

CISTERN MAINTENANCE GUIDANCE

Maintenance of cisterns focuses on the periodic removal of sediment and debris from pretreatment and storage areas. Sediment removal from tanks and pipes is typically conducted using vacuum or flushing systems. Guidance on the use and operation of vacuum or flushing sediment removal equipment is beyond the scope of this Manual; a maintenance professional should be contacted for additional details. As applicable, cistern maintenance procedures must meet Occupational Safety and Health Administration confined space entry requirements.

General recommended maintenance activities for cisterns are summarized in Table 4.5-2.

Periodic inspections and maintenance of cisterns must be conducted by a qualified professional. Maintenance requirements for cisterns that are part of rainwater harvesting systems vary according to reuse. Detailed maintenance guidance for rainwater harvesting systems is beyond the scope of this Manual.

The designer is referred to Section 4.10, Pretreatment, Section 4.11, Inlet Controls, and Section 4.12, Outlet Controls, for information on maintenance guidance for pretreatment, inlet controls, and outlet controls.

**TABLE 4.5-2:
Cistern Maintenance Guidelines**

| | ACTIVITY | FREQUENCY |
|---------|---|---|
| EARLY | Inspect inlet structures, outlet structures, and storage areas for trash and sediment accumulation. | <i>Monthly for the first year after installation to determine ongoing maintenance frequency</i> |
| | Regularly clean out gutters, gutter screening, first-flush chamber, and catch basins to reduce sediment load to the cistern. Clean intermediate sump boxes, replace filters, and otherwise clean pretreatment areas in directly connected systems. Remove sediment and debris from cisterns according to the manufacturer's recommendations or the site-specific maintenance plan. Test sediment for toxicants in compliance with current disposal requirements if land uses in the catchment include commercial or industrial zones, or if indications of pollution are present. | <i>As needed</i> |
| ONGOING | Brush the inside surfaces and thoroughly disinfect. Prior to freezing weather, to avoid structural damage perform winterization of cisterns as per manufacturer's requirements or design professional's specifications. | <i>Annually</i> |
| | Inspect cistern and control structures. Remove floating debris and accumulated petroleum products. | <i>Quarterly</i> |
| | Maintain records of inspections and maintenance activity. | <i>Ongoing</i> |