

## What is going on at the west side boat ramp?



This public property has been chosen as the site for the [CLAA Natural Shores Demonstration Project](#).

This project is an example of the use of native plants and soft engineering to preserve and rehabilitate the shore. The small scale allows our owners to see what they could do on an individual basis.

This is the first in a series of posts to outline and describe the steps leading up to and through completion of the project. Remember, this site only represents some of the options that each of us can take.

The Water Quality and Vegetation Committee (WQVC) presented the CLAA Natural Shores project last year at the annual meeting. Follow the link to see a pdf of the presentation. [Link to Natural Shores 2019 presentation](#)

**CLAA Natural shores project is all about individual action.**

## **We all have a role**



**Rule 3: Provide a new vision  
of lakeshore**

**Every member should understand their place in  
this ecosystem and the opportunities they have  
to both maintain and improve Clark Lake**

### **General Goals for owner**

- Minimum 35 foot vegetative buffer from ordinary high water mark or wetlands
- Populate the vegetative buffer zone with a mixture of trees, bushes and native plants
- Eliminate use of fertilizer on lawns
- Plan acceptable access corridor both on land and in the water. (current county ordinance is a pedestrian access corridor of up to 60 inches wide.)
- Limit clear cut view corridor to 35 feet.
- Leave woody debris in the water/ install Fishsticks
- Limit or replace riprap with biologic material and/or plant with absorptive native plants,
- Limit insults to all water less than 5 foot depth from boating, hunting or other recreational use
- Protect/ renew near shore emergents, esp. bulrush
- Ensure septic systems monitored and maintained
- Monitor for and eliminate invasive species
- Reduce run off by limiting impervious surface, using rain gardens or other mitigating efforts



## The rehabilitation demonstration site is for education



WQVC, as part of the publicity campaign, decided that seeing and experiencing a renovation would be an effective tool to capture our owner's interest. This demonstration project has chosen to focus on the native plant vegetative buffer and to display an alternative to rocky hardscape by installing coir logs.

We were aware of many owners who already are managing their shoreline nicely, but chose this public site for its accessibility and visibility.

We also are promoting the Healthy Lakes program



**Templates to help you do it yourself .**

**Some financial support also available**

The state of Wisconsin, through the Healthy Lakes program, awards grants to fund small scale projects to individual owners. The Healthy Lakes program encompasses most of our Natural Shore goals. In addition to providing funding, the program also has free handbooks with step by step directions for each of its target projects. Visit [healthylakeswi.com](http://healthylakeswi.com) to learn more.

In order to make our demonstration relevant to an individual owner, we followed the [Healthy Lakes 350 ft2 Native Planting Companion Guide](#). Even though we did not fund this project with a Healthy Lakes grant, it is constructed so as to meet those requirements.



## What is soft bioengineering?



Soft engineering is using biologic material instead of or in combination with hardscape. Seawalls have been shown to cause damage to neighboring properties and break down frequently. Rip rap is expensive and if not installed according to marine engineering standards can also fail to protect the shore.

The west side site has a relatively steep bank and significant erosion. We are installing two tiers of coir logs but the conditions of wave action and slope may mean rip rap will be needed in the future.

## The Plan: Finding a landscape designer and architect



The Healthy Lakes program has plant lists and layout templates for 350 ft<sup>2</sup>. It does not include shore soft engineering stabilization. Most members could use the booklet and create their own plans and plant lists.

The DNR has a list of nurseries that feature native plants for different areas of the state. In addition they have a list of landscape designers who have taken a state course about native planting and also soft engineering. We also reached out to several local landscapers and marine engineers. [DNR List of Restoration Contractors](#)

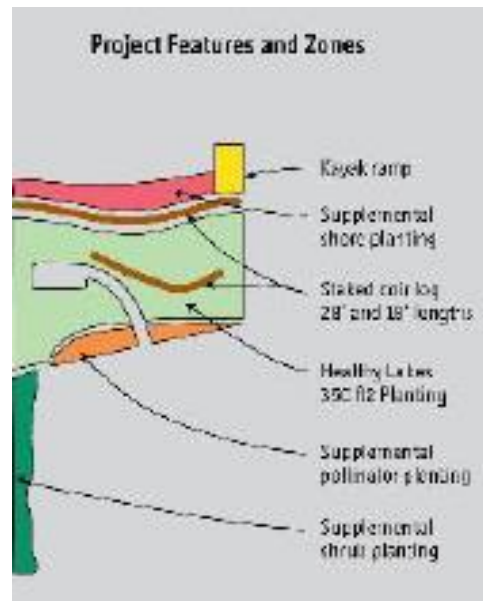
In addition, we consulted with Door County UW Extension Master Gardner coordinator, Wild Ones and the Ridges concerning their experience in native landscape nurseries.

