

Deer Creek Watershed Alliance

a project of  MISSOURI BOTANICAL GARDEN

Rainscaping Cost-Share Program Landowner Guide

The Deer Creek Watershed Alliance (DCWA) is a project of the Missouri Botanical Garden. 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 Cost-Share Application Process for Landowners

The following steps are the *typical* process for a landowner:

- 1. ATTEND ORIENTATION MEETING:** We offer multiple orientation opportunities to introduce landowners to the program, answer questions, and provide assistance. Attendance at either an in-person or virtual orientation meeting within the past two years is required. Visit deercreekalliance.org/register to register for live orientation sessions or to watch a recording and complete a survey to fulfill this requirement.
- 2. EVALUTE YOUR PROPERTY AND PRIORITIES:** Based on the Rainscaping Cost-Share Program Eligible Improvements List (see page 5), consider rainscaping features appropriate to your property's size and slope as well as other goals, including increased biodiversity. We encourage you to refer to the online Rainscaping Guide found at www.mobot.org/rainscaping.
- 3. CONSULT WITH QUALIFIED CONTRACTORS:** We recommend employing professional contractors trained to help you accomplish your goals. The term "contractor" refers to all professionals assisting landowners, including designers, landscape architects, installers, and/or maintenance contractors. If a landowner uses a contractor in this program and wants to see reimbursement for their design and/or installation fees, that contractor must be operating as a duly registered business in the State of Missouri. It is the responsibility of the landowner to confirm the credentials of the company. For reference, we maintain a list of contractors who have successfully participated in the Rainscaping program over the past two years on our website at deercreekalliance.org/cost-share. *Missouri Botanical Garden DOES NOT certify the technical expertise of listed contractors.* Landowners should conduct their own due diligence when selecting contractors including technical, aesthetic, and pricing considerations. Landowners can design and install their own projects if preferred but will not be reimbursed for labor.
- 4. COMPLETE AND SUBMIT REBATE APPLICATION FORM:** Completion of the Rainscaping Cost-Share Program Application form requires decisions on the following: type of rainscaping features to be installed; plants to be included; tests to conduct; strategies to select; determination of site features; budget. Landowners must include a landscape drawing of proposed rainscaping features, and a photo(s) of the exact future location(s) of those features. Decisions are best made in consultation with a qualified contractor for the Rainscaping Cost-Share Program. Contractors are independent businesses and therefore will charge the landowner fees for their involvement. These fees can be included in the total bids submitted with the application. Design or application assistance fees will only be reimbursed after installation of an approved project. Installation fees should not be incurred until after the project has been awarded and notice to proceed is received. Generally, rebates will come after the project is fully completed and evaluated, well after due dates for completed contractor work. **It is the landowner's responsibility to pay contractors in a timely manner, independent of when a rebate is received by the landowner.**

- 5. APPLICATION REVIEW PROCESS:** Funds are limited; therefore, there is no guarantee that everyone that submits a qualifying application will receive a rebate. Only completed applications with appropriately designed projects will be considered. The Rainscaping Cost-Share Team will review and evaluate all completed applications. Every project must meet the primary goal of retaining stormwater on the site and must include a plant-based solution. Projects are expected to meet the criteria listed in the program guidelines on the application form. Applicants will be notified of award status by the project notifications date on the timeline. Landowners can refer to the Rainscaping Cost-Share Program Timeline at deercreekalliance.org/cost-share for notification dates.
- 6. RECEIVE NOTICE TO PROCEED:** Once projects are chosen for funding, landowners must submit a signed Project Agreement Form. Then they will receive **Notice to Proceed** and may begin work on their project. **No installation work shall begin until the homeowner has received notice to proceed.**
- 7. COMPLETE PROJECT WORK:** Projects must be completed during the growing season specified in the Rainscaping Cost-Share Program Timeline at deercreekalliance.org/cost-share.
- 8. SUBMIT PROJECT COMPLETION FORM:** Once work is completed and contractor invoices have been paid or purchases made, the Landowner must submit a signed Project Completion Form, along with copies of paid invoices or receipts. Landowners will receive instructions on completing this form. See Rainscaping Cost-Share Program Timeline at deercreekalliance.org/cost-share for final due dates.
- 9. QUALITY CONTROL (QC)/GROUND TRUTHING WORK:** Once the Project Completion Form is received a site visit will be planned to confirm proper installation of features and to collect final data. Concurrently, the Project Completion Form will be reviewed to ensure all information is included. Landowners should expect an email to schedule the site visit within six weeks of Project Completion Form submission.
- 10. REBATE PAYMENT PROCESSED:** Once the QC/Ground Truthing is completed, data has been collected, and the Project Completion Form has been verified, then rebate payments will be issued to landowners. Rebate payments are mailed approximately twelve weeks from reviewer receipt of Project Completion Form.
- 11. SUBMIT MAINTENANCE REIMBURSEMENT REQUEST FORM:** Reimbursable maintenance expenses may include weeding, watering, mulching, pruning, and/or replacement plant costs incurred for Rainscaping Cost-Share funded feature(s). Maintenance costs must accompany new plant installations. A maintenance reimbursement form is provided to each landowner approved for funding as part of their project notification. The due date for this form varies for each round and can be found on the Rainscaping Cost-Share Program Timeline at deercreekalliance.org/cost-share.

