







TROUBLESHOOTING PROBLEMS





When problems occur, intervention is needed. For many RainScaping solutions, you may be able to resolve the issue yourself with guidance offered in the table below. For more complex issues or if the problem does not resolve, seek the services of a qualified professional.

	OBSERVATION	POTENTIAL CAUSES	TROUBLESHOOTING STEPS
PROBLEM: Water			
 <p>Ponding water</p>	Ponding near underground pipes	Pipes may be damaged, disconnected, or blocked	<ul style="list-style-type: none"> • Clear inlets and outlets of debris • Conduct a video camera pipe inspection. Rent a probe from a hardware store or consult a drainage contractor
	Ponding on permeable pavement surfaces	Pavement or paver joints may be clogged	<ul style="list-style-type: none"> • Clean per manufacturer’s recommendations • Avoid chemical treatments to prevent surface damage and polluted runoff
 <p>Modified Photo: Alpha on Flickr</p> <p>Overflowing gutters</p>	Overflowing gutters	Downspouts may be clogged	<ul style="list-style-type: none"> • Clear downspouts and outlets of debris
		There may be too few downspouts draining the roof area	<ul style="list-style-type: none"> • Drain no more than 700 square feet of roof area to a single downspout
	Brackets holding up the gutter may have failed or shifted	<ul style="list-style-type: none"> • Adjust brackets to gently slope gutters toward downspouts 	
	Overflowing drains in yards, driveways or parking areas	Pipes or drains may be clogged	<ul style="list-style-type: none"> • Clear pipes and drains of debris • Conduct a video camera pipe inspection. Rent a probe from a hardware store or consult a drainage contractor
		Infiltration system may be undersized or improperly installed	<ul style="list-style-type: none"> • Consult a drainage professional (see ‘Find a Professional’ in Underground Infiltration Systems)
 <p>Flooded drains and crawlspaces</p>	Flooded crawlspaces	Downspouts discharge too closely to house	<ul style="list-style-type: none"> • Extend the outlet to release water at least 10 feet from house
		Water from downspouts flows toward house	<ul style="list-style-type: none"> • Redirect outlets so water flows downhill and away from house • If soil around home is not properly sloped, consult an earthwork contractor
	Unknown causes	<ul style="list-style-type: none"> • Consult a drainage professional (see ‘Find a Professional’ in Underground Infiltration Systems) 	

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	OBSERVATION	POTENTIAL CAUSES	TROUBLESHOOTING STEPS
PROBLEM: Vegetation			
 <p>Dead plant</p>	Dead or dying plants	Plantings may need deeper and more frequent watering	<ul style="list-style-type: none"> Refer to the ‘Smart Watering’ publication Consult a WSU Master Gardener for plant diagnosis and care
		Plants may not be suited to site conditions or are experiencing other problems	<ul style="list-style-type: none"> Refer to the ‘Choosing the Right Plants’ publication Consult a WSU Master Gardener for plant diagnosis and care
 <p>Weeds</p>	Weed problems	<ul style="list-style-type: none"> Weed seeds readily grow on bare soils and thin mulch Imported materials may have inadvertently been full of weed seeds 	<ul style="list-style-type: none"> Thoroughly hand weed Cover bare soils with sufficient mulch (see Mulch section) Consult a WSU Master Gardener for plant diagnosis and care
 <p>Moss</p>	Moss on permeable pavements	Moss naturally grows in moist, shady areas	<ul style="list-style-type: none"> Clean per manufacturer’s recommendations Avoid chemical treatments to prevent surface damage and polluted runoff

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	OBSERVATION	POTENTIAL CAUSES	TROUBLESHOOTING STEPS
PROBLEM: Soil, Sediment & Erosion			
 <p>Soggy soils</p>	<p>Soils remain soggy after installing a RainScaping solution</p>	<p>Underlying soils may have been compacted during construction</p>	<ul style="list-style-type: none"> • Compacted soils are difficult to resolve; to start, roughen the top six inches of soil and amend with compost (see Amended Soils) • Top dress with wood chip mulch and plant area (see Landscaping Naturally Wet Areas) • Use permeable paving options for heavy-traffic areas
		<p>Area may not be properly sloped</p>	<ul style="list-style-type: none"> • Ensure water has a gently sloping pathway to disperse. • Consult an earthwork contractor
 <p>Sediment</p>	<p>Sediment consistently builds up near my RainScaping solution</p>	<p>Bare soils are easily washed away by rainfall</p>	<ul style="list-style-type: none"> • Protect bare soils from erosion with mulch or plantings (see Mulch section)
 <p>Eroding channels</p>	<p>Rainwater is eroding channels in my yard</p>	<p>When water is concentrated into a single path rather than spread across a broad area, it can quickly wash away soils and mulch</p>	<ul style="list-style-type: none"> • Outlet pipes to the base of slopes where feasible • SLOW and SPREAD out the flow of water by constructing a rock pad or level spreader (see Drainage Outlet Protection) • Protect bare soils from erosion with mulch or plantings (see Mulch section)
 <p>Slumping</p>	<p>Slumping or cracking is observed on or above slopes</p>	<p>Bare and/or saturated soils are easily eroded by rainfall</p>	<ul style="list-style-type: none"> • Immediately consult with a geotechnical engineer or geologist to determine the cause of the instability and develop a solution