

Deer Creek Watershed Alliance

a project of  MISSOURI BOTANICAL GARDEN

Rainscaping Cost-Share Program Contractor Guide

The **Rainscaping Cost-Share Program** is a program of the Missouri Botanical Garden's Deer Creek Watershed Alliance (DCWA). The Alliance strives to implement plant-based solutions to improve water quality and to reduce stormwater runoff. The most immediate, successful way for managing stormwater is to employ rainscaping strategies which capture rain where it falls. The Rainscaping Cost-Share Program provides funding support for landowners to install rainscaping features on their property.

Rainscaping Strategies

Rainscaping is any combination of plantings, water features, catch basins, permeable pavement, and other strategies that manage stormwater as close as possible to where it falls, rather than moving it someplace else. Rainscaping can also be employed to solve a drainage problem, increase aesthetic appeal, improve property values, and/or attract birds and butterflies, in addition to other benefits. Rainscaping practices can include features such as rain gardens, bioswales, trees and shrubs, pervious pavement, green roofs, etc. to slow down, soak up and reuse rainwater before it carries pollutants to a local stream. Refer to **Rainscaping Cost-Share Program Eligible Improvements List** on page 3 of this Guide.

Best Practices

We encourage landowners to work with contractors who are formed and operating as a duly registered business in the State of Missouri as well as being experienced and knowledgeable of rainscaping strategies. Contractor Involvement implies *all professionals assisting landowners – designers, landscape architects, installers and maintenance crews*.

The Program maintains a list of Participating Contractors for landowners to reference. Contractors interested in being added to this list may visit deercreekalliance.org/cost-share to learn more about listing requirements. We expect all contractors to abide by professional landscaping guidelines as well as industry best practices.

Every project will be monitored for full compliance with proper installation of rainscaping features, with the following minimum metrics collected and periodically evaluated to assess contractor and project performance: Project approval rates; landowner feedback on quality; landowner feedback on contractor performance. Additionally, all projects are eligible for site visits to gather further data and to pursue ground truthing. Several projects will be selected for case studies on the website to further promote rainscaping.

Termination/Probation

Contractor performance will be reviewed periodically for continued participation in the Rainscaping Cost-Share Program. The Program can disqualify a contractor from participating in the Program at any time based on derogatory findings, inappropriate rainscaping design or installation, prolonged lack of activity or response, or other considerations.

Exceptions

Rainscaping Cost-Share Program administrators can approve reasonable exceptions to written policies on a rebate-by-rebate basis.

Contact Information

If you have questions regarding the program guidelines or contractor application process, please email rainscaping@mobot.org. If you need to speak to someone, please call 314-577-0202. Additional resources are available online at deercreekalliance.org/cost-share.

Program Parameters

- Property must be located within one of the Program Focus Areas (see maps at deercreekalliance.org/cost-share). Landowners including residential, institutional and commercial are eligible to participate.
- Residential and commercial landowners are eligible for 75% reimbursement up to a maximum of \$4,500 per rebate.
- Institutional applicants (schools, religious organizations, non-profits and governments) are eligible for 60% reimbursement of eligible costs up to a maximum of \$6,000 per rebate.
- All contractor services are reimbursable, including labor for design, installation, and/or maintenance as well as materials costs.
- Features must reduce rainwater runoff.
- Eligible features must slow the water down, spread it out, and soak it up. Refer to Eligible Improvements List on page 3.

All completed projects done for family members or employees of the installing contractor(s) will be flagged for full on-site Quality Control and Ground Truthing inspections to ensure no appearances of conflict of interest.

The Deer Creek Watershed Alliance Rainscaping Cost-Share Program is administered by Missouri Botanical Garden and funded by Metropolitan St. Louis Sewer District, Mabel Dorn Reeder Foundation, the Holton family, and US EPA Region 7 through the Missouri Department of Natural Resources (subgrant number G22-NPS-09), under Section 319 of the Clean Water Act.



