

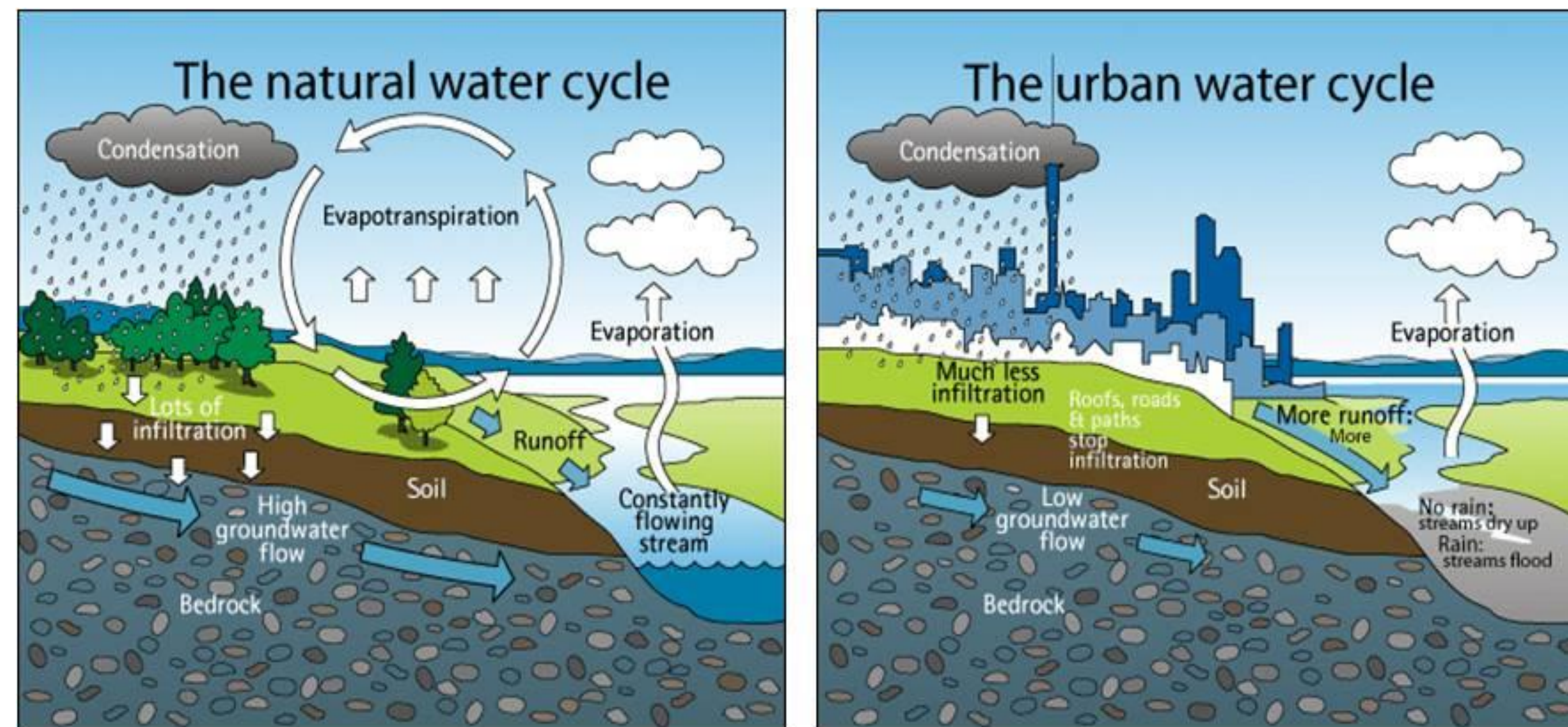


Stormwater Management Regulations

Prepared by the Township of Maplewood Engineering Department



Effect of Development on the Water Cycle



Stormwater Requirement Objectives

- Stormwater Quantity** – Rates and volumes of stormwater runoff from a development site
 - Reduce peak post-development runoff rates
- Stormwater Quality** – Accumulation of pollutants that stormwater runoff transports to waterways
 - Remove Total Suspended Solids (TSS)
 - Maximize nutrient removal from post-development runoff
- Groundwater Recharge** – Downward movement of water replenishing subsurface groundwater supplies
 - Prevent the loss of groundwater recharge from pre- to post-development conditions



