

# Healthy Lakes and Shorelines + Native Plants

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GRAHAM  
SUSTAINABILITY INSTITUTE  
UNIVERSITY OF MICHIGAN

# Project Team

## Client



LeRoy Harvey

Meridian Township

## Technical Advisor



Alex Haddad


Graham  
Sustainability  
Institute

## Fellow



Sam Fleckenstein

University of  
Michigan - SEAS

A close-up photograph of a monarch butterfly with its characteristic orange and black wings, perched on a cluster of small, delicate white flowers. The butterfly's proboscis is extended into one of the blossoms. The background is a soft-focus green, suggesting a natural outdoor setting. A semi-transparent green banner is overlaid across the middle of the image, containing the title text.

# Meridian's Sustainability

Photo Credit: [Meridian Township's Flickr](#)

Photo credit: [Meridian Township's Flickr](#)





Photo credit: Meridian Township's Flickr

# PLANTING A NATIVE MERIDIAN

A PRACTICAL GUIDE FOR  
BRINGING NATIVE PLANTS  
INTO YOUR YARD



Photo credit: Emma Campbell



# Increasing Resident Engagement

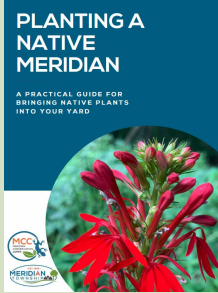
Photo Credit: [Meridian Township's Flickr](#)

# Engagement Funnel

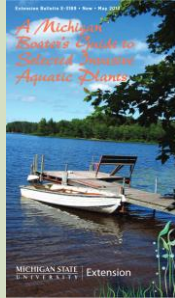




# Actionable Education



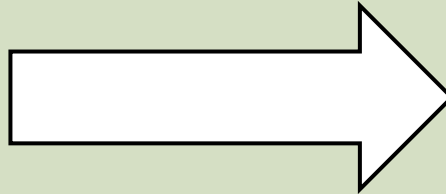
Credit: Emma Campbell



Credit: MSU Extension



Credit: GLRC



**Healthy Lakes  
and Shorelines**

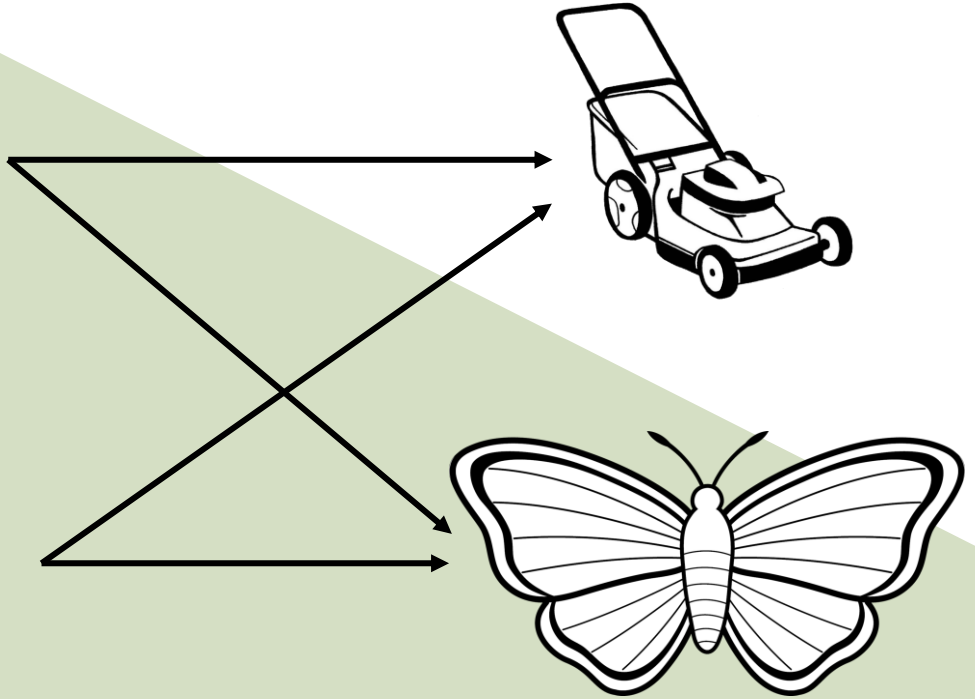
+

**Native Plants**

# Unifying Monthly Themes

**Healthy Lakes  
and Shorelines**

**Native Plants**



# Healthy Lakes and Shorelines



According to the Michigan Natural Shoreline Partnership, the loss of natural shorelines is the biggest threat to the overall health of Michigan Lakes. A new demonstration project is underway on Lake Lansing to demonstrate natural shorelines -- just one of many ways we can help protect, sustain, enjoy, and appreciate our lakes, streams, wetlands, groundwater for generations to come.

