

MSD Project Clear Rainscaping Small Grants Program Landowner Guide

Part of



Metropolitan St. Louis Sewer District's Project Clear is the initiative to improve water quality and alleviate many wastewater concerns in the St. Louis region. It will invest billions of dollars over a generation in planning, designing, and building community rainscaping projects, system improvements, and an ambitious program of maintenance and repair.

One of the initiatives for MSD Project Clear includes \$100 million in rainscaping investments. Rainscaping is any combination of plantings, water features, catch basins, permeable pavement, and more that manage stormwater as close as possible to where it falls, rather than moving it someplace else. Below ground level, improved soils store and filter stormwater, allowing the surrounding area to slowly absorb it over time. Above ground level, native plants, basins, and water features create public green spaces that also help store water. Used effectively, rainscaping can reclaim stormwater naturally, reduce sewer overflows, and minimize basement backups. The purpose of the rainscaping program is to reduce the volume of stormwater in our combined sewer system by installing landscaping that helps capture rain where it falls, instead of allowing water to run off-site. Rainscaping can also be employed to solve a drainage problem, increase aesthetic appeal, improve property values, and attract birds and butterflies, in addition to other benefits.

Rainscaping practices can include features such as rain gardens, bioretention cells, pervious pavement, green roofs, etc. to slow down, soak up and reuse the rainwater before it gets to the sewer. MSD Project Clear has built a number of rainscaping projects in the Program Area, starting with a Pilot Program from 2010-2015 to determine the best way to implement the Rainscaping Program. MSD Project Clear Rainscaping Small Grants Program encourages the public to use simple rainscaping techniques on their properties to reduce the impact of stormwater on the sewer system. The Small Grants Program was started with a model round in 2014, and completed the first full round in 2015. MSD is pleased to continue to offer these Small Grants to property owners in the Rainscaping Program Area.

MSD Project Clear and the Missouri Botanical Garden will work together to assist landowners with their projects.

<http://www.projectclearstl.org/smallgrants>

www.mobot.org/rainscaping

Email: Rainscaping@mobot.org

Phone: 314.577.0202

May 19, 2017

Introduction

Rainscaping Small Grants is a program of MSD Project Clear with administrative/technical assistance provided by the Missouri Botanical Garden. Funds are available to sites within the boundaries of the Rainscaping Small Grants Program Area in St. Louis, Missouri. The purpose of the program is to reduce the volume of stormwater going into the combined sewer system by installing “**Rainscaping**” - features that help capture rain where it falls, instead of allowing water to run off-site. Rainscaping can also be employed to help solve a drainage problem, increase aesthetic appeal, improve property values, and attract birds and butterflies in addition to other benefits.

Basic Project Clear Rainscaping Small Grants Program Parameters

Eligible Entities	Landowners may only submit for property WITHIN the Rainscaping Small Grants Program Area (see map at http://stlmsd.maps.arcgis.com/apps/webappviewer/index.html?id=1dc144bdb9b2484b82cfe73cc8a3c8d1) - includes homes, schools, churches, government entities and businesses. Grants are not eligible for employees of Metropolitan St. Louis Sewer District, or Missouri Botanical Garden.
Small Grants Period	The Small Grants Program 2017-18 Round will run from May 2017 through May of 2018 with a Fall and Spring planting season.
Site Size Limits	Landscaping projects converting established lawns or pavement or restoring woodlands, and permeable paver projects, must be at least 100 square feet in size. Green roof or rain barrel projects have no size limits.
Project Time Constraints	Only projects to be installed after the Small Grants Application Notice to Proceed email is received after September 11, 2017 and within Small Grants Project timeframes will be considered. Landowner agrees to maintain the design feature for a minimum of five years. See timeline below.
Reimbursement Guidelines	Projects are 100% reimbursable up to maximum \$3,000 per grant for documented design/installation/materials costs. Maintenance costs are the responsibility of the landowner. Paid receipts are preferred if not electing Advanced Payment Method, and a follow-up site visit will be done to verify installation prior to reimbursement. If contractor fees are included in grant requests they must be from a Rainscaping Small Grants Participating Contractor. Up to one-third of the grant amount may be eligible for advanced payment with detailed documentation. Eligibility for advanced payments will be evaluated on a case-by-case basis.
Plan Requirements	For landscaping features, a Planting Plan is required with information on plant species, container size, number of plants and planting densities, plant material source, soil amendments to be used, and maintenance plan. Native plants are preferred but not required. Native cultivars will be considered equivalent to native plants. A two to three inch mulch layer is required where appropriate to inhibit weed growth, prevent soil loss, and retain moisture.
Eligible Improvements	Features must improve Rainscaping functions of the land. See <i>Eligible Improvements List</i> for options. <i>Design goals are to retain stormwater on site</i> - the primary evaluation criteria.
Contractor Involvement – Includes all Professionals assisting land-owners: designers,	Landowners can act as their own contractor. However seeking advice of professionals is another option. If a landowner uses a contractor they must be a <i>Participating Rainscaping Contractor in order for labor to be expensed, if you have a contractor that would like to apply to the Rainscaping Small Grants Participating Contractor list, they must contact the Rainscaping Hotline at (314) 577-0202 or rainscaping@mobot.org by July 28th, 2017.</i> Grants are given to the landowner – participating contractors should provide invoicing and receive payment as they do

