

# Frequently Asked Questions

## - Native Plants -



What is a rain garden?

What are the benefits of rain gardens?

Will my rain garden have standing water?

Is a rain garden a pond?

Will a rain garden cause flooding in my basement?

I have a hard clay soil - can I install a rain garden in my yard?

Can a rain garden be too large or too small?

How can I attract amphibians to my rain garden?

Will road salt damage the plants in my rain garden?

What is a native shoreline planting?

What are the benefits of a shoreline planting?

Will the plants grow in the water or up on the bank? Will they spread and form mats?

Will a shoreline planting stop bank erosion?

Will native shoreline plantings get rid of geese?

What if I want to fish - won't native plants block my access?

My shoreline/stream bank is really eroded - can I still plant a native shoreline along it?

Will my shoreline planting attract snakes?

What types of plants are used in rain gardens and shoreline plantings?

Why native plants? Do I have to use native plants?

Aren't native plants wild and messy looking?

Will rain gardens or shorelines attract or breed mosquitoes?

Are there plants that will attract birds, butterflies, and bees?

Can I just use flowers and not grasses?

What will my planting look like in the wintertime?

Do I need a permit to build my rain garden or shoreline planting?

How is a rain garden constructed?

How are shoreline plants installed?

Where should I place the rain garden?

How wide of a strip do I need to plant along my shoreline?

Where can I find someone to build a rain garden or shoreline for me?

Can I build a rain garden or shoreline myself?

Where can I get plants, drain tile, erosion control products, and other supplies?

How much will my rain garden or shoreline planting cost?

What kind of maintenance is involved? Watering? Fertilizing?

Do I need to mulch my rain garden?

Does a rain garden or shoreline planting have to be burned like is recommended for other native plantings?

# Frequently Asked Questions

## - Native Plants -



**CLEAR CHOICES**  
**CLEAN WATER**

NATIVE PLANTS & POLLINATORS

**Will native plants take over my yard (or my neighbors' yards) like weeds?**

**My plants don't stay where I put them. What can I do?**

**I have a lot of trees that drop a lot of seeds. Is this a problem for rain gardens?**

**My rain garden overflows. What can I do to fix this?**

**The mulch floated out of place during a heavy rain. What can I do to prevent this?**

**My rain garden is holding water longer than 24 hours during heavy rains. How can I fix this?**

**Can I pile snow on my rain garden?**

**My downspout inlet has made a rut of erosion where it "shoots" out into the garden. What should I do?**

**Can I order a sign for my rain garden or native planting?**

### **What is a rain garden?**

A rain garden is a garden of native shrubs, perennials, and flowers planted in a small depression. It is designed to temporarily hold and soak in rain water runoff that flows from roofs, driveways, patios, lawns, or other hard (impervious) surfaces, preventing it from entering the storm sewer system. Soil and plant roots use natural processes to improve water quality by filtering pollutants. Rain gardens are effective in removing up to 90 percent of nutrients and chemicals, and up to 80 percent of sediments from the storm water runoff. Compared to a conventional lawn, rain gardens allow for 30 percent more water to soak into the ground. The water is held by the garden and allowed to slowly infiltrate the soil, providing an important role in recharging ground water supplies and reducing storm water runoff volumes to local streams. A rain garden is not a pond or wetland, but is dry most of the time and typically holds water for not more than two days during and following a rainfall event.

### **What are the benefits of rain gardens?**

Rain gardens are designed to improve local water quality and reduce the impacts of stormwater on area streams. Communities around the country have experienced dramatic reductions in storm water pollution, due to many homeowners installing rain gardens on their properties. According to the US Environmental Protection Agency (EPA), 70 percent of all water pollution comes from pollutants carried in stormwater runoff. A few examples of these pollutants include pet waste, fertilizers, oils and greases from automobiles, and trash (i.e. non-point pollution sources). Rain gardens are effective in removing up to 90 percent of nutrient and chemical pollutants and up to 80 percent of sediments from storm waters flowing into them. This polluted water would otherwise reach nearby streams, rivers, and lakes untreated. Not only are rain gardens helpful to water quality, they also create beautiful additions to any landscape and can help reduce localized flooding or standing water in nearby streets. Constructing, installing, and maintaining a rain garden will help reduce pollution and flooding, and help keep our local water supplies and recreational areas healthy.