[SEE PICTURES](#)

# Green Gazette

# Healthy Lakes and Shorelines

## Social Media

HARMONY  
WITH  
WILDLIFE



Turtle sunning on a log  
Photo Credit: Watts on Flickr



Marsh Blazing Flower  
Photo Credit: M. Master on Flickr

Want to make a difference for native wildlife? If you own a shoreline, add **native plants** and leave **downed trees** in the water to provide a haven for aquatic animals!

Help keep our lakes and shorelines healthy! 🐼🌿 Visit Michigan Natural Shoreline Partnership to learn more: [bit.ly/43hi4cG](https://bit.ly/43hi4cG). Or educate yourself on native plants: [bit.ly/430uFRk](https://bit.ly/430uFRk). True enthusiast? Join the Meridian Conservation Corps! [bit.ly/3Q14bML](https://bit.ly/3Q14bML)

# Healthy Lakes and Shorelines

## HARMONY WITH WILDLIFE

Helping local shoreline  
critters thrive



### STEWARDED SHORELINES FOR WILDLIFE



Turtle sunning on a log  
Photo Credit: Watts on Flickr

All kinds of animals rely on natural vegetation in lakes and along shorelines: waterfowl find food and shelter, fish eat insects that live in mucky bottoms, turtles rest on trees that have fallen into the water.

How can you help? If you own shoreline, **leave existing native plants** and consider **planting more!** A variety of vegetation will provide wildlife with the habitat to thrive.

### OTHER BENEFITS OF NATURAL VEGETATION

- **Goose repellent:** Geese love the safety of wide open lawns, so some taller vegetation will help keep them away.
- **Erosion control:** The deep roots of native plants help keep soil where it is, preserving habitat for years to come.
- **Help threatened species:** Many threatened species rely on native plants to survive, so lend them a hand with what you plant.



Common loon on vegetation  
Photo Credit: M. Master on Flickr



Visit Michigan Natural Shoreline  
Partnership to learn more: [bit.ly/43hi4cG](https://bit.ly/43hi4cG)

For more on plants native to the region, see  
Planting a Native Meridian: [bit.ly/43OuFRk](https://bit.ly/43OuFRk)



# Printable Pamphlet

# Native Plants

**HARMONY WITH WILDLIFE**





Create a vibrant wildlife habitat for birds, bees and more by embracing the beauty of native flowers like **Marsh Blazing Star** and **Foxglove Beard Tongue!**

Let's plant a native Meridian! 🌱🦋 Educate yourself about native plants at [bit.ly/430uFRk](https://bit.ly/430uFRk). True enthusiast? Join the Meridian Conservation Corps! [bit.ly/3Q14bML](https://bit.ly/3Q14bML)

**HARMONY WITH WILDLIFE**



How native wildflowers can support local critters




**WANT TO ATTRACT MORE WILDLIFE TO YOUR YARD?**

Try planting native wildflowers! Hummingbirds and bees love **Foxglove Beard Tongue** and **Marsh Blazing Star**.

Native wildflowers can provide a wide variety of food for wildlife. Beneficial insects are drawn to the wildflowers, becoming protein-packed treats for birds. Many native plants also produce delicious seeds or provide nectar for hummingbirds.

**SOME THINGS TO CONSIDER WHEN PICKING YOUR PLANTS**

- **Deer resistance:** If you have lots of deer in your area, try plants the deer won't be drawn to.
- **Butterfly attraction:** Some species are especially choosy about their food, so find flowers they can't resist.
- **Soil conditions:** Make sure any plants you pick will do well in your soil - sandy or clay; wet or well-drained; etc.

