

CHECKLIST FOR INSPECTION OF BIORETENTION SYSTEM/TREE FILTERS

Location: XS Tennis, 5338 S State St., N 41.796548978, W -87.626732404

Inspector: Chris Bourbois

Date: June 13th, 2023

Time: 3:00 PM

Site Conditions: Mostly cloudy, 76°

Days Since Last Rain Event: 1

Inspection Items	Satisfactory/ Unsatisfactory	Comments/Corrective Action
1. Initial Inspection After Planting		Some installed plants remain and are healthy, but invasives are pervasive here. Additionally, the culvert (while functional) leading into the rain garden has nothing near it to slow down the water's impact, leading to obvious preferential flow down from the culvert.
Plants are stable, roots not exposed	Ⓢ U	
Surface is at design level, no evidence of preferential flow/shoving	Ⓢ Ⓣ	
Inlet and outlet/bypass are functional	Ⓢ U	
2. Debris Cleanup (1 time/year minimum, Spring/Fall)		While there is no real litter or dead vegetation to remove, the site could use weeding and potentially mowing. Given that there is a thick tangle of wetland invasives (purple loosestrife, cattails, reed canary grass) in the center of the rain garden, but no standing water, persistent and targeted mowing could eliminate these invasives and provide space for more desirable natives.
Litter, leaves, and dead vegetation removed from the system	Ⓢ U	
Prune/mow vegetation	Ⓢ Ⓣ	
3. Standing Water (1 time/year and/or after large storms)		Infiltration is strong, as there was no standing water here despite a moderate storm the prior day.
No evidence of standing water after 24-48 hours since rainfall	Ⓢ U	
4. Vegetation Condition and Coverage		Although the rain garden is 100% vegetated, it is primarily an unfortunate mix of wetland invasives and field weeds (cattails, purple loosestrife, RCG, chicory, curled dock). Some native quality remains though, with a few varieties of rushes and sedges. Switchgrass and goldenrod are also on-site and are probably preferable to the weeds.
Vegetation condition good with good coverage (typically >75%)	Ⓢ Ⓣ	
5. Other Issues		
Note any additional issues not previously covered	Ⓢ U	

Final Comments

This rain garden is in fairly poor shape. The vegetative composition is primarily invasive, and the culvert needs more mitigation. The garden is particularly degraded near the culvert, and the preferential flow, degradation near the culvert, and "knocking down" of the vegetation near the culvert all show that not enough is being done to slow stormwater coming from it. Despite this, some sedges and rushes have managed to hang on in the garden. Given the problems here, this garden would likely need multiple corrective actions. These could include persistent and targeted mowing and/or herbiciding to reduce the presence of field weeds and wetland invasives. Additionally, this site is a prime target for rock structures that could reduce the impact of stormwater coming from the culvert. These two actions would need to be done in concert, as the culvert is likely the source of the invasives and weeds and is obviously the cause of the preferential flow. After the stormwater force from the culvert is mitigated and the invasives/weeds have been reduced, a mix of sedges/rushes and wet-adapted forbs and grasses should be planted. However, care would still need to be taken to prevent reinvasion by wetland invasives and field weeds, and to make sure the goldenrod present does not form a monoculture.