

City of Valley Center

Stormwater Facility Inspection & Maintenance Guidance

Alum Treatment Systems

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 alum treatment systems. 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.

Note: Inspections and maintenance of the alum treatment system must be performed by a trained system operator.

Inspection Activities	Suggested Schedule
<ul style="list-style-type: none">• Dosing equipment – monitor dosage of alum and other chemicals. Also monitor the expected flows through the system.• Perform routine inspection of dosing equipment and pump-out facility to ensure that all equipment is in proper operating condition.• Inspect dosing equipment and storage facility for signs of leaks or spills.• Inspect chemical amounts and restock if needed.• Monitor pH and other parameters in the settling pond to determine potential negative impacts to receiving waters.• Inspect settling pond for signs of damage, impending failure, and poor water quality.• Inspect storage capacity of settling pond and floc drying beds (if used).	Monthly or more frequently
Maintenance Activities	Suggested Schedule
<ul style="list-style-type: none">• Adjust the dosage of alum and other chemicals and possibly regulate flows through the basin to ensure proper dosage and delivery of runoff to the settling pond.• Perform maintenance and repair of pump equipment, chemical supplies and delivery system.• Dredge settling pond and properly dispose of accumulated floc.	As Needed

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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Alum Treatment System 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 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.): _____

Note: Inspections and maintenance of the alum treatment system must be performed by a trained system operator.

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 dispensing system.		
1. Is the alum treatment system dispensing the proper dose? Yes = Satisfactory		
2. Are there signs of leaks or spills? Yes = Unsatisfactory		
3. Does the system appear to be working in proper operating condition? Yes = Satisfactory		
Inspect the chemical storage facility.		
4. Are there signs of leaks or spills in the chemical storage facility? Yes = Unsatisfactory		
5. Is there proper delivery of chemicals to dosing system? Yes = Satisfactory		
6. Does the facility appear to be working in proper operating condition? Yes = Satisfactory		

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Inspection Items	Condition*	Comments/Corrective Action
Inspect the settling pond.		
7. Note the pH and water quality parameters in the "Comments" section.		
8. Are there signs that soil is eroding (washing away) on/from the embankment? Yes = Unsatisfactory		
9. Are there signs of animal burrows in embankment? Yes = Unsatisfactory		
10. Are there signs of cracking, sliding and/or bulging of the berm/dam? Yes = Unsatisfactory		
11. Are the drains (if any) blocked or malfunctioning? Yes = Unsatisfactory		
12. Are there signs of leaks or seeps on the embankment? Yes = Unsatisfactory		
13. Are there any obstructions of the emergency spillway(s)? Yes = Unsatisfactory		
14. Are there signs of erosion (washing away of soil) in or around the emergency spillway? Yes = Unsatisfactory		
15. Are there signs of sediment/floc accumulation? Yes = Unsatisfactory		
16. Does the concrete/masonry appear to be in good condition? Yes = Satisfactory		
17. Do the pipes appear to be in good condition? Yes = Satisfactory		
18. Is the control valve operating properly? Yes = Satisfactory		
19. Is the pond drain valve operating properly? Yes = Satisfactory		

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Inspection Items	Condition*	Comments/Corrective Action
20. Are there signs of erosion (washing away of soil) in the outlet channels? Yes = Unsatisfactory		
21. Other (describe)?		
22. Other (describe)?		
Identify any potential hazards to humans or the environment.		
13. Have there been complaints from residents? Yes = Unsatisfactory		
14. Are there any other public hazards that should be noted? Yes = Unsatisfactory		

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): _____