

#7 – Maintenance Standards for Energy Dissipators:

√	Drainage System Feature	Defect or Problem	Condition When Maintenance is Needed	Results Expected When Maintenance is Performed
External:				
	Rock Pad	Missing or Moved Rock	Only one layer of rock exists above native soil in area five square feet or larger, or any exposure of native soil.	Rock pad replaced to design standards.
	Rock Pad	Erosion	Soil erosion in or adjacent to rock pad.	Rock pad replaced to design standards.
	Dispersion Trench	Pipe Plugged with Sediment	Accumulated sediment that exceeds 20 percent of the design depth.	Pipe cleaned/flushed so that it matches design.
	Dispersion Trench	Not Discharging Water Properly	Visual evidence of water discharging at concentrated points along trench (normal condition is a "sheet flow" of water along trench). Intent is to prevent erosion damage.	Water discharges from feature by sheet flow. Trench redesigned or rebuilt to standards.
	Dispersion Trench	Perforations Plugged	Over one-half of perforations in pipe are plugged with debris and sediment.	Perforations freely discharge flow. Perforated pipe cleaned or replaced.
	Dispersion Trench	Water Flows Out Top of "Distributor" Catch Basin	Water flows out of distributor catch basin during any storm less than the design storm or is causing or appears likely to cause damage.	No flow discharges from distributor catch basin. Facility rebuilt or redesigned to standards.
	Dispersion Trench	Receiving Area Over-Saturated	Water in receiving area is causing or has potential of causing landslide problems.	No danger of landslides.
Internal:				
	Manhole/ Chamber	Worn or Damaged Post, Baffles, Side of Chamber	Structure dissipating flow deteriorates to one-half of original size or any concentrated worn spot exceeding 1 square foot which would make structure unsound.	Structure in no danger of failing. Structure replaced to design standards if needed.
	Manhole/ Chamber	Trash and Debris	Trash or debris (in the basin) that exceeds 1/3 of the sump depth as measured from the bottom of basin to invert of the lowest pipe into or out of the basin, but in no case less than a minimum of 6 inches clearance from the debris surface to the invert of the lowest pipe.	No trash or debris in the catch basin.
	Manhole/ Chamber	Trash and Debris	Trash or debris in any inlet or outlet pipe blocking more than one-third of its height.	Inlet and outlet pipes free of trash or debris.

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	Manhole/ Chamber	Trash and Debris	Dead animals or vegetation that could generate odors that could cause complaints or dangerous gases (e.g., methane).	No dead animals or vegetation present within the catch basin.
	Manhole/ Chamber	Sediment	Sediment (in the basin) that exceeds 1/3 of the sump depth as measured from the bottom of basin to invert of the lowest pipe into or out of the basin, but in no case less than a minimum of 6 inches clearance from the sediment surface to the invert of the lowest pipe.	No sediment in the catch basin.
	Manhole/ Chamber	Structure Damage to Frame and/or Top Slab	Top slab has holes larger than 2 square inches or cracks wider than one-fourth inch.	No holes and cracks in top slab allowing material to run into the basin.
	Manhole/ Chamber	Structure Damage to Frame and/or Top Slab	Frame not sitting flush on top slab, i.e., separation of more than three-fourth inch of the frame from the top slab. Frame not securely attached.	Frame is sitting flush on the riser rings or top slab and firmly attached.
	Manhole/ Chamber	Fractures or Cracks in Basin Walls/ Bottom	Maintenance person judges that structure is unsound.	Basin replaced or repaired to design standards.
	Manhole/ Chamber	Fractures or Cracks in Basin Walls/ Bottom	Grout fillet has separated or cracked wider than one-half-inch and longer than 1 foot at the joint of any inlet/outlet pipe or any evidence of soil particles entering catch basin through cracks.	Pipe is regouted and secure at basin wall.
	Manhole/ Chamber	Settlement/ Misalignment	If failure of basin has created a safety, function, or design problem.	Basin replaced or repaired to design standards.
	Manhole/ Chamber	Contamination and Pollution	Any evidence of oil, gasoline, contaminants, or other pollutants.	No contaminants or pollutants present. <i>(Coordinate removal/cleanup with Thurston County Water Resources 360-754-4681 and/or Thurston County Spill Hotline 360-239-8369.)</i>
	Catch Basin Cover	Cover Not in Place	Cover is missing or only partially in place. Any open catch basin requires maintenance.	Catch basin cover is closed.

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	Catch Basin Cover	Locking Mechanism Not Working	Mechanism cannot be opened by one maintenance person with proper tools. Bolts into frame have less than one-half- inch of thread.	Mechanism opens with proper tools.
	Catch Basin Cover	Cover Difficult to Remove	One maintenance person cannot remove lid after applying normal lifting pressure. <i>(Intent is to keep cover from sealing off access to maintenance.)</i>	Cover can be removed by one maintenance person.