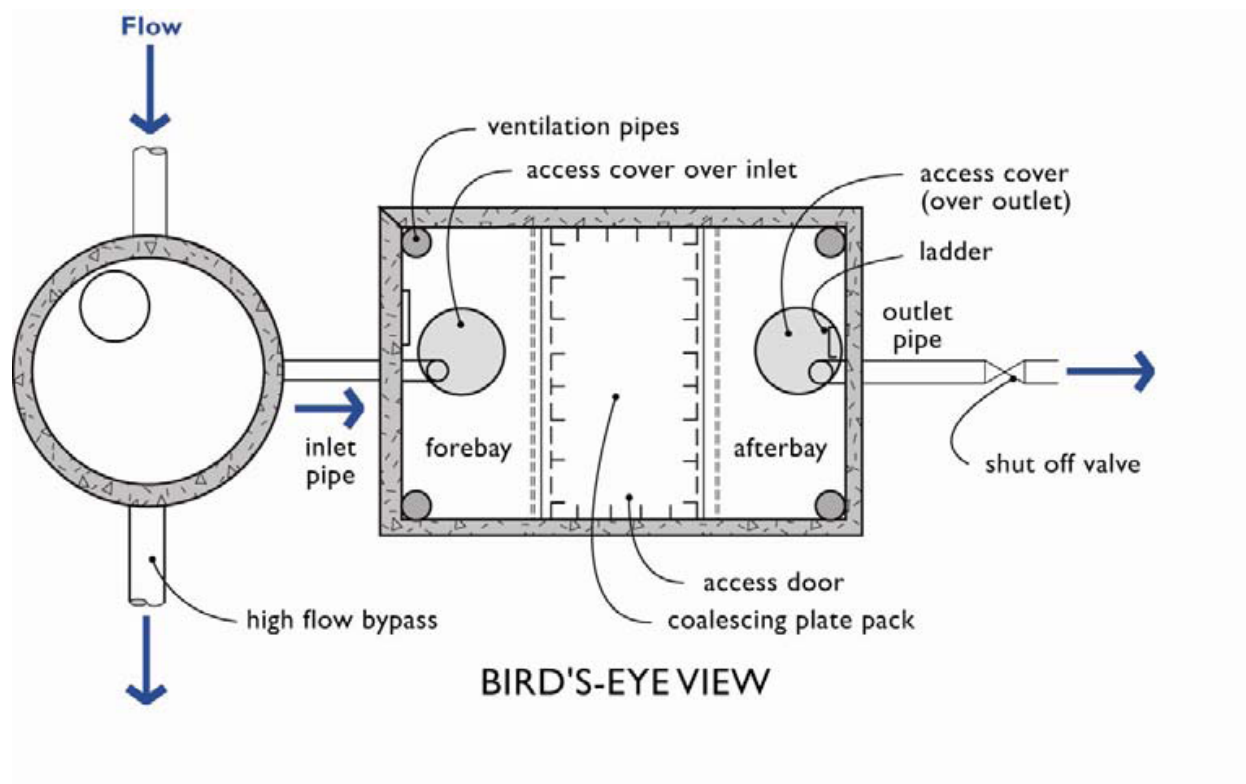


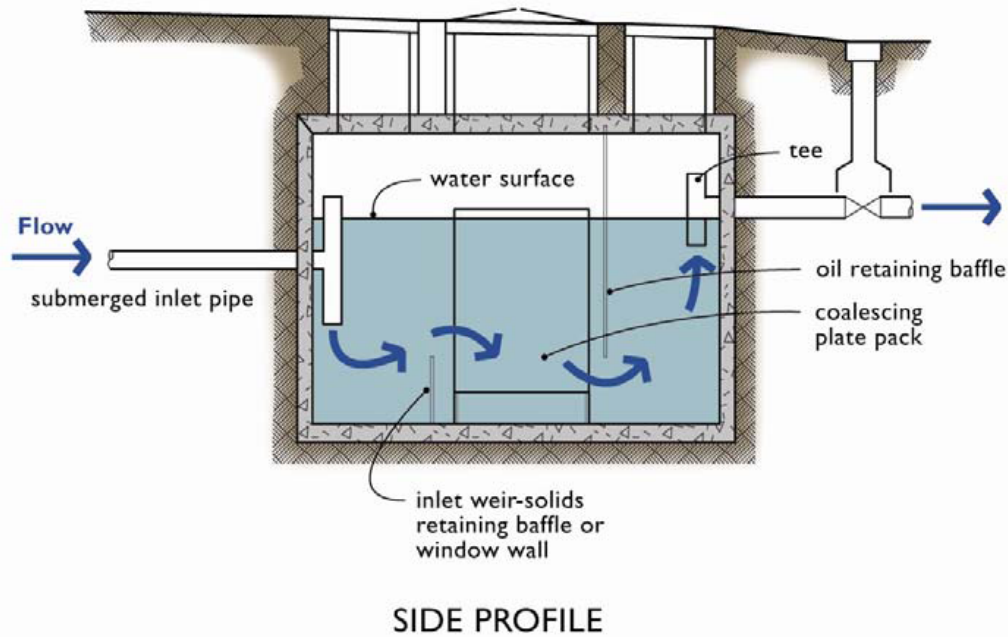
Coalescing Plate Oil/Water Separator

A coalescing plate oil/water separator is generally the same as the API type. The main difference is that coalescing plate separators include a series of parallel plates in the separation bay (2nd bay) that increase the oil removal efficiency of the separator.

Facility objects associated with a coalescing plate oil/water separator may include:

- access road or easement
- control structure/flow restrictor
- conveyance stormwater pipe





Key Operations and Maintenance Considerations

- Prepare, regularly update, and implement an O&M Manual for the oil/water separators.
- Inspect oil/water separators to ensure proper operation monthly during the wet season of October 1 - April 30 and during and immediately after a large storm event of ≥ 1 inch per 24 hours.
- Clean oil/water separators regularly to keep accumulated oil from escaping during storms. They must be cleaned by October 15 to remove material that has accumulated during the dry season, after all spills, and after a significant storm. Coalescing plates may be cleaned in-situ or after removal from the separator. An eductor truck may be used for oil, sludge, and washwater removal. Replace wash water in the separator with clean water before returning it to service.
- Replace oil absorbent pads before their absorbed oil content reaches capacity.
- Train designated employees on appropriate separator operation, inspection, record keeping, and maintenance procedures.
- Common tools for cleaning and maintaining an oil/water separator are a vacuum truck and/or oil absorbing media materials to remove oils and other sediments that have accumulated in the facility.

Coalescing Plate Oil/Water Separator

Drainage System Feature	Potential Defect	Conditions When Maintenance Is Needed	Minimum Performance Standard
General	Poor Water Quality	Inspection of discharge water for obvious signs of poor water quality (i.e. obvious oil or other contaminants present).	Effluent discharge from vault clear with no thick visible sheen.
