

SHORELAND HABITAT PROTECTION SOCIAL MARKETING STRATEGIES



Summary of Burnett County Research: Suggestions for Developing and Implementing Shoreland Habitat Education Campaigns



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INTRODUCTION

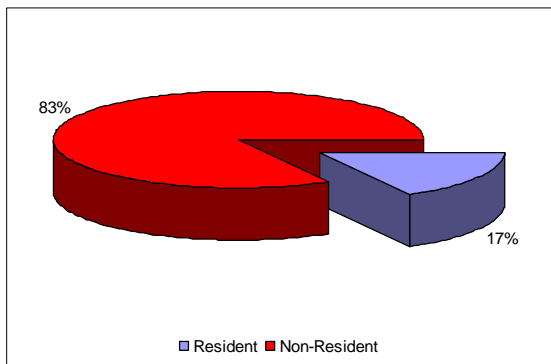
During the past few years, UW-Extension in cooperation with Burnett County and other local partners conducted research with lake property owners in Burnett County regarding their knowledge of and adoption of shoreland management practices to protect lakes. This report synthesizes the major findings from that research in the hopes these findings will benefit others. The outreach strategies developed were tested through a final project survey. It is hoped that this report can be used to assist others with educational programs that aim to promote more natural shoreland habitats among lakeshore property owners.

This report provides the following:

- Target Audience: Summary of the lakeshore property owners targeted in this study.
- General Awareness: What lake property owners know about shoreland buffers and their function.
- Current Behaviors: A summary of the behaviors of lake residents identified at the beginning of the project.
- Desired Behaviors: The desired behaviors identified by project partners during this project.
- Barriers: Barriers identified that may interfere with lake owners adopting more natural shorelands.
- Benefits: Benefits identified that may encourage lake property owners to adopt or maintain more natural shorelands.
- Messengers: Information identified on who the best messenger would be to provide information.
- Outreach Strategies Piloted and Evaluated:

TARGET AUDIENCE

This study focused on 212 lakeshore property owners on two adjoining lakes, Long and Des Moines, located in northwest Burnett County. One lake had an active lake association and the other had a struggling lake association, conditions that are representative of the many lake groups in the region. The majority, 83% of the lake property owners, had seasonal homes or cabins and did not live on either lake year around. The mean age of survey respondents was 59, and on average, they owned their property 16 years.



Property Ownership on Long and Des Moines lakes



Aerial photo of study lakes in northwest Burnett County

GENERAL AWARENESS

Most lake property owners were aware of the importance of shoreline habitat. While landowners understood the importance of shoreline habitat, there was a discrepancy between what they do on their shoreland and the cumulative impacts these actions have on the lake. Regardless of the condition of their own shoreline, property owners felt the most important benefits of allowing more natural vegetation on their shoreline areas were:

1. Maintaining good water quality
2. Improving fish and wildlife habitat
3. Reducing runoff water and eroded soil from entering the lake

Lake Property Owner Self-Reported Knowledge as Compared to Shoreland Conditions on Their Parcel

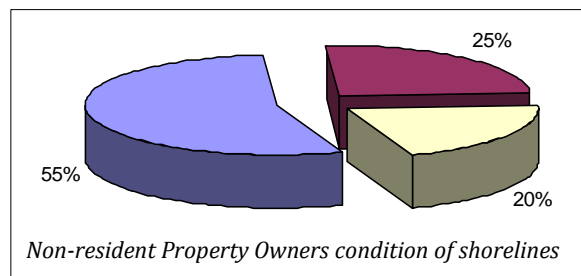
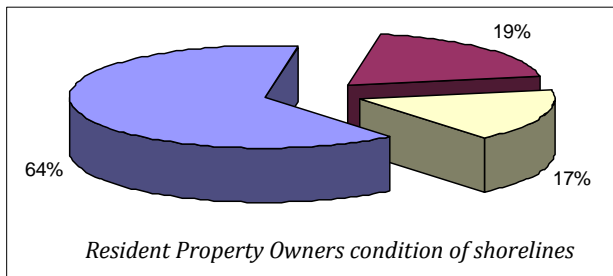
Property Owners Self-Reported Knowledge	Shoreland Condition		
	Least Natural*	Moderately Natural*	Most Natural*
How I maintain my shoreline property affects how much wildlife is around the lake.	3.96	4.30	4.00
How I maintain my shoreline property affects how many fish are in the lake.	3.70	3.97	3.83
Shallow waters near the shoreline are important spawning and breeding areas for fish.	4.12	4.33	4.48
How I maintain my shoreline property affects water quality in the lake.	4.14	4.56	4.38
Natural vegetation near the lakeshore helps prevent erosion.	4.30	4.56	4.51
Natural vegetation near the lakeshore infiltrates storm water and prevents excess nutrients from entering the lake that contribute to algae and plant growth.	4.11	4.33	4.37

