

# Spring Lake - Lake Board Newsletter

Spring 2011

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**Spring Lake - Lake Board**  
 c/o Ottawa County  
 Drain Commissioner's Office  
 12220 Fillmore, Room 141  
 West Olive, MI 49460  
 616-994-4530

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*Spring Lake Township*

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*Village of Spring Lake*

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*Muskegon County Board of Commissioners*

Paul Geerlings  
*Ottawa County Drain Commissioner*

Dave Fisher  
*Muskegon County Drain Commissioner*

Environmental Consultant:  
*Progressive AE*

### Alum Update

In 2005, Spring Lake was treated with a compound called aluminum sulfate (alum) to control the release of phosphorus from the deep-water sediments in the lake. Phosphorus is the plant nutrient that was responsible for the massive algae blooms that occurred historically in Spring Lake. Sampling of the lake since the alum treatment indicates that Spring Lake phosphorus levels have declined by more than 50%. A study performed last year by scientists from Grand Valley State University's Annis Water Resources Institute found that the alum treatment is still successfully binding phosphorus to the sediments. However, the phosphorus binding capacity and effectiveness of the alum treatment has declined slightly over the years. The bottom line here is that although the alum treatment continues to suppress phosphorus levels in Spring Lake, there is still sufficient phosphorus available to stimulate periodic algae blooms in the lake. If we are to protect our investment in Spring Lake, we must continue to be vigilant in reducing all sources of phosphorus to the lake. To find out more about what you can do, read on...

*Technical reports on the effectiveness of the alum treatment can be viewed at the Spring Lake Township and City of Ferrysburg web sites.*

### Environmental Award

Students from the Fruitport Middle School were one of 16 winners in the nationwide Lexus Eco Challenge award. The students received \$10,000 in scholarships and grants and the opportunity to participate in the next phase of the competition. The student's project included a presentation of environmental issues facing Norris Creek and Spring Lake, and included the construction of a rain garden that captured runoff from the school parking lot. The student's work is ongoing and includes water quality monitoring, educational outreach, and development of a long-term stream restoration plan. Students and staff at the school should be proud of their accomplishment—we are!



Fruitport Team Eco Members: Jillian Welch, Thomas Crotty, Bradley Chorny, Rowan Humphreys, Kylan Sherman, Nathan Kriger, Cory Bussing, Olivia Traxler, Kaitlynn Morano, Bryant Rebone



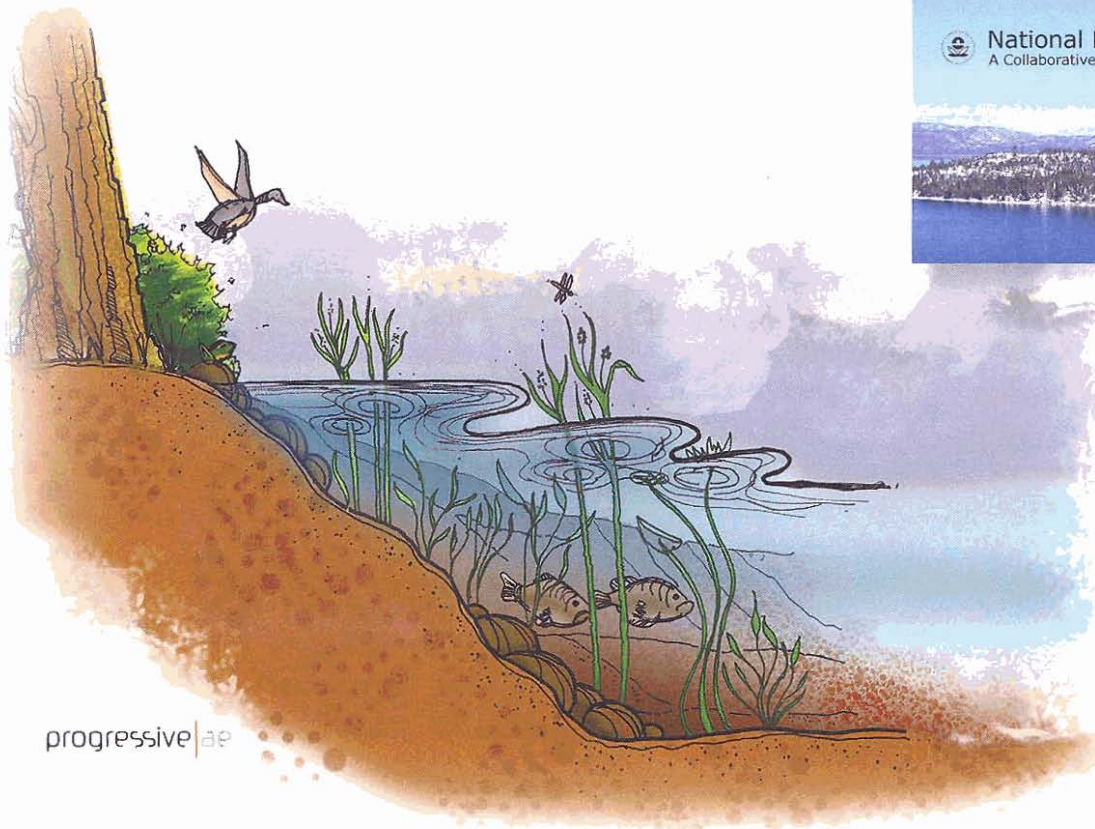
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### The Importance of a Natural Shoreline