- Improve water quality by filtering out pollutants
- Provide localized stormwater and flood control
- Easy to maintain after establishment

# Frequently Asked Questions

## - Native Plants -



- Preserve and promote native vegetation
- Attract beneficial birds, butterflies, and insects
- Provide aesthetically pleasing landscaping
- Provide a stormwater management solution for homeowners who properly disconnect their downspouts from the sanitary or combined sewer system

### **Will my rain garden have standing water?**

Rain gardens are designed to infiltrate water in about one day. If it rains several days in a row, it is possible that your rain garden may have standing water until the rain stops and the water has time to soak in. If designed and installed correctly, rain gardens typically do not have standing water for more than 48 hours. Be sure to test your soil type and infiltration rate, or percolation rate, before beginning your rain garden. Rain gardens may not be appropriate for all locations; high water tables, clay soils and bedrock locations may inhibit infiltration. The below brochure and hand-out provide additional information about testing your soil's infiltration rate.

[How to Build a Rain Garden](#)  
[What You Need to Know About Your Soil](#)

### **Is a rain garden a pond?**

Rain gardens are designed to hold water for no more than a couple of days. Unlike ponds, you don't need costly pumps, electricity, or filters. In fact, a rain garden is a filter for the water that runs off of your property's impervious surfaces. Because rain gardens are designed to only hold water for a couple of days, you will not be able to keep fish or other aquatic life in your rain garden.

### **Will a rain garden cause flooding in my basement?**

No, not if it is properly located and designed. Rain gardens should be located at least 10 feet away from buildings so that water does not drain along foundations. Also, your rain garden should overflow away from buildings rather than toward them, so place the garden in the landscape accordingly.

### **I have hard clay soil - can I install a rain garden in my yard?**

Yes, but choose clay-loving plants and amend your soil. Typically, 6 to 12 inches of soil are removed and altered with tillage, compost, and sand to increase water infiltration and allow for more plant diversity. The type of alteration to the soil depends on the current soil type's clay content, so it is a good idea to obtain a soil test. Your local Soil and Water Conservation District can assist you with having your soil tested. For amended soil materials and guidance, see our [list of suppliers of topsoil, sand, and compost](#). Ask one of our [plant supplier experts](#) for plant selection advice.

### **Can a rain garden be too large or too small?**

A rain garden should have an area about 20 percent the size of the roof, patio or pavement area draining into it. A typical residential rain garden is between 100 and 300 square feet. If a smaller rain garden than recommended for a lot is chosen by the landowner, the garden will still function. Any size rain garden can make a positive impact by infiltrating some storm water. Rain gardens can vary in size and complexity depending on your site constraints and how you would like them to function.

# Frequently Asked Questions

## - Native Plants -



The “[Build Your Own Rain Garden](#)” and “[Methods to Size a Rain Garden](#)” fact sheets can give you more guidance on size calculations and other factors of rain garden design. Or, simply seek help from a landscaper or other professional.

### **How can I attract amphibians to my rain garden?**

Amphibians will live in your rain garden if they are provided a chance to burrow down in the ground beneath the garden. Using a liner will deter them from living in your rain garden. Adding a long stick and/or stones for access in and out of puddles will facilitate tiny amphibian and dragonfly activity. These species eat mosquito larvae and adults in and around your yard that may be breeding in gutters or other standing water sources.

### **Will road sal damage the plants in my rain garden?**

It is better to locate the rain garden away from direct salt discharge. There are some salt-tolerant plants that you might use if the only place you can locate the rain garden will be subject to salt spray and runoff from streets and sidewalks. For large parking lot and street applications, pre-treatment structures may be helpful, such as a sediment settling area. For larger rain gardens for commercial parking lots, an underdrain system would be best; the salty runoff is filtered through the rain garden, then carried away by the underdrain system. This prevents possible groundwater contamination with chlorides.

### **What is a native shoreline planting?**

A native shoreline planting is an area of native grasses and perennial flowers planted directly adjacent to a pond, reservoir, stream, or river. Some plants, called aquatic emergent plants, grow in the water, while others grow on the banks above the waterline.