Local nurseries planning prices were between \$500-\$1000 but since our plot is small they estimated we would be on the lower end. None of the local marine engineers were interested in this small project.

After recommendations from several sources, we contacted a local company, Landscapes of Place. They are well respected both locally and across the Midwest. They also are very active in promoting and supporting all aspects of ecological stewardship. Visit to their website [Landscapes of Place](#) to learn more about this remarkable couple: Dan Collins and Nancy Aten.

After reviewing our vision and touring the property, Dan and Nancy, **donated** a plan consistent with the Healthy Lakes guidelines and incorporating erosion control and bank stabilization using coir logs. They remain available to us for further consultation during the rest of this project at a reduced cost. CLAA extends a heartfelt thank you to them both.

## The Plan: an overview



The core 350ft<sup>2</sup> section (light green in diagram) uses plants from the Healthy Lake “Low-growing” section with a tree added to replace one that fell last year. To display more plant choices, our plan presents 21 species at a density of 75 per 100 sq. ft. instead of the Healthy Lake template of 15 species at 50 per 100 sq. ft.

The extra project space includes a pollinator garden (peach semicircle) and a line of shrubs along the northern border (dark green)..

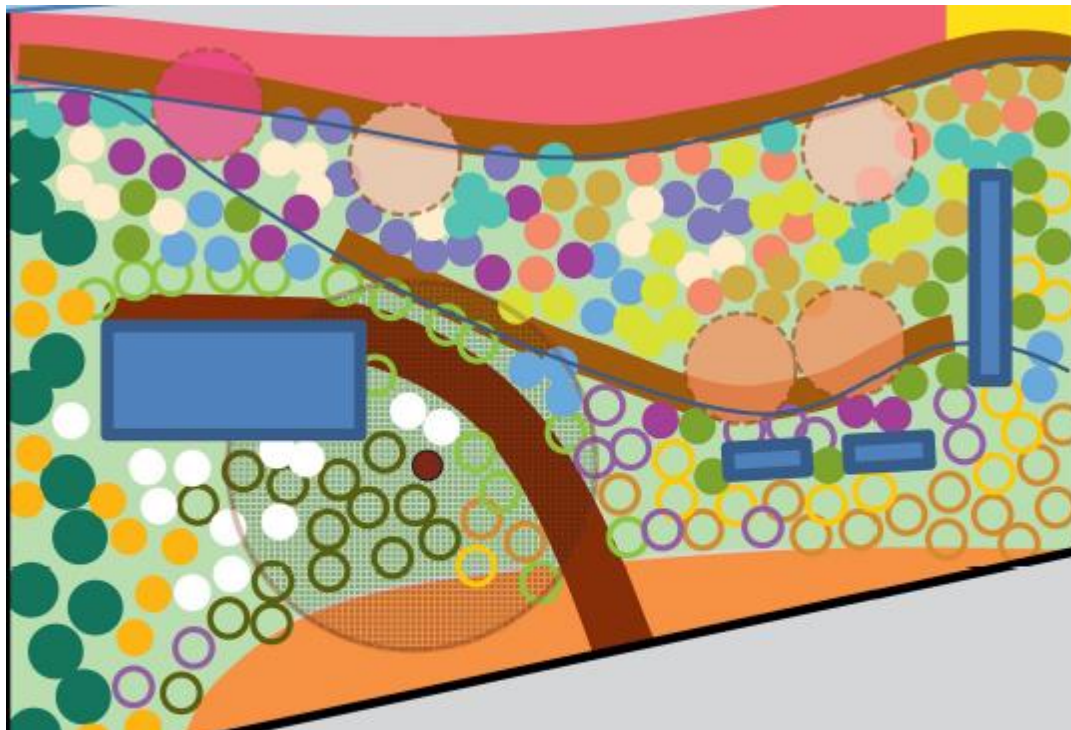
The bank is eroding and partially undercut so there will be two tiers of the coir logs as biologic support (brown).

Additional plants along the shore (pink) are included as part of shore stabilization. These will include a demonstration of how to transplant native Clark Lake bulrush.

The existing bench will remain with a fresh pathway installed (gray).

