








# 4 | MAINTAIN YOUR RAINSCAPING SOLUTION

## MAINTENANCE FOR RAINSCAPING SOLUTIONS




Regular inspections and maintenance are key to keep RainScaping solutions working. Use the table below to take action and ensure your RainScaping solutions perform as intended. If concerns arise, see "Troubleshooting Problems" guidance later in this section.

| RAINSCAPING SOLUTION  | MAINTENANCE ACTIVITY   | FREQUENCY                                     | TIMING                  | NOTES (MORE DETAILS IN SECTION 3)   |
|---|--|---|-------------------------|---|
|  <p><b>Berms &amp; Trench Drains</b></p> <p><i>Photo: Iron Age Design</i></p>        | Clear debris   | 3 to 4 times annually                         | Rainy season            | <ul style="list-style-type: none"> <li>Clear debris from outlets, inlets, and uphill side of berms</li> </ul>                                 |
|   |  <p><b>Compost (Amended Soils)</b></p> | Lawns: Aerate lawn and top dress with compost | Once every 1 to 3 years | Spring or fall  |
|  <p><b>Drainage Outlet Protection</b></p> <p><i>Photo: Valley Conservation</i></p> | Planting beds: Replenish mulch   | Once every 1 to 3 years                       | Fall, winter, or spring | <ul style="list-style-type: none"> <li>Replenish mulch to appropriate depth after weeding to reduce watering and prevent new weeds</li> </ul> |
|   | Inspect for erosion  | Annually, as needed                           | After major storms      | <ul style="list-style-type: none"> <li>Refer to Troubleshooting for guidance</li> </ul>   |
|   | Clear debris   | 3 to 4 times annually                         | Rainy season            | <ul style="list-style-type: none"> <li>Check for blockages and clear debris until water freely flows</li> </ul>                               |
|   | Replace decaying wooden level spreader boards  | Every five years or as needed                 | Dry season              | <ul style="list-style-type: none"> <li>Ensure the board is level and intact</li> </ul>  |




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| RAINSCAPING SOLUTION   | MAINTENANCE ACTIVITY           | FREQUENCY                              | TIMING                  | NOTES (MORE DETAILS IN SECTION 3)   |
|--|--------------------------------|--|-------------------------|---|
|  <p><b>Drip-Line Protection</b></p>                                   | Maintain vegetation            | As needed                              | Anytime                 | <ul style="list-style-type: none"> <li>• Prune 6 inches from siding</li> </ul>  |
|  | Replenish mulch                | Once every 1 to 3 years                | Fall, winter, or spring | <ul style="list-style-type: none"> <li>• Replenish mulch to appropriate depth after weeding to reduce watering and prevent new weeds</li> <li>• Keep mulch 6 inches from structural siding</li> </ul> |
|  | Replenish rock or ground cover | As needed                              | Anytime                 | <ul style="list-style-type: none"> <li>• Replenish to cover bare soils</li> </ul>   |
|  <p><b>Gutters &amp; Downspouts</b></p>                               | Clear debris                   | Annually and as needed                 | Before major storms     | <ul style="list-style-type: none"> <li>• Clear gutters, screens, and downspouts</li> <li>• Install downspout strainers or gutter guards to reduce maintenance</li> </ul>                              |
|  | Inspect and repair             | Annually and as needed                 | Rainy season            | <ul style="list-style-type: none"> <li>• Repair leaks to avoid structure damage</li> <li>• For standing water, adjust brackets to avoid mosquito breeding</li> </ul>                                  |
|  | Prune vegetation               | As needed                              | Anytime                 | <ul style="list-style-type: none"> <li>• Trim plants at least 24 inches from gutters</li> </ul>   |
|  <p><b>Landscaping Naturally Wet Areas</b></p>                       | Maintain Plantings             | As needed (essential in first 2 years) | Anytime                 | <ul style="list-style-type: none"> <li>• Remove weeds by hand when soil is moist</li> <li>• Water as needed during dry season</li> </ul>  |
|  | Replenish mulch                | Once every 1 to 3 years                | Fall, winter, or spring | <ul style="list-style-type: none"> <li>• Replenish mulch to appropriate depth after weeding to reduce watering and prevent new weeds</li> <li>• Keep mulch 2 inches from plant stems</li> </ul>       |
|  <p><b>Lawn Alternatives</b></p> <p><i>Photo: Linda Andrews</i></p> | Maintain plantings             | As needed (essential in first 2 years) | Anytime                 | <ul style="list-style-type: none"> <li>• Remove weeds by hand when soil is moist</li> <li>• Water as needed during dry season</li> </ul>  |
|  | Replenish mulch                | Once every 1 to 3 years                | Fall, winter, or spring | <ul style="list-style-type: none"> <li>• Replenish mulch to appropriate depth after weeding to reduce watering and prevent new weeds</li> <li>• Keep mulch 2 inches from plant stems</li> </ul>       |