Stormwater Inlet Retrofit with Eco-Safe Bar and Bicycle Safe Grate

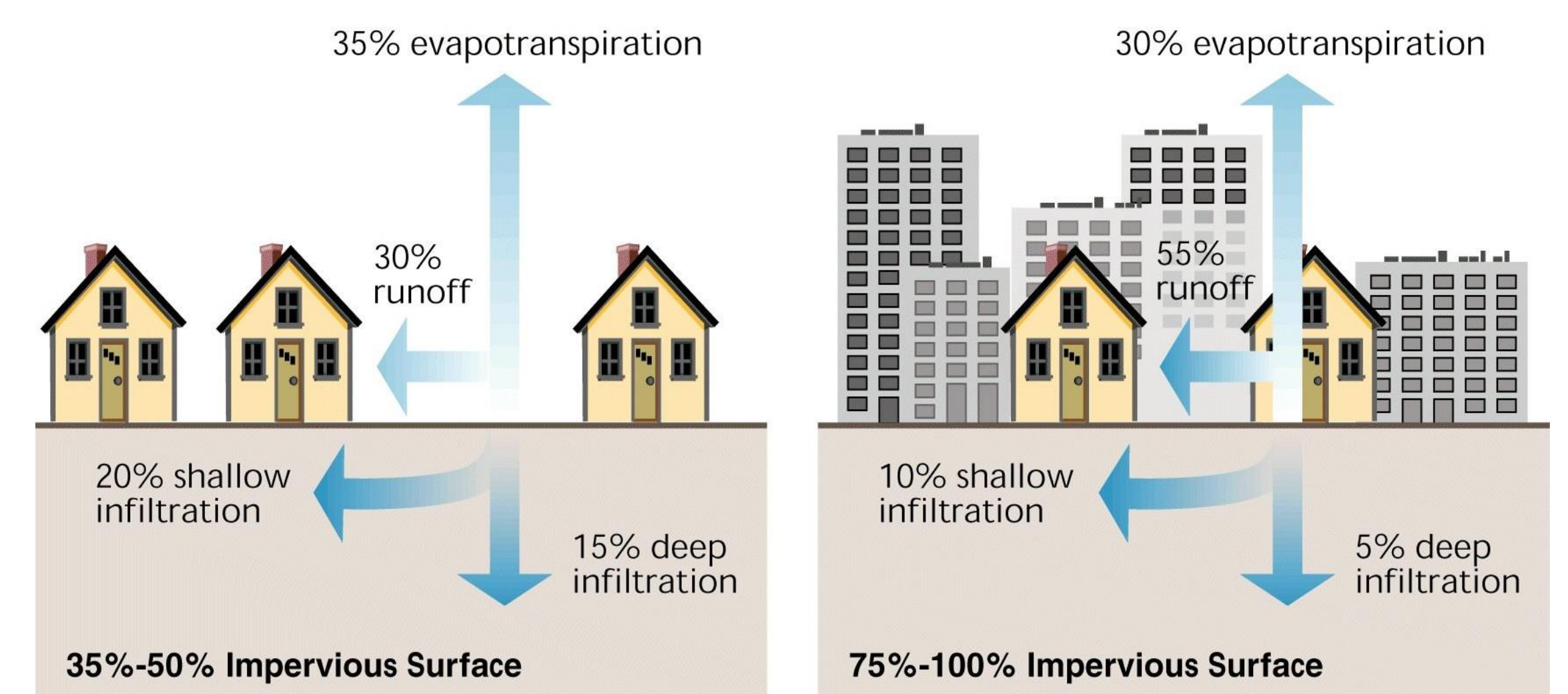
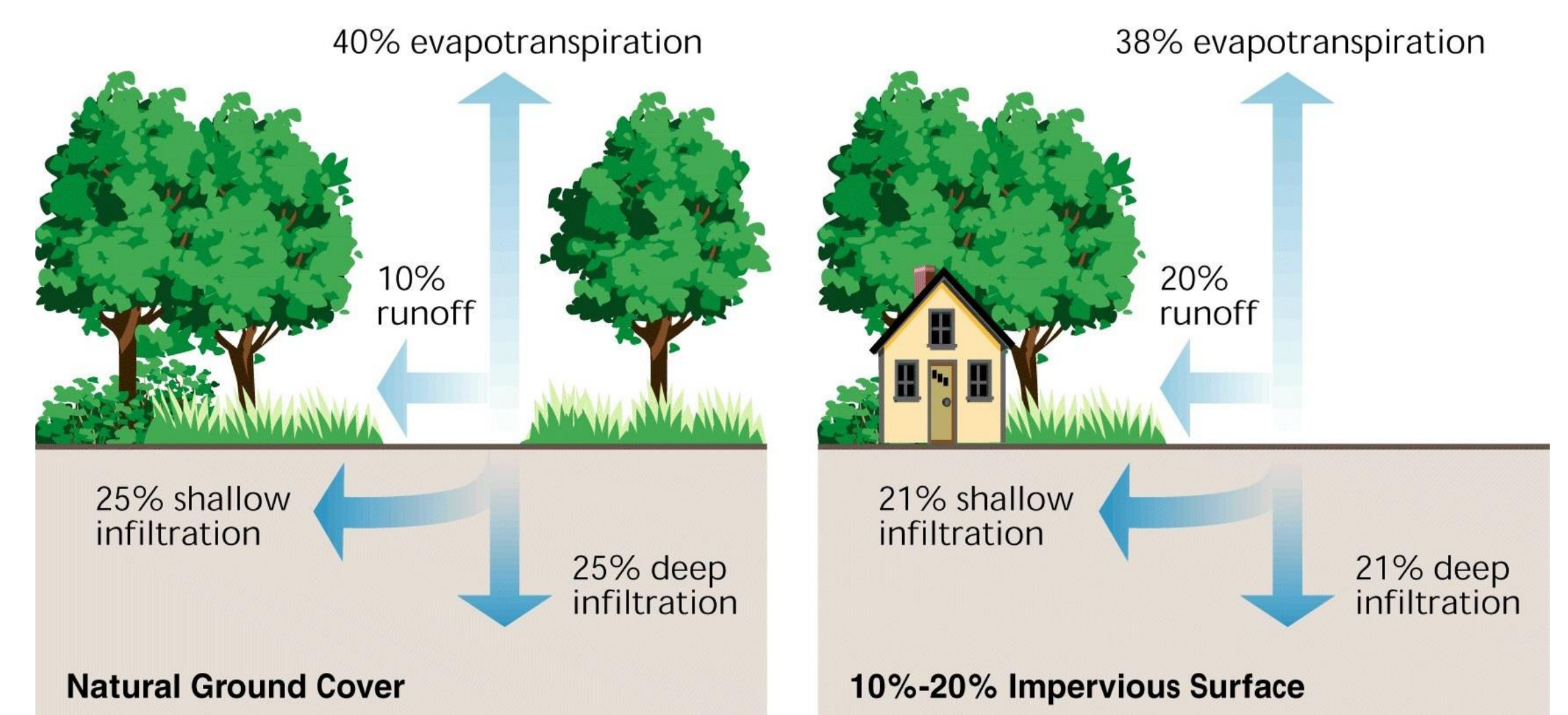
Solids and Floatable Control

- Street Sweeping
- Storm Drain Inlet Retrofitting
 - NJDOT Bicycle Safe Grate
 - Curb Inlet Openings
- Stormwater Facility Maintenance
- Road Erosion Control
- Outfall Pipe Stream Scouring Remediation

Low Impact Development (LID)

An innovative stormwater management approach that uses Best Management Practices (BMPs) that work with nature to manage stormwater as close to its source as possible.