Kayaks have been accessing the lake by crossing the property but they will now be directed to stay along the boat ramp. We will leave several feet at the beach so kayaks have the option of launching from the ramp or using a limited part of the beach(yellow).








**The Plan: Plants: 350 ft<sup>2</sup>. Standard template.**

The Healthy Lakes template would have these 173 plants spread across the area for a density of 50 plants per 100 ft<sup>2</sup>.

Use the solid color circle key below to identify the species.








**Woody**

- |   |   |                                       |              |
|---|---|---------------------------------------|--------------|
|  | 1 | <i>Physocarpus opulifolius</i> 'Nana' | Dwarf Common |
|  | 2 | <i>Spiraea alba</i>                   | Meadowsweet  |
|  | 2 | <i>Spiraea tomentosa</i>              | Steeplebush  |

**Grasses/Sedges/Rushes**

- |   |    |                                 |                   |                 |
|---|----|---------------------------------|-------------------|-----------------|
|  | 18 | <i>Calamagrostis canadensis</i> | Blue jointgrass   | sub for Hieroch |
|  | 18 | <i>Carex vulpinoidea</i>        | Fox sedge         |                 |
|  | 18 | <i>Glyceria canadensis</i>      | Rattlesnake grass |                 |
|  | 18 | <i>Juncus effusus</i>           | Common rush       |                 |