Rainscaping Cost-Share Program Eligible Improvements List

Rainscaping Features Design	
<p>The Rainscaping Cost-Share Program encourages landowners to engage qualified registered contractors to help identify the best opportunities for rainscaping features on your land and to assist with installation of the features. The labor costs associated with the design, installation, and maintenance are eligible for consideration for rebates. A landowner can choose to do their own design, installation and/or maintenance. However, labor performed by landowners or non-registered individuals is not eligible for reimbursement through the cost-share program.</p>	
<p>Be sure to review all program requirements for the Rainscaping Cost-Share Program. There are limits to location, features, and costs. Municipal ordinances and/or MSD requirements must be followed where applicable. Further details can be found at deercreekalliance.org/cost-share and mobot.org/rainscaping.</p>	
Landscaping Features	
<p>Landscaping plan must include a plant-based solution that removes and replaces a minimum of 100 square feet of established lawn, invasive species, bare soil, or pavement. Re-landscaping of previously landscaped areas is not allowed. Non plant-based improvements listed below must be paired with a plant-based solution.</p>	
<p>Rain Garden – Native Soil Type</p>	<p>A properly performed percolation test must be conducted prior to rain garden installation. Minimum test results: 0.25in/hr. An appropriately installed rain garden includes plants with robust root structures, mulch, optional soil amendments, a way to pond water, and consideration for how and where water will flow out of the rain garden. The average homeowner rain garden has a minimum ponding depth of 4 inches and an average ponding depth ranging from 4–8 inches to ensure proper drainage. The maximum ponding depth allowed is 12 inches. To be eligible, the rain garden edge must be at least 10 to 20 feet from any houses or buildings and overflow must be directed away from any houses or buildings. Rain gardens (and bioswales) must be constructed outside of the drip line of any nearby trees to avoid damaging them. No sand or "Rain Garden Mix" may be used in a Native Soil Rain Garden. A seeded rain garden proposal that is visible from the street will also need to be reviewed and approved by the municipality and must include professional maintenance as part of the proposal.</p>
<p>Rain Garden – Engineered Bioretention Type</p>	<p>In bioretention rain gardens, existing soil is completely removed and replaced with high sand content "Rain Garden Mix" and usually includes an underdrain. Metropolitan St. Louis Sewer District bioretention design specifications must be followed, and an over the counter MSD permit is required. Landowners should contact MSD’s Engineer of the Day at 314-768-2705 prior to submittal.</p>
<p>Lawn Alternatives</p>	<p>Lawn alternatives, including trees, shrubs, perennials, and groundcover, replacing existing turf grass can be installed instead of a rain garden where a percolation test shows poor drainage. Lawn alternatives must include approved soil amendments and mulching. Competitive applications include 70% Missouri native plants and/or their cultivars.</p>

