

Healthy Lakes 101



Wisconsin Lake Partnership Convention

30 March 2016



Agenda

- Welcome
 - Introductions & Goals
 - Resources
 - Background
- Healthy Lakes Overview
- 5 Best Practices
- Grant Application & Administration
- The Social Science



Healthy Lakes Team



THANK YOU to everyone who provided feedback, including the many partners who completed a customer survey and commented during the public review of proposed DNR guidance.

Additional contributors include: Cheryl Clemens, Karen Engelbretson, John Haack, Dave Kafura, Amy Kowalski, John Kriva & ERC, Jasha LaMarche, Eric Olson, Flory Olson, Tim Parks, Bret Shaw, Shelly Thomsen, Scott Toshner, Bone Lake Management District, Maine Lake Smart Program, and Vermont Lake Wise Program.



Citizens lead, and government follows.



Resources

- www.healthylakeswi.com
- Pro Shoreland Habitat Training
- Local LWCDs, landscapers, and other partners
- Future workshops – like this!

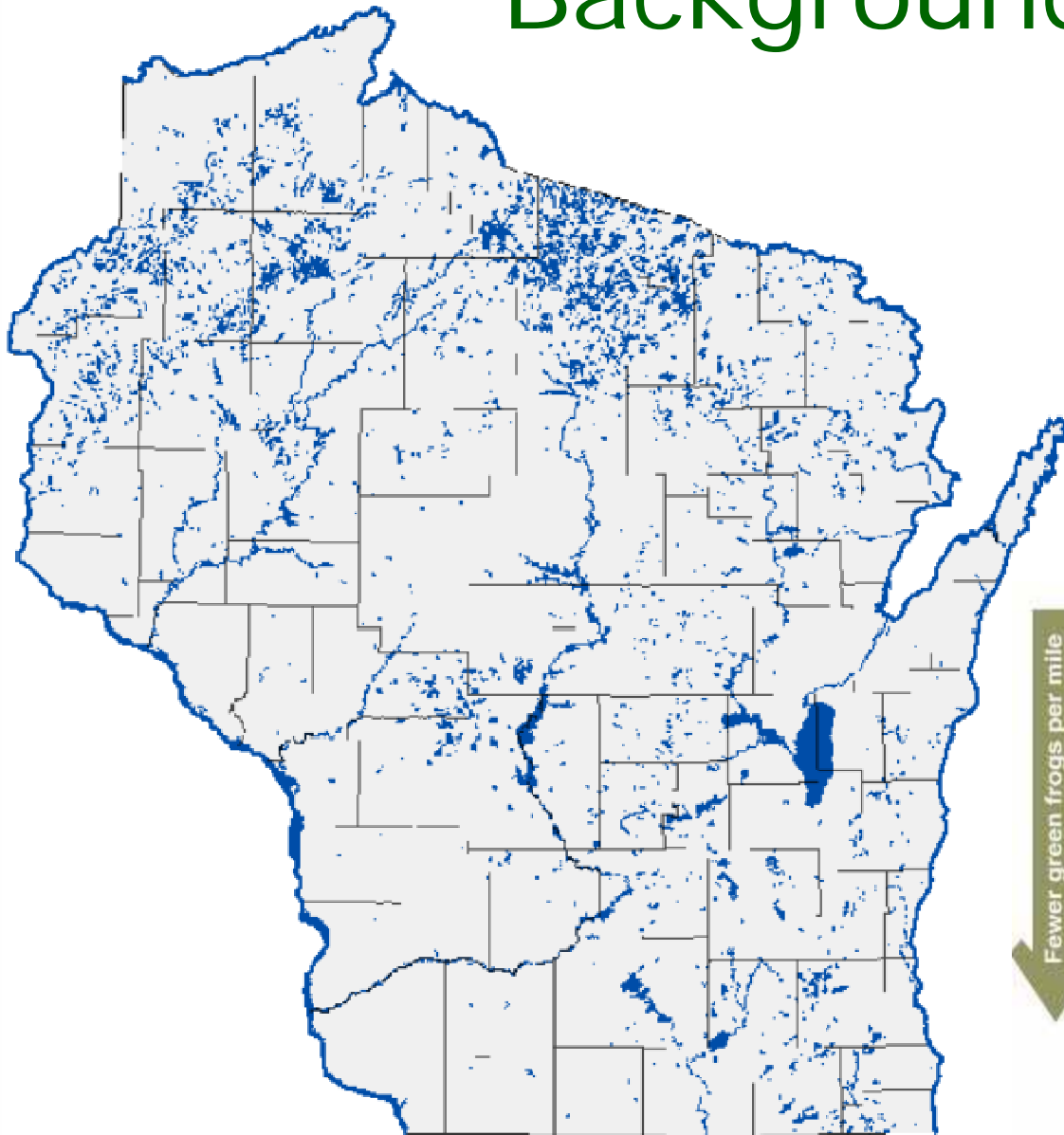


CONTACTS

Dave Ferris	Burnett County	(715) 349-2186	dferris@burnettcounty.org
Pat Goggin	UW-Ext Lakes	(715) 365-8943	pgoggin@uwsp.edu
Jane Malischke	WDNR	(715) 635-4062	jane.malischke@wi.gov
Tom Onofrey	Marquette County	(608) 267-3036	tonofrey@co.marquette.wi.us
Carroll Schaal	WDNR	(608) 261-6423	carroll.schaal@wi.gov
Shelly Thomsen	WDNR	(608) 266-0502	shelly.thomsen@wi.gov
Pamela Toshner	WDNR	(715) 635-4073	pamela.toshner@wi.gov

YOUR LOCAL LAKE BIOLOGIST OR ENVIRONMENTAL GRANTS SPECIALIST

Background

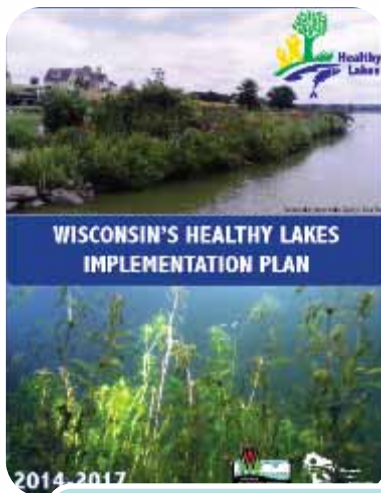






Wisconsin's 2014-2017 Healthy Lakes Implementation Plan

Goal: protect and improve the health of Wisconsin lakes by increasing lakeshore property owner participation in habitat restoration and runoff and erosion control projects.



Statewide Plan

- Implementation focus



Fact Sheets

- 5 Best Practices
- Funding & Admin FAQs



Technical Guidance

- More project installation detail

Wisconsin's 2014-2017 Healthy Lakes Implementation Plan



Green Lake, Green Lake County (Lisa Reas)

Wisconsin's 2014-2017 Healthy Lakes Implementation Plan



Healthy Lakes project participation is voluntary.¹¹

Healthy Lakes Best Practices



ILLUSTRATION: KAREN ENGELBRETSON

Healthy Lakes isn't for everyone or everywhere.

Not intended for complex sites where engineering design/review needed

[Managing Runoff - Design Tool](#)

Seek Engineering Assistance When...

- Construction occurs on slopes >20%.
- More than 20,000 square feet are cleared.
- More than two acres drains to an eroded area.
- Severe gully erosion (at least one foot deep) is present.
- You are not comfortable implementing solutions on your own.