Reported importance of shoreline conditions and property owners averaged response scores. (1=Strongly disagree and 5=Strongly agree) *Shoreline categories were based on property survey completed by John Haack – Least disturbed is defined as $\leq 1,050$ square feet of disturbed area within the 35' buffer zone per parcel. Most disturbed is defined as $\geq 1,925$ square feet of disturbed area within the 35' shoreland buffer zone.

CURRENT BEHAVIORS

The general condition of the shoreline area (the upland area 35 feet in width adjacent to the edge of the lake) on each property was inventoried prior to conducting focus groups, phone interviews and surveys.

- Shoreline conditions of both resident and non-resident properties were similar with 19% of resident property owners and 25% of non-resident owners maintaining mostly natural conditions (of the 212 parcels surveyed, 83% were owned by non-residents).
- More than half the properties were rated as least natural with property owners maintaining beach areas and mowing or removing natural vegetation along the shoreline.
- Docks, swimming access areas and recreational watercraft storage along the shoreline frequently consumed much of the shoreline area, especially on smaller lakeshore lots.

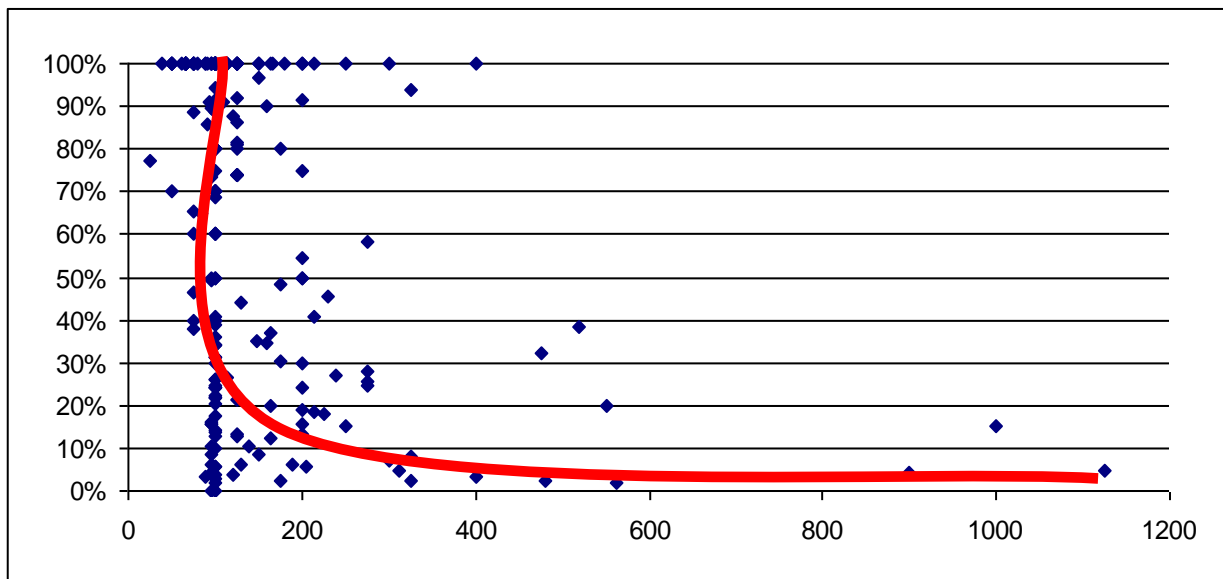


- Most Disturbed
- Moderately Disturbed
- Least Disturbed



Highly altered shorelines were categorized as most disturbed sites Mostly intact shorelines were rated as least disturbed

Lake properties with more lakeshore footage had a lower percentage of the most disturbed shoreline condition. As lot sizes decreased, much of the shoreline was used for access, recreation and storage thereby reduced opportunities for more natural shoreline habitat.