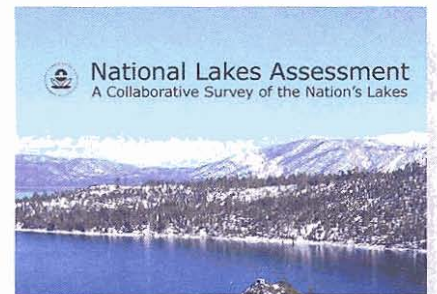
It has long been recognized that logs, sticks, and other woody structure in rivers provide habitat for a variety of aquatic insects. These insects are the foundation of the food chain and are essential to sustaining a healthy fishery. Recent research indicates that the same holds true for lakes. Several recent studies have examined the impact of shoreline development on lakes. The conclusion of these studies is that excessive development of shorelines and loss of shoreline vegetation are adversely impacting the quality of our lakes. For a lake property owner, these are extremely important findings and underscore the need to properly manage lakefront property.

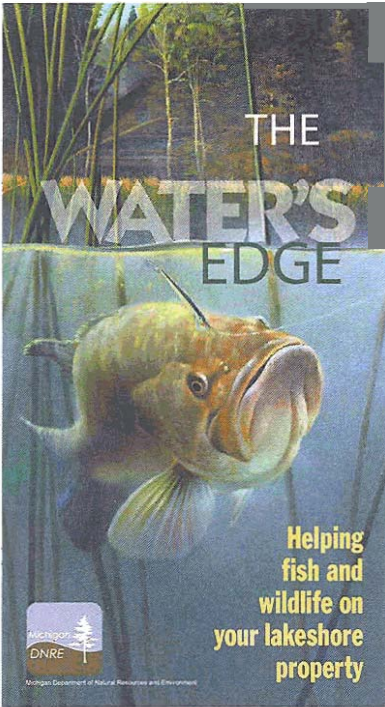
The take-home message here is straightforward: Maintain or restore as much natural shoreland as possible. That is not to say that you can't—or shouldn't—have an area to swim, moor boats, fish or lounge by the shore. However, manicured lawn to the water's edge and boundless seawalls are not conducive to a healthy lake, nor is large-scale removal of aquatic vegetation.

*In the first-ever nationwide assessment of lakes, the U.S. Environmental Protection Agency evaluated several stressors of lakes. Of the factors evaluated, lack of shoreline vegetation was the biggest problem facing the nation's lakes. Lakes with poor shoreline habitat were three times more likely to have diminished plankton populations (U.S. EPA 2010).*