NOT for steep slopes



NOT for largely cleared parcels



NOT for >2 acres draining to eroded area



NOT for severe gullies



Practice #1: Fish Sticks



Practice #1: Fish Sticks



Pewaukee Lake, Waukesha County (Tom Koepp)

- Commit to no-mow or 350 ft² native planting at the base



5 BEST PRACTICES



5 BEST PRACTICES





HABITAT STRUCTURE – FISH STICKS

General Permit Application Checklist

<http://dnr.wi.gov/topic/waterways/documents/PermitDocs/GPs/GP6-FishSticks.pdf>

State of Wisconsin
Department of Natural Resources
dnr.wi.gov

HABITAT STRUCTURE – FISH STICKS
General Permit Application Checklist
(11/2013)

GENERAL PERMIT APPLICATION INSTRUCTIONS

To apply for this General Permit, submit all of the required information listed below. A complete submittal with detailed plans will allow us to make a decision about your permit application. Permit processing review times begin when the application is received by the Department and is determined to be complete.

Please note that you are responsible for obtaining all necessary local (e.g. city, town, village or county) and U.S. Army Corps of Engineer permits or approvals in addition to any applicable state permits prior to commencing any work at the project site.

The Department offers the opportunity to apply electronically for all waterway and wetland permits. The Water Permits portal page can be found at <http://dnr.wi.gov/Permits/Water/>

Informational Requirements:

1. **Application form.** A complete, signed application form "Water Resources Application for Project Permits (WRAPP)" (Form# 3500-53) <http://dnr.wi.gov/files/PDF/forms/3500/3500-053.pdf>.
2. **Application fee.** Checks should be made payable to "Wisconsin DNR." A list of fees can be found at <http://dnr.wi.gov/topic/waterways/Permits/PermitProcess.html>.
3. **Site maps** which clearly illustrate the location and perimeter of the project site, and its relationship to nearby water resources (e.g. lakes, rivers, streams, wetlands), major landmarks and roads.
4. **Photographs** that clearly show the existing project area. Remember that too much snow cover or vegetation may obscure important details. If possible, have another person stand near the project area for size reference.
5. **Project plans and specifications** reflecting the General Permit Eligibility Standards as listed in the project-specific checklist below. If your project does not meet all of the eligibility standards, you will need to apply for an Individual Permit.
6. **Electronic documents.** If you are applying on paper, all documents listed above must also be submitted in an electronic format, either by enclosing a disk with your application materials, providing a link to an ftp site, or by other electronic methods. If possible, please create a separate file for each component of the application (i.e., forms, photos, maps, plans, etc.). Each file must be less than 15 megabytes in size, and the total size of the files combined must be less than 30 megabytes.

If you are applying electronically, you may be prompted for some of these items separately during the electronic submittal process.

Don't Forget!

Additional Requirement:

1. An applicant who applies for coverage under this general permit for the placement of fish sticks must **indicate** in the application materials **whether you will allow**, as part of your permit coverage, to let **new fish sticks sites on the same lake to be afforded coverage under your general permit at a later date** with no additional fee required.

NEWSFLASH:

Permitted Fish Sticks structures are immune from civil lawsuits, thanks to recent legislation initiated by Rhinelander area lake groups!

The screenshot shows the top portion of a news article on the Wisconsin Law Journal website. At the top left is the 'Wisconsin Law Journal' logo. To the right is the 'DAVIS | KUELT attorney' logo. Below these is a navigation bar with five items: 'NEWS' (highlighted in red), 'CASE DIGESTS', 'VERDICTS & SETTLEMENTS', 'JUDGES DIRECTORY', and 'COURT CA'. Below the navigation bar is a breadcrumb trail: 'Home / Legal News / Walker signs bill providing immunity for 'fish sticks' projects'. The main headline reads 'Walker signs bill providing immunity for 'fish sticks' projects'. Below the headline is the byline: 'By: Dan Shaw, dan.shaw@wislawjournal.com' and the date: 'March 3, 2016 5:27 pm'. The first sentence of the article is: 'A law Gov. Scott Walker signed this week provides immunity from civil liability for damage caused by structures used to protect and cultivate fish and wildlife in waterways and wetlands.'

Practice #2: 350 ft² Native Plantings



(Robert Korth)

- 350 contiguous ft² at least 10 feet wide
- One 350 ft² native planting per property per year





Beaver Dam Lake, Dodge County

5 BEST PRACTICES



08



www.uwsp.edu/cnr/ap/UWEXLakes/Pages/healthy_lakes/default.aspx

Wisconsin's Healthy Lakes Implementation Plan

Simple and inexpensive best practices for lakefront property owners.

Wisconsin's **Healthy Lakes Implementation Plan** (Plan) goal is to protect and improve the health of our lakes by increasing lakefront property owner participation in habitat restoration and runoff and erosion control projects. The following frequently asked questions about finding and administering a Healthy Lakes project may help you get the answers you're looking for. Click [here](#) to view a recording of the Healthy Lakes webinar from November 13, 2014.

Examples

The following examples are all in PDF format. In order to view the files, you'll need Adobe Reader. Get it free here: <https://get.adobe.com/reader/>

- [Participation plan](#) are part of the Healthy Lakes Implementation Plan.
- [Native Planting](#) is a key component of Wisconsin's Healthy Lakes Implementation Plan.