Comparison of feet of shoreline owned and % most disturbed shoreline rating

DESIRED BEHAVIORS

Project partners and local resource managers determined that increasing the amount of natural shorelines around the lakes was the single most beneficial thing property owners could do to maintain and improve water quality and fish and wildlife habitat.

The targeted behavior for this project was to encourage shoreland owners to adopt and maintain more natural shoreline areas by:

- Planting native tree, shrub and ground cover
- Reducing mowed areas and allowing vegetation to recover naturally

Changing behaviors and adoption of more natural shorelines often happen incrementally as a part of a process of change rather than one particular event, realization or a single decision. Understanding the process of the stages of behavior can be useful for developing strategies to better encourage adoption of more natural lakeshores (Shaw, Radler & Haack 2011).

BARRIERS

A number of things prevent property owners from allowing more natural vegetation on their shoreline. Reported barriers were greater for those with most disturbed compared to properties with the least disturbed shorelines.

Property owners rated the following as the most significant:

- Obstructed view of the lake reduces enjoyment of the view and not being able to watch children or grandchildren while they are playing in or near the water
- Increased prevalence of nuisance insects such as ticks and mosquitos
- Reduced access to the lake
- Prevented the property from having a sandy beach area

Other less significant barriers included:

- More messy appearance
- Increased habitat for snakes and other undesirable animals
- Less ideal for playing games along the lake shore

BENEFITS

Property owners rated the benefits of allowing more natural vegetation on the shoreland areas of their property. Differences between those with most disturbed shorelines verses least disturbed were fairly minor.

Most important benefits in order of importance:

- Maintaining good water quality
- Improving fish and wildlife habitat

- Land owners most enjoyed viewing eagles, loons and songbirds but also enjoyed seeing herons, frogs, ducks and turtles.
- Preventing Canada geese from feeding and defecating on their property. Most did appreciate viewing Canada geese but did not like them defecating on their property.
- Reducing runoff water and reducing soil erosion from entering the lake
- Increased opportunity to see fish and wildlife on my property

Note: The Burnett County Shoreland Incentive program provides a \$250 enrollment payment and a \$50 annual tax rebate to property owners for restoring and preserving shorelands. The tax credit did not appear to be an important reason for maintaining more natural shorelands on Long and Des Moines Lakes. Those with more natural shorelands were slightly more likely to view this program as a benefit of maintaining more natural shorelands. On a scale of 1 to 5, with 1 being not at all important and 5 as very important, property owners with least natural properties average rating was 3.52 and the most natural properties owner average rating was 3.78.

Property Owners Reported Benefits of More Natural Vegetation	Average score
Maintaining good water quality	4.54
Improving fish and wildlife habitat	4.28
Reducing runoff water and reducing soil erosion from entering the lake	4.21
Increased opportunity to see fish and wildlife on my property	4.13
Enhanced privacy between my property and my neighbors'	3.45
Property tax credits from the county for allowing my shoreland area to exist in a more natural state	3.36

Reported benefits of allowing more natural vegetation on shoreland areas. (1-Not at all important; 5= Very Important)

MESSENGERS

Lakeshore owners were most receptive to receiving information from a variety of local and government sources. Gaining the attention of lakeshore property owners through sources rated as the most receptive messengers to deliver messages and tools can more effectively encourage the adoption of more natural shorelines.

Property Owners rating of Information Sources	Shoreland Condition		
	Least natural	Moderately Natural	Most Natural
Des Moines or Long Lake Associations	3.66	3.98	3.79
Department of Natural Resources (DNR)	3.27	3.54	3.53
Burnett County Lakes and Rivers Association	3.19	3.65	3.32
Burnett County Land and Water Conservation Office	3.17	3.49	3.47
UW Extension	3.05	3.21	3.37
Burnett County Zoning Office	2.99	3.26	3.25
Neighbor or friend	2.84	3.15	3.21

How receptive property owners were to various sources of information (1-Not at all; 5= Extremely)