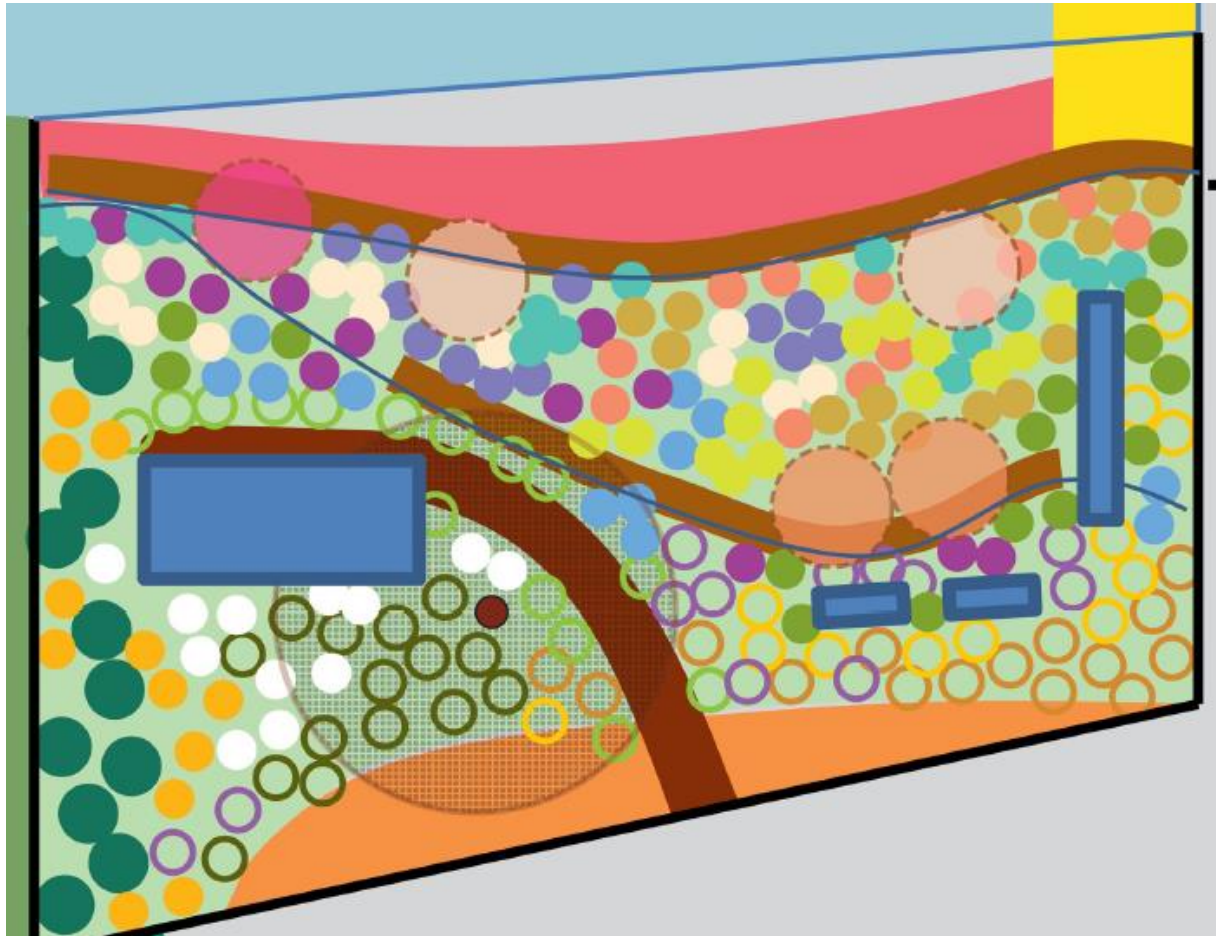
**Wildflowers**

- |   |    |                             |                    |
|---|----|-----------------------------|--------------------|
|  | 12 | <i>Anemone canadensis</i>   | Meadow anemone     |
|  | 12 | <i>Aralia racemosa</i>      | Spikenard          |
|  | 12 | <i>Chelone glabra</i>       | Turtlehead         |
|  | 12 | <i>Galium boreale</i>       | Northern bedstraw  |
|  | 12 | <i>Iris versicolor</i>      | Iris versicolor    |
|  | 12 | <i>Lobelia siphilitica</i>  | Great blue lobelia |
|  | 12 | <i>Lycopus americana</i>    | Water horehound    |
|  | 12 | <i>Solidago flexicaulis</i> | Zig zag goldenrod  |






### The Plan; Plants 350 ft2. Added to standard template

These additional Healthy Lake template plant choices were added to display more species. It does increase the plant density to 75 per 100 sq. ft. Use the color circles key below to identify the species.



#### Grasses/Sedges/Rushes

- |   |    |                                |                       |
|---|----|--------------------------------|-----------------------|
|  | 18 | <i>Bromus kalmii</i>           | Kalm's brome          |
|  | 18 | <i>Juncus tenuis</i>           | Path rush             |
|  | 18 | <i>Schizachyrium scoparium</i> | Little bluestem grass |

#### Wildflowers

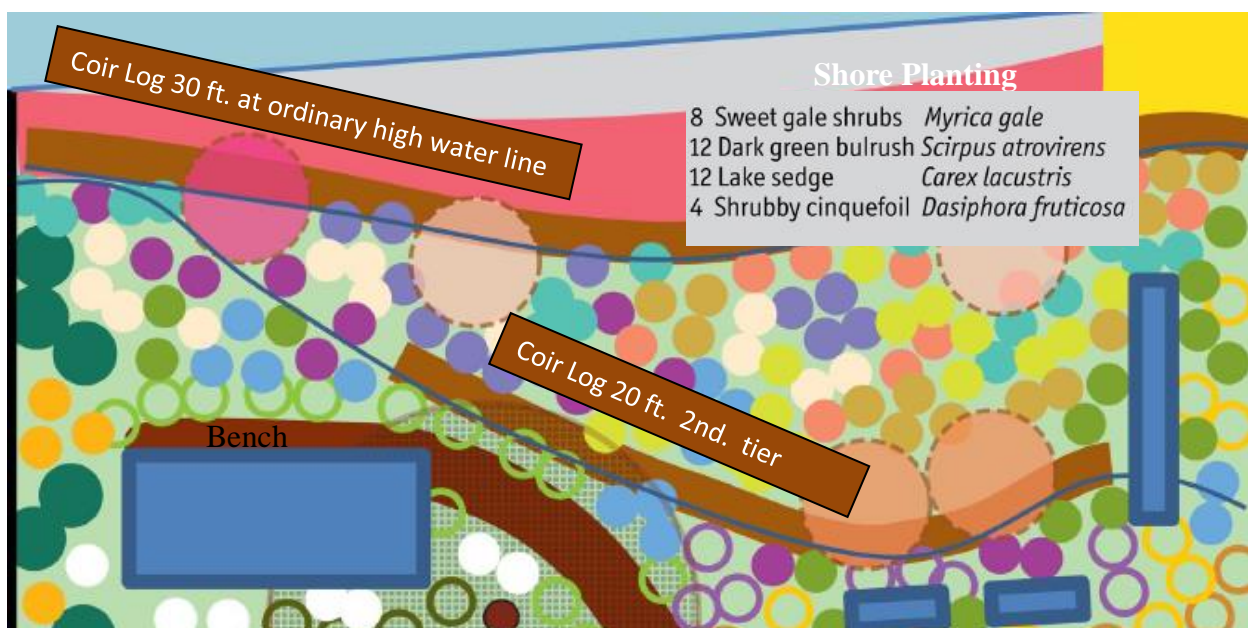
- |   |    |                            |                    |
|---|----|----------------------------|--------------------|
|  | 12 | <i>Aster sagittifolius</i> | Arrow-leaved aster |
|  | 12 | <i>Aster novae-angliae</i> | New England Aster  |
|  | 12 | <i>Rudbeckia hirta</i>     | Black-eyed Susan   |