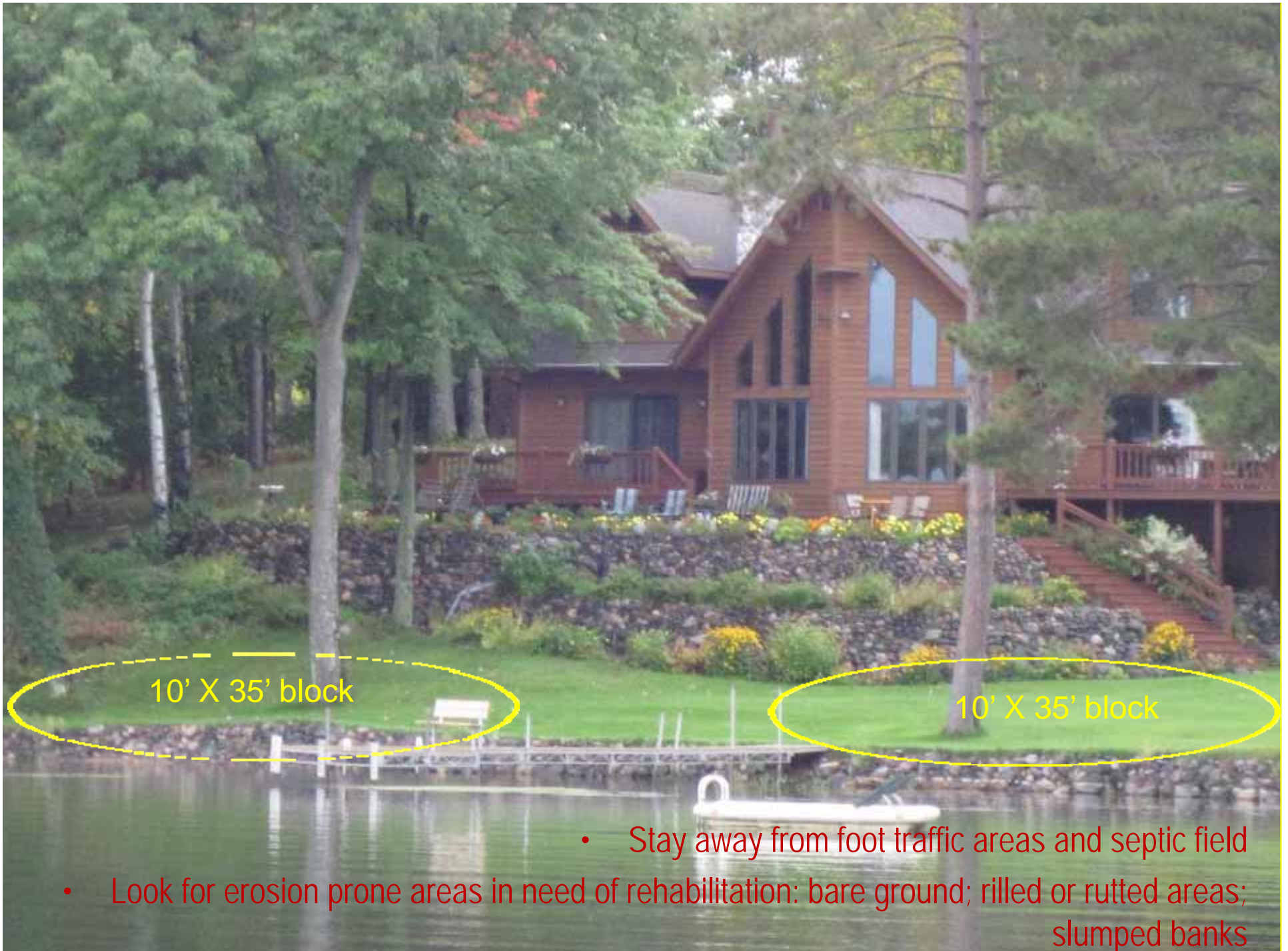
Healthy Lakes

- [Healthy Lakes \(500\)](#)
- [Checklist \(link to DNR\)](#)
- [Fact Sheets](#)
- [Training & Outreach](#)
- [FAQs](#)
- [Native Planting](#)
- [Run Control](#)
- [Erosion Control](#)
- [Rock Detention Project](#)
- [Habitat of Great Lakes](#)

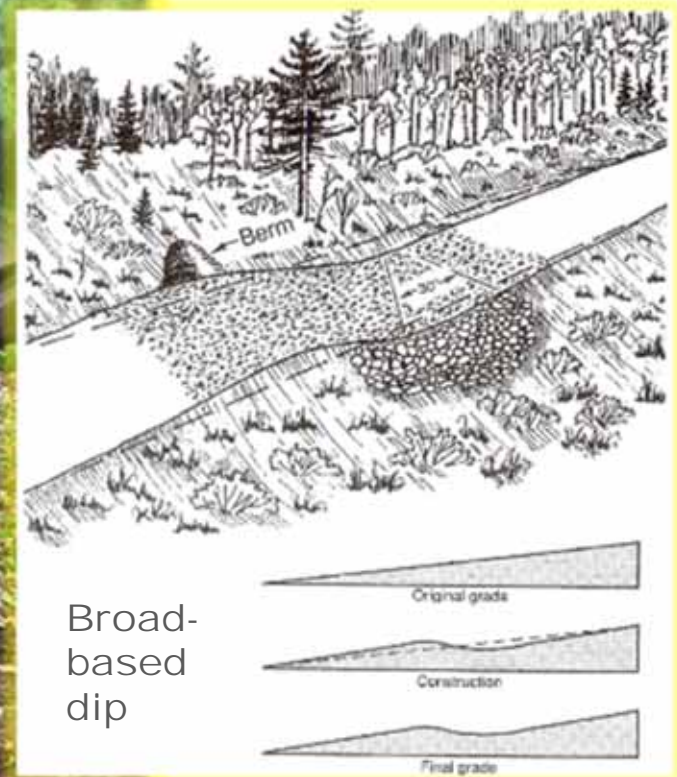
[Native Planting](#)

[Native Planting](#)

Consult the 350ft² Native Planting Guidance on our Healthy Lakes web pages for siting ideas, planning and design help, and **to choose the best prescribed option for you and your property.**



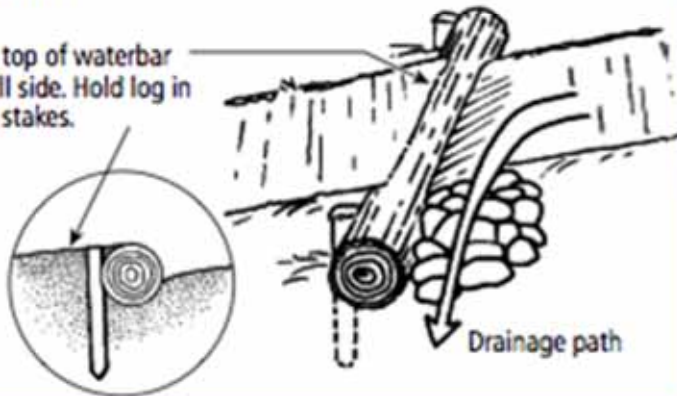
Practice #3: Diversion



Broad-based dip

Log waterbar

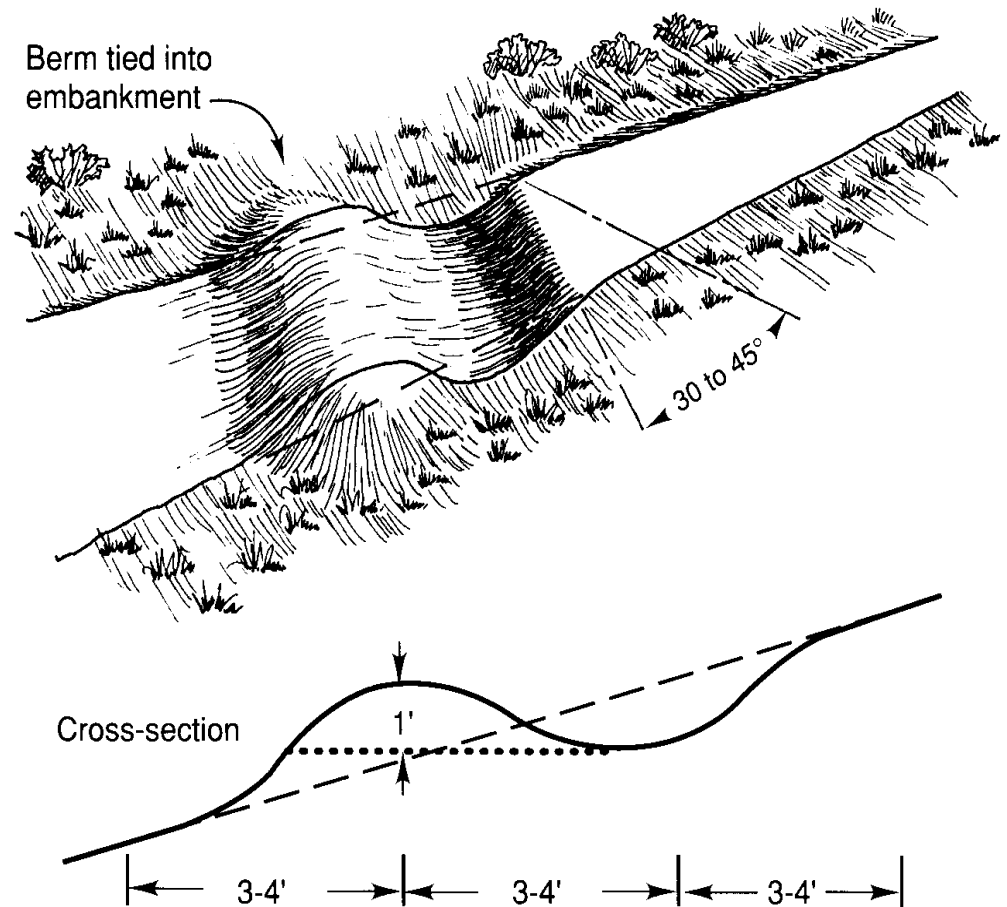
Pile soil to top of waterbar on downhill side. Hold log in place with stakes.



