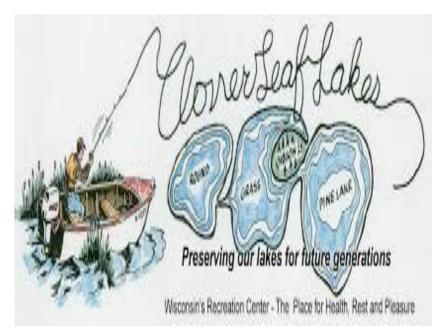


Cloverleaf Lakes Cooperative Shoreline Project

Fish Sticks and Shoreline Restoration

Project Details

- Cloverleaf Chain 316 acre hard water lake located in Shawano County.
- Project will consist of 33 clusters of fish sticks and 12 Erosion control sites.
- Fish sticks will occur on Gibson Island and multiple areas around the chain.
- Great partnership created between Belle Plaine Sportsmans Club and Cloverleaf Lake Protective Association – A win win for all!





Healthy Lakes Grant

- Towne of Belle Plaine applied for the grant.
- Cloverleaf Lakes
 Protective Association implemented the shoreline preservation.
- Belle Plaine Sportsmans Club created the Fishsticks Project.
- Great collaboration between three groups!.

- Grant covers 75% of costs up to \$25,000 (\$18,300)
- Lake association matched 15% of shoreline plantings
- Property owners contributing 10% (\$100 each) for 350 sq. foot plantings



Belle Plaine Sportsmans Club

- Non-for-profit formed in 2014
- 80 members
- Works cooperatively with town board, lakes association and DNR
- Encourage community involvement

- Fundraising,
 volunteering and
 donations
- Adopt a Highway
- Fishsticks and fish stocking
- Youth bow shoot, learn to hunt and fish outings





Fishsticks on Gibson Island

- 25-acre "island" with narrow isthmus, was purchased by the Town of Belle Plaine in 2006 for \$1,025,000 after organizing and fund-raising by a citizens group, the Gibson Island Project.
- A Stewardship grant of \$408,000 was matched by more than \$300,000 in private donations plus donations from the town and the land owner.
- It is preserved forever as a natural area and open to public hiking.
- Serves as great demonstration site

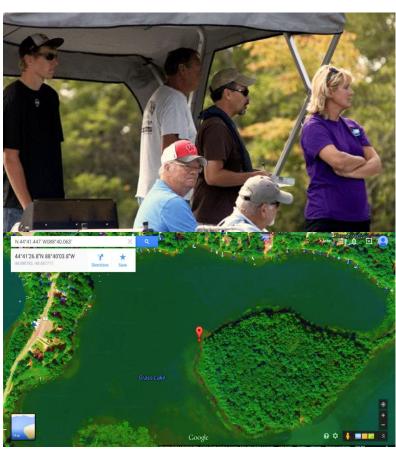




Planning Fishsticks....

- Partner with DNR and CLPA
- GPS Mapping
- Application for grant with CLPA and Town Board
- Application for Fishsticks with DNR
- Find the trees!







Executing Fishsticks...

- Figure out the logistics (get from here to there)
- Getting volunteers and materials (tractor, haywagons)
- Cutting the trees
- Transporting the trees





Executing Fishsticks.....

- GPS and Placement
- Creating the clusters
- Anchoring
- Marking / Safety







Costs and Materials

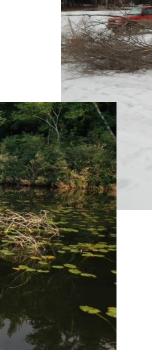
- 21 Trees Chinese Elm, hardwood
- 172 hours of Labor
- 200 Feet 1/8" Airplane Wire
- 20 Tractor hours
- 3 trucks total 370 miles
- Anchors, Wire Clamps, Gas, Chainsaws, Trailers
- \$1250 Per Unit
- Occurred in 2015 by Club Donations!!!





Complete!

- Year 1 2015
 - 7 Clusters
- Year 2 2016
 - 8 Clusters





Complete!







Fishsticks in Action!



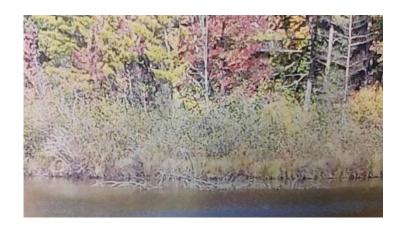
Habitat for Fish, Turtles and Birds





Initial Concerns with the Project

- Fishsticks will interfere with navigation "people will hit them"
- "They look messy"
- "They're not deep enough"
- "They'll float away"





Community Feedback

- Great placement
- Great habitat per ice fishing community
- Great project well worth the effort
- They're contagious

 more per property
 owner request!





Erosion Control Sites

 12 erosion control sites located around all 3 lakes on the chain.

Locations of Erosion Control Sites





Native Plantings

- Native plant expert Lisa Reas was hired by the Lake Association to plan and plant the shoreline projects.
- 2015 9 completed
- 2016 more planned
- Professional help versus do-it-yourself encourages participation
- Presentation at annual meeting added participants
- The price is right
- More please





Rain Gardens

- Captures rain running off roofs, parking lots and sidewalks
- Rainfall waters plants, then sinks into the ground
- No erosion on steep, sandy hillsides
- No run-off of chemicals into lake
- Native plants provide beauty, attract birds and butterflies





Native Plantings

- Prevents erosion with deep roots
- Natural beauty year-round

- Repels geese
- Minimal maintenance





Questions???