## The Plan: Supplemental areas

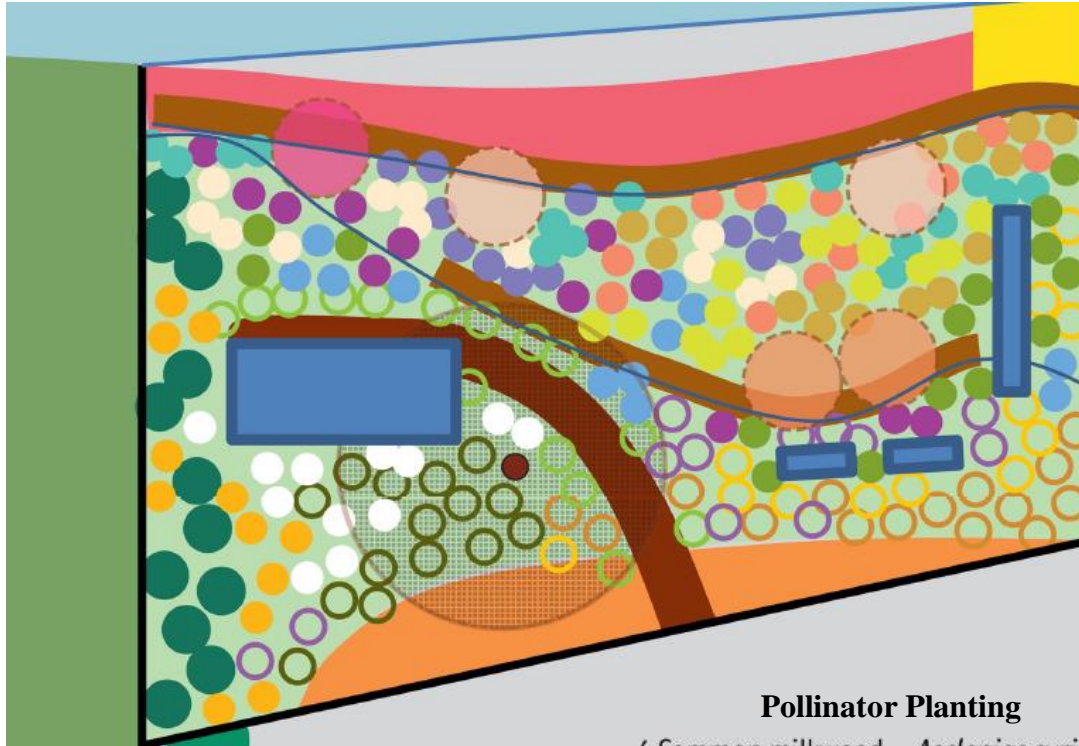
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### Pollinator Planting

|                         |                                 |
|-------------------------|---------------------------------|
| 4 Common milkweed       | <i>Asclepias syriaca</i>        |
| 4 Bee balm              | <i>Monarda fistulosa</i>        |
| 8 Little bluestem grass | <i>Schizachyrium scopulorum</i> |
| 4 Prairie cinquefoil    | <i>Drymocallis arguta</i>       |
| 4 Black-eyed Susan      | <i>Rudbeckia hirta</i>          |
| 4 Stiff goldenrod       | <i>Solidago rigida</i>          |
| 8 Nodding wild onion    | <i>Allium cernuum</i>           |
| 4 Smooth blue aster     | <i>Aster laevis</i>             |

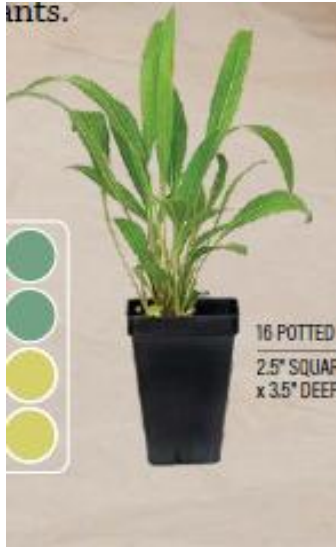
Old porta potty  
location

### Supplemental shrub planting:

Approximately 24 feet long.

|                      |                          |
|----------------------|--------------------------|
| 2 Beaked hazelnut    | <i>Corylus cornuta</i>   |
| 2 American currant   | <i>Ribes americana</i>   |
| 4 Choke cherry       | <i>Prunus virginiana</i> |
| 2 Highbush Cranberry | <i>Viburnum trilobum</i> |

New porta potty  
location



## **Finding the Native Plants Nurseries**

We consulted local nurseries, online resources and local native plant enthusiasts.