(<http://awwatersheds.org/>)

Pathway and Driveway Diversions

- ☞ Broad Dip
- ☞ Water Bars

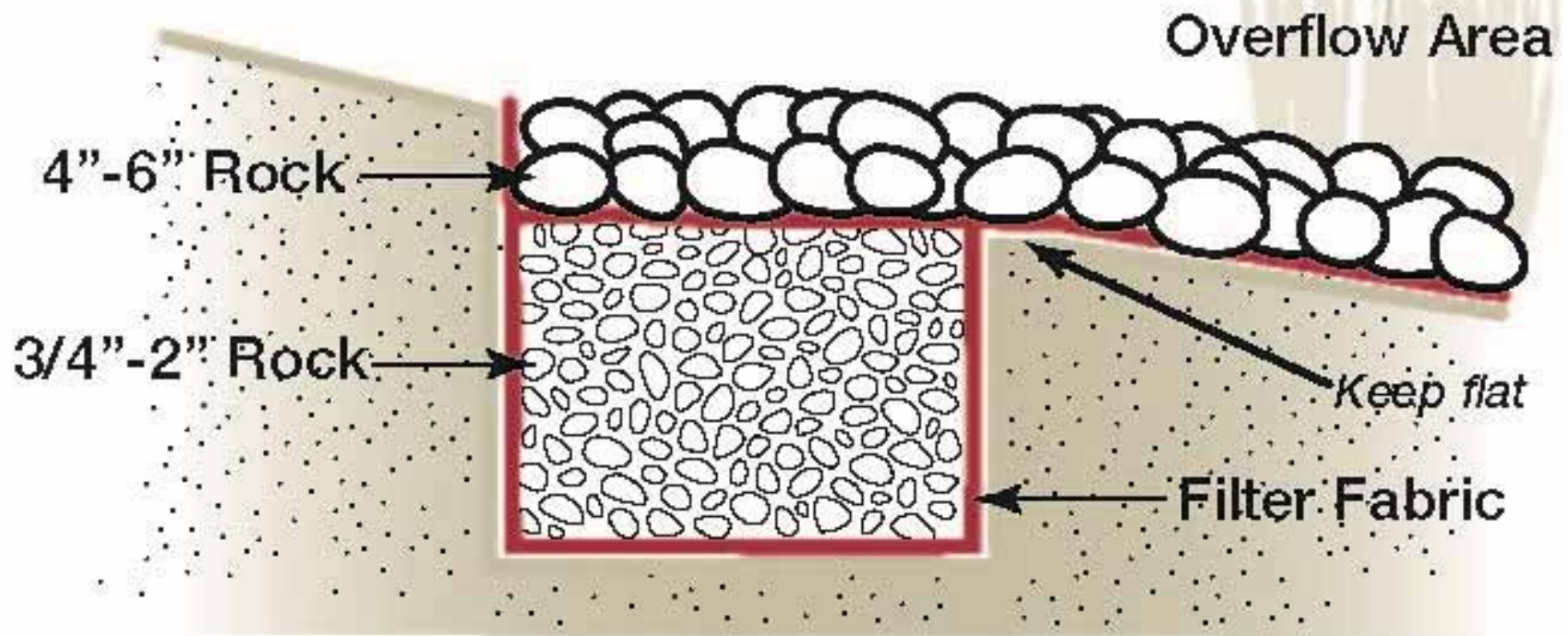


Practice #4: Rock Infiltration

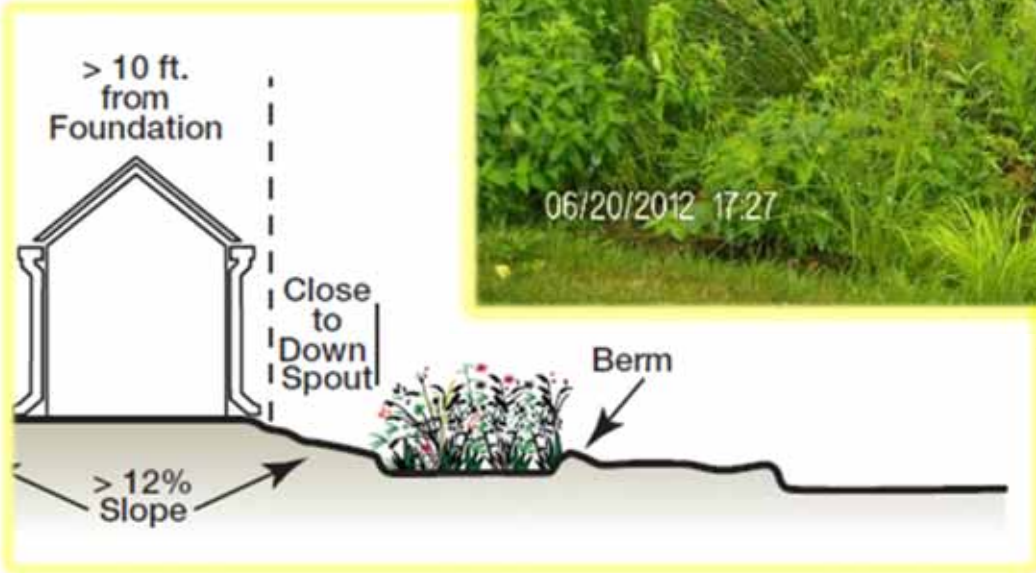


5 BEST PRACTICES





Practice #5: Rain Garden



Shell Lake, Washburn County (Brent Edlin)