progressive | ae



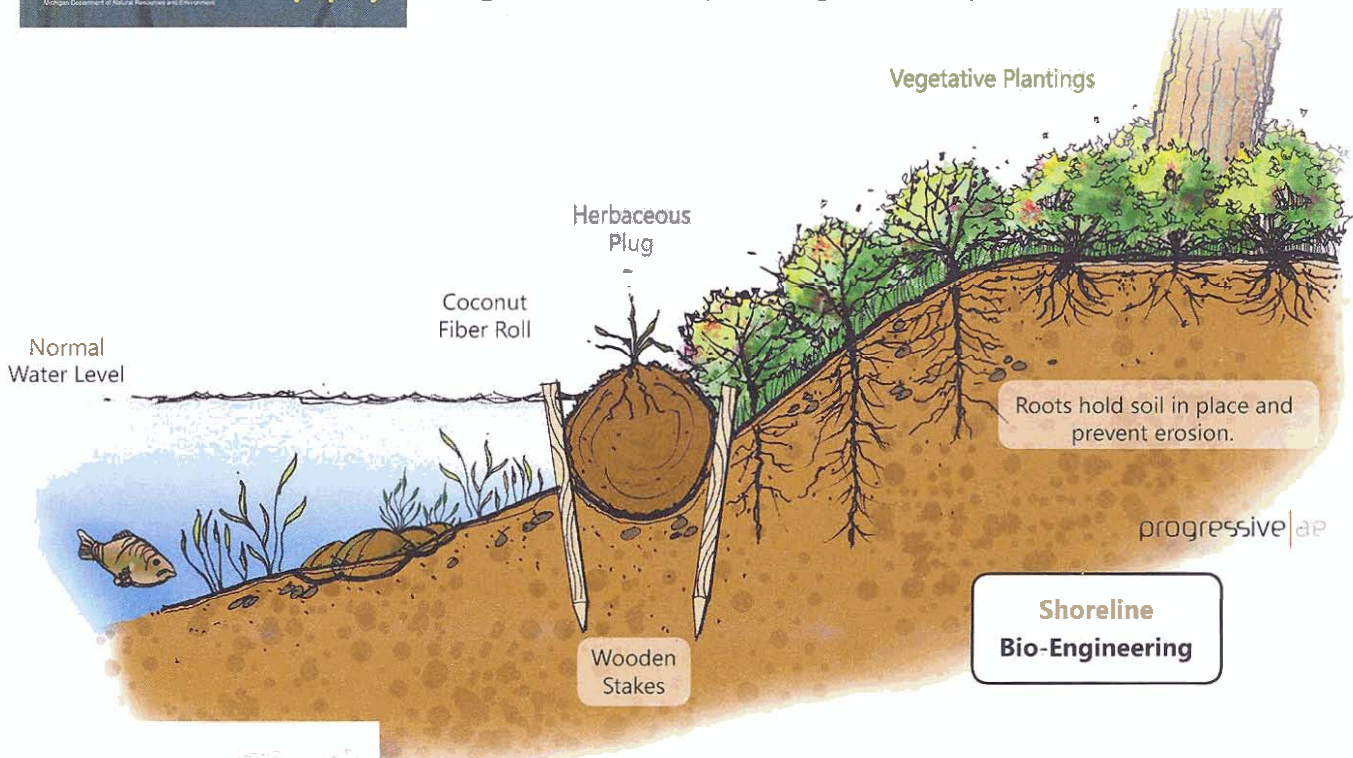


### Creating a Natural Shoreline

Given the importance of natural shoreline, maintaining and protecting undisturbed natural shoreline should be a priority for every waterfront property owner. However, in areas where the shoreline has already been altered, how does one create natural shoreline? What resources are required? What methods work best? What are the costs? Are permits involved?

To help address these questions and to assist landowners who would like to re-establish natural shorelines, the Michigan Natural Shoreline Partnership was established in 2008. The Partnership is supporting a number of initiatives that promote natural shorelines. The Partnership has recently instituted a Natural Shorelines Training and Certification Program, maintains a listing of natural shoreline professionals, and a listing of suggested native plants for use at the water's edge.

To find out more about the Michigan Natural Shoreline Partnership visit [www.mishorelinepartnership.org](http://www.mishorelinepartnership.org). To get your own copy of "The Water's Edge: Helping Fish and Wildlife on Your Lakeshore Property," go to [www.michigan.gov/documents/deq/Wateredge\\_340005\\_7.pdf](http://www.michigan.gov/documents/deq/Wateredge_340005_7.pdf)



### Want to Know More?

To find out more about the National Lakes Assessment, shorelands management, and Michigan lakes, visit [www.michiganlakeinfo.com](http://www.michiganlakeinfo.com).

