



Septic Systems & Vehicle Wash Facilities

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Training Outcome

- ▶ Recognize potential problems/indications of failures of facility wastewater systems; and know when to perform required maintenance. Comply with appropriate safety protocols, procedures, and/or requirements.





“What’s the big deal, it’s all going into the ground anyway”



Today's Training

- ▶ Permitting
- ▶ Operation of septic systems
- ▶ Operation of Oil Water Separators (Vehicle Wash Facilities)
- ▶ Indications of problems and associated hazards
- ▶ Safety
- ▶ Required maintenance





Permitting Requirements

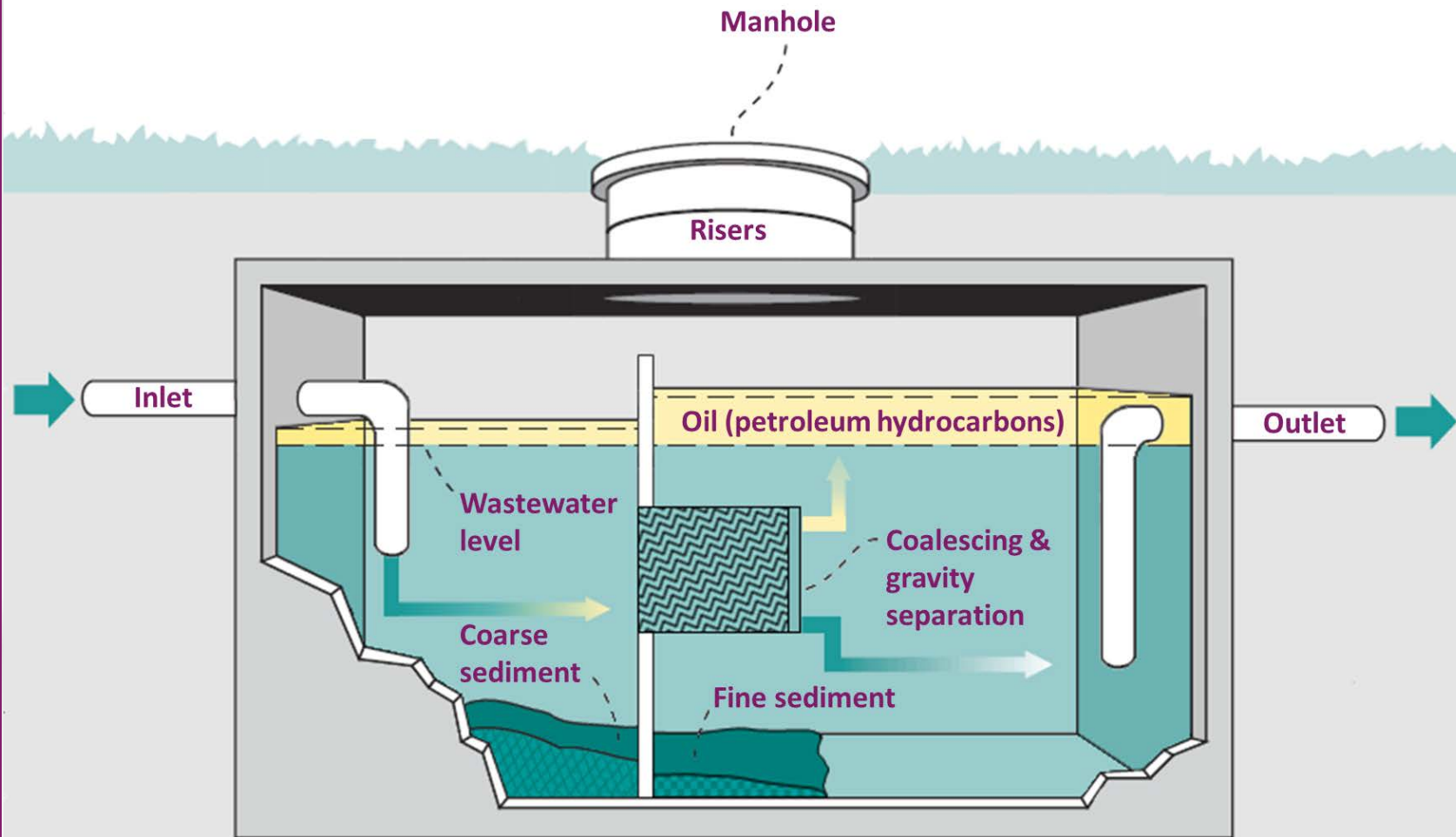
- ▶ Permit to construct
- ▶ Permit to operate
- ▶ Separate permits





Oil Water Separator Vehicle Wash Facility

Vehicle Wash Facility—Oil Water Separator (OWS)