Practice #5: Rain garden

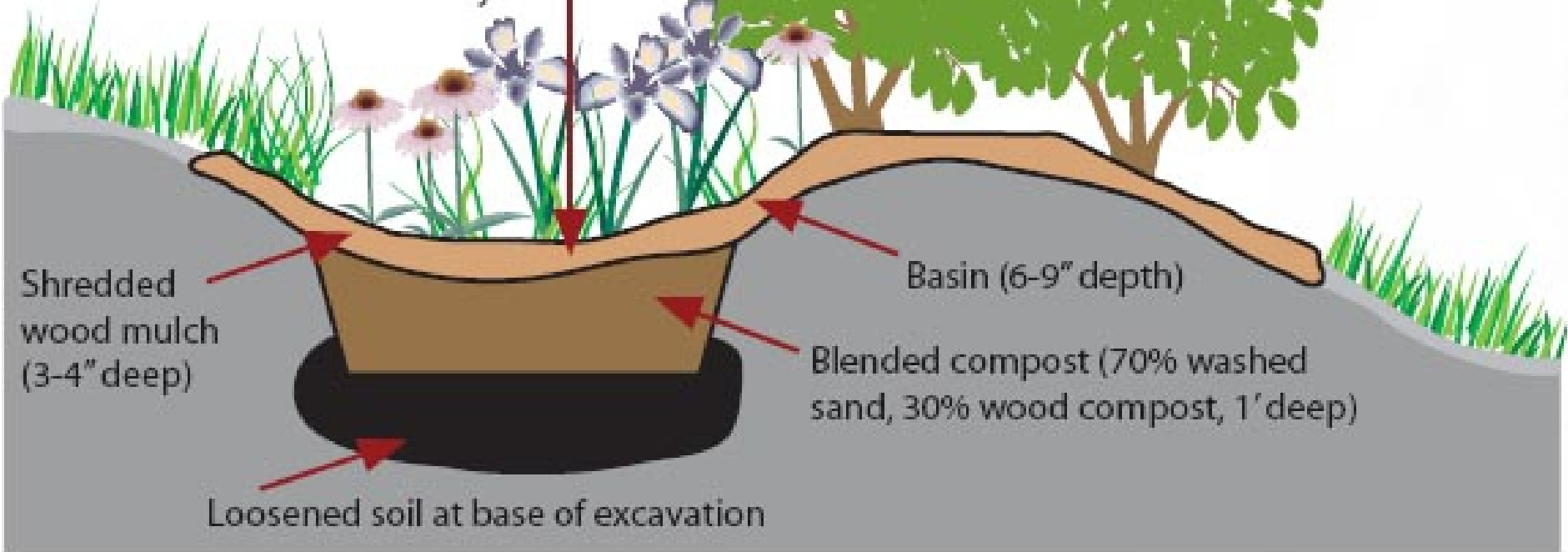
Filter strip

Wildflowers and grasses

Low shrubs



Deepest 3" = wetland. Rest of inner slope = moist. Top of berm and back = dry



5 BEST PRACTICES





Nagawicka Lake, Waukesha County

Healthy Lakes Grants

- Annual deadline February 1
- \$25,000 state cap with up to 10% of it for technical assistance and project management
 - 75/25% state/sponsor match – reimbursement grant
 - Eligible sponsors, including qualified lake associations, lake districts, counties and other local government units, may apply on behalf of multiple landowners
 - Standard **2-year** grant agreement
- Each best practice capped at \$1000 state share
- 10-year contract with standard operation & maintenance details described in grant agreement
 - Grant sponsor develops and administers contract that landowner signs
- Self-reporting or site visits on 10% of projects annually

Lake Protection Grant

Lake Management Plan Implementation Category

- **Purpose of grant category – provide funds for implementation of Dept. approved recommendations in a plan to improve lakes & lake ecosystems**

- Lake specific Lake Management Plan
- County Land & Water Resource Management Plan
- Wisconsin's Healthy Lakes Management Plan



Save... Print... Clear Data Submit by Email

State of Wisconsin
 Department of Natural Resources
 PO Box 7921, Madison WI 53707-7921
 dnr.wi.gov

Surface Water Grant Application Lake Management Planning, Lake Protection & Classification, River Protection, River Planning, Aquatic Invasive Species (AIS) Control

Form 8700-284 (9/14) Page 1 of 4

Notice: Use of this form is required by the Department of Natural Resources for any application filed pursuant to chs. NR 190,191,195 & 198, Wis. Adm. Code. Personal Information collected on this form, will be used for administrative purpose and may be provided to requesters to the extent required by Wisconsin's Open Records Laws [ss.19.31 – 19.39 Wis. Stats.]

[General application instructions for sections 1-7.](#)

Section 1: Application Type (check one)

Application Deadlines:

DECEMBER 10

Lake Management Planning Grant:

- Large Scale Planning Small Scale Planning

Lake Protection Grant:

- Lake Classification & Ordinance Development

Aquatic Invasive Species Grant:

- Education, Prevention & Planning
 Clean Boats Clean Water [Form 8700-337](#)

River Protection Grant:

- River Planning

YEAR-ROUND:

Aquatic Invasive Species Grants:

- Early Detection & Response Maintenance & Containment [Form 8700-323](#)

FEBRUARY 1

Lake Protection Grant:

- Land/Easement Acquisition
 Wetland & Shoreline Habitat Restoration
 Lake Management Plan Implementation
 Healthy Lakes Project

Aquatic Invasive Species Grant:

- Established Population Control

Rivers Protection Grant:

- River Management
 Land/Easement Acquisition

Section 2: Applicant Information

Applicant Name (Organization)

Organization Type

Authorized Representative Name

Title

Lake Management Plan Implementation Healthy Lakes Project Application

Surface Water Grant Application
Lake Management Planning,
Lake Protection & Classification,
River Protection, River Planning,
Aquatic Invasive Species (AIS) Control
 Form 8700-284 (9/14) Page 5 of 5

[Application Instructions](#)

Application Type: Lake Protection Grant – Healthy Lakes Project

A. Project Area, Landowner and Practice Information (Provide a parcel map showing property location of all participating landowners.)

Name of Lake		Add Lake
Landowner Name	Parcel Number	Add Landowner
Has the landowner signed a participation pledge? <input type="radio"/> Yes <input type="radio"/> No		

Zone 1: In-lake		Zone 2: Transition		Zone 3: Upland	
	Cost		Cost		Cost
<input type="checkbox"/> Fish Sticks	\$ _____	<input type="checkbox"/> Native Planting	\$ _____	<input type="checkbox"/> Rain Garden	\$ _____
		<input type="checkbox"/> Diversion Practices	\$ _____	<input type="checkbox"/> Diversion Practices	\$ _____
				<input type="checkbox"/> Rock Infiltration Prac	\$ _____

Provide a parcel map showing property location of all participating landowners.

B. Products and Deliverables

- Signed Conservation Commitment w/ completed installation checklist & O&M plan
- Pre and Post project installation photographs
- Summary of other education activities
- Summary of publicity events to promote the Lake Health Initiative project

C. Data to be Collected All practices have standardized data reporting requirements as defined in the Conservation Commitment and as explained in the grant application guidance.

D. Role of project in planning and/or management of lake

Has the Statewide Healthy Lakes Implementation Plan been adopted? If so, identify how the plan was adopted:

By resolution (provide date of resolution): _____

Through a local planning process (provide name of plan and date of adoption): _____

Other – Specify: _____

Describe: _____

Changing!

Participation Pledge (optional)



HEALTHY LAKES PARTICIPATION PLEDGE

I/we **Mr. and Mrs. Lake-Lover** pledge to participate in Wisconsin's Healthy Lakes initiative. More property owners implementing the suggested best practices over time may eventually add up to significant success and healthier lakes for current and future generations.

I/We pledge to work with DNR Lake Protection Grant sponsor **Healthy Lakes Association** to install the following best practice(s) to restore fish and wildlife lakeshore habitat and/or prevent storm water runoff and erosion. (check practices to be installed on the property)

- Fish Sticks
- 350 square feet native plantings
- Diversion practice(s)
- Infiltration practice(s)
- Rain garden

I/We understand that by signing this Pledge I/we am/are indicating a strong interest to follow through with a Healthy Lakes project on my/our property, but this is not a legal requirement to do so.