### **What are the benefits of a shoreline planting?**

Currently, many shorelines are planted with turfgrass and mown all the way to the waterline. Turfgrass roots are only a few inches deep – the root depth is approximately equal to the above ground growth. These shallow roots do little to hold soil in place, so when wind, fountains, boats, or geese create waves, those waves pull soil particles from the bank into the water. This makes the water cloudy and the bank steeper. Native plants have roots that commonly grow several feet into the soil. These fibrous root systems hold soil in place easily. Additionally, native plants grown in the water (called aquatic emergent plants) absorb and buffer wave action, further protecting the shore from erosion. Native plants, unlike turfgrass, also have the ability to filter out pollutants like pesticides, fertilizers, and pet waste that would otherwise run directly into the water.

- Hold soil in place and reduce shoreline erosion
- Absorb and filter pollutants before they flow into the water (this includes nutrients from fertilizer, which contribute to algae growth)
- Provide habitat for frogs, turtles, songbirds, butterflies, and other beneficial wildlife
- Reduce mowing and maintenance
- Discourage nuisance Canada Geese

# Frequently Asked Questions

## - Native Plants -



### **Will the plants grow in the water or up on the bank? Will they spread and form mats?**

Both. Aquatic emergent plants typically grow in 2-12 inches of water. Other plant communities grow up on the banks, close to but not actually in the water. Your native shoreline plantings may contain just one or both of these types of plants – it all depends on your goals and preferences.

Lilies and a few other native species will spread into deep water, but most plants you would install in a native shoreline planting will not grow beyond 12 inches of water depth. Talk with the contractor doing your planting, or if you're doing it yourself, speak with the plant provider, to make sure you understand how far your plants will spread.

### **Will a shoreline planting stop bank erosion?**

It depends. If a shoreline is already severely eroding, these plants likely cannot reverse that trend on their own. However, if installed early enough and allowed to flourish, they can do a great job of stabilizing the soil and preventing shoreline erosion thanks to their deep, fibrous root systems. If you choose to plant aquatic emergent plants in the water, they will provide an added benefit by absorbing and buffering wave action before it ever reaches the shore.

### **Will native shoreline plantings get rid of geese?**

If native shoreline plantings don't get rid of the geese, they at least discourage them. Canada Geese are a native species of waterfowl, but our suburban areas have drastically changed their habits and created quite an issue in suburban areas. Our perfectly manicured lawns and unfrozen retention ponds keep them well fed and allow them to stay here year-round instead of migrating like they used to. Unfortunately, geese can be aggressive, especially if they have a nest nearby. Their droppings are not only unsightly, but dangerous to humans, pets, and water quality.

Geese tend to avoid native shoreline plantings. They cannot see through the vegetation and think a predator might be hiding there. Some neighborhoods have completely eliminated their goose population by surrounding their retention ponds with native plantings.

### **What if I want to fish - won't native plants block my access?**

Native plantings are typically a minimum of 3 feet tall, so if you want to fish on your shoreline, you will want to identify a few favorite spots to stand and then either fill those areas with short-stature native species or skip planting there altogether.

### **My shoreline/stream bank is really eroded - can I still plant a native shoreline along it?**

Yes, but there will be some extra considerations. If you plant plants and seed on a severely eroding shoreline, you run the risk of the shoreline eroding further and destroying the new plantings. For this reason, some type of structural stabilizer will be required. The most common practice is to install a coir log, a coconut fiber roll that looks like a tree trunk, along the shoreline. This roll gets staked against the shoreline, forming an instant buffer against wave action and further erosion. Because the roll is made of coconut fiber, the native plants you install can grow in and around it. Eventually the log will be covered in plants and you'll never know it's there.

# Frequently Asked Questions

## - Native Plants -



**CLEAR CHOICES**  
**CLEAN WATER**

NATIVE PLANTS & POLLINATORS

### **Will my shoreline planting attract snakes?**

It might, but snakes will be more likely in rural areas than suburban ones. A native shoreline planting isn't usually enough to provide a complete habitat for a snake, so while the occasional reptile may find refuge in your planting, by using common sense and not disturbing it, you can usually avoid any trouble. And look at it this way – snakes eat mice and other rodents, so they are providing natural pest control!

### **What types of plants are used in rain gardens and shoreline plantings?**

As a rule, native vegetation should be incorporated into your rain garden and/or shoreline planting. Native plants don't require fertilizer, have good root systems, and are better at utilizing the water and nutrients available in their native soils than non-native species. Perennials, shrubs, wildflowers, or a mixture of all three can be planted. Avoid planting trees, as trees generally absorb more water than surrounding plants. We recommend species native to your region, but other cultivated non-native species can be very beautiful, too. Also, never plant invasive or noxious species, such as purple loosestrife. For more information on invasive or noxious species you need to avoid, visit the Indiana Native Plant and Wildflower Society, Indiana Department of Natural Resources, or Purdue University websites.