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| RAINSCAPING SOLUTION   | MAINTENANCE ACTIVITY                    | FREQUENCY                              | TIMING                  | NOTES (MORE DETAILS IN SECTION 3)   |
|--|---|--|-------------------------|---|
|  <p><b>Mulch</b></p>                    | Replenish mulch                         | Once every 1 to 3 years                | Fall, winter, or spring | <ul style="list-style-type: none"> <li>• Replenish mulch to appropriate depth after weeding to reduce watering and prevent new weeds</li> <li>• Keep mulch 2 inches from plant stems and 6 inches from structural siding</li> </ul> |
|  | Inspect slopes for erosion              | Annually                               | Rainy season            | <ul style="list-style-type: none"> <li>• Refer to troubleshooting for guidance</li> </ul>   |
|  <p><b>Permeable Paving Options</b></p> | Clear sediment and debris               | Annually and as needed                 | Anytime                 | <ul style="list-style-type: none"> <li>• Sweep leaves regularly; vacuum per pavement manufacturer's recommendation</li> </ul>   |
|  | Remove weeds from joints between pavers | As needed                              | Anytime                 | <ul style="list-style-type: none"> <li>• Hand pull weeds</li> </ul>   |
|  | Re-sand joints between modular pavers   | Annually and as needed                 | Dry season              | <ul style="list-style-type: none"> <li>• Sweep fine sand over the blocks to prevent repositioning and settling and reduce weeds</li> </ul>  |
|  <p><b>Rain Gardens</b></p>            | Maintain plantings                      | As needed (essential in first 2 years) | Anytime                 | <ul style="list-style-type: none"> <li>• Remove weeds by hand when soil is moist</li> <li>• Water as needed during dry season</li> </ul>  |
|  | Replenish mulch                         | Once every 1 to 3 years                | Fall, winter, or spring | <ul style="list-style-type: none"> <li>• Replenish mulch to appropriate depth after weeding to reduce watering and prevent new weeds</li> <li>• Keep mulch 2 inches from plant stems</li> </ul>                                     |
|  | Clear inlets and outlets                | 3 to 4 times annually                  | Rainy season            | <ul style="list-style-type: none"> <li>• Check for blockages and clear debris until water freely flows</li> </ul>   |

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| RAINSCAPING SOLUTION   | MAINTENANCE ACTIVITY               | FREQUENCY                             | TIMING       | NOTES (MORE DETAILS IN SECTION 3)   |
|--|------------------------------------|---------------------------------------|--------------|---|
|  <p><b>Rainwater Collection Systems (Cistern &amp; Rain Barrel)</b></p>           | Clear debris                       | As needed throughout the rainy season | Rainy season | <ul style="list-style-type: none"> <li>• Clear mesh, screens and strainers in collection system and gutters/downspouts</li> </ul>                         |
|  | Inspect tank and plumbing          | Annually and as needed                | Rainy season | <ul style="list-style-type: none"> <li>• Repair leaks</li> <li>• Replace parts as needed</li> </ul>   |
|  | Drain and clean tanks              | Annually                              | Anytime      | <ul style="list-style-type: none"> <li>• Rinse out accumulated sediment</li> <li>• Disinfect annually if water is used for edible plants</li> </ul>       |
|  <p><b>Retaining Walls &amp; Terraces</b></p>                                     | Verify drains remain functional    | Annually                              | Rainy season | <ul style="list-style-type: none"> <li>• Check for blockages and clear debris until water freely flows</li> <li>• Keep outlets clear of debris</li> </ul> |
|  | Inspect walls for signs of failure | Annually and as needed                | Rainy season | <ul style="list-style-type: none"> <li>• If the wall is cracked, leaning, bulging, or sagging, contact a geotechnical engineer</li> </ul>                 |
|  <p><b>Underground Infiltration Systems</b></p> <p><i>Photo: Nick Hansen</i></p> | Clear debris                       | 3 to 4 times annually                 | Rainy season | <ul style="list-style-type: none"> <li>• Clear debris from gutters, downspouts, and overflow</li> </ul>   |
|  | Clean out yard drains              | Annually                              | Dry season   | <ul style="list-style-type: none"> <li>• Remove debris</li> <li>• Dispose dried debris in trash</li> </ul>  |
|  | Maintain vegetation                | As needed                             | Anytime      | <ul style="list-style-type: none"> <li>• Keep plants trimmed back from yard drains and overflows to allow water to flow freely</li> </ul>                 |

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

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

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