

Pump System Maintenance Plan

1. **Objective:** To maintain the water quality pump system to divert low flow pollutants from the storm drain system into a stormwater treatment system.

2. **Inspection Schedule**

New Installation Inspection: The condition of the pump system shall be checked after every runoff event for the first 30 days of the rainy season post-installation. The inspection shall ascertain that the pumps are functioning properly. The inspection shall include manually triggering the system float switches to ensure that the pumps operate as designed. The amount of sediment in the center of the vault should also be checked. This can be done with a “dip stick” calibrated to track the depth of deposition. The on-going inspection and cleaning schedule shall be determined based upon the new installation inspection results.

3. **Inspection and Maintenance: On-Going Operation** (after 30 days of the first rainy season)

3.1 Rainy Season (Oct 1 -April 15)

Monthly: The pump system must be inspected and tested at a minimum once per month or more frequently (as determined by inspection). The inspection shall include manually triggering the system float switches to ensure that the pumps operate as designed. Any significant floatables shall be removed as needed. The pump vault shall be cleaned before the sediment depth impedes pump function. Each cleaning shall include the following:

- Removal of floatables and debris from the separation chamber
- Removal of sediment from the vault
- Visual inspection to ascertain that there are no vector issues (refer to Section 5 – Vector Control)

End of Season: The vault shall be cleaned out at the end of the rainy season to prevent odor generation due to decomposition of organic matter in the vault.

3.2 Dry season (April 16-September 30)

Monthly: The pump system shall be checked quarterly to assess if the pumps are operating correctly. The inspection shall include manually triggering the system float switches to ensure that the pumps operate as designed.

The sump should also be inspected to determine if there are vector issues. Refer to Section 5 - Vector Control for specific details regarding vector control.

3.3 Annual maintenance. The following activities shall be completed at least once per year, or more frequently as inspection warrant.

- **Pump down the vault:** Remove all liquid and solids from the unit. Release wash water to vegetated area or the sanitary sewer system once approval has been given by Union Sanitary District.

Union Sanitary District
5072 Benson Rd.
Union City, CA 94587
510-477-7500
www.unionsanitary.com

- **Power wash the pumps and vault:** The pumps and vault walls shall be power washed during the annual inspection and maintenance.
- **Inspect for presence of mosquitoes or other vectors:** Determine if mosquitoes or other vectors are present in the unit. If mosquitoes are present, contact Alameda County Mosquito Abatement District (refer to Section 4 for contact information).
- **Inspect the integrity of the pump system:** Inspect for damage to the following components:
 - ✓ Diversion weir
 - ✓ Pumps and piping
 - ✓ Flex hoses and connections
 - ✓ Check valves and globe valves
 - ✓ Vault Cover, including lifting mechanism (if applicable)
 - ✓ Power cables and cable splices (if applicable)
 - ✓ Float switches, wiring and supports
 - ✓ Control box and control panel

The pump system components should not show any signs of damage or any loosening of bolts used to fasten the various components. If any problems are discovered, repair shall be completed as soon as possible.

NOTE: The pump vault is a confined space. Only properly trained people equipped with required safety gear should be allowed to enter the unit to perform the detailed inspection.

4. **Spill Control**

In the event of a spill, turn off the pump and deploy emergency spill response procedures.

5. **Vector Control**

Objective: To prevent conditions within pump vault that attract and/or promote the proliferation of disease vectors, including but not limited to mosquitoes and rodents.

Maintenance Activities for Vector Control

5.1 Inspections: Regular inspections will determine if there is mosquito breeding in the vault. Inspections shall be conducted monthly. If there is evidence of mosquitoes or mosquito breeding, the Mosquito Abatement District shall be contacted for assistance. The pump vendor may also be contacted to help correct the problem.

5.2 Vector-restricting covers: Vector-restricting covers should be inspected to ensure integrity. Access holes should be sealed to prevent mosquito entry.

5.3 **Mosquito Abatement District:** The Alameda Country Mosquito Abatement District (ACMAD) shall be contacted as needed for assistance should any mosquito issues arise. Mosquito larvicides should be applied only when absolutely necessary as indicated by the ACMAD, and then only by a licensed professional or contractor. The contact information for ACMAD follows:

Alameda County Mosquito Abatement District
23187 Connecticut St
Hayward, Ca 94545
Phone 510-783-7744

6 Correspondence

Correspondence regarding operations, inspections and maintenance of the storm water treatment measures will be provided to the City of Fremont's Environmental Services Division as required and according to the schedule outlined in the Operations and Maintenance Agreement.