Mulching/Soil Amendments	Mulches are spread on top of the soil and are an expected component of the Rainscaping Cost-Share Program application. Approved mulches are hardwood or hardwood bark mulch, wood chips, shredded leaves, or a compost layer on top of the soil. Gravel or stone may be substituted for organic mulch where water flows rapidly into or out of rain gardens or bioswales. Soil amendments are turned into the soil. Approved soil amendments include silt loam topsoil, well-aged compost, biochar, calcined clay, expanded gypsum or shale, and/or mycorrhizal inoculants. The installation of cover crops is also an eligible soil improvement. Sandy loam topsoil, sand, and "Rain Garden Mix" are not eligible soil amendments.
Bioswales	A bioswale is designed to slow down the speed of the water, use plants to increase absorption of the water into the soil, and must guide the water to a rain garden or other rainscaping feature. Rocked swales with no plants, commonly called dry creek beds, are not eligible features.
Rock Weirs	Rock weirs may be included in a bioswale or other rainscaping feature and are used to slow down the velocity of the water on a hillside. Decorative rock or boulders not being used as weirs cannot exceed 10% of total project amount. Rocked swales with no plants, commonly called dry creek beds, are not eligible features.
Compost Filter Socks	Compost filter socks may be used to slow down the speed of the water on a hillside, be seeded or planted, be stacked to form a living wall, be backfilled with soil and plantings to form mini-terraces on difficult-to-plant hillsides, be used as a rain garden berm, or be employed in sensitive areas (such as a woodland) instead of a rain garden, where digging might damage tree roots.
Woodland Restoration	Removal of invasive plant species (for example, bush honeysuckle) and long term control of all invasive species is essential in the successful woodland restorations. Replant with mix of native plant species that is appropriate for your particular woodland (drier, upland woodland versus moister, lowland woodland).
Maintenance	Reimbursable maintenance expenses may include weeding, watering, mulching, pruning, and/or replacement plants for Rainscaping Cost-Share funded features. Maintenance costs must accompany new plant installations.
Rainwater Harvesting Features	
Rainwater Harvesting captures rainwater and stores it for reuse. The maintenance plan must include use of the water.	
Rain Barrels	Larger rain barrels are viewed more favorably than smaller ones, but all sizes are accepted.
Cisterns	Care should be taken to design and install cisterns appropriately.
Other Features	
Green Roofs	A statement sealed by a Professional Engineer that the structure is capable of handling the weight of the green roof is required.
Permeable or Interlocking Pavers	Permeable/interlocking pavers used in place of concrete slab patios, driveways, or sidewalks reduce surface runoff by allowing rainwater to flow through the pavers or the seams between them. The surrounding soil must be tested to ensure that there is a minimum .25/hour infiltration rate (unless there will be an underdrain), the gravel layer needs to be a minimum of 8 inches deep, and the rock needs to be washed to prevent fines from clogging soil pores. Projects within 10 feet of a building must include protection such as non-permeable liners on the building side of the basin, gentle grading away from the building, and/or a perched drain. Overflow must be directed away from any buildings.

<p>Septic System Remediation</p>	<p>Septic system inspection, maintenance including repair and tank cleaning, and removal/ replacement of failing or failed systems are eligible for the Rainscaping Cost-Share Program without pairing with a plant-based solution. Contractors are not currently listed for reference for this type of service. Visit the Missouri Department of Health & Senior Services to view a list of registered onsite wastewater treatment system (OWTS) installers by county at https://health.mo.gov/living/environment/onsite/counties/. Proof of OWTS failure or inspection must be included with application documenting the need for additional septic system remediation services. Municipal, MSD, and/or St. Louis County requirements must be followed.</p>
<p>Additional Rainscaping Strategies</p>	<p>The Rainscaping Cost-Share Program is willing to evaluate alternative rainscaping features that are not already covered within this list of eligible measures, provided they include best management practices that are proven and tested to be reliable.</p>
<p>Ineligible Features</p>	
<p>Lawn Care</p>	<p>Lawn care actions such as aeration are not eligible for rebates, except as described under Mulching/Soil Amendments.</p>
<p>Annual Plants</p>	<p>Annual plants, including vegetables gardens, are not eligible for rebates.</p>
<p>Compost Bins/Piles</p>	<p>Although amendment with compost is encouraged within rainscaping features, the compost bins themselves do not retain rain water, and are therefore not eligible for reimbursement.</p>
<p>Herbicide Use</p>	<p>Herbicide or pesticide use is not eligible for reimbursement.</p>
<p>Streambank Restoration</p>	<p>Invasive species removal and replacement occurring in the streambank between the top of the bank and the center of the stream is not eligible for reimbursement.</p>
<p>Excessive use of Heavy Equipment</p>	<p>Excavation involved in the construction of rain gardens, bioswales, permeable paving, or any rainscaping improvements, should be dug with a shovel or mini excavator to prevent soil compaction. The use of heavy equipment and soil disturbance in rainscaping areas must be minimized to avoid reducing infiltration capacity of the soil. Any heavy equipment that is necessary for the installation of a project should operate at the sides of the rainscaping site if at all possible. Digging should be done when soil is moist and friable, never when wet.</p>
<p>Other</p>	<p>Ponds, plastic or non-permeable landscape fabric-lined features, dry creek beds, French drains, and retaining walls.</p>