<i>landscape architects, and installers</i>	regularly. Contractors wishing to help landowners must follow the guidelines in this document and the Rainscaping Small Grants Application to become a <i>Participating Contractor</i> . <i>Metropolitan St. Louis Sewer District and Missouri Botanical Garden lists Participating Contractors but DO NOT certify the technical expertise of contractors participating in the program.</i>
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Eligible Improvements

Eligible Improvements reflect available technologies and measures that are eligible for the Rainscaping Small Grants Program. In general, projects must retain stormwater on the site to reduce the volume of stormwater entering the combined sewer system.

MSD Project Clear Rainscaping Small Grants Program Eligible Improvements List

Rainscaping Features Design	
Project Clear Rainscaping Small Grants Program Participating Contractors can help you identify the best opportunities for rainscaping features on your land and can also assist with installation of the features. The costs of the design and installation are eligible for consideration (up to program limits) for grants.	
Review all program requirements for the MSD Project Clear Rainscaping Small Grants 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 http://www.projectclearstl.org/smallgrants and www.mobot.org/rainscaping .	
Landscaping Features	
Landscaping plan must remove and/or replace a minimum of 100 square feet of established lawn, invasive species, or pavement. Re-landscaping of existing landscaped areas is not allowed.	
Rain Garden – Native Soil Type	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. No sand or "Rain Garden Mix" may be used in a Native Soil Rain Garden.
Rain Garden – Engineered Bioretention Type	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.
Lawn Alternatives	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 plants with robust root structures, approved soil amendments, and mulching.
Soil Amendments	Mulches are spread on top of the soil. Approved mulches are shredded bark, shredded hardwood bark, 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 sometimes includes material turned into the soil such as silt loam topsoil, well-aged compost, calcined clay, expanded gypsum or shale, and/or mycorrhizal inoculants. Soil aeration is another option. Sandy loam topsoil, sand, and "Rain Garden Mix" are not eligible soil amendments. Soil amendments are considered eligible improvements only when paired with another plant-based eligible improvement on this list.

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 guide the water to another location such as a rain garden or other rainscaping feature.
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.
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	Woodland restoration projects must include both invasive species removal and appropriate tree and groundcover replacements to be eligible. There must be an existing woodland present.
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	Green roofs are eligible for MSD Rainscaping Small Grants Program and have no minimum size requirements.
Permeable Pavers	Permeable pavers allow rain water and stormwater to permeate through the cracks and gravel spaces into the soil, reducing the amount of runoff from a particular surface such as a walkway, driveway, or patio. To be eligible, the permeable pavement area must be 100 square feet or larger and must replace non-permeable pavement. Information must be provided regarding the base strategy and layers beneath the pavers.
Additional Rainscaping Strategies	The MSD Project Clear Rainscaping Small Grants 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	
Yard Management	The purchase of materials such as de-icing alternatives to salt is not eligible for grants.
Lawn Care	Lawn care actions such as aeration are not eligible for grants, except as described under Soil Amendments.
Annual Plants and Vegetable Gardens	Annual plants, including vegetables gardens, are not eligible for grants.
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 grants.

Maintenance of Existing Features	All funding is for rainscaping features installed after the “notice to proceed” has been received by an applicant.
Retaining Walls	Retaining walls are not eligible for grants unless built for the sole purpose of creating an eligible feature.

