

City of Valley Center

Stormwater Facility Inspection & Maintenance Guidance

Stormwater Wetland

Regular inspection and maintenance is critical to the effective operation of this stormwater management facility so that it can function as designed. In the City of Valley Center, local regulations require that property owners maintain all stormwater facilities on their properties to ensure they are fully functioning to treat and control stormwater runoff, and to document facility inspections and maintenance activities. This documentation must be kept by the property owner and must be made available to Stormwater Management staff upon their request.

This page provides guidance on inspection and maintenance activities that must be performed for stormwater wetlands. Some facilities may have more, or less, frequent maintenance needs, depending upon a variety of factors including the occurrence of large storm events, overly wet or dry (i.e., drought) regional hydrologic conditions, and any changes in the land (e.g., development, landscaping, etc.) that drains to the facility.

Inspection Activities	Suggested Schedule
<ul style="list-style-type: none"> After several storm events or an extreme storm event, inspect for: bank stability; signs of erosion; vegetation growth; drainage system function; and structural damage. 	As needed
<ul style="list-style-type: none"> Inspect for: invasive vegetation; trash and debris; clogging of the inlet/outlet structures and any pilot or low flow channels; excessive erosion; sediment accumulation in the basin, forebay and inlet/outlet structures; tree growth on dam or embankment; the presence of burrowing animals; standing water where there should be none; vigor and density of the grass turf on the basin side slopes and floor; differential settlement; cracking; leakage; and slope stability. 	Semi-annually
<ul style="list-style-type: none"> Inspect the inlet/outlet structures, pipes, sediment forebays, and upstream, downstream, and pilot channels to ensure they are free of debris and are operational. Check for signs of unhealthy or overpopulation of plants and/or fish (if utilized). Note signs of pollution, such as oil sheens, discolored water, or unpleasant odors. Check sediment marker(s) for sediment accumulation in the facility and forebay. Check for proper operation of control gates, valves or other mechanical devices. Note changes to the wetland or contributing drainage area as such changes may affect wetland performance. 	Annually
Maintenance Activities	Suggested Schedule
<ul style="list-style-type: none"> Replace wetland vegetation to maintain at least 50% surface area coverage in wetland plants after the second growing season. 	One-time
<ul style="list-style-type: none"> Clean and remove debris from inlet and outlet structures. Mow side slopes (embankment) and maintenance access. Periodic mowing is only required along maintenance rights-of-way and the embankment. The wetland buffer surrounding the wetland can be managed as a meadow (mowing every other year) or forest. 	Frequently (3 to 4 times per year)
<ul style="list-style-type: none"> Supplement wetland plants if a significant portion have not established (at least 50% of the surface area). Remove unhealthy, invasive or nuisance plant species and replant with appropriate species if necessary. Harvest plant species if vegetation becomes too thick causing flow backup and flooding, or an overabundance of undesirable wildlife. 	Annually (if needed)
<ul style="list-style-type: none"> Repair damage to pond, outlet structures, embankments, control gates, valves, or other mechanical devices; repair undercut or eroded areas. Remove litter, debris, pollutants as appropriate. 	As needed
<ul style="list-style-type: none"> Remove sediment from the forebay. Sediments excavated from stormwater wetlands that receive treated runoff from hotspot land uses are not considered toxic or hazardous material and can be safely disposed of by either land application or landfilling. Sediment testing is required prior to sediment disposal when the wetland receives discharge from a hotspot land use. 	As needed (typically every 5 to 7 years)
<ul style="list-style-type: none"> Monitor sediment accumulations, and remove sediment when the volume in the wetland, forebay, or micropool has become reduced significantly or the wetland area is not providing a healthy habitat for vegetation and fish (if used). Discharges of turbid or untreated stormwater from the wetland may be considered an illegal discharge by local ordinances. Care should be exercised during wetland drawdowns to prevent downstream discharge of sediments, anoxic water, or high flows with erosive velocities. The appropriate authorities should be notified before draining a stormwater wetland. 	As needed (typically every 20 to 50 years)

The inspection checklist that is presented on the next page is provided to guide and document inspection and maintenance activities. Please use this checklist or other form(s) of maintenance documentation when and where deemed necessary in order to ensure the long-term proper operation of the stormwater management facility.

For more information on the maintenance of your stormwater facility, please contact:

City of Valley Center Stormwater Management, 545 W. Clay Valley Center KS. 67147, (316) 755-7320

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Stormwater Wetland Inspection Checklist

Project Name: _____ Project #: _____

BMP Name/ID (as shown on the O&M Plan): _____

Refer to the Operations & Maintenance Plan for this property to get the information requested in this box. The Operations and Maintenance Plan for this property is recorded with the Sedgwick County Register of Deeds.

