

## Rainwater Harvesting Maintenance Requirements

Important operation and maintenance procedures:

- The roof area will be maintained to reduce the debris and sediment load to the system. Excess debris can clog the system and lead to bypass of the design storm, and reduced reuse volume.
- To ensure proper operation as designed, a licensed Professional Engineer, Landscape Architect, or other qualified professional will inspect the system annually.
- The system components will be repaired or replaced whenever they fail to function properly.
- If the outlet is metered, use must be recorded at a minimum of monthly. These records shall be kept on site for inspection by DWQ.

The system will be inspected by the owner/operator at least **monthly and within 24 hours** after each rain event. Records of operation and maintenance will be kept in a known set location and will be available upon request.

Inspection activities shall be performed as follows. Any problems that are found shall be repaired immediately.

BMP element:	Potential problem:	How to remediate the problem:
<b>The entire system</b>	A component of the system is damaged or leaking.	Make any necessary repairs or replace if damage is too large for repair.
	Water is flowing out of the overflow pipe during a design rainfall or smaller (usually a 1" or 1.5" rainfall).	Check system for clogging and damage. Repair as needed so the design volume is stored properly without discharging during a design storm.
		Check that the pump is operating properly and that the water is actually being used at the volume designed.
		If it is still not operating properly, then consult an expert.
<b>The captured roof area</b>	Excess debris or sediment is present on the rooftop.	Remove the debris or sediment as soon as possible.
<b>The gutter system</b>	Gutters are clogged, or water is backing up out of the gutter system.	Unclog and remove debris. May need to install gutter screens to prevent future clogging.
	Rooftop runoff not making it into gutter system.	Correct the positioning or installation of gutters. Replace if necessary to capture the roof runoff.
<b>The pump</b>	Pump is not operating properly.	Check to see if the system is clogged and flush if necessary. If it is still not operating, then consult an expert.
<b>The overflow pipe</b>	Erosion is evident at the overflow discharge point.	Stabilize immediately.
	The overflow pipe is clogged.	Unclog or replace if it cannot be unclogged.
	The outflow pipe is damaged.	Repair or replace the pipe.
<b>The secondary water</b>	Not operating properly.	Consult an expert.
<b>The cistern</b>	Sediment accumulation of 5% or more of the design volume.	Remove sediment.
	Algae growth is present inside the cistern.	Do not allow sunlight to penetrate the cistern. Treat the water to remove/prevent algae.
	Mosquitoes in the cistern.	Check screens for damage and repair/replace. Treat with 'mosquito dunks' if necessary.
<b>The screens and filters</b>	Debris and/or sediment has accumulated. Screens and filters are clogged.	Search for the source of the debris/sediment and remedy the problem if possible. Clean/clear debris/sediment from screen or filter. Replace if it cannot be cleaned.