Effects of Development on Runoff and Infiltration



Structural BMPs

- Bioretention System
- Constructed Stormwater Wetlands
- Dry Wells
- Extended Detention Basins
- Infiltration Basins
- Manufactured Treatment Devices
- Pervious Paving Systems
- Rooftop Vegetation
- Sand Filters
- Vegetative Filters
- Wet Ponds

Nonstructural BMPs

- Preservation of Natural Areas
- Native Ground Cover
- Vegetative Buffers
- Minimization of Land Disturbance
- Impervious Area Management
- Surface Roughness Changes
- Land Slope Reduction
- Utilization of Natural Flow Pathways
- Vegetated Conveyance
- Enhancement of Riparian Areas
- Utilization of Cluster Development Design



Improper Disposal of Waste

- Pet Waste Collection and Proper Disposal
- Litter Collection and Proper Disposal
- No Dumping into Storm Sewers
- Wildlife Feeding Prohibited
- Outfall Pipe Mapping and Inspections
- Illicit Connections Prohibited

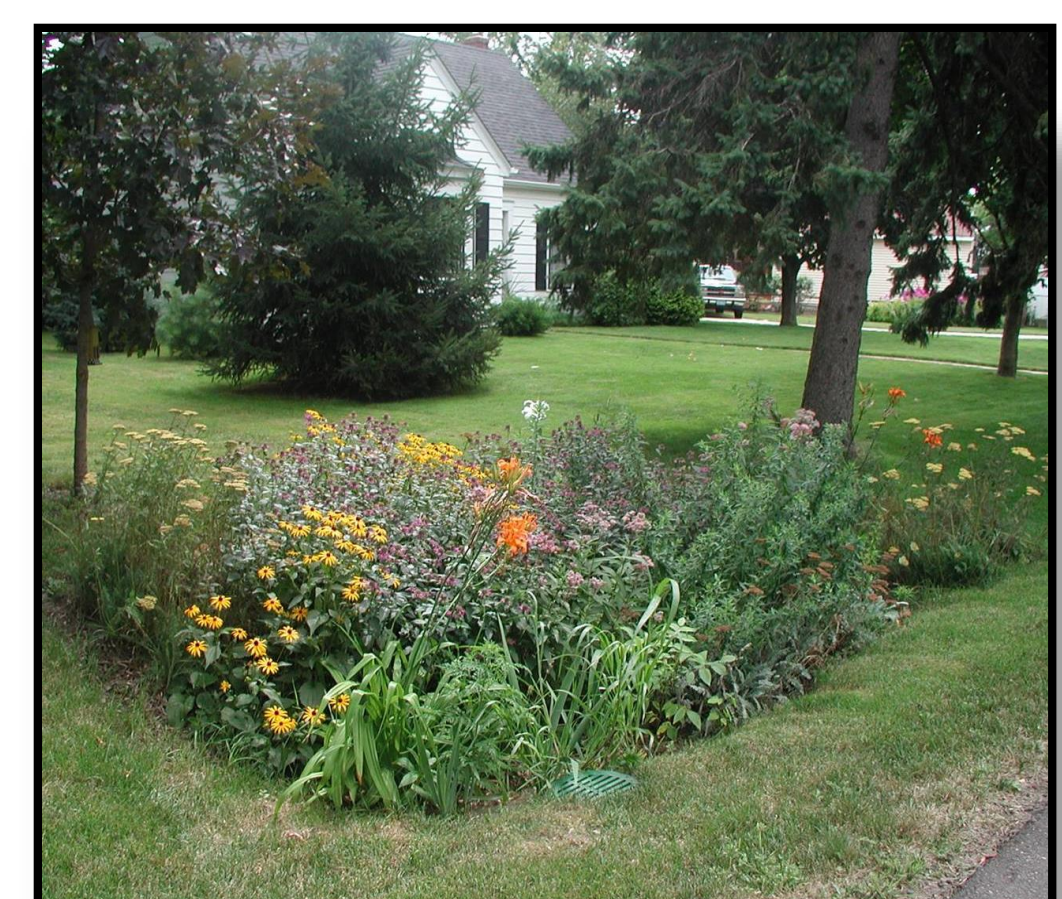
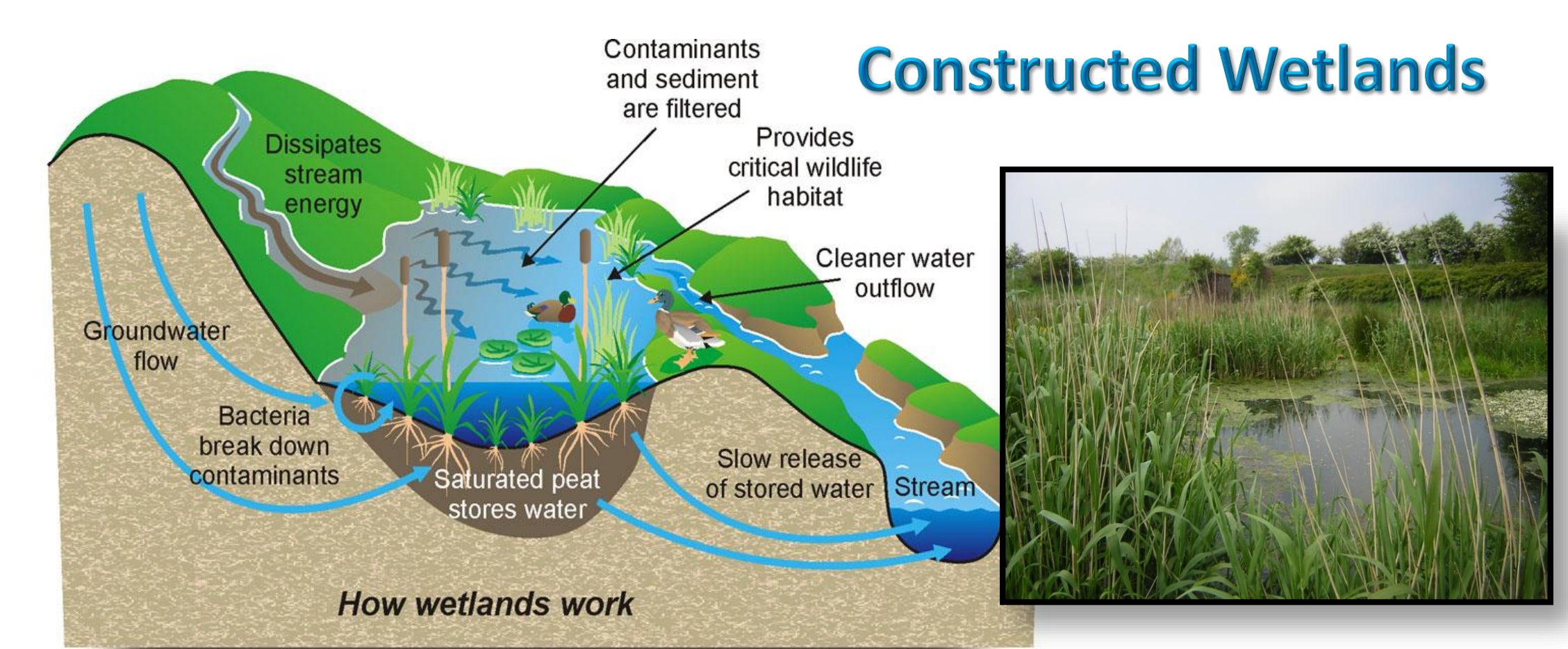
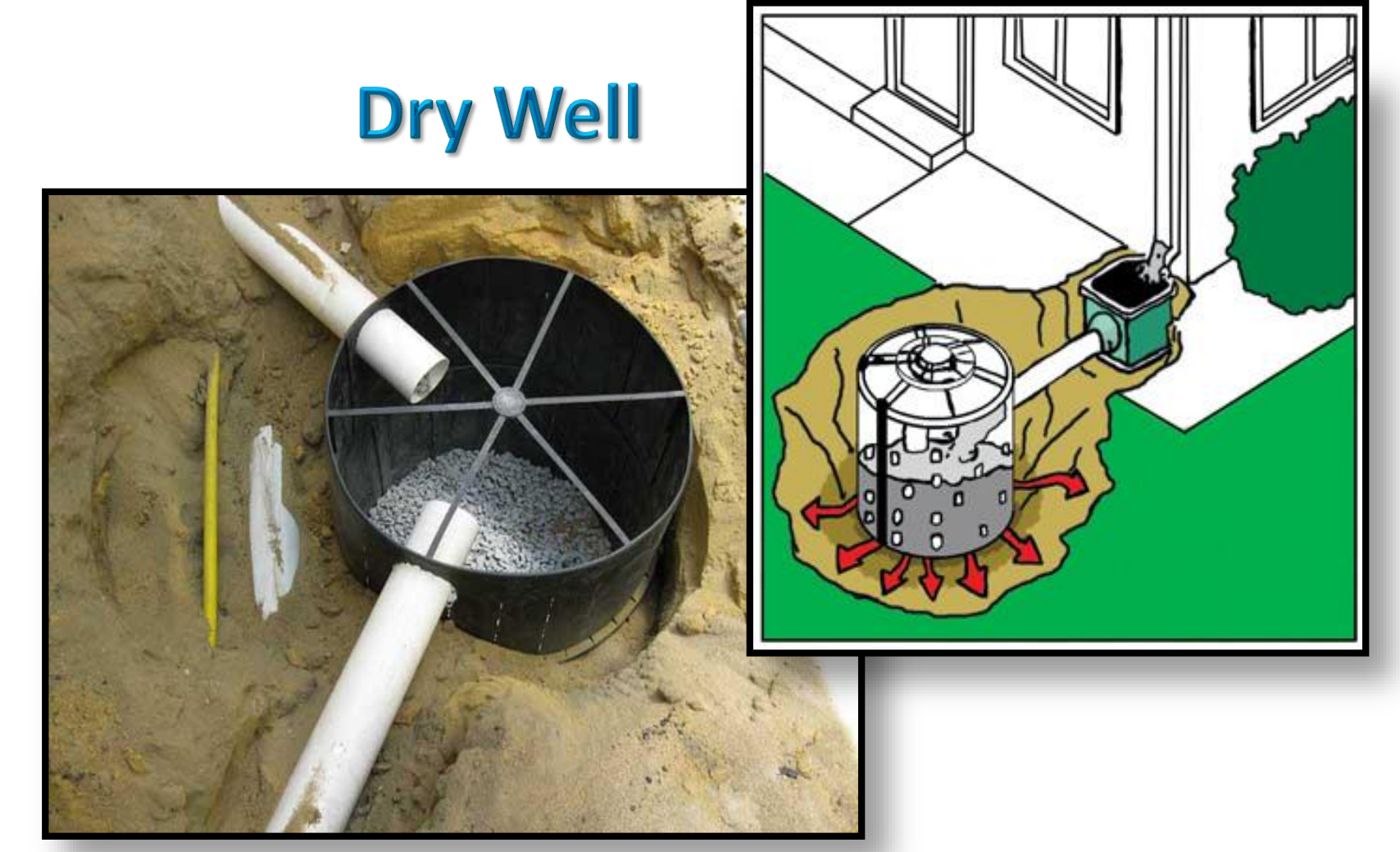