Small Grants Application Process for Landowners

This program is designed to allow flexibility in options and timing for expanding rainscaping options in the Rainscaping Program Area. The following steps are the *typical* process for a landowner:

- 1. ATTEND REQUIRED LANDOWNER ORIENTATION:** Landowners must attend a landowner orientation to learn of program parameters and requirements. Orientations are two hours long and are held at MSD’s Headquarters, unless otherwise noted. **Advanced registration is required.** Go to <http://www.projectclearstl.org/smallgrants> for more details and to register online.
- 2. CONSULT WITH PARTICIPATING CONTRACTORS:** The program suggests getting bids from up to three participating contractor companies – however, competitive bids are not required to participate in the program. To be considered a Rainscaping Small Grants Program Participating Contractor, these companies must comply with certain program requirements such as possession of a business license, proof of insurance, and attendance at a required orientation. Landowners can act as their own contractors but using trained professionals may help you accomplish your goals. Consult with the contractors you’ve chosen to obtain rainscaping options for your land and obtain bids for the services to provide you with your chosen options. Participating Contractors are listed on the website with contact information and category of service provided (Designer and/or Installer). *Metropolitan St. Louis Sewer District and Missouri Botanical Garden lists Participating Contractors but DO NOT certify the technical expertise of contractors participating in the program.*
- 3. COMPLETE AND SUBMIT SMALL GRANT APPLICATION FORM:** Landowners complete the Small Grant Application form contained within the Rainscaping Small Grants Program Guidelines. This 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; outreach options; and landowners will also have to include a landscape drawing with the potential features, a photo(s) of the exact future locations of chosen rainscaping features, a maintenance plan and documentary of Dig Right survey. Decisions are best made in consultation with one or more Participating Contractors for the Rainscaping Small Grants Program. Participating 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. However, any design fees will only be reimbursed if the project is accepted. Installation fees should not be incurred until after the project has been accepted. Also, landowners are responsible for paying Participating Contractors in a timely manner. Generally, grant payments will come after the project is fully completed and evaluated, well after due dates for completed contractor work. See #6 below for Advanced Payment Request potential.

4. APPLICATION REVIEW PROCESS: Funds are limited; therefore there is no guarantee that everyone that submits a qualifying application will receive a grant. Only completed applications with appropriately designed projects will be considered. The Rainscaping Small Grants Team will review and score all applications. It is estimated that approximately 45-60 projects will be funded in the each Round. Evaluations will determine the projects chosen for funding. Every project must meet the primary goal of retaining stormwater on the site. Priority will be given to projects that meet one or more of the following criteria:

- a. Large amount of stormwater managed
- b. Location accessible for public viewing or available for other outreach efforts
- c. High percentage of native plants
- d. Appropriate design
- e. Cost effective solutions
- f. Appropriate maintenance plan

5. RECEIVE A NOTICE TO PROCEED: Once evaluations are completed and projects are chosen for funding, landowners will receive a Notice to Proceed. See Rainscaping Small Grants Program Time Frame on Page 7 for notification dates. **NO INSTALLATION WORK SHALL BEGIN UNTIL THE LANDOWNER HAS RECEIVED A NOTICE TO PROCEED.**

6. REQUEST ADVANCED PAYMENT: MSD wants to make it as easy as possible for you to participate. Therefore, we are willing to make payment based on the *unpaid contractor invoice*, as opposed to requiring a paid invoice.

Here is how we will handle payments.

- a. We can make advanced payment for up to 1/3 of grant amount.
 - i. If a Participating Contractor is involved, payment will be in the form of a dual check to the landowner and contractor. Landowner will sign the check and then give to the Participating Contractor.
 - ii. If doing the work yourself (DIY), advanced payment will be based on detailed list of materials, advertised or quoted cost, and supplier where materials will be purchased or rented.
- b. For final payment:
 - i. When Participating Contractor is involved, the landowner submits the contractor's invoice with their Project Completion Form. AFTER our quality control/ground truthing work, we will issue a dual check UP TO THE AMOUNT OF THE GRANT. Any additional amount over the grant dollars will be the landowner's responsibility.
 - ii. For final DIY payment, we will need receipts for materials/equipment purchased or rented for the project – so in this case, at least 2/3 of the project cost must be paid for by the landowner prior to getting reimbursed.

IMPORTANT: When talking with your contractor YOU MUST MAKE SURE THEY ARE WILLING TO WAIT FOR PAYMENT if you plan to have MSD payment for the unpaid contractor invoice.

7. COMPLETE PROJECT WORK: 2017-2018 Round Projects must be completed within two growing seasons of Notice to Proceed in the Fall of 2017 or Spring of 2018. This allows time for the variety of project types to be installed and/or implemented.

- 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 packet. See Rainscaping Small Grants Time Frame chart 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 to receive a call to schedule the site visit within six weeks of submittal of Project Completion Form.
- 10. GRANT PAYMENT PROCESSED:** Once the QC/Ground Truthing is completed, data has been collected, and the Project Completion Form has been verified, then grant payments will be issued to landowners. Program estimates are for payments to be mailed from MSD offices approximately twelve weeks from receipt of Project Completion Form.

Quality Control, Ground Truthing and Maintenance Support

Every project will be monitored for full compliance with proper installation of Rainscaping features, with minimum metrics collected and periodically evaluated.