Wild Ones' Lansing chapter has much more: [bit.ly/43a2aUB](https://bit.ly/43a2aUB)

For more on plants native to the region, see [Planting a Native Meridian: bit.ly/430uFRk](https://bit.ly/430uFRk)

A	B	C	D	E	F	G
Topic	Campaign	Text	Button Text	Button Link	Image Link	Image Header Text
		20-60 words	<6 words		329x260	2-5 words
Harmony with Wildlife	Native Plants Healthy Lakes and Shorelines	Create a vibrant habitat for birds, bees, butterflies, and more by embracing the beauty of native All kinds of animals rely on natural vegetation in lakes and along shorelines: ducks find food and	Learn more from Wild Ones Visit MNPS to learn more	<a href="http://www.wildor">http://www.wildor</a> <a href="https://www.shor">https://www.shor</a>	<a href="#">Harmony with Wildlife - Wildflowers.jpg</a> <a href="#">Harmony with Wildlife - Water.jpg</a>	Marsh Blazing Star Turtle sunning on a log

How native wildflowers can support local critters

## INVASIVE SPECIES

Taking action to protect native ecosystems



© PRW  
Foxglove Beard Tongue

### SOME THINGS TO CONSIDER WHEN PICKING YOUR PLANTS

- **Deer resistance:** If you have deer in your area, try plants that are deer resistant.
- **Buoyancy:** If you are near water, choose plants that are buoyant.
- **Soil type:** Choose plants that are suited to your soil type.
- **Water needs:** Choose plants that have similar water needs to your existing plants.

## LAWNS & HOME LANDSCAPES

Diversify your yard with native plants



© E. Seeger  
Low maintenance native garden

### BENEFITS OF NATIVE GARDENS

- **Cleaner groundwater:** Deep root systems help filter contaminants from groundwater.
- **Increase biodiversity:** Native plants can increase biodiversity, improving the resiliency of the local ecosystem.
- **Support wildlife:** Many native animals



## LAWNS & HOME LANDSCAPES

The surprisingly long reach of fertilizer

## NATIVE SHORELANDS

Vital for maintaining healthy waterways



## RAIN GARDENS

Harmony between rain, plants and wildlife



### NATURE'S RAIN

When the sky opens, the rain falls somewhere to go. Instead of running into the street, a rain garden can catch the rain and direct it into a beautiful bed of native plants.

When choosing plants, look for **diverse heights and shapes** in your garden. A mix of plant heights and garden depth: a mix of plants in your garden. Each in balance.



© S. Fleckenstein  
Rain garden scene



© Clinton County  
Rain garden expansion

### TYPES OF RAIN GARDENS

- **Shallow rain gardens:** These catch rain in the low spots of your yard and prevent runoff.
- **Water gardens:** Rain gardens catch rain, filter it, and store it in a water feature.
- **Swales:** Mosquitoes love standing water, so rain gardens can help prevent mosquito breeding.

For more on plants native to the region, see the Planting a Native Meridian: bit.ly/448UnJ

For more on plants native to the region, see the Planting a Native Meridian: bit.ly/448UnJ