*****Important to use phosphate free biodegradable soaps in moderation**

Vehicle Wash Facility—wash bay floor

► Prewash

- Knock excess sediment and salt off the vehicle prior to beginning wash
- If sediment is present on washpad, dry sweep before washing the vehicle



Vehicle Wash Facility—trench drain

- ▶ Pretreatment for OWS



Vehicle Wash Facility—trench drain

- ▶ Use hose and flat shovels to remove sediment as necessary



Vehicle Wash Facility

► Pesticide Trucks

- Emptying, rinsing or cleaning of chemical storage tanks or pesticide/herbicide containers is strictly forbidden at all ADOT wash facilities
- Exterior of pesticide trucks may be washed in the wash racks by Certified Pesticide Applicators only
- An OWS is not designed to treat pesticides/herbicides.



Indicators of OWS failure/problems

- ▶ Ponding/water in drainfield (sheen possible)
- ▶ Trench drain filled with sediment
- ▶ Excess oil in trench drain
- ▶ Unusual staining in wash bay
- ▶ Improper flow in distribution box



Maintenance of OWS wastewater systems

- ▶ Mow leach field to prevent excessive growth
 - Don't allow establishment of large root systems
- ▶ Remove sediment from trench drain
- ▶ Perform scheduled inspections
- ▶ Service/pump on regular scheduled basis
 - Record on Pumping log
- ▶ Follow ADOT Vehicle Wash Facility Best Practices





Inspection / recordkeeping

Frequency	Task
Weekly	Visually check trench drain for sediment—clean if needed
Quarterly	Conduct maintenance inspection using checklist
When system is pumped	Complete pumping log

Inspection Checklists

OIL/WATER SEPARATOR Quarterly Maintenance Inspection Log

Date of Inspection: _____

Location: _____

1. Wash pad condition?
 - a. Cracks? Y ____ N ____
 - b. Damage? Y ____ N ____
 - c. Unusual Staining? Y ____ N ____
2. Is sediment regularly removed from trench? Y ____ N ____
3. Distribution box and disposal field condition? (if applicable)
 - a. Excess dampness noted? Y ____ N ____
 - b. Damage to distribution box? Y ____ N ____
4. OWS inlet compartment (remove cast iron lid and use pvc to measure)
 - a. Solids (inches) _____
 - b. Oil layer on top (inches) _____

OWS should be pumped when (or before) sediment or debris fills 10 inches of the primary tank (measured from the bottom of the tank) or if oil becomes emulsified (mixed with water/no separation).

Comments/Visual Observations: (Examples: odors, sheen, leaks, spills, sediment buildup and oil level on surface, signs of deterioration, road film, oil/grease, etc.)

Inspected by: _____

Pumping log

OWS Pumping Log

Location

Pump Date	Contractor	Quantity sludge	Quantity Oily Water	Recorded by (name)

Best Practices for ADOT Vehicle and Equipment Wash Facilities

Last revised 6-25-2015

Safety

- ▶ The OWS is a confined space
 - Only personnel qualified in Confined Space Entry are authorized to enter
- ▶ Wear protective gear—eye, ear, body (feet, face, hands)
 - Protect against excessive noise, high pressure water, other hazards
- ▶ Check clearance around vehicles/equipment
 - Ensure freedom of movement while using spray wand
- ▶ Never point spray wand toward anyone
 - Extreme high pressure can cause severe injury
- ▶ Do not climb on equipment when wet—it can be very slick
- ▶ Maintain soaps, detergents and operating tools in the proper place

Stay alert — use common sense — be aware of the dangers of operating this type of equipment

Safety



**This is an unsafe practice.
Your head, body, etc. should
never be in a confined space.**

Safety

- ▶ Secure all openings!



Take-aways

- ▶ Safety first
- ▶ Check trench drain regularly
- ▶ Remove excess sediment as necessary
 - From equipment
 - From wash pad
- ▶ Conduct quarterly inspections



Contact Info

Notify Facilities Maintenance immediately of any of the following:

Any leaks, blockages of drains, or other malfunctions with your vehicle wash facility

Any announced or unannounced onsite inspections

All scheduled pumpouts

In the event of a spill:

Follow Facility Pollution Prevention Plan (FPPP) spill response section and call District Environmental Coordinator

Oil-Water Separator (OWS) Malfunction

Contact	Phone
Facilities Maintenance North – Zachary Gammill	928-301-2385
Facilities Maintenance Central – David Castro	602-172-7179
Facilities Maintenance South – Pat Terry	520-838-2851
ADOT Groundwater Protection – Kent Haugerud	602-376-8532



Questions?

Field Visit

- ▶ Demonstrate inspection of wash bay