Despite what you may think, rain gardens don't have to be planted with water-loving plants. Since rain gardens drain so quickly (ideally between 24 and 48 hours), the plants you put in only have to be able to tolerate lots of water for brief periods. They also need to be able to withstand periods of drought. Different areas of your garden should be planted with different kinds of plants as well. For example, the area near the top of the depression won't be receiving as much water as the low-lying middle. If you're not an experienced gardener or don't have a lot of experience with native plants, just ask your local native plant nursery for suggestions. Remember to consider plant height, wildlife attraction, flowering, and sun and shade tolerance when choosing your plants.

Shorelines can have plants growing above the shoreline and plants growing in the water. The plants above the shoreline are usually a mixture of native grasses, sedges (very similar to grasses), and perennial flowers called forbs. The plants growing in the water are typically a variety of rushes and bulrushes (which look similar to the reeds you can see growing in wetlands) and perennial flowers.

### **Why native plants? Do I have to use native plants?**

Native plants are ideal for landscaping for many reasons. Because they have adapted to Indiana's climate over thousands of years, they don't need fertilizers to help them grow, can tolerate our cold winters and hot summers, have very deep roots that allow them to be more drought resistant, have developed defenses against harmful native insects, and can serve as habitats for native wildlife (consider planting for butterflies, hummingbirds, or songbirds). The deep roots of native plants also make them ideal for rain gardens because they create channels in the soil which allows water to soak in quickly and for shorelines because they stabilize the soil and help prevent erosion.

You don't have to use plants native to Indiana, but there are many advantages to doing so. Natives have adapted to our climate and are much better at handling the periodic inundation of water that goes along with a rain garden. They'll also save you the time and money of replanting every



# Frequently Asked Questions

## - Native Plants -



**CLEAR CHOICES**  
**CLEAN WATER**

NATIVE PLANTS & POLLINATORS

year, and will offer much greater wildlife value. If you must use non-native plants, be careful to avoid known invasive species. Invasive species can crowd out and out-compete native species, creating a monoculture of one type of plant and potentially spreading into nearby native plant areas which then creates a habitat problem for local wildlife. Before planting exotic species, always check the list of common noxious/invasive plants for Indiana. The [Indiana Native Plant and Wildflower Society](#), [Indiana Department of Natural Resources](#), and [Purdue University](#) all maintain lists of Indiana's noxious and invasive plants you need to avoid.

### **Aren't native plants wild and messy looking?**

Any planting with native plants does tend to have a more natural look rather than a manicured appearance, but they do not need to look messy. You can keep a rain garden or shoreline looking neat and attractive by keeping the edges well defined. Taller plants often have a more unkempt appearance, so use shorter plants if you want your garden to have a cleaner look. As an owner, you will need to stay on top of weeding, especially in the first few years. Plants with shorter heights can also be selected to produce a more manicured look. Likewise using fewer species may also result in a more manicured look. Be sure to check out our sample planting plans below for example rain garden and shoreline designs.

[Rain Garden Bird/Butterfly](#)  
[Rain Garden Low Diversity](#)  
[Rain Garden Part Shade](#)  
[Rain Garden Short Stature](#)  
[Shoreline Bird/Butterfly](#)  
[Shoreline Low Diversity](#)  
[Shoreline Part-Shade](#)  
[Shoreline Short Stature](#)  
[Plant Spacing Chart](#)

### **Will rain gardens or shorelines attract or breed mosquitoes?**

No, not if properly constructed. Rain gardens are designed to absorb water, not to create ponds. Properly installed, your rain garden will not hold water long enough for mosquito larvae to complete their 7 to 12-day life cycle. A well-designed rain garden with mature plants will not have standing water in it after 48 hours; all the water will have soaked into the garden. In fact, rain gutters on homes are much more likely to produce mosquitoes than a rain garden. Native shoreline plantings do not pond water, they simply filter and absorb it before it runs into the adjacent body of water.

