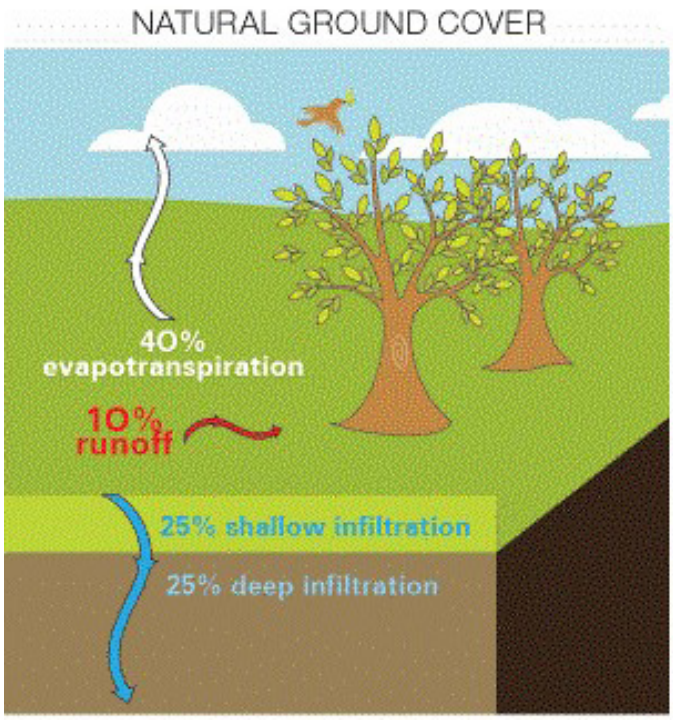
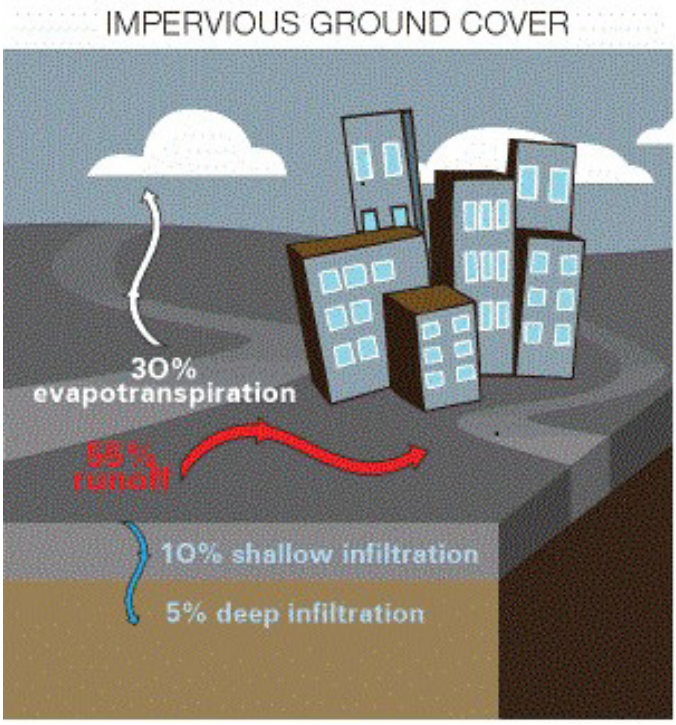
PART THREE: THE PLAN ELEMENTS
SECTION SIX: STORM WATER AND WATER CONSERVATION PLAN

INTRODUCTION

How the natural streams and floodways within the Town are addressed as development occurs will have a large impact on the degree to which the Town can retain those characteristics it wishes to preserve, how well it can interlace community districts, and, ultimately, the preservation of the Town's visual character. Best Management Practices (BMPs) can also serve as the underpinning of sustainability efforts with regard to water use and conservation.





Storm Water Management

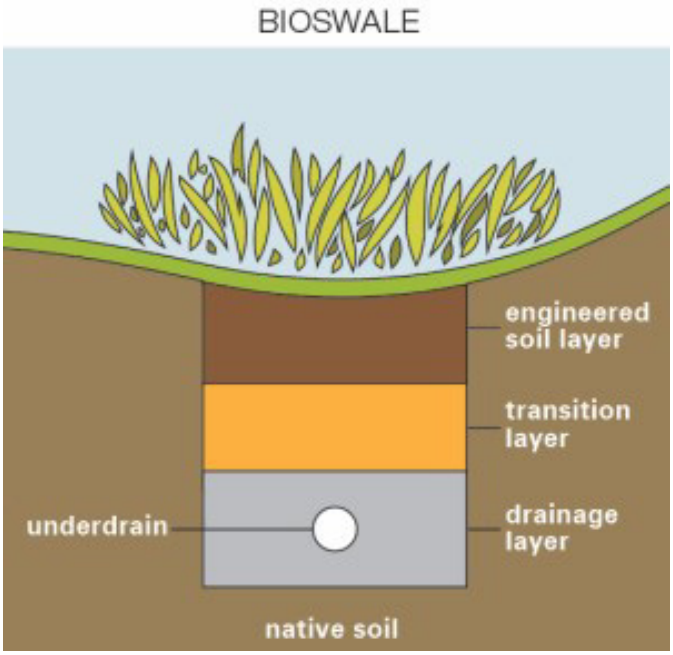
The Town has striking vistas and topography that frames two major drainage watersheds: the Marshall Branch and Tributaries as well as the Kirkwood Branch and Tributaries. These watersheds are not only the key to storm water management for the Town but also support the natural landscape and ecosystem that gives the Town its distinctive visual character. It is through the following BMPs that these mitigation efforts can be accomplished:

- Rain gardens/bio-retention cells
- Elimination of curb and gutter
- Bio-swales
- Green parking
- Infiltration trenches
- Inlet protection devices
- Permeable pavement
- Permeable pavers
- Rain barrels and cisterns
- Detention/Retention

Rain Gardens/Bio-retention Cells

Elimination of Curb and Gutter
By implementing this BMP, new roadways are designed and constructed without curb and gutters to allow for infiltration by increasing sheet flow and reducing runoff volumes. Runoff could be left to flow to bio-swales or bio-retention cells. This will help prevent erosion and also maintain predevelopment runoff conditions.