## Michigan Passes Fertilizer Law

Phosphorus is the nutrient that most often stimulates excessive growth of aquatic plants, leading to a variety of problems known collectively as eutrophication. Elevated phosphorus levels are causing premature aging of many Michigan lakes.

With the passage of a new state law (PA 299 of 2010), Michigan has joined a number of other Great Lakes states in banning phosphorus in lawn fertilizers. The new law, which takes effect on January 1, 2012, will prohibit the application of lawn fertilizers containing phosphorus unless a new lawn is being established (and phosphorus is needed to promote root growth) or if a soil test indicates a soil phosphorus deficiency.

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If you don't use fertilizer, don't start now! If you do, make sure the fertilizer is phosphorus-free.



### What You Can Do

- Maintain a natural landscape with natural vegetation
- Leave or maintain a vegetation buffer (i.e., a greenbelt) strip along the shore
- Do not install lawns on slopes that drain to the lake
- Do not add fertilizer to lakeshore lawns

Limit the amount of impervious area on your property such as sidewalks and driveways

Reduce erosion

- Enhance infiltration of runoff from rooftops, driveways, and other impervious areas
- Do not remove woody vegetation from nearshore areas

Install rain gardens to enhance runoff infiltration

*Modified from: Evaluating the Effects of Nearshore Development on Wisconsin Lakes U.S. Geological Survey, Fact Sheet 2006-3033.*



# NOTICE 2011

PLM Lake & Land Management Corp.  
 PO Box 132, Caledonia, MI 49316  
 616-891-1294(o) 616-891-0371(f)  
 www.plmcorp.net



IN 2011, SELECT AREAS OF SPRING LAKE WILL BE TREATED PERIODICALLY THROUGHOUT THE SUMMER BEGINNING IN APPROXIMATELY MID MAY FOR THE CONTROL OF WEEDS AND/OR ALGAE. Below is a list of herbicides that may be applied to the lake and associated use restrictions. On day of treatment, signs will be posted along the shoreline within 100 feet of treatment areas that indicate what products were used and specific water use restrictions that apply:

Check all that apply	Chemical product/active ingredient	Chemical trade name	Do Not Use this water for swimming and bathing until	Do Not Use this water for ornamentals or turf irrigation until	Do Not Use this water for domestic purposes or agriculture Irrigation until	Do Not Use this water for livestock watering or similar purposes until
x	2,4-D ester granular	Navigate	1 day	INDEF or until approved assay indicates a concentration of 100ppb or less for ornamentals; <b>No restriction for established turf</b>	INDEF or until approved assay indicates a concentration of 100ppb or less	INDEF or until approved assay indicates a concentration of 70ppb or less
x	2,4-D amine granular	Sculpin G	1 day	Site-specific recommendation* <b>No restriction for established turf/grasses</b>	N/A on domestic; assay indicates levels under 100ppb at the water intake	See product label
x	Triclopyr granular	Renovate OTF	1 day	Site-specific recommendation* <b>No restriction for established turf/grasses</b>	N/A on domestic; 120 days or until assay indicates 1ppb or less	See product label
x	Triclopyr/ 2,4-D amine	Renovate Max G	1 day	Site-specific recommendation* <b>No restriction for established turf/grasses</b>	N/A on domestic; 120 days or until assay indicates 1ppb or less triclopyr and 100 ppb or less 2,4-D	See product label
x	Diquat dibromide	Reward, Littora, Solera, Knockout	1 day	3 days	5 days	1 day
x	Endothall	Aquathol K, Hydrothol 191	1 day	N/A	14 days	14 days
	Flumioxazin	Clipper	1 day	5 days	5 days	N/A
x	Chelated Copper	Nautique, Komeen	1 day	N/A	N/A	N/A
	Hydrogen peroxide	Green Clean L	1 day	N/A	N/A	N/A
X	Imazapyr	Habitat**	1 day	120 days or until approved assay indicates 1ppb or less for ornamentals or turf	120 days or until approved assay indicates 1ppb or less	N/A
X	Glyphosate	Aqua Pro	1 day	N/A	N/A	N/A
x	<b>PLM Blue, Cygnet Select:</b> water dye (tracer), <b>Copper Sulfate, Cutrine Plus-Ultra, Captain-XTR, Algimycin, Earthtec, Formula F-30, K-Tea:</b> chelated copper, <b>Cygnet Plus, PolyAn:</b> Adjuvant, <b>AquaPrep:</b> enzymes & non-ionic surfactants, <b>Nutrisorb,, M.D. pellets:</b> gram negative, naturally occurring bacteria.					<b>No Restrictions</b> on swimming, bathing, irrigation, domestic purposes or livestock watering.