Maintenance of Yard Operations

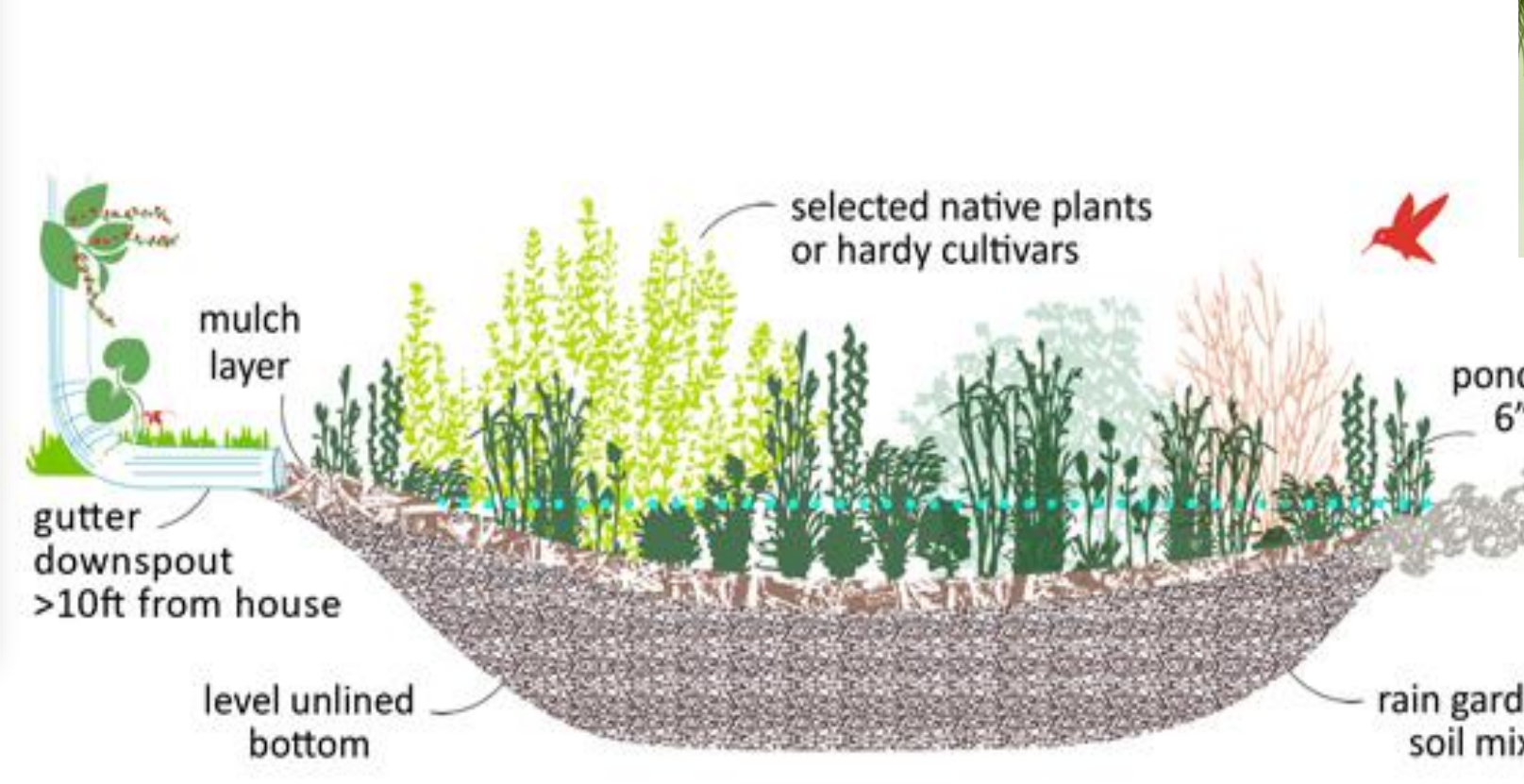
Areas of focus for preventing spillage of harmful chemicals containing pollutants from washing into the storm sewer systems and eventually discharging into surface waters:

- De-icing Material and Sand Storage
- Fueling Operations
- Vehicle Maintenance
- Good Housekeeping

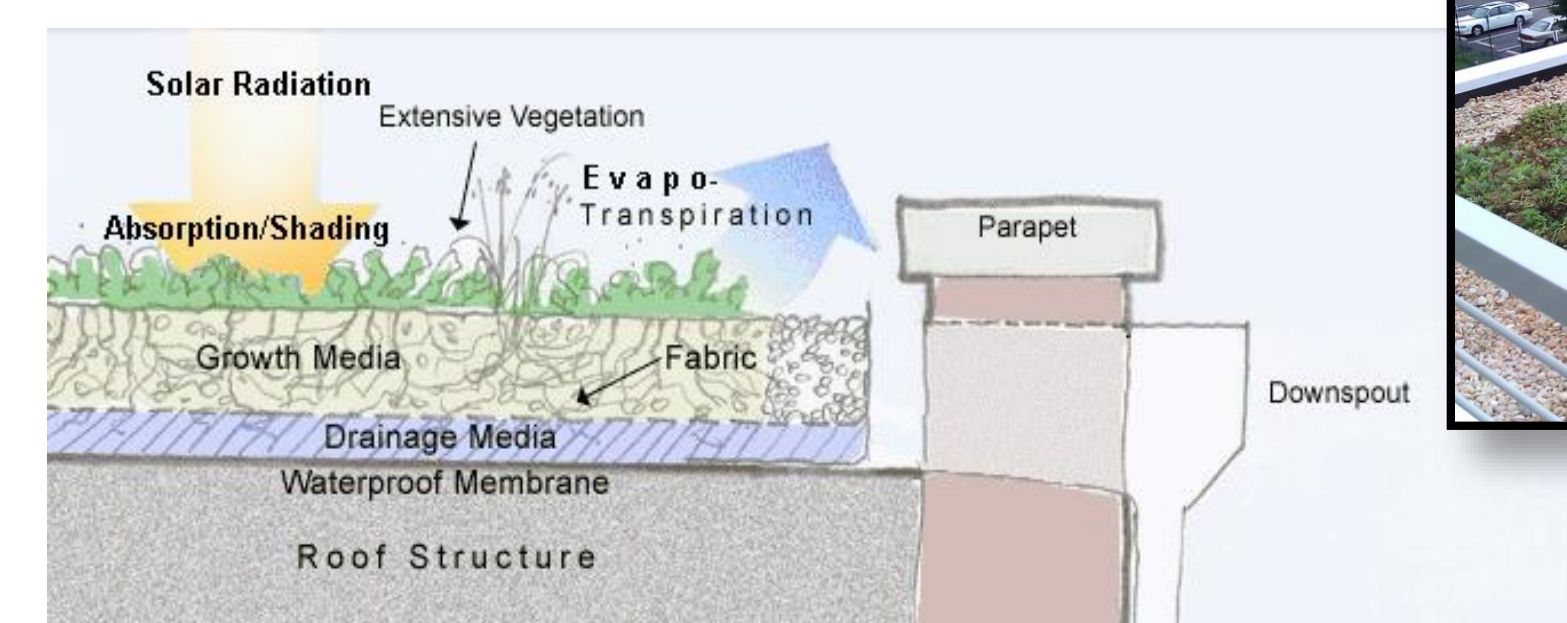
Best Management Practices (BMPs)



Rain Garden / Bioretention Basin



Rooftop Vegetation



Manufactured Treatment Device



Wet Pond