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1							
2			20-60 words	<6 words		329x260	2-5 words
15	Harmony with Wildlife	Native Plants	Create a vibrant habitat for birds, bees, butterflies, and more by embracing the beauty of native wildflowers like Marsh Blazing Flower and Foxglove Beard Tongue!	Learn more from Wild Ones	<a href="http://www.wildor">http://www.wildor</a>	<a href="#">Harmony with Wildlife - Wildflowers.jpg</a>	Marsh Blazing Star
16		Healthy Lakes and Shorelines	All kinds of animals rely on natural vegetation in lakes and along shorelines: ducks find food and shelter, fish eat insects that live in mucky bottoms, turtles rest on trees that have fallen into the water. How can you help? If you own shoreline, here are some ideas.	Visit MNSP to learn more	<a href="https://www.shor">https://www.shor</a>	<a href="#">Harmony with Wildlife - Water.jpg</a>	Turtle sunning on a log
17							
18	Invasive species	Native Plants	Invasive plants are aggressive, non-native species that out-compete native plants. This can leave wildlife without the food and shelter they rely on, and can also pose problems for humans by blocking up waterways or producing toxic substances. Invasive species spread quickly and out-compete native species, throwing ecosystems out of balance. Help Michigan's lakes and shorelines thrive by thoroughly your water sports equipment after each use, and being careful not to release anything into the water.	Learn More	<a href="https://bit.ly/3JM">https://bit.ly/3JM</a>	<a href="#">Invasives - Wildflowers.png</a>	Invasive oriental bittersweet
19		Healthy Lakes and Shorelines		Learn More	<a href="https://bit.ly/44w">https://bit.ly/44w</a>	<a href="#">Invasive Species - Water.jpg</a>	Invasive zebra mussels
20							
21	Lawns & Home Landscapes	Native Plants	Follow the guidance in Planting a Native Meridian to find plants that will thrive in your landscape: sunny or shady, wet or dry, deer prone or deer free. Then talk to a greenhouse like Designs By Nature, LLC to make sure you choose the right plants. Fertilizer can keep your lawn lush but too much can cause problems for local watersheds. When phosphorus from fertilizer gets into waterways, harmful algae blooms can occur, absorbing all the oxygen in the water and increasing toxicity. To	Designs By Nature, LLC	<a href="https://designsbynature.com">https://designsbynature.com</a>	<a href="#">Lawns &amp; Home Landscapes - Wildflowers.jpg</a>	Native wetland buffer
22		Healthy Lakes and Shorelines		More about Fertilizing	<a href="https://www.mnsp.org">https://www.mnsp.org</a>	<a href="#">Lawns &amp; Home Landscapes - Water.jpg</a>	Harmful algal bloom
23							
24	Natural shorelines & wetland buffers	Native Plants	Native plants offer a shoreline many benefits! They reduce erosion by absorbing energy from waves, their deep roots hold soil in place and filter pollutants, and they provide wildlife habitat.	Learn more from MSU	<a href="https://www.canr.msu.edu">https://www.canr.msu.edu</a>	<a href="#">Natural shorelines &amp; wetland buffers - Wildflowers.jpg</a>	Blue vervain thrives on shorelines
25		Healthy Lakes and Shorelines	Natural shorelines are essential for fish and other shoreline wildlife. They provide places to hide from predators, insects and other invertebrates for food, and spawning areas for fish. If you own shoreline, you can help by minimizing the size of your creek.	Visit MNSP to learn more	<a href="https://www.shor.mnsp.org">https://www.shor.mnsp.org</a>	<a href="#">Natural shorelines &amp; wetland buffers - Water.jpg</a>	Lake Lansing restoration

Visit Michigan Natural Shoreline Partnership to learn more: bit.ly/43hi4G

For more on plants native to the region, see Planting a Native Meridian: bit.ly/430uFRK

low-traffic areas so ground-nesting can build their homes. **Reduce "weeds":** A few dandelions and other weeds in a lawn can go a long way in making the area hospitable for pollinators.



© E. Campbell  
New England aster blooms in October

# Making Delivery Easy

	A	B	C	D	E
1	Topic	Season	Facebook	Newsletter	Pamphlet
2			<a href="#">See Facebook tab for content</a>	<a href="#">See Green Gazette tab for content</a>	<a href="#">See Pamphlets tab for content</a>
7	Harmony with wildlife	Any	Created	Created	Created
8	Invasive species	Any	Created	Created	Created
9	Lawns & Home Landscapes	Late spring/early fall	Created	Created	Created
10	Natural shorelines & wetland buffers	Spring	Created	Created	Created
11	Pollinators	Spring	Created	Created	Created
12	Rain gardens	Spring	Created	Created	Created