### **Are there plants that will attract birds, butterflies, and bees?**

Fragrant flowering plants do attract a wide variety of birds, butterflies, and bees. Some natives are sweetly fragrant. These often attract a vast array of wildlife (including humans). Remember that 90 percent of insects are beneficial to gardening and rest assured that rain gardens and shorelines are filled with busy pollinators pursuing nectar. The below examples include plants that are both beautiful and nutritious for hummingbirds, butterflies, bees, and more. A great website for doing additional research on native species, including those which are fragrant, is [www.wildflower.org](http://www.wildflower.org).

# Frequently Asked Questions

## - Native Plants -



[Rain Garden Bird/Butterfly](#)  
[Shoreline Bird/Butterfly](#)  
[Pollinator Attraction Native Planting](#)

### Can I use just flowers and not grasses?

Yes, but this will decrease the efficacy and depth of roots for infiltration and soil stabilization. Many beautiful flowers depend on shorter grasses for support and nutrient uptake as well. We call these companion grasses. Some are short and provide a lot of visual interest by turning autumn colors and moving softly in a breeze.

### What will my planting look like in the wintertime?

That depends on how you maintain them. To provide wildlife food and shelter throughout the year, you should leave dead stalks and seed heads standing until early spring and then cut them down before new growth starts. If you do this, your planting will look like a stand of tan vegetation with some seed heads here and there. While some people do not appreciate this look, it can be quite stunning and interesting after a fresh snow. Additionally, when an American Goldfinch is perched on an old seed head, you can't help but be happy you left it standing.

If you choose, you may cut the stalks down in late fall or early winter, and your planting will look like a wildflower area that's been trimmed down.

### Do I need a permit to build my rain garden or shoreline planting?

Some areas may require a permit for you to install native plantings or do any work along a shoreline. The City of Indianapolis has developed a [permitting flowchart](#) for their area. In other cities and towns, you may need to check with your county surveyor, county planning or zoning department, the [Indiana Dept. of Natural Resources](#), and/or the [Indiana Dept. of Environmental Management](#) to see if any special action is required for native plantings along your shoreline. If you are working along the shoreline of a public freshwater lake, use [this flow chart](#) to determine what permits you need. If you are working along any other body of water, [click here](#) to download an easy-to-use handbook to determine who you need to contact before beginning your project.

### How is a rain garden constructed?

Unlike a regular perennial garden which is typically flat, a rain garden is bowl or saucer shaped garden. Like a conventional garden, a rain garden is a beautiful form of landscaping; however, a rain garden is also designed with deep, loose soil specifically to collect and absorb rain that would otherwise run off your property, and/or to solve wet spot problems where water already is collecting.

In the design of a rain garden, often 6 to 12 inches of soil is removed and altered with tillage, compost, and sand to increase water infiltration. The type of alteration to the soil depends on the current soil type, so it is a good idea to conduct a simple test of your soil's infiltration rate. View the ["Build Your Own Rain Garden"](#) brochure for more details on this easy test.

Instead of using cultivated plants from Europe or Asia, a rain garden is planted primarily with deep-rooted, low-care, perennial plants native to your region, that have adapted over thousands



# Frequently Asked Questions

## - Native Plants -



of years to your local weather and environmental conditions. The deep roots create channels into your soil through which water may travel. The native plants provide habitat for local butterflies and other wildlife. The native plants do not need to be treated with chemical fertilizers, insecticides, or herbicides in order to thrive.

### How are shoreline plants installed?

If you choose to plant aquatic emergent species in the shallow water areas, they will be planted as plugs, which are small potted plants. A small hole is created in 2-6 inches of water depth and the plug is packed tightly in so that it doesn't pop out and float away. If geese typically utilize the shoreline being planted, a goose fence will be installed around the plantings to keep geese from eating all the new plants. This is usually a plastic fence that is left in place for the first growing season.

The species planted on the banks of the stream or reservoir are typically planted as seed. The existing vegetation on the shoreline is killed, tilled up, and then seed is planted. An erosion control blanket, a straw blanket held together by nylon or cotton thread, is placed over the seed to protect the soil from erosion. The plants grow up through this blanket and it eventually decomposes, never needing removed. For a more instant impact, this area could be planted from plugs or potted stock, but that will greatly increase costs.

### Where should I place the rain garden?

Rain gardens are generally constructed on the downside of a gentle slope on your property to collect natural drainage and runoff from your lawn, roof, and driveway. The easiest way to read the slope and drainage of your yard is to watch water when it is raining. Take a few pictures to help you remember where water goes during and after a rainfall event. In a low area of your yard, a complex mix of plants and soil will absorb a lot of rain. If you do not have a suitable site for the garden where water naturally flows, you can create a swale or pipe water to the rain garden, but it will take a bit of extra work.