We then used the Healthy Lakes template list to compare prices. Native plants are available in assorted pot sizes and also seeds. We set a goal of \$1000 for a template and applied the price quotes from several companies and adjusted the size plants to stay close to that total. The grasses and wild flowers will be 4 inch plugs and the shrubs will be in one gallon pots. Since the smaller plants may have more mortality we have added a 10% replacement cost to our budget for the first few years.

Delivery was either an extra cost or not available so we arranged volunteer drivers to pick up the plants.

Our desire was to use nurseries nearest to Door County. None of the nurseries queried could provide all of the plants from the template. Some plants weren't available from any of the nurseries and we contacted Healthy Lakes and followed their procedure for approval of acceptable replacement native plants.

We finally were able to get all we needed from these three nurseries.

[Stone Silo Depere](#)

[Door Landscape Egg Harbor](#)

[Johnson's Nursery Menominee Falls](#)



## Budget and Funding



CLAA designated the Natural Shores Demonstration a special project for 2020 and included \$2000 in their annual budget. After many weeks of research the projected costs were much higher than expected. The Water Quality and Vegetation Committee decided to restrict this year's project to site development and planting. We also choose to go with smaller plugs for the plants. The final educational signs and brochures will be done in the near future as a separate project. The final budget for this phase was then roughly \$5400.

Grant sources were researched and we have received a \$3500 grant from the Lakeshore Natural Resource Partnership (LNRP). We are extremely thankful to this regional organization, please visit their website and if you have any extra funds send them a donation so they can continue with important projects around the area .<https://www.lnrp.org/>

We will also be asking our members for donations of materials, equipment and volunteer time to do the planting and landscaping. Please watch for announcements and respond if you can help in any of these categories.

## Government cooperation



The demonstration site is bisected by the town line between Jacksonport and Sevastopol. We met with each township and they were quite receptive to the project and approved our plan and signed documents for the required permits.

The DNR advised about some funding options, reviewed the plan and determined that no permit from them was required. They also did a site visit and marked the ordinary high water line.

We met with the Door County Land Use Services Department to learn if any permitting was required. Members should be sure to contact the Land Use office when anticipate any project within 35 feet of the shore, if you are in the flood plain or are adding a structure within 75 feet of the shore.

Since we will be moving soil and adding some fill with the coir logs a land disruption permit was needed. The \$250 fee was waived because the towns own the property.

The zoning administrator for Jacksonport , Sue Vanden Langenberg was quite helpful in explaining the process and completing the application.



## Post 13 end of preparation and shovel ready ahead of schedule



Site preparation began last Fall with the placement of this opaque barrier to kill the existing turf grass.

Our initial timeline was to do prep end of May with landscaping in early June and planting mid-July. When the corona virus arrived and Covid restrictions were put into place we limited our workgroups to no more than 4 people and extended the timeline out a month.

To our surprise our suppliers were able to provide rapid delivery of our plants and materials. Our small groups were able to complete tasks quicker than predicted and within a month of placing our first order we have now installed most of the project and are back on our original timeline with 85% completion as of Jun 27. All planting and the pathway should be completed within another 10-14 days.





One of the main goals of this project is to increase CLAA member and the general public awareness of the advantages of our natural shorelines program.

This series of posts reviewed the program and then explained the process of developing, implementing and funding this demonstration project. The individual posts are available on the Clark Lake group Facebook page and on the CLAA Website. A composite of all the posts is also available on the CLAA website.

We also set up temporary signs at the site to explain what we are doing. These signs are updated periodically. A key to identify the plants was added this weekend. Permanent signs will be installed in the future.

Another goal of the program is to encourage CLAA members to apply with us for a Healthy Lakes grant of up to \$1000 each year for 350 sq. ft. of lakeshore native plants. You can design your own project and choose from a wider array of plants but this project displays a sampler to get your planning started. Even if you do not want to apply for the grant Healthy Lakes has all the tools you need to complete a DIY project. Pick up a brochure or visit the Healthy Lakes website.