

# Arcadia™ HDS

# Maintenance Guide

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One of Arcadia's advantages is the ease of maintenance. Like any system that collects pollutants, the Arcadia hydrodynamic separator must be maintained for continued effectiveness. Maintenance is a simple procedure performed using a vacuum truck or similar equipment. The systems were designed to minimize the volume of water removed during routine maintenance, reducing disposal costs.

Contractors can access the pollutants stored in the manhole through the manhole cover. This allows them to gain vacuum hose access to the bottom of the manhole to remove sediment and trash. There is no confined space entry necessary for inspection or maintenance.

The entire maintenance procedure typically takes 2 to 4 hours, depending on the system's size, the captured material, and the vacuum truck's capacity.

Local regulations may apply to the maintenance procedure. Safe and legal disposal of pollutants is the responsibility of the maintenance contractor. Maintenance should be performed only by a qualified contractor.

## Inspection and Cleaning Cycle

Periodic inspection is needed to determine the need for and frequency of maintenance. You should begin inspecting as soon as construction is complete and then on an annual basis. Typically, the system needs to be cleaned every 1-3 years.

Excessive oils, fuels or sediments may reduce the maintenance cycle. Periodic inspection is important.

## Determining When to Clean

To determine the sediment depth, the maintenance contractor should lower a stadia rod into the manhole until it contacts the top of the captured sediment and mark that spot on the rod. Then push the probe through to the bottom of the sump and mark that spot to determine sediment depth.

Maintenance should occur when the sediment has reached the levels indicated in the Storage Capacity Chart.

## Arcadia Storage Capacities

Model	Manhole Diameter in (mm)	Total System Volume Gallons (Liters)	Treatment Chamber Capacity Gallons (Liters)	Standard Sediment Capacity (18" depth) Yards <sup>3</sup> (m <sup>3</sup> )	NJDEP Sediment Capacity (50% of Standard Depth) Yards <sup>3</sup> (m <sup>3</sup> )
ARC3	36 (914)	242 (917)	203 (767)	0.39 (0.30)	0.19 (0.15)
ARC4	48 (1219)	635 (2402)	564 (2135)	0.70 (0.53)	0.35 (0.27)
ARC5	60 (1524)	991 (3753)	881 (3336)	1.09 (0.83)	0.55 (0.42)
ARC6	72 (1829)	1428 (5404)	1269 (4804)	1.57 (1.20)	0.79 (0.60)
ARC8	96 (2438)	4136 (15656)	3854 (14588)	2.79 (2.14)	1.40 (1.07)
ARC10	120 (3048)	7931 (30022)	7490 (28354)	4.36 (3.34)	2.18 (1.67)

## Maintenance Procedures

1. Remove the manhole cover to provide access to the pollutant storage. Pollutants are store in the sump, below the unit assembly visible from the surface. Access this area through the access cylinder (larger than 10" (254 mm) diameter for all sizes).
2. Use a vacuum truck or other similar equipment to remove all water, debris, oils and sediment. See Figure 1.
3. Use a high pressure hose to clean the manhole of all the remaining sediment and debris. Then, use the vacuum truck to remove the water.
4. Fill the cleaned manhole with water until the level reaches the invert of the outlet pipe.
5. Replace the manhole cover.
6. Dispose of the polluted water, oils, sediment and trash at an approved facility.
  - a. Local regulations prohibit the discharge of solid material into the sanitary system. Check with the local sewer authority for authority to discharge the liquid.
  - b. Some localities treat the pollutants as leachate. Check with local regulators about disposal requierments.
  - c. Additional local reguaultions may apply to the maintenance procedure.

Figure 1

