



University of New Hampshire

WHAT YOU OBSERVE	POTENTIAL CAUSE	SOLUTION
	CULVERT INLET & OUTLET	
Scouring/erosion at the inlet	Ditch/channel is too steeply graded	Install riprap
	Pipe is poorly located or aligned	Relocate or realign pipe
	No headwalls	Install headwalls/wingwalls
	Pipe is clogged	Clean and flush the pipe
Scouring/erosion at the outlet	Pipe is sloped too much	Install riprap
	No endwalls or aprons	Install end walls or aprons
	Pipe is too small	Check size and increase diameter
“Ponded” water	Inlet is too high	Reset the pipe; match the inlet
	Ditch grade is too flat	Re-grade the ditch
Dented or crushed ends	Vehicles are hitting ends	Fix, mark, and protect pipe ends
“Piping” around the ends	Water flow along outside surface of the pipe	Reinstall culvert with headwall, correct bedding, and backfill; assure joints are aligned and tight

Note that these activities may/would require permits if they do not qualify for Routine Roadway Maintenance



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WHAT YOU OBSERVE	POTENTIAL CAUSE	SOLUTION
	CULVERT BARREL	
Sediment buildup	Incorrect pipe slope	Reinstall pipe at a greater slope
	Excessive erosion upstream	Implement erosion control
Objects blocking pipe	Debris is traveling into culvert	Remove blockage, install screens
Sagging bottom	Foundation material has settled	Reinstall pipe on suitable bedding
	Material loss due to piping	Reinstall pipe with headwalls
Crushed top	Cover is inadequate	Increase cover
	Improper compaction	Reinstall pipe following proper compaction procedures
	Material loss due to piping	Reinstall pipe with headwalls
	Traffic load is too great	Replace pipe with stronger one
Heavy corrosion	Water is acidic, corrosion protection	Replace pipe, re-coat invert

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