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## BIRMINGHAM

A WALKABLE CITY

# Birmingham

Rain Garden Rebate Program

**CATALYST**  
**COMMUNITIES**



**GRAHAM**  
**SUSTAINABILITY INSTITUTE**  
UNIVERSITY OF MICHIGAN

**EGLE**  
MICHIGAN DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY

# Thank you to the Team!

Mentor



**Leah  
Blizinski**

City Planner

*The City of  
Birmingham*

Mentor



**Nicholas  
Dupuis**

Planning Director

*The City of  
Birmingham*

Technical Advisor



**Ruth  
Kline-Robach**

Water Resources  
Outreach Specialist

*Michigan State  
University*

# The City of Birmingham wants to create a Rain Garden Rebate Program because...

Rain gardens are a type of **green stormwater infrastructure** that can prevent flood damage to homes while increasing biodiversity and filtering pollutants from stormwater.

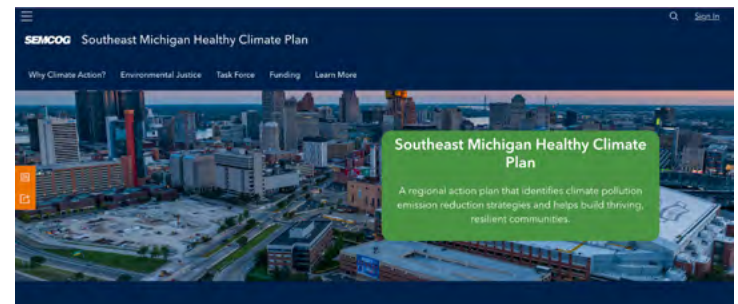


Drawn By: Paige Hughart

# South Eastern Michigan is increasingly embracing the rain garden as a response to climate change

Aligns with:

- The Birmingham Healthy Climate Plan (IN PROGRESS)
- [MI Healthy Climate Plan](#)
- [Southeast Michigan Priority Climate Action Plan 2024](#)



# Existing models to support for residential rain garden programs



Rain Catchers  
Collective



Shows resident interest + model programs



# I spent the first 4 weeks learning and connecting with other programs

## RainSmart Guide

### Feasibility and Design

The following must be considered when installing a rain garden:

Topography and drainage	+
Setbacks	+
Proximity to utilities	+
Proximity to trees	+
Size	+
Berms	+
Side Slopes	+
Excess Soil	+
Pre-Treatment	+
Inlets	+

## Master Rain Gardener Guide

### Sample design

Full sun

### Rain garden essentials

Essential steps

- 1) **Location** - How can you utilize the site garden that is closest to where the rain comes and discharge the water into the garden. How big a hole can you dig? How deep? How wide?
- 2) **Measure** - How big is the site garden? How big is the hole? How deep? How wide?
- 3) **Site** - How can you utilize the site garden that is closest to where the rain comes and discharge the water into the garden. How big a hole can you dig? How deep? How wide?
- 4) **Design** - How big is the site garden? How big is the hole? How deep? How wide?
- 5) **Plant** - How big is the site garden? How big is the hole? How deep? How wide?
- 6) **Breaker** - How big is the site garden? How big is the hole? How deep? How wide?
- 7) **Big** - How big is the site garden? How big is the hole? How deep? How wide?
- 8) **Add** - How big is the site garden? How big is the hole? How deep? How wide?

## Rain Gardens to the Rescue Guide

### 5 PLANT THE GARDEN

- Spring or fall is the best time to plant the garden. Planting in summer is okay but the young plants must be watered regularly.
- It is best to plant in large groups of the same species. This type of planting is more appealing to the human eye and makes it easier to identify weeds in the years to come. Space the plants 1 to 1.5 ft. apart.
- Native plants have deeper root systems and typically come in a deep call. It is important to plant each one level with the surrounding soil. If the plant is higher than the surrounding soil, it will dry out and may die. If planted too deep, the plant will rot and die.
- Label the plants so you know where they are in the future.



**EQUIPMENT & SUPPLY NEEDS FOR A 100 SQUARE FOOT GARDEN:**

- Compost and sharp sand. Compost is an essential part of the rain garden. It is the sponge that soaks up rainwater. Roughly 26 cubic feet of compost and 14 cubic feet of sharp sand is needed for 100 sq. ft. of garden at 12 inches deep.
- Native plants: Approximately 80 native plant plugs will be needed for the garden.
- Organic mulch: You will need 14 cubic feet of mulch to cover a 100 sq. ft. planted garden at 2-3 inches deep.