Application Assistance

- A. Go to deercreekalliance.org/cost-share for assistance with the following:
- **To obtain a Rainscaping Cost-Share Program application form.**
 - **To view detailed Focus Area maps to determine eligibility.**
 - **To see an example of a landscape drawing.** Follow the link to a sample landscape drawing and also a link to graph paper. You can create your own scale, key, and symbols for your drawing. You may also submit more than one drawing in your application. For example, you may want to provide an overall site map with all the buildings and features on your property, and you may want to provide an additional drawing with more details about your rainscaping feature.
 - **To view an invasive plant species list** along with native alternatives.
 - **To download a rainscaping maintenance schedule.**

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- **To learn more about the Rainscaping Cost-Share program**, including more details on how the program works, resources, deadlines etc.
- B.** Visit the Missouri Botanical Garden’s Rainscaping Guide at mobot.org/rainscaping for assistance with the following:
- **To view a list of rainscaping options and determine which types of rainscaping you wish to install.**
 - **To get an idea of types and number of plants you’ll need based on the size of your space.** Under the “How to Rainscape” section is a link called “*Select Plants.*”
 - **To find out more about rainscaping** in general.
- C.** Landowners can conduct their own **percolation tests**. To learn more about how to conduct your own **percolation test**, go to mobot.org/perc and click on Conduct a Percolation Test.
- D.** To **calculate the amount of mulch you will need for your project**: go to St. Louis Composting’s “cubic yard calculator”: <https://www.stlcompost.com/calculator>
- E.** **For sources of plants and pricing**, visit local independent garden centers. A list of local retail garden centers and nurseries (with contact info) can be found at <https://grownative.org/resource-guide/>.
- F.** **To determine the estimated rebate amount requested**, multiply the total budget by 0.75 for residential projects or by 0.60 for institutional projects. This will be the estimated amount requested. However, there is a \$4,500 maximum rebate at the 75% rate or, for institutions only, a \$6,000 maximum rebate at the 60% rate.

Example #1

For a project that costs \$1,000:

$$\$1,000 \times 0.75 = \$750$$

\$750 is below the \$4,500 max, so this landowner is eligible for a \$750 Rebate.

Example #2

For a project that costs \$6,000:

$$\$6,000 \times 0.75 = \$4,500$$

\$4,500 equals the \$4,500 max, so this landowner is eligible for a \$4,500 Rebate.

Example #3 – INSTITUTIONS ONLY

For a project that costs \$8,000:

$$\$8,000 \times 0.60 = \$4,800$$

\$4,800 is less than the \$6,000 max and over \$4,500, so this Institution is eligible for \$4,800 and would benefit from the 60% Rebate.

Example #4 – INSTITUTIONS ONLY

For a project that costs \$12,000:

$$\$12,000 \times 0.60 = \$7,200$$

\$7,200 is above the \$6,000 max, so this Institution is eligible for a \$6,000 Rebate.

G. To locate underground utility lines on your property (to denote in your landscape drawing) call 1.800.344.7483 (DIG-RITE). Missouri law requires that a location request be placed before beginning any excavation. The utilities should respond to your request within 3 working days by:

- Marking the approximate location of their facilities or
- Notifying you that they have no facilities in your dig site area.

After confirming utility response, you can then proceed with your excavation avoiding damages. More details can be found at: <http://www.mo1call.com/>.

Additional Resources

- **More rainscaping resources** can be found at: <https://www.missouribotanicalgarden.org/sustainability/sustainability/sustainable-solutions-for-you/rainscaping-guide/resources>
- If you are doing work on **trees in your landscape**, we recommend that you contact a certified arborist. Refer to <https://www.stlouisarborist.org/arborist-directory>
- For additional information about **the benefits of native plants** to wildlife, refer to *Bringing Nature Home* by Douglas Tallamy at <http://www.bringingnaturehome.net/> or visit <https://grownative.org/>
- For additional information about invasive plants in Missouri, visit <https://moinvasives.org/lists/>.

Exceptions

Rainscaping Cost-Share Program administrators can approve reasonable exceptions to written policies on a rebate-by-rebate basis. Administrators also have the right to deny any project or application if they do not meet project guidelines.

Contact Information

If you have questions regarding the program guidelines, please email rainscaping@mobot.org. If you need to speak to someone, please call the general program phone number at **314-577-0202**. Additional resources are available online at deer creekalliance.org and mobot.org/rainscaping.

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 (up to program limits) 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.

Septic System Remediation	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.
Additional Rainscaping Strategies	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.

Ineligible Features	
Lawn Care	Lawn care actions such as aeration are not eligible for rebates, except as described under Mulching/Soil Amendments.
Annual Plants	Annual plants, including vegetable gardens, are not eligible for rebates.
Compost Bins/Piles	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.
Herbicide Use	Herbicide or pesticide use is not eligible for reimbursement.
Streambank Restoration	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.
Excessive use of Heavy Equipment	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 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.
Other	Ponds, plastic or non-permeable landscape fabric-lined features, dry creek beds, French drains, and retaining walls.