Describe Personal Participation Goal (optional):

Name: **John and Jane Lake-lover** (please print)

Phone #: **(123) – 456-7890**

E-mail address: **lovinglakes@yooahoo.com**

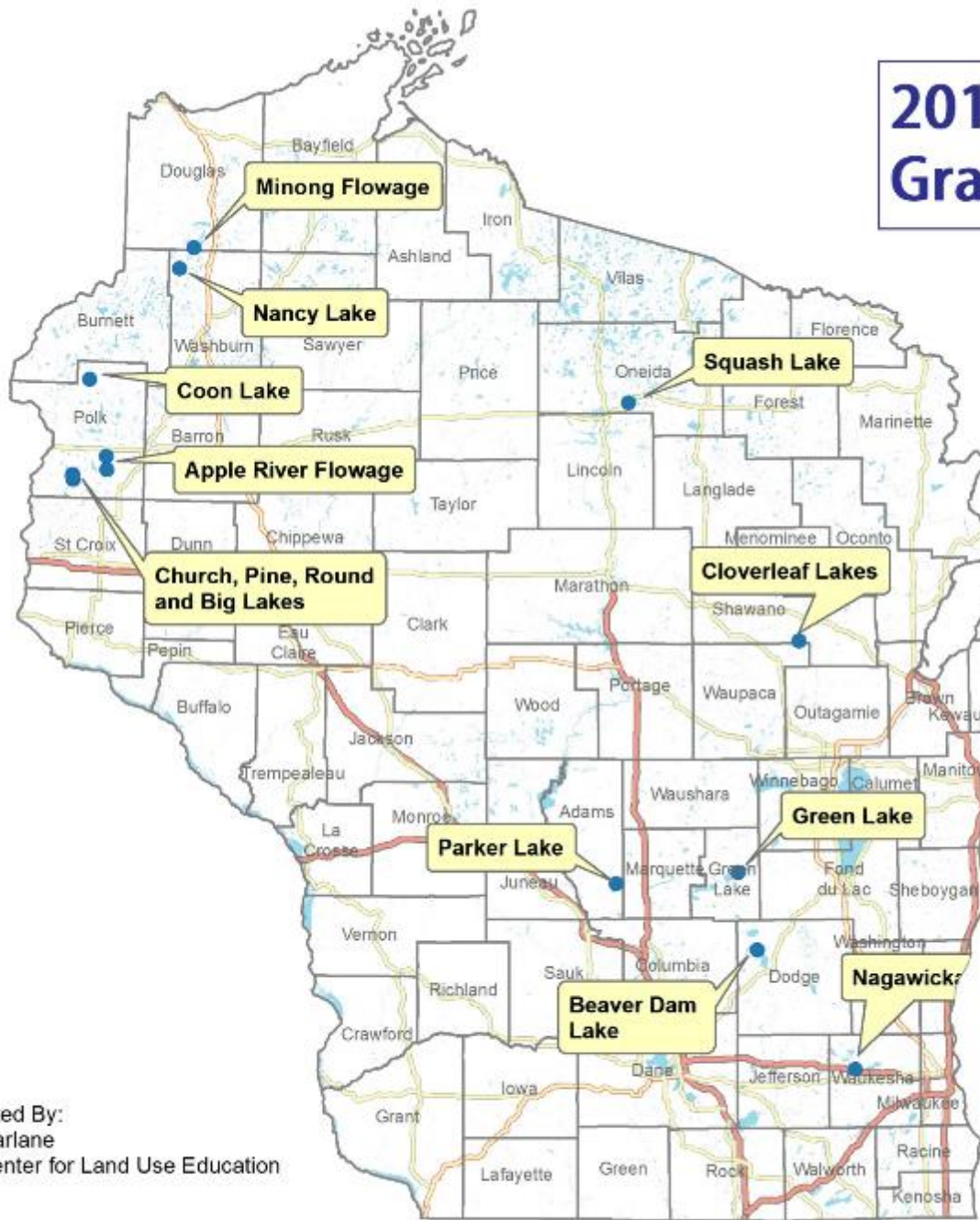
Signed: **John Lake-Lover and Jane Lake-Lover**

Date: **01/01/2015**

Grant Review/Ranking

- **LPT 191.07 Priorities (4) The department *may* consider the following factors when developing a project priority list:**
 - The degree to which the project provides for the protection or improvement of water quality
 - E.g. ORW/ERW, impaired?
 - The degree to which the project provides for protection or improvement of other aspects of the natural ecosystem such as fish and wildlife habitat, native vegetation or natural beauty
 - E. g. sites adjacent to sensitive area, support from fisheries, wildlife, etc.
 - The availability of public access to, and public use of, the lake.
 - E. g. public property or demonstration sites
 - The degree to which the proposed project complements other lake and watershed management efforts including local comprehensive plans and the level of support from other affected management units or organizations
 - E. g. partner support, other plans
 - The likelihood of the project to successfully meet the stated project objectives and 2-year timeline and the degree of detail in the application
 - E. g. landowner commitment, neighbors participating together, costs, baseline monitoring/inventory completed, compliance monitoring/maintenance assistance

2015 Healthy Lakes Grant Recipients



11 applications
8 counties
15 lakes
48 properties
100 practices

\$81,540.54 state
\$126,667 total

Map Crafted By:
Dan McFarlane
UWSP Center for Land Use Education





Leadership:

A Case Study in Making a Movement Happen





Citizens lead, and government follows.



<https://youtu.be/HY0TyTdoFfk>



<https://youtu.be/RzekDLWUTOI>



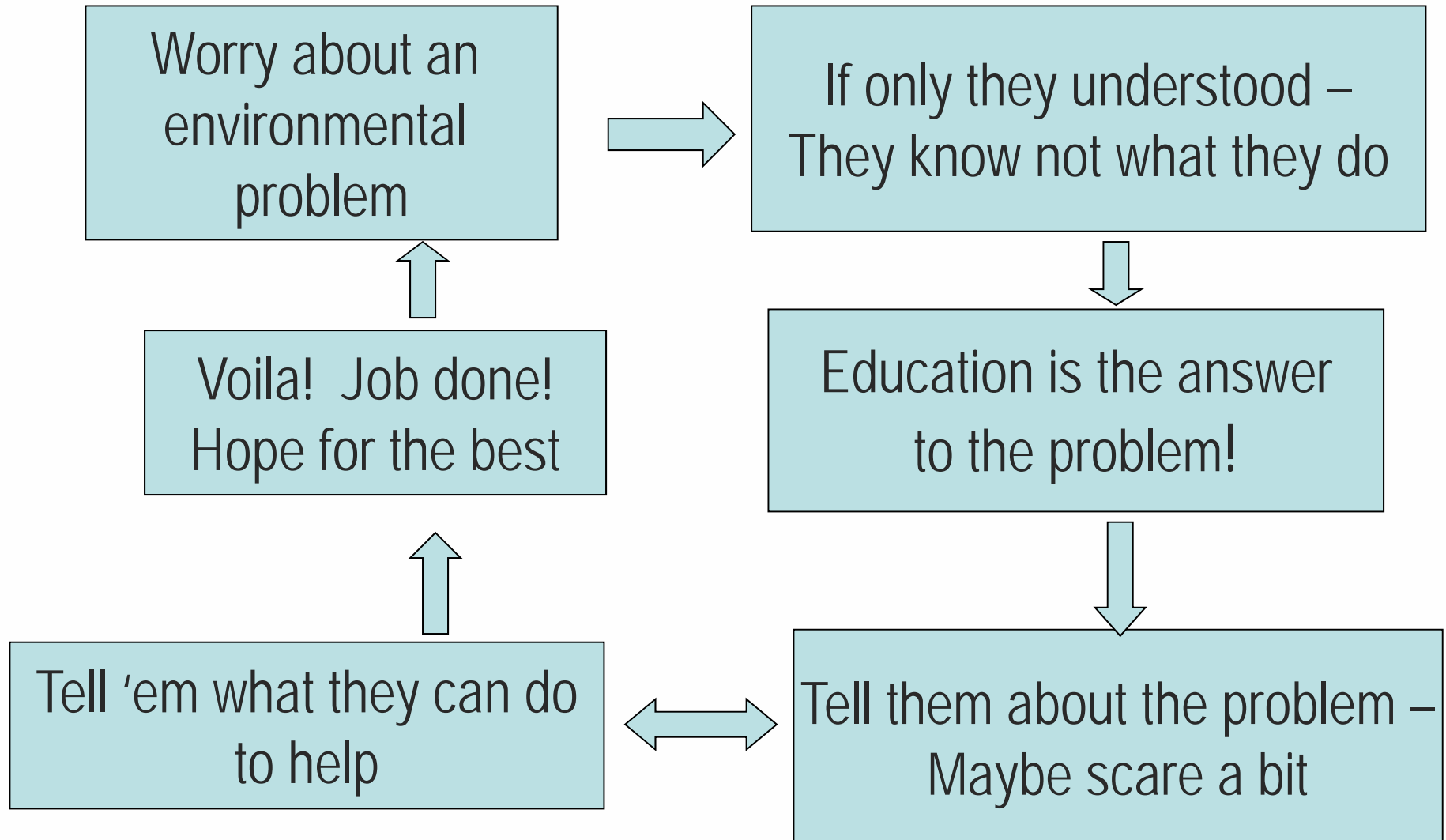
Insights to promote natural shorelines among lakeshore