# Making Delivery Easy

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2			20-60 words	<6 words	329x260		2.5 words
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16		Healthy Lakes and Shorelines	All kinds of animals rely on natural vegetation in lakes and along shorelines. Ducks find food and	Visit MNSP to learn more	<a href="https://www.shor">https://www.shor</a>	<a href="#">Harmony with Wildlife - Water.jpg</a>	Turtle sunning on a log
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19		Healthy Lakes and Shorelines	Invasive species spread quickly and out-compete native species, throwing ecosystems out of	Learn More	<a href="https://bit.ly/44w">https://bit.ly/44w</a>	<a href="#">Invasive Species - Water.jpg</a>	Invasive zebra mussels
20							
21	Lawns & Home Landscapes	Native Plants	Follow the guidance in Planting a Native Meridian to find plants that will thrive in your landscape.	Designs By Nature, LLC	<a href="https://designsby">https://designsby</a>	<a href="#">Lawns &amp; Home Landscapes - Wildflowers.jpg</a>	Native wetland buffer
22		Healthy Lakes and Shorelines	Fertilizer can keep your lawn lush but too much can cause problems for local watersheds. When	More about Fertilizing	<a href="https://www.mvy">https://www.mvy</a>	<a href="#">Lawns &amp; Home Landscapes - Water.jpg</a>	Harmful algal bloom
23							
24	Natural shorelines & wetland buffers	Native Plants	Native plants offer a shoreline many benefits! They reduce erosion by absorbing energy from waves,	Learn more from MSU	<a href="https://www.camr">https://www.camr</a>	<a href="#">Natural shorelines &amp; wetland buffers - Wildflower</a>	Blue vervain thrives on shorelines
25		Healthy Lakes and Shorelines	Natural shorelines are essential for fish and other shoreline wildlife. They provide places to hide from	Visit MNSP to learn more	<a href="https://www.shor">https://www.shor</a>	<a href="#">Natural shorelines &amp; wetland buffers - Water.jpg</a>	Lake Lansing restoration

	A	B	C	D	E
1	Topic	Campaign	Facebook Image	Caption	Tagged Orgs
2			Page numbers below correspond to pages in this Canva doc with all the Facebook images		
15	Harmony with Wildlife	Native Plants	p. 1	Let's plant a native Meridian! 🌿🐝🐝 Educate yourself about native plants at <a href="http://bit.ly/430uFRk">bit.ly/430uFRk</a> . True enthusiast? Join the Meridian Conservation Corps! <a href="http://bit.ly/3Q14bML">bit.ly/3Q14bML</a>	
16		Healthy Lakes and Shorelines	p. 2	Help keep our lakes and shorelines healthy! 🌿🐝🐝 Visit Michigan Natural Shoreline Partnership to learn more: <a href="http://bit.ly/43i4c5">bit.ly/43i4c5</a> . Or, educate yourself on native plants: <a href="http://bit.ly/43i4c5">bit.ly/43i4c5</a> . True enthusiast? Join the Meridian Conservation Corps! <a href="http://bit.ly/3Q14bML">bit.ly/3Q14bML</a>	<a href="#">Michigan Natural Shoreline Partnership</a>
17					
18	Invasive species	Native Plants	p. 3	Let's plant a native Meridian! 🌿🐝🐝 The Wild Ones Lansing Chapter has more about invasive species: <a href="http://bit.ly/3JM2vGr">bit.ly/3JM2vGr</a> . Or, educate yourself about native plants: <a href="http://bit.ly/430uFRk">bit.ly/430uFRk</a> . True enthusiast? Join the Meridian Conservation Corps! <a href="http://bit.ly/3Q14bML">bit.ly/3Q14bML</a>	<a href="https://www.facebook.com/people/Wild-Or">https://www.facebook.com/people/Wild-Or</a>
19		Healthy Lakes and Shorelines	p. 4	Help keep our lakes and shorelines healthy! 🌿🐝🐝 MSU's indispensable guidebook on aquatic invasives can be found here: <a href="http://bit.ly/44wFE6f">bit.ly/44wFE6f</a> . Or, educate yourself on native plants: <a href="http://bit.ly/43i4c5">bit.ly/43i4c5</a> . True enthusiast? Join the Meridian Conservation Corps! <a href="http://bit.ly/3Q14bML">bit.ly/3Q14bML</a>	<a href="#">Michigan State University Extension   Eas</a>
20					
21	Lawns & Home Landscapes	Native Plants	p. 5	Let's plant a native Meridian! 🌿🐝🐝 Our friends at Designs by Nature can help you get started: <a href="http://bit.ly/43tmVvG">bit.ly/43tmVvG</a> . Or, educate yourself about native plants: <a href="http://bit.ly/430uFRk">bit.ly/430uFRk</a> . True enthusiast? Join the Meridian Conservation Corps! <a href="http://bit.ly/3Q14bML">bit.ly/3Q14bML</a>	<a href="https://www.facebook.com/people/Designs">https://www.facebook.com/people/Designs</a>
22		Healthy Lakes and Shorelines	p. 6	Help keep our lakes and shorelines healthy! 🌿🐝🐝 Greater Lansing Regional Committee for Stormwater Management has more! <a href="http://bit.ly/3IS59py">bit.ly/3IS59py</a> . Or, educate yourself about native plants: <a href="http://bit.ly/43i4c5">bit.ly/43i4c5</a> . True enthusiast? Join the Meridian Conservation Corps! <a href="http://bit.ly/3Q14bML">bit.ly/3Q14bML</a>	<a href="#">Greater Lansing Regional Committee for S</a>
23					
24	Natural shorelines	Native Plants	p. 7	Let's plant a native Meridian! 🌿🐝🐝 Learn more about waterfront plants from the MSU Extension: <a href="http://bit.ly/3Qb55QA">bit.ly/3Qb55QA</a> . Or, educate yourself about native plants: <a href="http://bit.ly/430uFRk">bit.ly/430uFRk</a> . True enthusiast? Join the Meridian Conservation Corps! <a href="http://bit.ly/3Q14bML">bit.ly/3Q14bML</a>	<a href="#">Michigan State University Extension   Eas</a>
25		Healthy Lakes and Shorelines	p. 8	Help keep our lakes and shorelines healthy! 🌿🐝🐝 Visit Michigan Natural Shoreline Partnership for more: <a href="http://bit.ly/3K5c4H">bit.ly/3K5c4H</a> . Or, educate yourself about native plants: <a href="http://bit.ly/43i4c5">bit.ly/43i4c5</a> . True enthusiast? Join the Meridian Conservation Corps! <a href="http://bit.ly/3Q14bML">bit.ly/3Q14bML</a>	<a href="#">Michigan Natural Shoreline Partnership</a>

