

Introduction

Raingardens are a great way that we can reduce our stormwater runoff pollution into surrounding waterways. In both residential and commercial areas, there are a lot of impervious surfaces that allow for excess nutrients and pollutants to runoff with stormwater. An impervious surface is a pavement that is made of water-resistant materials that don't allow for stormwater to be absorbed. A great solution is creating a raingarden with pervious materials that absorb stormwater and prevent pollutants from flowing into waterways with sensitive ecosystems. The best part is, anyone can build a raingarden to help their surrounding environment and it also is a great way to introduce native plants back into your front lawn to help wildlife thrive.



This is what a curb cut raingarden will look like. Water from the street flows into the raingarden from a curb cut and ponds in the raingarden. The raingarden will soak within 48 to 78 hours. Debris is caught in the pretreatment area so it does not clog the raingarden. When the raingarden is full of water, additional water from the street will continue down the curb.

This guide is to help you maintain your rain garden so that it stays healthy and properly functioning for many years. Like any other garden, raingardens require different types of care throughout the year depending on the season or stage of growth the garden is in. The goal of this handout is to provide you with all of the information that you will need when taking care of your raingarden. If you have any further questions, do not hesitate to reach out to Rice Creek Watershed District (RCWD) for more information using <https://www.ricecreek.org/contact>.

Why YOUR rain garden is important

Every raingarden is important to improve the health of our waterways here in Minnesota. That means that YOUR raingarden makes a difference and we thank you for your help. Why is your raingarden important? Your raingarden filters stormwater and retains pollutants in the soil and vegetation to improve the water quality of that lake or creek near your house. It also reduces downstream flooding and erosion, improves groundwater, and contributes to property values. Keep up the great work!

Personal Schedule/Overview

WHEN	ACTIVITY
As Needed	<ul style="list-style-type: none"> -Water your raingarden -Inspect the site after heavy rainfalls -Replace vegetation if any erosion has occurred
Monthly	<ul style="list-style-type: none"> -Prune or weed for appearance -Remove any trash or debris -Replace mulch (if needed)
Annually	<ul style="list-style-type: none"> -Inspect inflow for sediment build-up -Inspect for any signs of erosion -Replace vegetation if any erosion has occurred -Inspect for dead or dying vegetation and remove if found -Test soil pH (acceptable range is 5.2-8.0)
Every 2 Years	<ul style="list-style-type: none"> -Remove mulch and replace with new mulch

What to Expect



Year 1

Early growth from the plants. Plants should be watered every other day. Prune or weeding can be done.



Year 2

Plants are establishing and holding water. No water should be added and mulch and can be replaced.



Years 3-4

Lots of growth. Raingardens can be added onto with more plants, pollinators, a bench or bird bath.



Years 4+

Established, healthy rain garden. Replace mulch every 2 years. Replace vegetation if erosion has taken place.

Video Resources

How-To Guide: Rain Garden in a Box (3:05)

Rainscapes Rain Garden Video (9:49)

In-Depth Raingarden Maintenance

Garden Maintenance

Weeding

Spend an hour each week during the summer months and once a month during the remainder of the year in your rain garden to weed and remove any unwanted plant growth. Keeping weeds out will not only improve the aesthetics of your rain garden, but will allow the native plants to grow large enough to be able to establish themselves and suppress any weeds that start to grow.

Do NOT use herbicides on your raingarden because that will damage your native plants as well. Instead focus on non-chemical methods like hand-pulling and hoeing.

Weeding will look different at different times of the year.

Cool season weeds (spring and fall) will be: Dandelions, Crab grass, Sweet Clover, Thistle, Garlic Mustard, and Volunteer trees.

Warm season weeds (summer) will be: Quack grass, Crab grass, Barnyard grass, Foxtail grass, Reed, Canary grass, Ragweed, Creeping Bellflower, Spotted Knapweed, Smartweed, Stinging Nettle, and Volunteer trees.

Weeding is not needed during the winter months.

Watering

The best way to understand the needs of your rain garden for watering is to place a gauge, can, or jar in the garden to know how much water the garden has received both from rainfall and your personal efforts.

The first few weeks after planting: This is the most crucial time to maintain the watering of your raingarden. During this time, new plants need water every other day. If it is particularly dry or hot weather, make sure to monitor your garden and water accordingly. It is advised to water whenever the top 4 inches of soil is dry. The best time to water your garden is between 5:00 and 7:00am to avoid evaporation of water.

After the first few weeks: Up until a year of establishment, you should water your raingarden with 1 inch of water each week. Note that if there are large amounts of natural rainfall that plants may be susceptible to overwatering if you are manually watering your garden. Signs that your raingarden is being overwatered are: wilting of leaves and petals, ringed spots on leaves, rotting plant bases, and yellowing of leaves.

1 Year of Establishment: By now you're the plants in your raingarden should have deep enough roots to self-sustain themselves with water naturally. Make sure to monitor and water accordingly during dry or hot periods by checking soil dryness.

Remember: Gardens are more likely to survive through the winter if they have been watered and maintained into the fall.