For a complete listing of all product labels, please see our website.

N/A= Not Applicable INDEF= Indefinite

\*Site-Specific recommendations to limit ornamental irrigation with Renovate & Sculpin granular treated water will typically last 2-14 days. Contact PLM for further information.

\*\*Habitat is used for Phragmites Control Only.

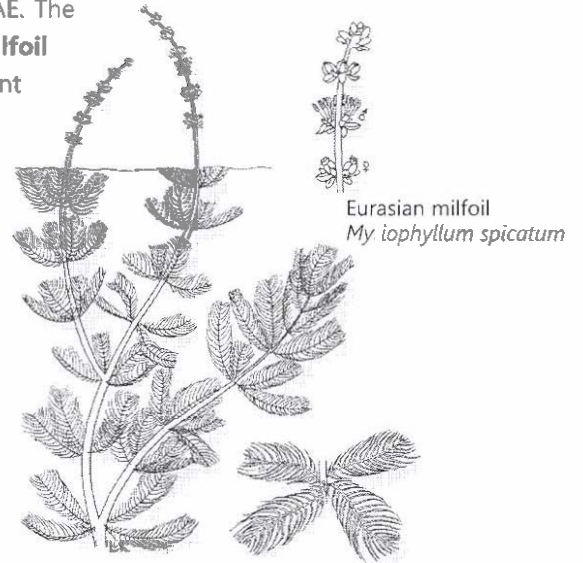
The chemicals used for Aquatic Nuisance Control are registered by the U.S. Environmental Protection Agency and the Michigan Department of Agriculture. The potential for damage to fish and other non-target organisms is minimal provided that the product is used as directed on the product label and the permit. To minimize the possible effects on health and the environment, the treated water is restricted for the above purposes.

**PLM Lake & Land Management Corp. Certified Applicators:** Jason Broekstra, Darren Chase, Jaimee Conroy, Bre Grabill, Dusty Grabill, Steve Hanson, Mitch Hiler, Jake Hunt, Erik Jacobson, Nate Karsten, Blake Mallory, Pat McLamara, Stephanie Nawrocki, James Scherer, Lucas Slagel, Matt Swartz, Jeff Tolan, Andy Tomaszewski, Jake Ware

Permit Information:  
 Department of Environmental Quality Water Bureau  
 PO Box 30273, Lansing, MI 48909-7773  
 DEQ-LWM-ANC@michigan.gov

## Spring Lake Plant Control

Plant control activities in Spring Lake are coordinated under the direction of the Spring Lake – Lake Board's environmental consultant Progressive AE. The primary plant targeted for control in Spring Lake is **Eurasian milfoil** (*Myriophyllum spicatum*). This is a fast-growing, submersed plant species that can quickly spread throughout the lake if not treated. Beginning in spring, biologists from Progressive AE will survey the entire lake to identify and map areas of Eurasian milfoil growth. Detailed treatment maps along with GPS coordinates of treatment areas are then provided to our plant control contractor PLM Lake and Land Management Corp. Later in the season, Progressive performs follow-up surveys to identify any new milfoil infestations and to assess die-back of plants within targeted treatment areas. It should be noted that aquatic plants are an important component of Spring Lake's ecology. Lake board funds are only used to control nuisance algae growth and invasive plants such as Eurasian milfoil.



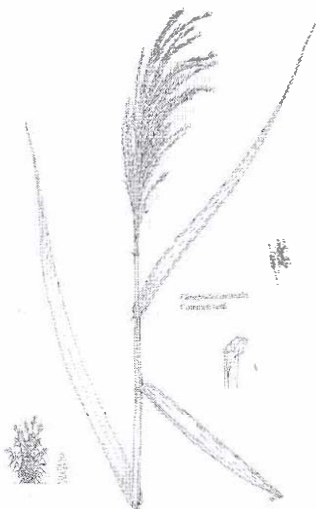
Another invasive nuisance plant that has recently gained a foothold along the shoreline of Spring Lake is **Phragmites** (*Phragmites australis*). Phragmites can exceed 15 feet in height, obstruct shoreline views, and outcompete desirable plant species. If you have this plant along your shoreline, do not be complacent. Phragmites stands can spread very quickly through underground roots called rhizomes and dominate your frontage.