John Haack
Regional Natural Resource Educator



Modifying Behavior: The Typical Education Model



Factors Related to Adoption

- Beliefs & Knowledge -alone don't get it done
- Varying levels of readiness
 - use tailored message v. 1 size fits all
- Perceptions: My shore is more natural than... (survey/biologist/ photos)
- Understand lake property owners
 - survey, focus group, interviews..


Messaging Recommendations

- Providing objective feedback mildly (i.e. self assessment/worksheet, shoreland map ratings ?)
- Avoid "*reactance*"



Messaging Recommendations

Self-assessment worksheets




Bone Lake Management District Polk County, WI

[Home](#) [Administration](#) [Bone Lake Mgmt Plan](#) [Lake Protection](#) [Bone Lake Events](#) [About Bone Lake](#) [About Polk County](#) [Water Quality](#) [Join Our Mailing](#)

Interactive Checklist Survey for a FREE Site Visit

Are all areas of your lot well covered with vegetation?

- My lot is completely vegetated with tall growth between my house and the lake.
- There are no areas of bare soil on my lot. My lot has some tall vegetation near the water.
- There are few areas of bare soil AND/ OR my property is covered with a thick lawn.
- My lot has extensive areas of bare soil AND/OR is covered with a thin lawn.
- Gullies have formed from water running across my lot.

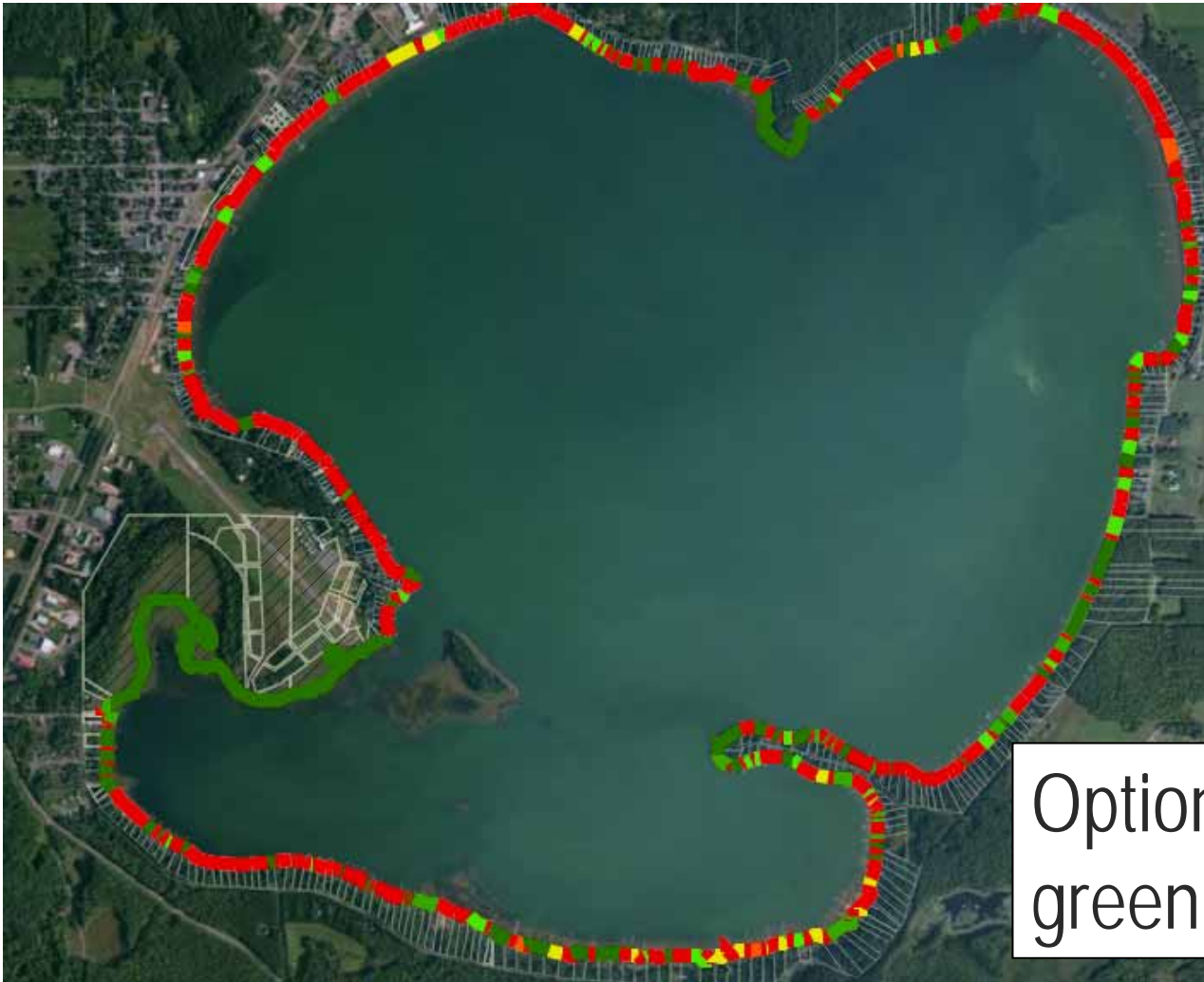


Bone Lake
WATERFRONT RUNOFF COMMITTEE

2080C-G20 West Bone Lake Drive
Milltown WI 54858

Messaging Recommendations

Shoreland assessment maps



Option: Only
green & yellow?

Messaging Recommendations

- Use outreach messages emphasizing social norms (informal rules of behavior)
 - “Join your neighbors in adopting a natural shoreline to keep your lake clean”

Messaging Recommendations

- Emphasizing social norms cont.
 - Shine a spotlight on good example
 - Shoreland signs, boat landings, parks, tours, feature articles...