## Master Rain Gardener Plant List

### Full Sun

**Trees and Shrubs**

<b>Shrubby Cinquefoil</b> <i>Potentilla fruticosa</i>	<b>Bur Oak</b> <i>Quercus macrocarpa</i>
<b>Chinquapin Oak</b> <i>Quercus muhlenbergii</i>	<b>Swamp White Oak</b> <i>Quercus bicolor</i>

## Rain Gardens to the Rescue Template

### Rain Garden Design

Site Conditions: Full sun, average drainage  
Garden Size: Approximately 100 sq ft

SIERRA CLUB Friends of the BOULE

## Ann Arbor Guide

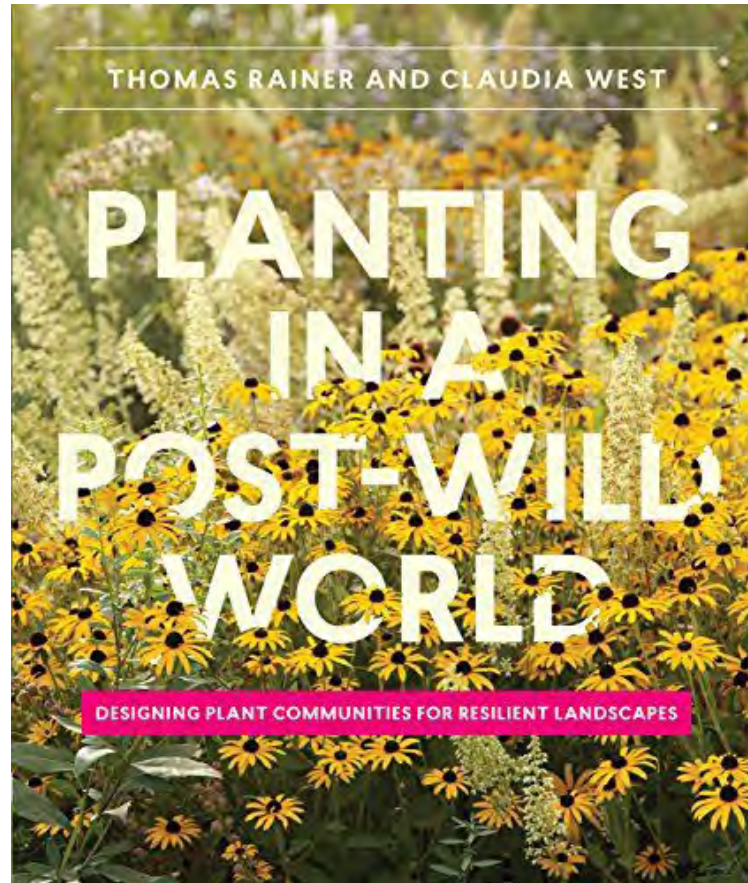
### About Rain Gardens

BUILDING A RAIN GARDEN LOCATION	▼
DEPTH AND SOIL	▼
PLANTS	▼
MAINTENANCE	▼

# Design walk with City of Birmingham



<https://pin.it/gjUGshbNK>



<https://pin.it/29kOJAIt0>



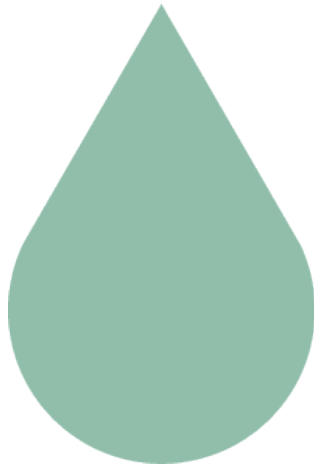
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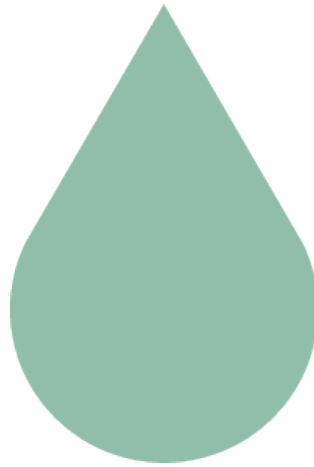
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# To support the Birmingham Rain Garden Rebate Program, I Created...