Rain gardens are typically designed longer than they are wide and are perpendicular to the slope, in order to catch the maximum amount of rainfall. Rain gardens should be placed at least 10 feet away from building foundations. Generally you should avoid utility rights of way, where gas, phone, and telephone lines are located. Also keep the garden location away from septic drain fields, which don't need any extra water.

Your rain garden can be located in either the sun or the shade. The best drainage will occur in full sun; however, many plants can be chosen to thrive in a part sun/full shade rain garden as well ([view an example shade planting plan here](#)). The water will take a little longer to be absorbed, but the garden will function well in any sun exposure if the right plants are used.

Since the plants are aesthetically pleasing and attract birds and butterflies, locating a rain garden outside a picture window can provide the benefit of indoor enjoyment. On hot days in summer, many hummingbirds will be attracted to the plants of a rain garden. Each garden is site specific and unique; you can make it what you want it to be.

# Frequently Asked Questions

## - Native Plants -



### How wide of a strip do I need to plant along my shoreline?

The width of the buffer strip can vary, but most plantings are a minimum of three feet wide. A wider strip provides more benefits, so consider extended your planting or creating an undulating border with wider areas and more narrow strips.

### Where can I find someone to build a rain garden or shoreline for me?

Check our [rain garden contractor list](#) or [shoreline contractor list](#) for the names of nearby landscape architect firms or look in the Yellow Pages under Landscape Architects or Landscape Contractors. Remember that not all landscapers are experienced in building rain gardens or shorelines, so ask lots of questions to be sure you're hiring someone who will build you a quality rain garden or shoreline. Below are a few suggested questions to get you started:

- What experience do you have with rain gardens or shorelines?
- Are you willing to work with homeowners?
- Are you familiar with local requirements and permits (if there are any)?
- Can you help me find an appropriate location and design for my rain garden?
- Can you help me find an appropriate design for my native shoreline planting?
- Can you help with drainage, infiltration, and soil requirements for placing a rain garden on my property?
- Can you complete erosion control measures after planting the shoreline?

### Can I build a rain garden or shoreline myself?

Yes. Both a rain garden and shoreline planting can be installed/built by yourself. Although it may take a little more digging to create the depression, rain gardens are no harder to install than a traditional perennial garden. If your shoreline area being planted is relatively small, it may be most economical for you to do the plantings yourself.

Here is a list of references to help you with building your rain garden.

[How to Build a Rain Garden](#)  
[Preplanning, Design, and Construction](#)  
[Methods to Size a Rain Garden](#)  
[What You Need to Know about Soil](#)  
[Plant Selection and Planting Schemes](#)  
[Native Plant Suppliers](#)

### Where can I get plants, drain tile, erosion control products, and other supplies?

Some rain garden and shoreline plants are carried by many local perennial nurseries, as native species are becoming more popular for home and commercial gardening. Other rain garden plants can be purchased from native plant nurseries. Check our [list of native plant suppliers](#) to locate sources. You may also choose to transplant some suitable plants in your yard, or you could get divisions from a friend.

# Frequently Asked Questions

## - Native Plants -



Large quantities of rain garden or shoreline plants typically need to be ordered far in advance, as suppliers do not usually keep them on hand unless they have a ready market for them.

Please do not collect your rain garden plants from wild populations. They may be growing everywhere, but they soon won't be if they are removed from the local landscape. Purchase your plants from a reputable nursery that produces them in a sustainable way.

While drain tiles are not required for most rain garden projects, some homeowners want to direct drainage across or beneath a lawn to the rain garden. In this case, most home improvement stores stock drain tile. Drain tile is simply a flexible plastic hose that resembles an underground gutter. If you are looking for amended soils to improve the infiltration rate of your rain garden, see our list of suppliers for more information.