OUTREACH STRATEGIES PILOTED AND EVALUATED

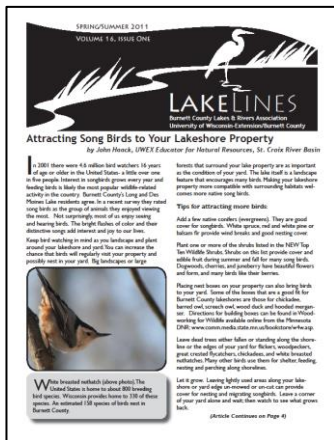
Lake property owners received multiple materials and promotions developed in response to what we learned from them regarding barriers and benefits of more natural shoreline conditions on their property. Collectively these strategies and materials were effective at raising awareness about the benefits of natural shorelines, reducing the significance of barriers and increasing the desirability of a more natural aesthetic. The mix of information and social marketing strategies contained in the different materials and sequenced over time likely contributed to the shift in preferences toward more natural shorelines and reduced perceived barriers to having more natural shorelines.

The following materials and promotions were delivered directly to property owners and evaluated:

NEWSLETTER

Based on our qualitative and quantitative research, messages tailored to property owners' concerns were featured in the Lake Lines Newsletter. Lake property owners preferred newsletters and brochures as sources of information and rated this specific newsletter most favorably. Landowners also stated it was effective for sharing information. The passive nature of newsletters often raises question about their value in social marketing programs, however interviews, focus groups and surveys of lakeshore owners indicated this was a trusted and well used source of information for this audience.

The newsletter was in existence prior to this project and was sent to all lake property owners on lakes that belong to the county-wide lake association (including Long and Des Moines Lakes). This project updated the newsletter's appearance and developed focused messages based on behavior change theories addressing property owners perceived barriers and benefits related to adopting more natural shorelines.



During the project period, various messages about native vegetation and financial incentive to purchase native plants were featured in Lake Lines. The following are examples:

- Free – no strings attached shoreland property site evaluations
- Top Ten Native Plants brochures and \$5 off native plant coupons
- Top Ten Wildlife Shrubs brochures and \$5 off native shrub coupons
- Attracting more song birds and other desirable wildlife to your property
- Avoiding nuisance animals like geese and ticks
- Lakeshore restoration choices (provided a variety of restoration options from wild looking to a more manicured look)
- Tips for successful tree and shrub planting

PROPERTY OWNERS HEARD

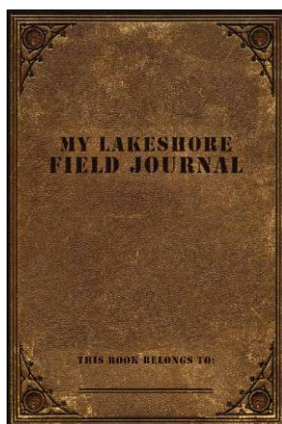


“Property Owners Heard” explicitly addresses the concerns identified in our research. Each property owner received a copy in the mail following the completion of the focus groups, interviews and surveys.

It explained the overall project and why lakeshore owners on Long and Des Moines lakes were asked to participate in the survey, focus groups and interviews. It also shared some of the research findings including what their fellow property owners’ perceived as the important benefits of having a more natural shorelines and their most common barriers and benefits were addressed.

YOUTH FIELD JOURNAL

The project developed and distributed copies of My Lakeshore Field Journal, a rustic-looking 27-page activity journal that engages youth to explore lakeshore life including frogs, turtles, plants and dragonflies while they are spending time at the lake. Lake owners responded favorably to the journal and felt it was very effective at sharing information and agreed that it encouraged them to manage for a more natural shoreline. Grandparents and parents in our focus groups and phone interviews reported that they viewed their lake property as a family legacy and a way to spend time with their grandchildren and children.



Burnett County subsequently purchased several hundred of the booklets and coordinated local sales through the Burnett County Lakes and Rivers Association. Numerous counties, UW-Extension Learning Store, UW-Extension Lakes, Wisconsin Association of Lakes, the UW Arboretum as well as other groups purchased a total of nearly 4,000 copies of the journals.