Aquatic plant line drawings are the copyright property of the University of Florida Center for Aquatic Plants (Gainesville). Used with permission.

While phragmites is growing in several locations around Spring Lake, much of it is not within the lake proper and, thus, beyond the ability of the Spring Lake – Lake Board to pay for treatment. However, if you have Phragmites on your property and would like to have it treated, please contact the lake board's licensed herbicide applicator, PLM Lake and Land Management Corp. at (616-891-1294) for treatment details.



Phragmites can spread quickly if not treated.



Phragmites.

If you want to know more about Eurasian milfoil, Phragmites and other invasive species visit [www.michiganlakeinfo.com](http://www.michiganlakeinfo.com)



**Wetland Watch and the Spring Lake Country Club invite you to the**

## **Pettys Bayou Phragmites Action Meeting**

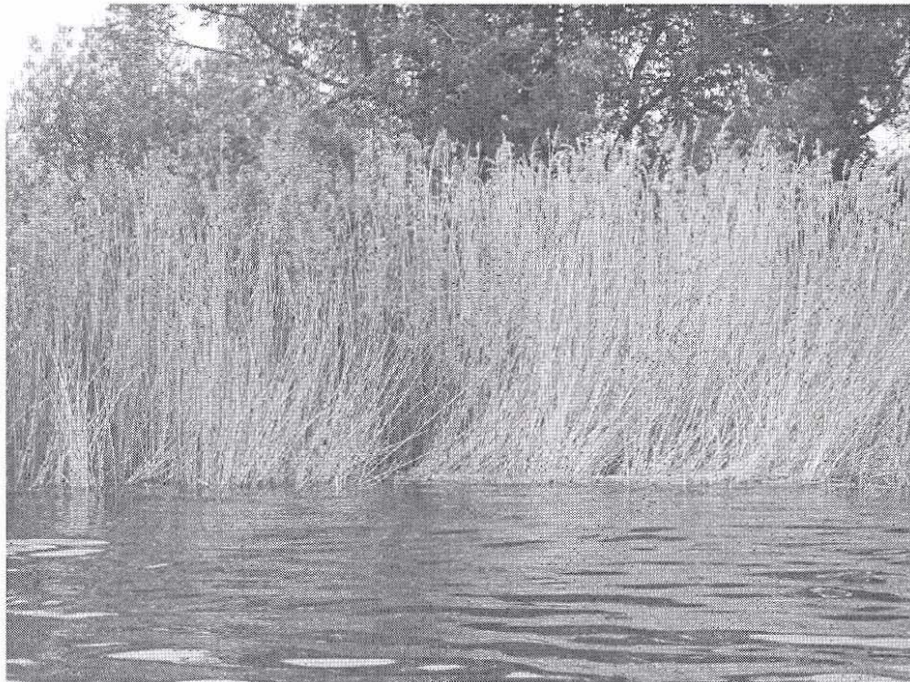
**Tuesday, June 7, 2011 at the Spring Lake Country Club, 7pm**

### **Please come if:**

1. You have seen giant reed grass on Pettys Bayou, and aren't sure what it is.
2. You are aware of the problem of invasive Phragmites on the bayou, and would like to know what to do about it.
3. You don't have invasive Phragmites on your property, but your neighbor does.
4. You have lots of this giant reed grass on your property, but don't know if it is controllable.
5. You are concerned about invasive Phragmites in our area, and want to help.

### **At the meeting, you will learn:**

1. Why you should be concerned about invasive Phragmites.
2. How to identify invasive Phragmites.
3. What is the best way to eradicate or control invasive Phragmites.
4. How joining together as a bayou will make treatment more effective and more economical.
5. How to share costs in an equitable calculation of waterfront footage and the density of invasive Phragmites on your property.



Phragmites on Pettys Bayou, about ten feet tall.