Property Owner Name: _____

Property Owner Address: _____

Owner Phone #: _____ Owner Email Address: _____

Owner Change since last inspection? Y N

Inspection Date/Time: _____

Weather and Site Conditions (last rainfall date, dry/wet soil, etc.): _____

Inspection Items	Condition*	Comments/Corrective Action
<p>*Note - Condition should be marked as Satisfactory (S) or Unsatisfactory (U). An explanation of corrective actions must be provided for all items marked as Unsatisfactory. The completion date of any corrective actions taken must also be documented.</p>		
<p>Inspect the embankment (the dam/berm that holds water in the pond) and the emergency spillway (the location where water exits the facility in the event that the embankment is overtopped).</p>		
1. Does the vegetation appear to be healthy and adequately covering the embankment to prevent erosion? Yes = Satisfactory		
2. Are there signs that soil is eroding (washing away) on/from the embankment? Yes = Unsatisfactory		
3. Are there signs of animal burrows in embankment? Yes = Unsatisfactory		
4. Are there signs of cracking, sliding and/or bulging of the berm/dam? Yes = Unsatisfactory		
5. Are the drains (if any) blocked or malfunctioning? Yes = Unsatisfactory		
6. Are there signs of leaks or seeps on the embankment? Yes = Unsatisfactory		
7. Are there any obstructions of the emergency spillway(s)? Yes = Unsatisfactory		

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Inspection Items	Condition*	Comments/Corrective Action
8. Are there signs of erosion (washing away of soil) in or around the emergency spillway? Yes = Unsatisfactory		
9. Other (describe)?		
Inspect the inlet and outlet structures and channels – these are the locations/structures where water enters and exits the pond.		
10. Are the inlets and outlets and channels clear of debris and functional? Yes = Satisfactory		
11. Are trash racks clear of debris and functional? Yes = Satisfactory		
12. Has sediment accumulated at any of the inlet and outlet structures? Yes = Unsatisfactory		
13. Does the concrete/masonry appear to be in good condition? Yes = Satisfactory		
14. Do the pipes appear to be in good condition? Yes = Satisfactory		
15. Is the slide gate (if any) operating properly? Yes = Satisfactory		
16. Is the pond drain valve operating properly? Yes = Satisfactory		
17. Are there signs of erosion (washing away of soil) in the outlet channels? Yes = Unsatisfactory		
18. Other (describe)?		
Inspect the sediment pre-treatment area (usually a forebay) – the location and type of the pre-treatment area should be indicated on the O&M Plan.		
19. Has sediment accumulated in the pre-treatment area? Note – sediment accumulation would indicate that the pre-treatment area is not working as intended and must be cleaned. Yes = Unsatisfactory		

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Inspection Items	Condition*	Comments/Corrective Action
Inspect the permanent pool – this is the area that stays permanently (or nearly permanently) filled with water.		
20. Is there growth of undesirable vegetation or overgrowth of vegetation? Yes = Unsatisfactory		
21. Is the pool visibly polluted (trash, oily sheen, foul or chemical odor, discoloration, foaming, etc.)? Yes = Unsatisfactory		
22. Are there areas of erosion (soil washing away) on the shoreline? Yes = Unsatisfactory		
23. Are there signs of erosion (soil washing away) at the location where water enters the wetland? Yes = Unsatisfactory		
24. Are the headwalls and endwalls in good condition? Yes = Satisfactory		
25. Are other activities (e.g., grading, recreational, etc.) encroaching on the wetland? Yes = Unsatisfactory		
26. Is there evidence of sediment accumulation? Yes = Unsatisfactory		
Inspect the wetland vegetation – adequate, healthy and appropriate vegetation is vital to the operation of the wetland as a water quality treatment area.		
27. Is the vegetation adequately covering the wetland area? Yes = Satisfactory		
28. Does the vegetation appear to be healthy? Yes = Satisfactory		
29. Is there growth of undesirable vegetation or overgrowth of vegetation? Yes = Unsatisfactory		
Identify any potential hazards to humans or the environment.		
30. Have there been complaints from residents? Yes = Unsatisfactory		
31. Are there any other public hazards that should be noted? Yes = Unsatisfactory		

City of Valley Center Stormwater Wetland Inspection Checklist

By signing my name below, I certify that the information submitted in this document (and all attachments) is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are penalties for knowingly submitting false information, including the possibility of regulatory violations and associated fines.

Inspected by (Name): _____

Inspected by (Signature): _____