Journals are available on line at:
<http://learningstore.uwex.edu/Search.aspx?k=My+lakeshore+field+journal>

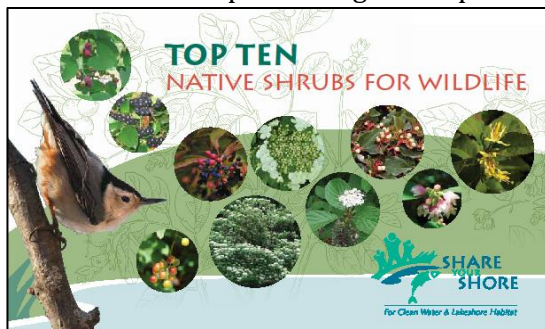
TOP TEN PLANT AND SHRUB PROMOTIONS



A \$7 off or free shrub and \$5 off or free plants coupon were mailed to lakeshore owners. The Top Ten Native Shoreline Plants and Top Ten Native Shrubs for Wildlife brochures combined with on site store promotional posters and direct mailings were effective at increasing coupon redemption rates to nearly double the national average.

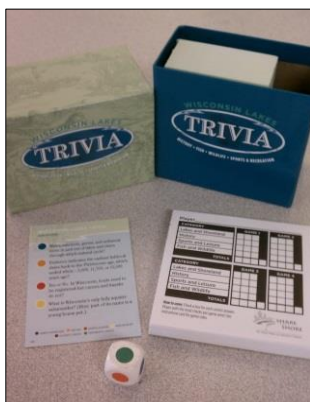
Shoreland owners liked the Top Ten Native Shoreline Plants and the Top Ten Native Shrubs for Wildlife brochures. The point of sale posters, promotional focus and local native plant selection were well received by the four participating nurseries in Burnett County. Some of the nurseries asked to be included in the program in future years. In addition to the direct mailing of the brochures and coupons to the Long and Des Moines lake property owners, the Burnett County Land and Water Conservation Department purchased and mailed 4,000 additional brochures and coupons with the countywide lakes newsletter "Lake Lines."

The coupon, newsletter articles and point-of-sale promotion posters increased the number of lakeshore owners purchasing native plants and shrubs.



WISCONSIN LAKES TRIVIA GAME

The Wisconsin Lakes Trivia game was well received and viewed as an effective way to share information. Property owners stated an interest in providing youth with activities while they were at the lake. The game gave families something to do together while learning about natural shorelines. Unlike many brochures and fact sheets, the game is durable and likely to be kept at the cabin and used repeatedly.



The UW-Extension Learning Store, more than six counties, Wisconsin Department of Public Instruction and other groups purchased nearly 2000 copies of the game to sell and distribute. The game won the Wisconsin Extension Environmental and Community Development Association 2013 Quality of Communication award. Games are available online at: <http://learningstore.uwex.edu/Wisconsin-Lakes-Trivia-Game--P1581.aspx>

SHORELAND SELF ASSESSMENT



The shoreland self-assessment score sheet was implemented to help shoreline owners objectively rate the health of their shoreline. Our survey data found that land owners typically overrate the naturalness of their own property when compared to the ratings by a trained biologist. The assessment was rated very favorably, a helpful way to share information and reported to be somewhat effective at encouraging a more natural shoreline.

BOOKMARK PROMPT



Attractive *Share Your Shore* wooden bookmarks were provided as prompts to encourage property owners to think about the values of natural shorelands. They included brief messages regarding the importance of natural shorelines and a link to Burnett County’s shoreline web site, which provides additional information. It rated the lowest of all the materials and few lakeshore property owners recall receiving it, suggesting it is not a recommended strategy.

Prompts, generally should be noticeable, self-explanatory and presented in as close proximity as possible to the action to be taken. In this case, we intended the bookmark to be used at the lake property to remind property owner about the benefits of more natural shorelands.

NEIGHBOR-TO-NEIGHBOR PROMOTION FOR FREE PLANTS AND A SITE VISIT

Encouraging property owners to schedule a ‘no strings attached’ site visit by a shoreland landscaping expert including an offer for \$25 worth of free plants had limited success. Increasing the offer if the property owner and their neighbor both asked for site visits encouraged a bit more participation and encouraged peer-to-peer communication and learning. In addition to increasing participation, the goal was to increase the social norms of more natural shorelines by having neighbors talking with neighbors about natural shorelines.