Trimming/Pruning/Thinning

Trimming of vegetation will only occasionally be necessary and should only be done in the spring. Do not trim during the fall or winter as this can cause damage to the plants in your garden.

Pruning of flowering shrubs should take place after your plants have finished blooming and pruning of trees should be done in the winter before buds start to appear on the branches.

Thinning allows for removal of dead plants to encourage more growth of other plants. You can thin dead plants in the fall or leave them over the winter to provide garden bed protection.

Remove any diseased material immediately after inspection by using a weed whacker or removal by hand.

Mulching

Adding mulch to your raingarden has many benefits and requires very low maintenance. If desired/needed mulch can be replaced monthly, but an entire replacement of mulch only needs to happen every 1-2 years. Mulch can control weeds, maintain soil moisture levels, and protect root areas.

For best results, only place about 2-3 inches of mulch in mound formations around the base of the plants. Avoid blocking inflow points with mulch as this could reduce the effectiveness of your rain garden.

Materials to be used as mulch in raingardens: shredded hardwood mulch, double-shredded hardwood mulch chipped hardwood mulch.

Materials NOT to be used as much in raingardens: fresh grass clippings, animal waste, compost.

Plant Replacement

Place the new plant in the same location as the old plant and make sure the surrounding established plants do not shade out the new plant. Manage this by trimming back some of the established plants that are blocking sunlight from the new plant. It is best to replace plants in early-fall or early to mid-spring.

Pest Management

We have to remember that insects and micro-organisms in the soil are a very important feature to maintaining the balance of the raingarden ecosystem. To protect our rain gardens, we must avoid using pesticides as much as we can to not damage the good organisms present. If a pest is causing too much damage, consider using a natural remedy for control of that pest.

Fertilizing

Since your raingarden is designed to absorb excess nutrients from runoff, fertilization is **unnecessary** for plant growth. Fertilizer can cause native plants to grow too tall and fall over. Additionally, fertilizer can increase weed growth that could suffocate your native plants.

Mowing

Do not mow your rain garden, because the lush vegetation helps with the capture of storm water. Also do not add fresh grass clippings to your rain garden because of the high nitrogen levels in the grass. This affects the absorption capability of the native plants for pollutants.

Infiltration Maintenance

Ponding & Drainage Issues

Your raingarden is designed to hold standing water for up to 24 hours. If this time period is exceeded on multiple accounts, then there could be some drainage issues. Contact the contractor or organization that helped you install your rain garden to inspect the area to find the source of the issue.

Trash & Debris

Storm water runoff could potentially carry trash or debris along the way into your rain garden. Check weekly to make sure that all trash and debris gets removed to avoid suffocation of the native plants. Also inspect drainage areas to make sure they are not blocked by trash and debris as well, as this could create more problems in the future.

Pet Waste

Make sure to routinely check and remove pet waste from your raingarden and surrounding areas on your property to reduce excess nutrients and potential diseases from entering your garden.

Snow Removal/De-icing

Fallen snow does not need to be removed from the garden since native plants can withstand the elements of Minnesota's seasons. Snow piles from shoveling or plowing should not block the inlet and drainage areas of the raingarden.

Composting

Composted material should **NOT** be added to your raingarden.

Additional Information & Tips

Adding on to Your Raingarden

Not only can you add new plants to your raingarden to improve its diversity and effectiveness, you can introduce butterfly houses and bird nesting boxes to introduce more wildlife to your garden. Another great way to make your garden more interactive is to place a bench, a bird bath, or a dish of water for smaller pollinators to create an inviting space to spend your time during the warm months.

Pollinator Friendly Gardens

Here in Minnesota we love our pollinators because they help so much with our local crop growth and native plant growth. Growing a raingarden can be a great way to also support the pollinators in your area by incorporating native plants that are also pollinator friendly. Most bees like to nest in the ground and prefer bare, sandy areas. Try to leave some mulch-free spots in your garden to provide a safe habitat for bees to nest. Also, bees need water just like us and our plants, but they can't drink from bird baths too well. A bee bath is a small dish filled with rocks and water so that bees have a place to land without the risk of drowning while drinking water.

Tips

Leave small plant tags on desirable plants to avoid accidental removal during weeding.

"If plants wilt during the day but recover in the evening, watering is not necessary. If plants do not recover in the evening, then watering is likely to be necessary."

Here's how to find your water conservation district for more information on your area:

<https://extension.umn.edu/landscape-design/rain-gardens#choose-plants-1778663>

References

<https://www.stpaul.gov/DocumentCenter/View2/79188.pdf>

<http://www.bluewaterbaltimore.org/wp-content/uploads/RaingardenRoutineMaintenance1.pdf>

<http://raingardenalliance.org/planting/maintenance>

<https://extension.umn.edu/landscape-design/rain-gardens>

<https://bluethumb.org/raingardens/>

<https://bluethumb.org/wp-content/uploads/sites/2/2019/10/How-to-build-your-Own-Raingarden.pdf>

<https://metroblooms.org/seasonal-raingarden-maintenance-practices/>

Raingarden Maintenance Handout, Blue Thumb Steering Committee of Metro Blooms

Acknowledgements

