

# City of Valley Center

## Stormwater Facility Inspection & Maintenance Guidance

### Bioretention Areas

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 bioretention areas. 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"> <li>After several storm events or an extreme storm event, inspect for signs of erosion, signs of mulch movement out of the treatment area, signs of damage to plants or dead or diseased vegetation.</li> </ul>	As needed
<ul style="list-style-type: none"> <li>Inspect: inflow points for clogging (off-line systems), strip/grass channel for erosion or gullyng,</li> <li>Inspect trees, shrubs and other vegetation to evaluate their health and replace any dead or diseased vegetation.</li> <li>Inspect surrounding drainage area for erosion or signs of sediment delivery to the bioretention area.</li> </ul>	Semi-annually
<ul style="list-style-type: none"> <li>Check for signs of vegetation overgrowth.</li> <li>Inspect treatment area during a rain event and visually verify that stormwater recedes within 24-48 hours from the treatment area.</li> </ul>	Annually
Maintenance Activities	Suggested Schedule
<ul style="list-style-type: none"> <li>Replace mulch and repair areas of erosion, when identified.</li> <li>Replace dead or diseased plants.</li> </ul>	As needed
<ul style="list-style-type: none"> <li>Remove clogs from the stormwater system inflow and overflow components.</li> <li>Remove sediments from pretreatment areas and restabilize with stone or vegetation as appropriate.</li> </ul>	Semi-annually
<ul style="list-style-type: none"> <li>Harvest overgrown vegetation and remove from the bioretention area.</li> </ul>	As needed
<ul style="list-style-type: none"> <li>The planting soils should be tested for pH to establish acidic levels. If the pH is below 5.2, limestone should be applied. If the pH is above 7.0 to 8.0, then iron sulfate plus sulfur can be added to reduce the pH.</li> <li>Check that planting soils still have specified infiltration rate.</li> </ul>	Annually
<ul style="list-style-type: none"> <li>Replace mulch over the entire area.</li> <li>Replace gravel diaphragm if warranted.</li> <li>Note that the surface of the ponding area may become clogged with fine sediment over time. Core aeration or cultivating of un-vegetated areas may be required to ensure adequate filtration.</li> </ul>	2 to 3 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**

# City of Valley Center Bioretention Area 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.
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Property Owner Name: \_\_\_\_\_

Property 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
*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.		
Inspect the Inflow and Overflow Points – these are the locations where stormwater runoff enters or exits the facility.		
1. Are the stormwater inflow and outflow points clear of debris and functional? <b>Yes = Satisfactory</b>		
2. Has sediment accumulated at any of the inflow and/or outflow points? <b>Yes = Unsatisfactory</b>		
3. If vegetated, is the vegetation in good condition? <b>Yes = Satisfactory</b>		
4. Are there signs of soil or mulch erosion at the inflow or outflow points? <b>Yes = Unsatisfactory</b>		
5. Other (describe)?		

## City of Valley Center Bioretention Area Inspection Checklist

Inspection Items	Condition*	Comments/Corrective Action
<b>Inspect the sediment pre-treatment area – the location and type of the pre-treatment area should be indicated on the O&amp;M Plan.</b>		
6. Has sediment accumulated in the pre-treatment area? Note - sediment accumulation would indicate that the pre-treatment area is working as intended, but must be cleaned. <b>Yes = Unsatisfactory</b>		
Inspection Items	Condition*	Comments/Corrective Action
<b>Inspect the treatment facility.</b>		
7. Are there signs of soil or mulch erosion or the movement of mulch? <b>Yes = Unsatisfactory</b>		
8. Is the vegetation healthy and growing? <b>Yes = Satisfactory</b>		
9. Is vegetation overgrown and in need of pruning? <b>Yes = Unsatisfactory</b>		
10. Are there signs of sediment, debris or trash accumulation? <b>Yes = Unsatisfactory</b>		
11. Is the mulch layer showing signs of thinning? <b>Yes = Unsatisfactory</b>		
12. Is there standing water in the facility for more than 24-48 hours after rain events? <b>Yes = Unsatisfactory</b>		
13. Other (describe)?		
<b>Identify any potential hazards to humans or the environment.</b>		
14. Have there been complaints from residents? <b>Yes = Unsatisfactory</b>		
15. Are there any other public hazards that should be noted? <b>Yes = Unsatisfactory</b>		

# City of Valley Center Bioretention Area 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): \_\_\_\_\_