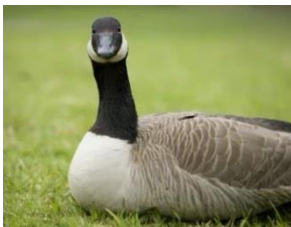
ADDITIONAL ELEMENTS DEVELOPED BUT NOT EVALUATED

The multiple components of this project likely increased the number of times lake property owners heard similar messages about the value of natural shorelines. Successful integrated marketing campaigns frequently employ multiple strategies and techniques. Below a few additional elements piloted during this project are described:

- YouTube clips: Both of these videos received considerable attention in Wisconsin and other states as well and show promise for reaching broad audiences with very little cost.



Larry the All-American Bullfrog - A talking frog (voiced by Wisconsin Public Radio's Larry Meiller) promotes natural shorelines from the perspective of a frog that depends on healthy lake edge in a short YouTube video. The focus groups indicated that frogs are like "canaries in the coal mine" and recalled a time when they viewed and heard more frogs along the lakeshore. The YouTube video can be viewed at http://www.youtube.com/watch?v=Ret_2agvDzg or at the UW-Extension video channel.



Sebastian the Goose - An animated Canada goose jokes about feasting on all the green grasses while providing suggestions about shoreland habitat features that discourage geese in a short YouTube video. Focus group participants noted that they liked seeing geese flying overhead, but they did not like having them poop on their beach or lawn. The YouTube video can be viewed at <http://www.youtube.com/watch?v=uhKIGxXgrLg> or at the UW-Extension video channel.

- *Shoreland Demonstration Projects* - Three shoreland restoration / re-vegetation demonstrations were installed by agency and citizen volunteers on Long Lake. Restorations were very visible from the lake and were promoted through newsletter articles and evening open houses held at two sites. Open houses allowed other shoreline owners to view the restorations, talk with the landowners and get information about natural shoreline options. These efforts were fairly expensive and very labor intensive, and the evening open houses provided minimal follow up requests for assistance.



- *Share Your Shore Logo* - This logo was developed, reviewed by the planning team and used on all the materials to provide a uniform and recognizable brand or theme to the materials. It provided an easy to remember, unique visual reference that united the various elements of the educational campaign.

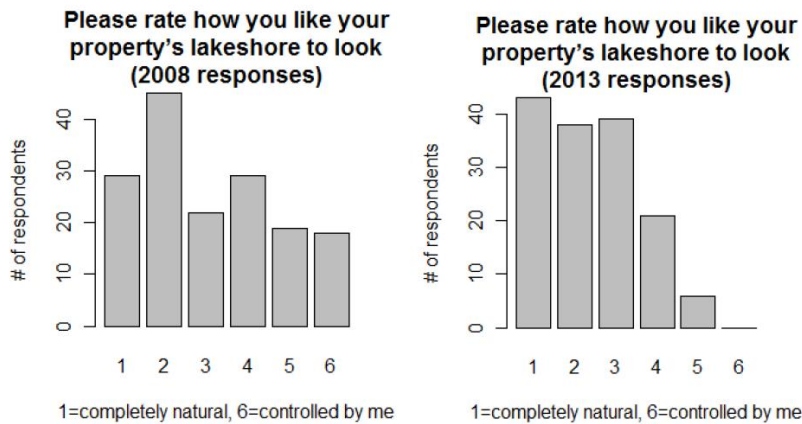


OUTCOMES

In December 2012-January 2013, we conducted a post-test survey along with a shoreland assessment in late fall of 2013 to understand changes in attitudes and landscapes that may have resulted over the course of this project.

POST-TEST SURVEY EVALUATIONS

Survey respondents reported a considerable shift in their aesthetic preferences during the study period, with respondents reporting a stronger preference for their shoreland to look natural ($t(292) = 4.56, p < 0.0001$). Mean response on the scale below shifted by almost a full point from 3.11 (sd = 1.63) in 2008 to 2.38 (sd = 1.17) in 2013.



The importance of several barriers to allowing a more natural shoreline decreased during the project period as indicated below.

