



# NATIONAL WILDLIFE FEDERATION MAYOR'S MONARCH PLEDGE

Twenty years ago, more than 1 billion Eastern monarch butterflies migrated across North America to Mexico. By the winter of 2014, the number of monarchs making the annual trek had dwindled to 60 million, a 94% population reduction! Officials warn that without taking steps to reverse the trend, these pollinators could face extinction within 20 years. On June 27, 2016, in recognition of the National Wildlife Federation's Monarch Pledge, the City of Edmond issued a proclamation to raise awareness about the decline of the monarch butterfly and committed to restore and create habitat for the monarch and other key pollinators in our community.

## WHAT CAN YOU DO?

Plant a monarch butterfly garden this fall! Adult monarchs depend on diverse nectar sources for food, and caterpillars are completely dependent on their milkweed host plants. Providing milkweeds and other nectar-rich flowers that bloom from early spring through fall is the most significant action you can take to support the Monarch Pledge. The following native plants are well-suited for butterfly gardens:

### SPRING TO SUMMER

- Blacksamson Echinacea
- Purple Prairie Clover

### SPRING TO FALL

- Butterfly Milkweed
- Dakota Mock Vervain
- Spider Milkweed
- Whorled Milkweed

### SUMMER

- Bearded Beggarticks

### SUMMER TO FALL

- Baldwin's Ironweed
- Canada Goldenrod
- Common Buttonbush
- Compassplant
- Gray Goldenrod
- Pitcher Sage

## HELPFUL LINKS

### OKLAHOMA COOPERATIVE EXTENSION SERVICE (OCES)

#### LOCAL EXTENSION OFFICE

2500 NE 63rd, OKC, OK 73111 | (405)713-1125

Office Hours: 8-4:30pm, M-F | [oces.okstate.edu/oklahoma](http://oces.okstate.edu/oklahoma)

#### SOIL TESTING SERVICES

[soiltesting.okstate.edu](http://soiltesting.okstate.edu)

### NATIONAL WILDLIFE FEDERATION MONARCH PLEDGE

[nwf.org](http://nwf.org)

### RAIN GARDEN SIZE CALCULATOR

[raingardenalliance.org/right/calculator](http://raingardenalliance.org/right/calculator)

### SELECTING NATIVE PLANTS:

### AUDUBON'S NATIVE PLANT DATABASE

[audubon.org/native-plants](http://audubon.org/native-plants)

### LADY BIRD JOHNSON WILDFLOWER CENTER

[wildflower.org/collections](http://wildflower.org/collections)

## KEEP EDMOND'S WATERWAYS CLEAN



#### DRAINAGE UTILITY

405.359.4772

[edmondok.com/stormwater](http://edmondok.com/stormwater)



## KEEP EDMOND'S WATERWAYS CLEAN



# RAIN GARDEN LANDSCAPING -WITH- FUNCTION



## WHAT IS A RAIN GARDEN?

Rain Gardens are shallow, depressed gardens that are designed to capture and filter out pollutants in stormwater runoff draining from impervious surfaces, such as rooftops and driveways, by using a combination of select vegetation and amended soils.

## BUILDING YOUR RAIN GARDEN

### STEP 1 PLACEMENT



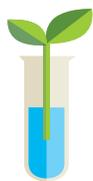
Select a location in your yard, at least 10' away from your house, where rainwater from your downspouts can be easily directed to your rain garden.

### STEP 2 SOIL DRAINAGE



Complete a percolation test in your chosen location to determine how well the existing soil infiltrates water. If the test shows the soil not infiltrating properly, soil texture amendments will need to be added.

### STEP 3 SOIL TEST



Submit a soil sample to the Oklahoma County Extension Office. The lab results may recommend soil amendments for fertility and/or texture. Visit the OSU Soil Lab's website for additional information on soil sampling and testing, [www.soiltesting.okstate.edu](http://www.soiltesting.okstate.edu).

### BENEFITS OF RAIN GARDENS

- Reduces local flooding
- Filters out pollutants before they impair our waterways
- Recharges groundwater aquifers
- Provides beneficial wildlife habitat
- Low maintenance
- Highlights native vegetation

### STEP 4 SIZE



If you are capturing water from one of your downspouts, calculate the surface area (SA) of the contributing section of the roof. Next, divide the SA by 6. This calculation provides the square footage of a garden that will hold one inch of runoff in a garden 6 inches deep.

### STEP 5 INSTALL



Before digging, please call Okie811 to mark utility locations. Using string, define the shape of your garden. Dig a shallow, flat-bottomed hole with gradual side slopes. Make sure your garden is deep enough, but typically no more than 6-8" deep, otherwise it will hold more water than can reasonably infiltrate into the soil within 24 hours.

### STEP 6 NATIVE PLANTS



Select a variety of native plants of different sizes and heights to mimic natural habitat. Appropriately space your plants so they have sufficient room to mature. After planting, cover all bare soil with a 3" layer of shredded mulch to deter weeds and conserve soil moisture.

## WHY USE NATIVE PLANTS?

The key to a successful rain garden is using native, perennial plants with deep root systems that allow up to 30% more runoff to be absorbed and filtered than a typical lawn of the same size. Native vegetation has successfully adapted to our local climate and soil type(s) as well as developed defenses against many common pests, resulting in minimal irrigation, fertilizer, and pesticide requirements.

### BENEFITS OF NATIVE PLANTS

- Removes greenhouse gases from the air
- Provides shelter and food for wildlife
- Supports pollinators
- Promotes biodiversity
- Reduces erosion
- Saves money and time

### NATIVE PLANTS | PLANTING

	 SUN LOVING	 SHADE LOVING
 PLANT DEEP	Joe Pye Weed Sunflowers	Maidenhair Spiderwort Swamp Woodland Phlox
 PLANT SHALLOW	Asters Black Eyed Susans Butterfly Milkweed Coneflowers Prairie Dropseed	Asters Columbine Woodland Phlox

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