	A	B	C
1	Topic	Campaign	Pamphlet Image
2			Page numbers below correspond to pages in this Canva doc with all the pamphlet images
15	Harmony with Wildlife	Native Plants	p. 1
16		Healthy Lakes and Shorelines	p. 2
17			
18	Invasive species	Native Plants	p. 3
19		Healthy Lakes and Shorelines	p. 4
20			
21	Lawns & Home Landscapes	Native Plants	p. 5
22		Healthy Lakes and Shorelines	p. 6
23			
24	Natural shorelines	Native Plants	p. 7
25		Healthy Lakes and Shorelines	p. 8

A photograph of a field of yellow wildflowers, likely Black-eyed Susans, with a semi-transparent green horizontal band across the middle. The text "Beyond Meridian" is centered within this band in a white, bold, sans-serif font with a thin black outline. The background shows numerous green stems and leaves with clusters of bright yellow flowers.

# Beyond Meridian

Photo Credit: [Meridian Township's Flickr](#)


# Regional Content




Credit: [Storyboard That](#)

# Reusable Templates

## TITLE



Subtitle




Flower Name

### HEADER 1

Shoot for four lines here so that the spacing will stay all nice for you. Some words should also be **bolded** to keep things **interesting**. Consider flower names?


Lots of words will need to go here to get to six lines. Perhaps it's only important to hit 11 lines with the space between the paragraphs? This is going to be a lot of words. I'm running out of things to say very quickly but now I'm done.



Flower Name


### HEADER 2

- **Two words:** three lines of text go here so I'll just keep typing until I get to enough words to hit that count
- **Two words:** three lines of text go here so I'll just keep typing until I get to enough words to hit that count
- **Two words:** three lines of text go here so I'll just keep typing until I get to enough words to hit that count





Cute thing getting people to follow the [bit.ly/asldfjk](https://bit.ly/asldfjk) link to other stuff

For more on plants native to the region, see [Planting a Native Meridian: bit.ly/430uFRk](https://bit.ly/430uFRk)




## TITLE





Main text



A close-up photograph of a purple thistle flower with a semi-transparent green banner across the center containing the text "Q & A". The background is filled with green foliage and other thistle flowers in various stages of bloom.

# Q & A