FACT SHEET SERIES:

FISH STICKS

Bony Lake, Bayfield County - Pamela Toshner

FISH STICKS, an in-lake best practice, are large woody habitat structures that utilize whole trees grouped together, resulting in the placement of more than 1 tree per 50 feet of shoreline. Fish Sticks are anchored to the shore and are partially or fully submerged. Fish sticks are not tree drops since the trees utilized for the projects come from further than 35 feet from shore, thus they don't "rob from the bank" of trees that may otherwise grow and fall in naturally.

MAINTENANCE

COSTS

- Range: $100 – $1000 *(average = $500)*
- Healthy Lakes grant funding available: *$1000 per Fish Sticks Cluster*

MATERIALS

- Whole, live trees from outside shoreland vegetation protection area
- Cables/cabling gear
- Heavy equipment including snowplow and chainsaw
- Safety gear

DNR PERMIT

REQUIRED

PURPOSE

This fish and wildlife habitat best practice creates food, shelter, and breeding areas for all sorts of creatures from small aquatic insects, to fish, to turtles, ducks, and songbirds. Fish Sticks can also help prevent bank erosion – protecting lakeshore properties and your lake.

HOW TO BUILD

It may be necessary to work with your local DNR fisheries biologist, county land and water conservation department, or landscaper to design and/or construct this practice. Logging companies may assist with tree supply, cutting, and transportation. Check with your local zoning department to determine if any permits are necessary.

Detailed guidance is found here: http://dnr.wi.gov/topic/fishing/outreach/fishsticks.html.

1. Find a location

Ideal Fish Sticks sites have low ice energy – places like protected bays and shorelines leading to and from bays. High ice energy areas on lakes greater than 250 acres require alternate methods that ensure they remain in place.

Typically a single Fish Sticks cluster occupies 50 linear feet of shoreline, so it should be placed on an area of your lakeshore that is not used for pier(s) or swimming. If you have a lot of frontage, you may choose to add more than a single Fish Sticks cluster.

PROJECT TIMELINE

SITE PREP	INSTALLATION	MAINTENANCE	PROJECT END
2 MONTHS	< 1 DAY	Spring safety check	3 YEARS
winter ice road			cable removal

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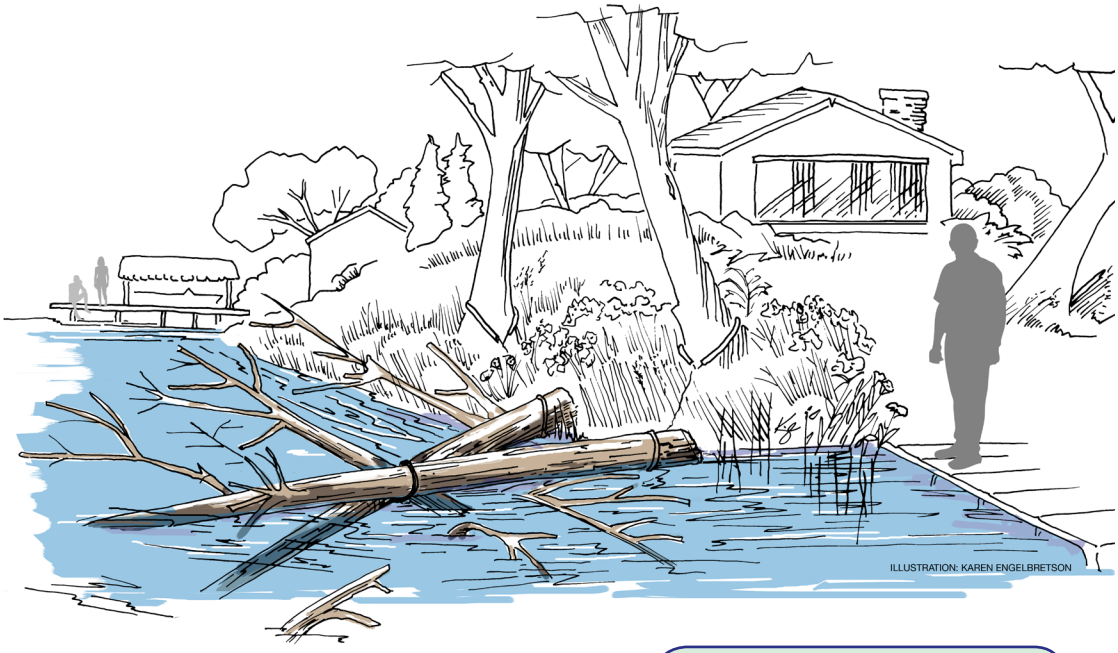

2. Create a design

Fish Sticks structures are commonly made up of three to five whole trees. The butt ends of the trees, at the water's edge, are cabled to live trees on shore.

Sketch the design and dimensions to be sure you understand what area it will cover and how it may function or fit into your landscape. Consider the following:

- Is the water deep or shallow? Trees sink and settle with branches breaking off soon after installation, but more trees can be placed in a deepwater cluster.
- Is your lakeshore mowed adjacent to the proposed Fish Sticks site? If so, and if you would like DNR Healthy Lakes grant funding, you must commit to not mowing a 350 ft^2 area at the base of the cluster or installing a 350 ft^2 native planting.

3. Apply for a permit

The DNR recently streamlined the water regulation permits to make it easier for you to install Fish Sticks. Eligibility standards and application materials are on the DNR website http://dnr.wi.gov/Permits/Water/.

FUNDING NOTE

In order to be eligible for Healthy Lakes grant funding, properties must comply with local shoreland zoning vegetation protection area (i.e. buffer) standards. If not, the property owner must commit to a 350 ft^2 no-mow zone at the base of the Fish Sticks cluster(s) or to installing a 350 ft^2 native planting.

Scott Toshner

4. Lay out the best practice

Flag the area(s) along your waterfront property where Fish Sticks will be installed. This is important because most projects take place in the winter, making it more difficult to identify landscape features and location preferences.

5. Construct the practice

Installing Fish Sticks on ice is the most practical and inexpensive method. Identify an ice road and maintain with snow plowing until ice is adequate thickness for installation (18 inches). Cut live trees from outside the shoreline vegetation protection area, which is usually at least 35 feet from the water's edge. Transport and place the trees in criss-cross clusters or stacks and then cable and anchor them to a live tree on shore.

MAINTAINENCE

- Check on the site soon after spring ice out to be certain all the trees remain in place.
- The cables should be removed approximately three years after installation so they don't damage the live trees or litter the shore.
- Trees should remain in place for ten years if funded through a DNR Healthy Lakes grant.

LINKS

Healthy Lakes Website – http://healthylakeswi.com
Fish Sticks Guidance – http://dnr.wi.gov/topic/fishing/outreach/fishsticks.html
DNR Lake Protection Grants – http://dnr.wi.gov/aid/surfacewater.html

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