### **How much will my rain garden or shoreline planting cost?**

The cost of a rain garden is dependent on the property's soil type, the size of roof, driveway, and patio draining into a rain garden, and the types of plants chosen. If the soil is high in clay content, the garden may require adding a soil amendment to prevent standing water for more than 48 hours. For a self-built rain garden, expect to pay between \$3 and \$7 per square foot in plant costs and soil amendments. Digging the garden is the most time consuming task, as a depression needs to be created to catch the water and often 6 to 8 inches of additional soil depth is typically removed to add soil amendments. When working with a landscaping company to design and install a rain garden, the cost will significantly increase to around \$10 to \$15 per square foot. Plants are the single most expensive item so if you have friends or neighbors with native plant beds, consider asking them to split and donate some of their "good producers." Remember, an important cost consideration is that like other perennial flower gardens, rain gardens are less expensive than replanting annuals every year.

Native shoreline planting costs vary a great deal depending upon the degree of existing erosion, the size of the planting, and the plant species utilized. If the bank is still gently sloping into the water and isn't eroded too badly, costs typically range from \$10-15 per lineal foot of shoreline. If the bank is seriously eroded and coir logs or other structural pieces are needed, costs can jump as high as \$40-50 per lineal foot. This is one serious motivator to install native shoreline plantings now before erosion becomes an issue!

### **What kind of maintenance is involved? Watering? Fertilizing?**

Once established, rain gardens and native shoreline plantings are low maintenance, but they do require some care, especially in the first two years. For the first two years, weed control is the main concern. Native plantings take their time growing up – they tend to grow their deep root systems first and then worry about growing up and flowering. For this reason, your planting can look sparse and leave space open for annual weeds like foxtail, ragweed, and lambsquarters. If these weeds are only present in small quantities, hand pulling or spot spraying with herbicide will keep them under control. If the entire planting contains weeds, it may need mown at 10 inches high once in June, July, and August the first year or two. Mowing at this height cuts off the top of weeds before they set seed, but doesn't hurt the native plantings, which aren't that tall yet. By year three, the native plants

# Frequently Asked Questions

## - Native Plants -



should be filling in and weeds will have a harder time taking hold. The site will still need monitored for weeds, but pulling or spot spraying should be sufficient for their control.

The native plants in your rain garden or shoreline will not need to be fertilized once they are established. Stormwater carries many nutrients and therefore rain gardens are already fertilized regularly. One benefit of rain gardens/shorelines is they help remove or take up excess nutrients/fertilizers in stormwater. Fertilizing them with additional fertilizer would defeat the garden's purpose as a stormwater treatment method and would actually end up feeding the weeds more than the native plants you are trying to encourage.

If the weather is very dry for extended periods of time (greater than a month), you may need to water your native plants. The amount of water they need will depend on the plants you choose. Native plants are adapted to a wide range of conditions, so they will only need watering in the driest seasons. Drought tolerant plants need to grow deep roots during the first two years to withstand dry periods. Overwatering may discourage this important growth. Those that are used to having their "toes" wet should be placed in the lowest part of the garden. Plants that like drier soil are placed on the banks of the garden and can withstand some wet and very dry conditions.

Another maintenance question is what to do with those dead stalks of the past year's growing season. Ideally you should leave them standing until early spring and then cut them down. Leaving them up all winter provides important food and shelter for wildlife. Cutting them down in spring allows the sun to warm the soil more quickly, promoting quicker growth of your plants. If you or your neighbors really don't appreciate the way the planting looks all winter, it can be cut down in the fall after the flowers and grasses have gone dormant.

### **Do I need to mulch my rain garden?**

Organic mulch (as in bark, not rocks or stone) is recommended for formal rain garden designs. Mulch keeps the garden moist and able to absorb rain, makes the garden look tidy, and discourages weeds. An application of hardwood mulch will look good, and compost mulches will enrich the soil. Large rain gardens or bioretention systems that are planted from seed are not mulched.

### **Does a rain garden or shoreline planting have to be burned like is recommended for other native plantings?**

Though many native plants were subject to burns historically, cutting them to the ground in winter or early spring mimics the "burn cycle" and encourages growth for the next year. So consider this strategy for your rain garden if you want to encourage wildflower and forb growth. Early spring cutting is preferred over fall or winter, since brown, dry seed heads can provide important bird food over the winter.

### **Will native plants take over my yard (or my neighbors' yards) like weeds?**

No, many natives are not aggressive. In fact, many are struggling to compete with non native plants in the wild, so providing a habitat for them is good stewardship. Ironically, one challenge will be to keep turf grass species out of the rain garden. Choose rain garden plant varieties that are not aggressive and mow the area around the garden. NOTE: many native plants are highly sensitive to

# Frequently Asked Questions

## - Native Plants -



tiny traces of weed killers. You may see curling and damage to your new plants if you or a nearby neighbor sprays weed killer.

