

# SUSTAINABLE STORMWATER SOLUTIONS MAINTENANCE REQUIREMENTS

## VEGETATED SWALE

### Goal: Dense, healthy grass cover

- Grass should not exceed 18 inches.
- Herbicide and fertilizer use should be eliminated or minimized.
- Sediment accumulating near culverts and in channels should be removed when it results in a significant amount of standing water.
- A healthy dense grass should be maintained in the channel and side slopes. Grass damaged during the sediment removal process should be immediately replaced with the same seed mix used during swale establishment.
- Pet waste should be removed to prevent contamination.



## VEGETATED FILTER STRIP

### Goal: Dense, healthy vegetation and overland flow

- Proper care and maintenance in the first few months is most important to long term success.
- Mow to a height of 18 inches or twice yearly. Herbicide use should be eliminated or minimized.
- Sediment may accumulate along the upstream boundary of the strip, preventing uniform overland flow. Excess sediment should be removed by hand or with flat-bottomed shovels.
- Maintain a healthy dense grass on the filter strip. Vegetation will require irrigation immediately after planting and during dry periods.



## PERMEABLE PAVEMENT

### Goal: Immediate drain time

- Vacuum sweep at least twice yearly, followed by high-pressure hosing to open pores in the top layer.
- Potholes and cracks can be filled with patching mixes unless more than 10 percent of the surface area needs repair.
- Spot-clogging may be fixed by drilling half-inch holes through the porous pavement every few feet.
- Inspect several times during the first few months after installation, and annually thereafter.
- Inspect after large storms, when puddles make clogging obvious.



## INFILTRATION

### Goal: Drain time 48 hours or less

- Observe drain time after completion or modification of system to confirm drain time of 48 hours.
- Inspect annually for erosion of the basin side slopes and invert, standing water, and sediment accumulation.
- Remove trash and debris.
- To avoid reversing soil development, soil disturbance should only occur when clogged.
- Always remove deposited sediments before disturbing the soil, and use a hand-guided rotary tiller, or a disc harrow pulled by a very light tractor.



## BIORETENTION

### Goal: Drain time 48 hours or less

- Inspect at least twice yearly, once during or immediately following wet weather.
- Repair and re-vegetate eroded areas inside and downstream of facility.
- Remove sediment when it hinders flow of water into the facility, as well as any debris and litter.
- Annually, or when drain time exceeds 48 hours, the top few inches of filter media should be removed and replaced. This will also prevent mosquito breeding.
- Clean under drain to remove sediment buildup.
- Twice yearly evaluation of shrubs. Remove dead vegetation.



## ENHANCED DETENTION

### Goal: Stable banks and flow capacity

- Remove debris and litter regularly.
- Mow side-slopes, embankment, and emergency spillway twice yearly to prevent woody growth.
- Twice yearly, evaluate for insects, weeds, odors, algae, etc. Herbicides and pesticides should be minimized.
- Inspect side slopes, embankment and emergency spillway for subsidence, slumping, erosion, leakage, cracking, and tree growth.
- Regrade or re-vegetate as necessary.
- Remove sediment every two years for storage capacity.
- Replace inlets/outlets and risers as needed.
- Dredge every ~20 years, or when sediment impairs function of outlet.