Choose Words Selectively

- Not just what you say but how you say it
- **Water Words that Work**
www.waterwordsthatwork.com



- **“Swap the shop talk”**
- **Emphasize:**
- Inclusivity – WE, OUR, SHARED...
- Water Protection and Preserving Water Quality
- Future Generations...
- Keep **people** in the Picture- benefits for people

Choose Words Selectively

- The Language of Conservation

<i>Bad Words to Avoid</i>	<i>Good Words to Use</i>
<i>Environment</i>	<i>Land, air and water</i>
<i>Ecosystems</i>	<i>Natural areas</i>
<i>Biodiversity / endangered species</i>	<i>Fish and wildlife</i>
<i>Regulations</i>	<i>Safeguards/protections</i>
<i>Riparian</i>	<i>Land along lakes, rivers and streams</i>
<i>Aquifer</i>	<i>Groundwater</i>
<i>Watershed</i>	<i>Land around rivers, lakes and streams</i>



Small Message Difference Make a Difference

- Native plant coupon promotional effort
 - \$Off or Free v. Free or \$Off
 - “Free” double coupon redemption

FREE SHRUB* *or \$7 off*

ANY ONE OF THE TOP TEN NATIVE SHRUBS FOR BURNETT COUNTY

*Free container(s), or \$7 off a native shrub purchase

CHOOSE FROM THESE TOP 10 NATIVE SHRUBS

- Hannyberry
- Red osier dogwood
- American highbush cranberry
- Black chokeberry
- Gray dogwood
- Pagoda dogwood
- Snowberry
- Dwarf bush honeysuckle
- Juneberry
- Chokecherry

COUPON VALID FROM MAY 1 TO JUNE 17, 2012 AT THESE PARTICIPATING GREENHOUSES:

Austin Lake Greenhouse HWY 35 Webster	Grantsburg Family Foods HWY 70 Grantsburg	Wayne's Foods Plus HWY 35 Webster and HWY 77 Danbury	The Grainery HWY 35 Webster
---	---	--	-----------------------------------

SHARE YOUR SHORE
For Clean Water & Lakeshore Habitat

Sponsored by:
Burnett County
Lakes and Rivers
Association

Existing Natural Vegetation on Neighbors - Important

Vegetation on a shoreline was more strongly related to the amount of vegetation on neighbors' shoreline than to their property management goals or stewardship.



Native Plants are Good

- Emphasize positive outcomes landowner care about (barriers/ benefits)
 - Habitat for desired wildlife
 - Potentially less undesirable wildlife
- Address outcomes they don't want
 - Blocking their view
 - Looking messy
 - Decreased property value



Address Landscaping Goals

- Neatly groomed landscape, not messy- clean edges along more natural areas
- Clear view of the lake – lower natural vegetation
- Ticks- mulched pathways
- Cues to care



Apple River Flowage, Polk County

Promote Natural Shorelines to Attract Desired Wildlife

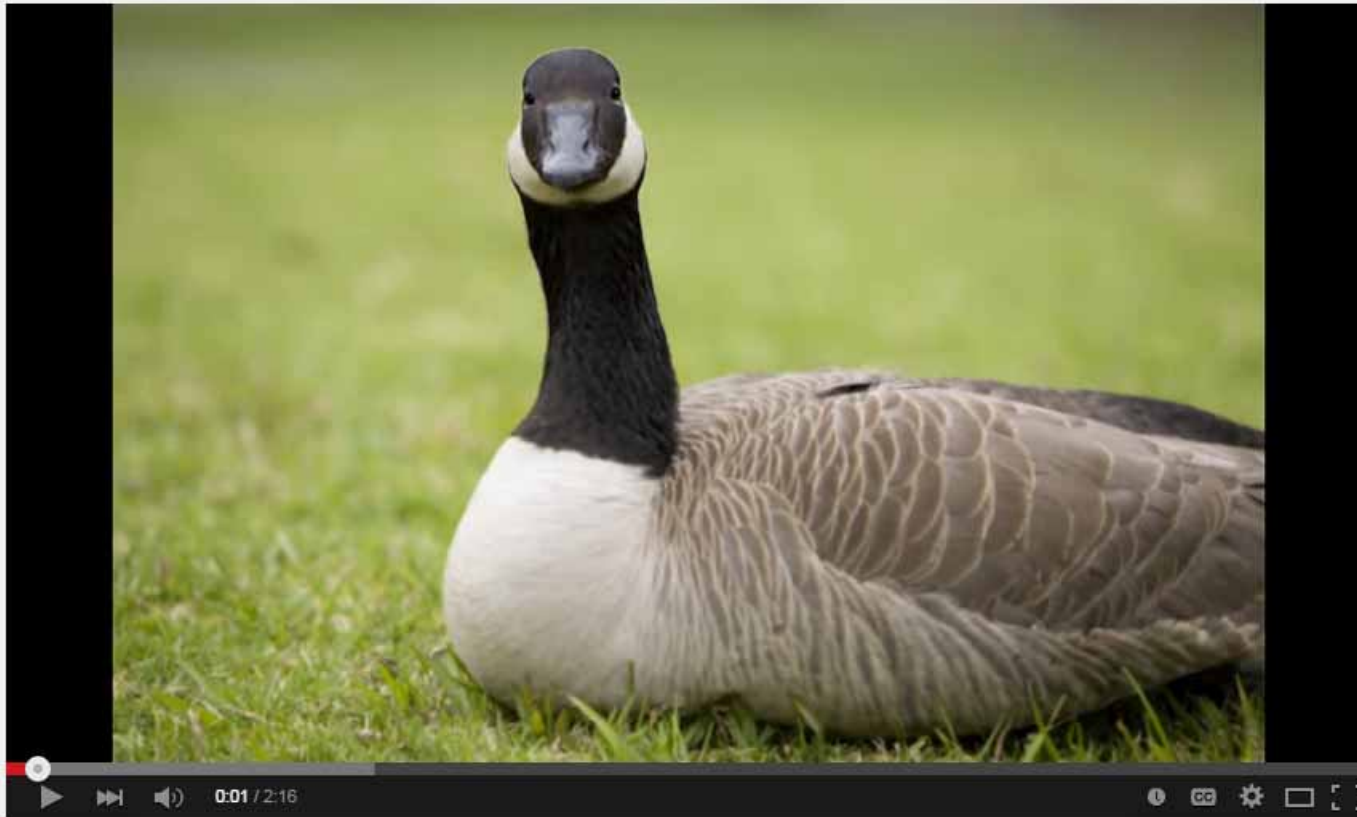
- Highlight the species most meaningful to property owners you work with:
 - Song Birds
 - Frogs
 - Fish
 - Loons etc...



Benefits/ More Frogs



Benefits/ Prevent Geese



Sebastian the Goose Encourages Natural Shorelines



Carefully pick your messenger.

1. Reactance Theory- is greatest when messenger is government or perceived untrusted source.
2. Many folks prefer to hear from someone similar to themselves – the “target audience.”

Fine-tune with social surveys.


- Basic assumption (Kristin F.)
 - One-size fits all outreach unsuccessful strategy
 - Importance of case specific data, targeting audiences
 - We likely wouldn't use ecological data from one lake to plan for another, same with social data...

Conclusions from MN Survey

- 8% need little or no intervention
 - 19% inclined to restore buffer
 - Assess barriers
 - 51% potential target for communications strategy
 - beauty of buffers
 - water quality improvement
 - ability to keep up with maintenance- self efficacy
- Self Efficacy belief: I can do it? Plant it, install it, keep up with maintenance...

22%

Use Multiple Strategies

- Real -lasting- change- more natural shorelines takes time
- No silver bullets 
- Be patient- but- Be persistent
- Use multiple approaches that complement each other
- Similar design elements
- Create long-term relationships
- Sustained efforts: 18% -154 parcels, 660 sq ft.

UWEX Lakes → Healthy Lakes



**Using Social Science to Encourage More
Natural Shorelands and Healthier Lakes**

[Back to Healthy Lakes Home Page](#)

[General Principals of Social Marketing](#)

[Marketing Materials](#)

[Coupon Promotional Materials](#)

[Key Insights and Recommendations](#)

[Resources and Reports](#)

[Peer Reviewed Journal Articles](#)

[Multiple Website Linkes](#)

[Media Coverage](#)

[Contact Us](#)

Insights to promote natural shorelines among lakeshore property owners

Questions? Thoughts?