### **My plants don't stay where I put them. What can I do?**

Gardening with native plants is not the same as traditional gardening. Remember the goal is to provide a dense vegetative cover that looks beautiful and treats storm water runoff. You can choose plant varieties that stay put, or you can let the plants choose where they flourish. If you feel you need to remove seeds of varieties that replant via seeds, simply cut off the seed heads once flowering is complete.

### **I have a lot of trees that drop a lot of seeds. Is this a problem for rain gardens?**

If at all possible, avoid placing the rain garden near a mature tree. Roots, seeds, and shade are challenges, but you can work with these if you make good choices. Try to stay flexible when digging, as roots may cause you to re-route a bit. You may need to keep up on weeding the seedlings more frequently, and you should choose shade-loving plants.

### **My rain garden overflows. What can I do to fix this?**

In heavy rain events, this may occur. Spring and fall events also can provide repeated filling and delays in drainage. A few solutions to this problem:

- Expand the garden to include the “high water mark.” This is the area your garden “claimed” during the heavy rain.
- Add another rain garden down slope from the first one.
- Decrease the amount of downspouts directed into the garden. Our rooftops can produce large quantities of runoff, and the rain garden may be too small to accommodate the amount of water you have routed to it.
- Install rain barrels under downspouts so that some of the rain water is held there, sending less to the garden.
- Wait until there is a dry spell and dig it deeper. Adding 1 or 2 inches of depth over 5 feet might accommodate enough of the excess water.
- Install a small overflow drain by placing a short length of your drain tile in a high part of the garden. This allows overflow to run off, but only when the garden has filled.

### **The mulch floated out of place during a heavy rain. What can I do to prevent this?**

The mulch is showing you where high water levels are. You can expand the garden, or just rake it back into place until the plants are dense enough to keep the soil and mulch in place. If it bothers you, you may wish to add boulders, stones or some large edging like pavers. These will increase the cost and maintenance, but they can be beautiful and functional.

### **My rain garden is holding water longer than 24 hours during heavy rains. How can I fix this?**

During repeated rain events, the water may drain more slowly in the garden, which is not necessarily a problem. Rest assured that you are filling an important need by restoring the water table slowly. That said, even flooding is not necessarily a problem for your established rain garden. If it becomes an issue, you may wish to accommodate more water by:

# Frequently Asked Questions

## - Native Plants -



- Expanding the garden (width and/or depth).
- Further amending the soil (especially if you have heavy clay soil).
- Adding more wetland sedges and grasses that speed up water use.

### **Can I pile snow on my rain garden?**

Because plants are dormant, their activity is reduced, but the rain garden will still help slow down water movement and enable it to be absorbed into the ground in the winter. The ponding area provides storage for a certain amount of runoff even if the ground is frozen. Water may remain longer, particularly when the ground is frozen, but that's not a problem in winter. Rain gardens do work best in the spring and summer, but that is when they are most needed to protect streams from polluted runoff and heavy storm volumes. You can place a small amount of snow on your rain garden, but a large amount may compact the soils in the garden or damage the plants. A heavy snow or ice on the garden in early spring may slow down the greening of your plants. It is better to place large amounts of shoveled snow next to the rain garden; as it melts, it will flow in and be absorbed.

### **My downspout inlet has made a rut of erosion where it "shoots" out into the garden. What should I do?**

This is an excellent opportunity to see storm water in action. Water from the drain tile can have a lot of pressure, so you may need to do one or more of the following:

- Place a block or flat stone under the washed out area. This will help spread the flow to a wider pattern until the garden fills up.
- Let that area be a deeper point in the garden and move the sediment to higher parts of the garden.
- Keep leaf litter and asphalt debris out of the basin.
- Occasionally reposition the drain tile, allowing it a lot of room for erosion.

### **Can I order a sign for my rain garden or native planting?**

A sign does a world of good in communicating to neighbors and onlookers. If you are within the city limits of Indianapolis, you can register your rain garden with the City of Indianapolis and elect to receive a sign for your yard. Among other programs, the National Wildlife Federation has a certification and sign program. Installing a rain garden with native plants and leaving the seeds over winter covers the checklist requirements for backyard habitat. To learn more, go to [National Wildlife Federation Backyard Wildlife Habitat](#).