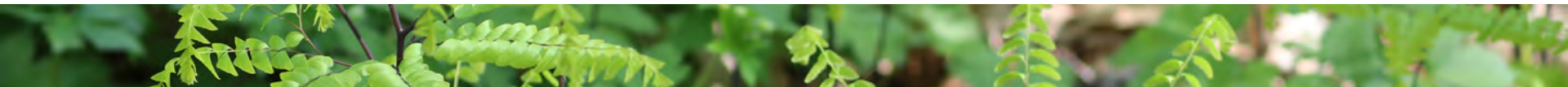
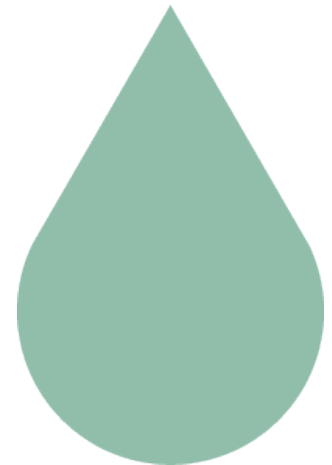
**1.** Fund Development Database



**2.** Program Application & Forms



**3.** DIY Rain Garden Guidebook





# Fund Development Database

[Sharable Link](#) - make a copy to edit

Rain Garden Rebate Fund Development Database ☆ 📄 ☁

File Edit View Insert Format Data Tools Extensions Help

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A1 ▾ 🔍 Read me: These are potential funding opportunities to support a rain garden rebate program. They are loosely organized by the type of program model a local government may use.

	A	B	C	D	E	F	G	H
1	<b>Read me:</b> These are potential funding opportunities to support a rain garden rebate program. They are loosely organized by the type of program model a local government may use. This is meant to be a living document and additional opportunities can be found on the databases included in the "Funding Databases" sheet at the bottom of this document.							
2	Opportunity Name + Link	Provider	Fit for Program	Match Required	Funding Available 2024	Application Open Date	Application Close Date	Link to Application
3	Federal/State Grants - Local Municipalities are eligible							
4	<a href="#">Partners for Fish and Wildlife FY24</a>	Department of the Interior Fish and Wildlife Service		No			9/30/24	DO NOT SUBMIT VIA <a href="#">GRANTS.GOV.</a> Can only submit through <a href="https://home.grantsolutions.gov/home/">https://home.grantsolutions.gov/home/</a>
5	<a href="#">National Coastal Wetlands Conservation Grant</a>	National Coastal Wetlands Conservation		No			9/29/24	DO NOT SUBMIT VIA <a href="#">GRANTS.GOV.</a> Can only submit through <a href="https://home.grantsolutions.gov/home/">https://home.grantsolutions.gov/home/</a>
6	<a href="#">National Fish Passage Program Bipartisan Infrastructure Law: Restoring River, Floodplain, and Coastal Connectivity and Resiliency</a>	Fish and Wildlife Service	Low	No	\$250,000 - \$10,000,000		12/31/24	<a href="#">Grants . gov</a>
7	<a href="#">Nonpoint Source Pollution Control Grants - Federal Clean Water Act Section 319</a>	Department of Environment, Great Lakes, and Energy	<a href="#">Review to determine fit - activities identified in EGLE-approved watershed management plans. Implementation activities must address specific sources of nonpoint source pollution identified by Michigan's Nonpoint Source Program Plan.</a>	Min 25%	\$25,000 - no maximum request		Deadlines will be included in each request for proposals. Watershed management plans can be submitted for EGLE review at any time throughout the year.	RFP
8	<a href="#">Monarch Butterfly and Pollinators Conservation Fund</a>	The National Fish and Wildlife Foundation (NFWF)		Not required, but makes and more competitive	\$150,000-500,000		7/24/24	<a href="#">easvarants.nfwf.org</a>

+ ☰ Potential Opportunities ▾ Funding Databases ▾ <



# Application + Rebate Form



Birmingham Rain Garden Rebate  
Application for New Rain Garden Installation

Applications can be submitted by mail or in person at the Office of Community Development: 151 Martin St. Birmingham, MI 48009. If you are building a new rain garden, please complete this 2-page form to be considered for the Rain Garden Rebate. Please note that if funds are not available, applicants will be notified and placed on a waitlist until funding becomes available. Following consideration, The City of Birmingham will provide a note about funding availability and:

1. Project approval, OR
2. Approval pending modifications, OR
3. Project denial with explanation.

## Personal Information

First + Last Name:	<input type="text"/>	Phone:	<input type="text"/>
Mailing Address:	<input type="text"/>	Email:	<input type="text"/>
Project Address if different:	<input type="text"/>		
Are you the property owner?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Preferred Communication:	<input type="checkbox"/> Phone <input type="checkbox"/> Email <input type="checkbox"/> Mail

## Rain Garden Information

Please provide all requested information. Describe your idea to the best of your ability. You may submit drawings that you have designed yourself or you may hire a professional. Preliminary application drawings will NOT be reimbursed by this program. **Please reference the Rain Garden Manual to guide your design and application process.**

Garden Designer:	<input type="text"/>	Rain Garden Area: (sq ft)	<input type="text"/>
Garden Installer:	<input type="text"/>	Drainage Area: (sq ft)	<input type="text"/>
Pre Project Landcover: (lawn, concrete, etc.)	<input type="text"/>	Infiltration Test Results:	<input type="text"/>
Describe Rain Garden location:	<input type="text"/>		
Please Check that you have included the following:			

- Photo of utility lines marked by Miss-Dig (811):** Reference page 14 of the Rain Garden Manual.
- Site Sketch:** The sketch should be a view from above indicating where on the property the rain garden will be installed and property context. Please include a north arrow, outline of buildings, driveways, sidewalks, streets + names (if applicable), fences, existing trees, garage/shed, existing landscaping, etc. Feel free to attach Google Maps aerial image as a base map. Reference page 20 of the Rain Garden Manual.
- Rain garden cross section:** side view of garden ponding depth and berm height. Reference page 21 of the Rain Garden Manual.

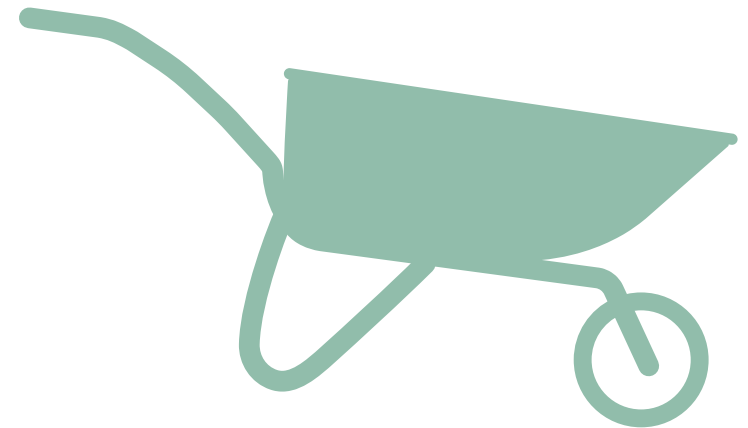
## For Internal Use Only

Reviewed By:	<input type="text"/>	Date:	<input type="text"/>
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[Shareable Link](#)

Linked on Graham Site

Packaged InDesign files will be available to add your own branding



# Birmingham Rain Garden Guidebook



[Shareable Link](#)

Linked on Graham Site

Packaged InDesign files  
will be available to add  
your own branding



# DIY Rain Garden Guidebook for all communities



[Shareable Link](#)

Linked on Graham Site

Packaged InDesign files  
will be available to add  
your own branding

Ready to be shared with  
any community



# Support your residents with DIY Rain Garden Installation and together, you'll...

- Filter pollutants from stormwater before they reach your waterways
- Increase biodiversity that supports sustainable ecosystems
- Beautify your neighborhoods
- Reduce property damage from flooding



# Questions?



# Links

Existing Rain Garden Programs + Potential Partners:

- [Ann Arbor Rain Garden Program in partnership with Washtenaw County Water Resources](#)
- [Clinton River Watershed Council](#)
- [Huron River Watershed Council](#)
- [Master Rain Gardener Course](#)
- [Oakland County RainSmart Rebate Program](#)
- [Rain Gardens to the Rescue \(Friends of the Rouge + Sierra Club\)](#)
- [Royal Oak Rain Garden Program](#)