	Sediment Accumulation	Sediment depth in bottom of vault exceeds 6-inches in depth and/or visible signs of sediment on plates.	No sediment deposits on vault bottom and plate media that would impede flow through the vault and reduce separation efficiency.
	Trash and Debris Accumulation	Trash and debris accumulated in vault, or pipe inlet/outlet, floatables and non-floatables.	Vault and inlet/ outlet piping is free of trash and debris.
	Oil Accumulation	Oil accumulation that exceeds 1-inch at the water surface.	Oil has been extracted from vault. Coalescing plates have been cleaned. No visible oil depth on water.
	Damaged Coalescing Plates	Plate media broken, deformed, cracked and/or showing signs of failure.	A portion of the media pack or the entire plate pack has been replaced (depending on severity of failure).
	Damaged Pipes	Inlet or outlet piping damaged or broken and in need of repair.	Pipe has been repaired and or replaced to design specifications.
	Baffles	Baffles corroding, cracking, warping and/or showing signs of failure as determined by maintenance/inspection person.	Baffles have been repaired or replaced to design specifications.
	Vault Structure Damage - Includes Cracks in Walls, Bottom, Damage to Frame and/or Top Slab	Cracks wider than 1/2-inch or evidence of soil particles entering the structure through the cracks, or maintenance/inspection personnel determine that the vault is not structurally sound.	Vault replaced or repairs made so that vault meets design specifications and is structurally sound.
		Cracks wider than 1/2-inch at the joint of any inlet/outlet pipe or evidence of soil particles entering through the cracks.	Vault repaired so that no cracks exist wider than 1/4-inch at the joint of the inlet/outlet pipe.
Access Ladder Damaged	Ladder is corroded or deteriorated, not functioning properly, not securely attached to structure wall, missing rungs, cracks, and misaligned.	Ladder replaced or repaired, meets design specifications, and is safe to use as determined by inspection personnel.	