



## RAIN GARDEN OPERATION AND MAINTENANCE PLAN

***All rain gardens must be maintained in proper working order for 10 years (5 years for single-family homes). At a minimum the following operation and maintenance items must be followed:***

Rain Garden Maintenance Activities	Frequency & Notes
Prevent Sediment (from surrounding areas)	<ul style="list-style-type: none"> <li>• Ensure any eroded areas within the raingarden watershed are addressed including adjacent parcels</li> <li>• Ensure a stable watershed before and after installation</li> </ul>
Remove Sediment (from garden & inlet)	<ul style="list-style-type: none"> <li>• As needed</li> <li>• During mulch renewal</li> </ul>
Water Plants (Plants will need 1 inch/week during the 1 <sup>st</sup> year)	<ul style="list-style-type: none"> <li>• Right after planting</li> <li>• During the 1<sup>st</sup> season</li> <li>• During time of drought or if plant materials show signs of wilt</li> </ul>
Add Mulch <i>Use 3 inches of triple shredded hardwood mulch</i>	<ul style="list-style-type: none"> <li>• Add mulch annually or as needed to maintain the 3-inch depth as needed.</li> </ul>
Weed and Prune	<ul style="list-style-type: none"> <li>• During vegetation establishment</li> <li>• Regularly once vegetation is established (<b><i>guide next page</i></b>)</li> </ul>
Replace Plants	<ul style="list-style-type: none"> <li>• Replant vegetation as needed</li> <li>• Monitor plant health, especially right after planting.</li> </ul>
Remove Plants	<ul style="list-style-type: none"> <li>• Remove invasive species</li> <li>• Thin plantings if the spacing is overcrowded (<b><i>guide next page</i></b>)</li> </ul>
Apply Fertilizer & Pesticides	<ul style="list-style-type: none"> <li>• NEVER! Runoff is nutrient rich, and the rain garden should remove chemicals</li> </ul>
Remove Trash	<ul style="list-style-type: none"> <li>• Inspect frequently (weekly) and remove debris and trash, including pet waste</li> </ul>
Mow Perimeter	<ul style="list-style-type: none"> <li>• As needed</li> <li>• Do not blow grass clippings into the rain garden (may add extra nutrients)</li> </ul>

***Any rain gardens found that are not being maintained as described above or any other issue which causes a rain garden to not perform its intended function may result in the applicant having to repay a prorated amount of the cost share funds received to install the practice.***

\_\_\_\_\_  
Applicant Signature

\_\_\_\_\_  
Date

## Guidance on Maintenance Issues

### Sediment



The gutter downspout has concentrated flow at the outlet. The small rocks are not enough to dissipate the energy of the water coming from the downspout and will lead to erosion and sediment.



The watershed or water coming into this rain garden area is unstable with limited grass and vegetation present to prevent sediment from entering the garden. The area with limited vegetation will need to be stabilized.

### Vegetation



For a confined area such as above, the plant material choice can lead to crowding issues. The plants above are not yet completely mature and will crowd this area even more. The plants should be thinned, or different, lower-growing and smaller plants at maturity should be used.



The vegetation is minimal on this site. While newly planted and immature, even when fully grown the spacing for this garden is not optimal. Care should also be taken on the cobble drainage coming into the garden for potential erosion and sedimentation. Note the mulch, it is too coarse and will likely lead to flotation, potentially filling the drop inlet (the black grate in the center) with debris.

## Mulch



The mulch used here is too large (single-shredded hardwood instead of triple-shredded) and will lead to flotation, likely floating out of the garden. The downspouts will add to this problem. The size of the garden also appears to be less than the treatment volume needed



A photo of proper, triple-shredded mulch. The consistency has considerable "fines" with few larger shreds. This will reduce or eliminate flotation, take much longer to decompose, and provides good insulation and energy dissipation from rainfall



The mulch has decomposed and is in need of replacement. The tree in the forefront should be removed. Additional and more appropriate vegetation should be replanted



Nearly completed rain garden with a good layer of proper mulch and plant material selection. As this is not quite completed, any areas of heavy mulch layers (such as at the forefront of the photo) can readily be raked out for the proper, consistent layer.