Additionally, all projects are eligible for site visits to gather further data and to pursue ground truthing. Several projects will be promoted in case studies on the website to further promote rainscaping.

Maintenance support will be available up to one calendar year from the Completion Packet Due Date. Activities may include workshops, to train landowners on basic concepts; some site visits, to advise on specific maintenance actions; and support through the rainscaping hotline and email.

To ensure no appearances of conflict of interest, employees of Metropolitan St. Louis Sewer District and Missouri Botanical Garden are not eligible for grants. 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.

Project Clear Rainscaping Small Grants Program Time Frame

	Full Round
Applications Available	June 23, 2017
Contractor and Landowner Orientations	June and July 2017
Grant Applications Due	August 11, 2017
Project Notifications Out	September 11, 2017
Planting Time	Fall 2017 and Spring 2018
Project Receipts and Completion Forms Due	No later than May 11, 2018

Quality Control/Ground Truthing/Completion Forms Processed	Within 6 weeks of receipt of Project Completion Forms
Grant Funds Dispersed to Landowners	Within 12 weeks of receipt of Project Completion Forms
Maintenance Support Available to Landowners	Through May 2018

Application Assistance

- A. **To obtain a Rainscaping Small Grants application form**, interested applicants can download a form from the Project Clear website at <http://www.projectclearstl.org/small-grants>. Applications are also available at MSD’s headquarters at 2350 Market Street or at Missouri Botanical Garden’s Commerce Bank Education Building at 4651 Shaw Boulevard.
- B. **To determine which types of Rainscaping you wish to install**, visit the Missouri Botanical Garden’s RainScaping Guide at www.mobot.org/rainscaping for a list of all options.
- C. **To determine improvements eligible for funding**, see pages 3-4 of this document.
- D. **To get an idea of types and number of plants you’ll need based on the size of your space** visit the Garden’s RainScaping page www.mobot.org/rainscaping. Under the “How to RainScape” section is a link called “*Select Plants*”.
- E. Landowners can conduct their own percolation tests. To learn more about how to conduct your own **percolation test**, visit the Garden’s RainScaping page www.mobot.org/rainscaping for a link to Percolation Test Instructions.
- F. **To calculate the amount of mulch you will need for your project**: go to St. Louis Composting’s “cubic yard calculator”: <http://stlcompost.com/cubic-yard-calculator/>.
- G. **For price estimates of plants**, you’ll want to call any or all of the local independent garden centers. A list of local retail garden centers and nurseries (with contact info) can be found at: <http://grownative.org/resource-guide/plants/>. More information can also be found at <http://www.gatewaygardener.com/links> and <http://www.hortco-op.org/>.
- H. **To help design a maintenance plan** visit <http://www.hortco-op.org/> for a list of member organizations that might be able to provide some guidance. Also see rain garden maintenance guidance at <http://www.missouribotanicalgarden.org/sustainability-conservation/sustainable-living/at-home/rainscaping-guide/design-and-build-a-rain-garden/maintain.aspx> or <http://www.missouribotanicalgarden.org/Portals/0/Shaw%20Nature%20Reserve/PDFs/horticulture/NLM%20Ch4.pdf>.

- I. To **see an example of a landscape drawing**, visit the Garden's RainScaping page www.mobot.org/rainscaping for a 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.

- J. 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

To **find out more about Rainscaping** in general including what rainscaping is, available options, suggested plant lists, and more: www.mobot.org/rainscaping

More rainscaping resources can also be found at:

<http://www.missouribotanicalgarden.org/sustainability-conservation/sustainable-living/at-home/rainscaping-guide/resources.aspx>

To **learn more about the Rainscaping Small Grants Program**: On this site you will find more details on how the program works, workshop dates for further information, resources, deadlines etc.:

<http://www.projectclearstl.org/small-grants>

For an **online version of the application**: <http://www.projectclearstl.org/small-grants>

For an **Interactive Map of the Rainscaping Program Area**:

<http://stlmsd.maps.arcgis.com/apps/webappviewer/index.html?id=1dc144bdb9b2484b82cfe73cc8a3c8d1>

If you are doing work on trees in your landscape, **certified Arborists in the St. Louis area can be found at**: <http://www.stlouisarborists.org/> or email info@stlouisarborists.org

An **invasive plant species list** with native alternatives can be found at: www.mobot.org/rainscaping

A great **book explaining the benefits of native plants** to wildlife is "*Bringing Nature Home*" by Douglas Tallamy.

Exceptions

Project Clear Rainscaping Small Grants Program administrators can approve reasonable exceptions to written policies on a grant-by-grant 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 <http://www.projectclearstl.org/get-the-rain-out/rainscaping-small-grants-program/> and www.mobot.org/rainscaping.