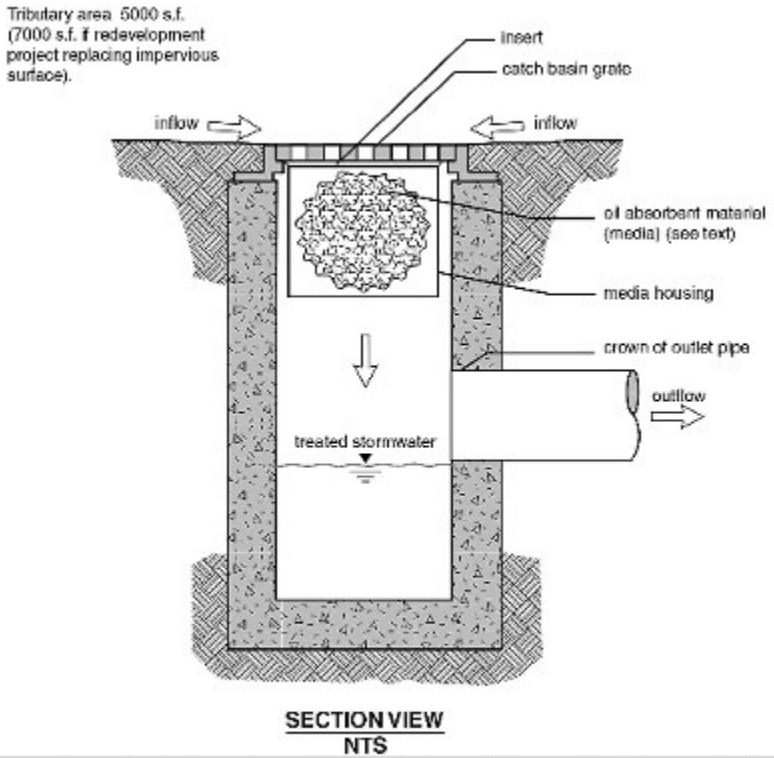
Bioswales



Green Parking Design

Infiltration Trenches
Infiltration trenches are rock-filled ditches with no outlets that collect runoff and allow it to infiltrate into the soil increasing storm water infiltration and pollutant removal. This BMP is restricted to sites/ areas where potential ground water contamination, soils, and clogging are of concern.

Inlet Protection Devices



The typical design of a catch basin insert is a set of filters that are specifically chosen to address the pollutants expected at that site (Source: King County, Washington, 2000)

Permeable Pavement/ Pavers

The permeable pavement BMP incorporates a porous pavement section whose surface can have an appearance similar to concrete or asphalt. The subsurface can consist of a stone course with enough voids where runoff is temporarily stored as it infiltrates into the subsoil.

Rain Barrels and Cisterns

Riparian Buffers

Riparian buffers are areas along a stream protected from development to physically protect and separate it from future disturbance and encroachment. It can also provide flood storage and stream ecosystems and habitats. This BMP is aimed at preservation of streams, lakes, and wetlands and the integrity of ecosystems and habitats.

Vegetated Filter Strips

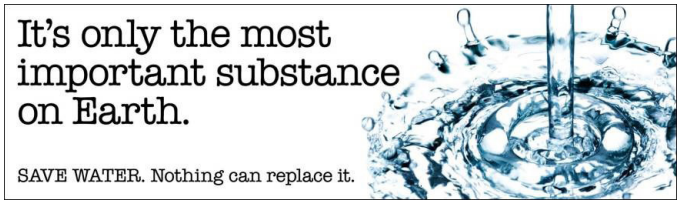
This BMP consists of utilizing bands of dense vegetation planted downstream of a runoff source and are used for treating runoff from roads and highways, driveways, parking areas, roof downspouts, and other impervious areas. Additionally, they can be employed along streams and/or open vegetated waterways to treat runoff from adjacent riparian areas.

Storm Water Detention

Water Conservation Practices
The Town's current and future water consumption could be driven by a wide variety of needs that could include domestic, commercial, industrial and institutional users. BMPs can be adopted that will improve water use efficiency for the Towns operation of the system as well as for the end user customers.

The following BMPs could drive the Town to achieving those goals:

- Appoint Conservation Coordinator
- System Water Audit & Water Loss
- Water Conservation Pricing
- Prohibition of Wasting Water
- School and Public Education
- Water Survey of Customers
- Landscape Irrigation Ordinance
- Water Fixture Ordinance
- Water Wise Landscape Design & Conversion Programs



Putting BMPs into Action
There are programmatic and policy initiatives that are needed to implement BMP. These include:

- Appoint Conservation Coordinator
- System Water Audit & Water Loss
- Water Conservation Pricing
- Prohibition of Wasting Water
- School and Public Education
- Water Survey of Customers
- Landscape Irrigation Ordinance
- Water Fixture and Toilet Ordinance
- Water Wise Landscape Design & Conversion Programs