How important are each of the following barriers to allowing more natural vegetation on the shoreland areas of your property when you make landscaping decisions? (1 = not at all, 5 = very important)		
	2008	2013
Obstructed view of the lake from my house	3.47	3.03
More ticks, mosquitoes and other nuisance insects	3.43	3.12
Increased habitat for snakes and other undesirable animals	3.10	2.74
Reduced access to the lake	3.31	3.06
More "messy" appearance	2.88	2.83
Prevents property from having a sandy beach	3.40	3.14
Less space for social gatherings	2.74	2.58
Less ideal for playing games along the lakeshore	2.70	2.42
Less able to see my children or grandchildren while they are in or near the water	3.38	3.27
Preference for a more manicured and open yard	2.13	2.11

Lake property owners were also more likely to believe their friends, family and neighbors desired that they maintain a more natural shoreline as indicated in three questions below.

	2008 (1=not at all, 5 = extremely)	2013 (1=strongly disagree, 5 = strongly agree)	t-test p value
My neighbors think leaving the shoreland area of my property in a natural, uncut state is a good idea.	2.96 (<i>sd</i> = 1.12)	3.27 (<i>sd</i> =0.92)	t(233) = 2.34 p = 0.019
My neighbors think leaving my shoreline property in a tidy, manicured state such as a mowed lawn or sandy beach is a good idea.	2.55 (<i>sd</i> =1.26)	2.96 (<i>sd</i> =0.94)	t(220) = 2.87 p < 0.01
My neighbors think leaving my shoreline property in a way that attracts more fish and wildlife is a good idea.	3.17 (<i>sd</i> = 1.09)	3.65 (<i>sd</i> =0.86)	t(235) = 3.82 p < 0.001

Self-reported shoreland maintenance behavior remained relatively unchanged from 2008 through 2013 with a slight reduction in mowing reported. The final survey revealed that 41% of respondents believed the best way to adapt more natural shoreline is to establish it by planting, compared to 29% who felt stopping mowing was the best, and 29% believing both methods were equally good.

LANDSCAPE CHANGES

Final property inspections were conducted in November of 2013, five years after the initial property inspections.

To examine changes on shoreland buffers (the area 35 feet above the ordinary high water mark), we reviewed the original data collected and recorded on data sheets along with photographs taken at the time of the original inspections on Long Lake. Lot-by-lot observations indicated that recreational use patterns and vegetation management and cover remained similar on many of the properties. Numerous large white and red pines as well as red oak trees were pushed over during an extreme windstorm event on July 1, 2011. Many property owners cut and removed these downed trees, while others allowed one or more trees to remain in the lake and along the edge of their properties. One property had numerous new trees planted in the shoreland zone, and three properties conducted shoreland restoration planting as part of this social marketing campaign as models to show others what this might look like. Natural shoreland vegetation on approximately 18% of the 154 parcels examined had additional square feet of unmowed or untrimmed vegetation in the 35 foot shoreland buffer area. Shoreland buffer vegetation on these parcels increased an average of 660 square feet per parcel, ranging from 100 to 1,600 square feet per parcel for a cumulative grand total of 17,921 square feet on Long Lake.

These more vegetated areas appeared to be the result of less mowing and trimming of shrubs and tree branches during the past five years. Several properties had a decline in natural shoreland vegetation associated with newly developed homes or replacement homes being built on the parcel,

or associated with expanded stairways and stairway landings and wooden decks. Two parcels removed retaining walls within the 35 foot shoreland zone and stabilized the shoreline with a combination of vegetated soil and rock rip rap. While the changes are modest, similar behavior change rates in national campaigns such as smoking cessation see incremental declines over time eventually adding up to significant success.

Along the shallow water zone, the increased water levels inundated areas that were exposed five years ago resulting in fewer exposed, manicured beach areas. Approximately one third of the properties had significantly more emergent vegetation such as bulrushes and sedges suggesting that some property owners did not disturb the exposed lake bed where these plants were able to re-establish and are now providing good habitat in shallow water areas.



2007 Lower water level/exposed lake bed



2013 Higher water more emergent vegetation

JOURNAL ARTICLES, REPORTS AND PRESENTATIONS

The preliminary research findings and progress of this project were broadly shared in publications, articles and presentations with a number groups and audiences.

JOURNAL ARTICLES

- *Exploring the utility of the stages of change model to promote natural shorelines.*
The stages of change model (SCM) suggest that shoreline property owners adopt more natural shorelines over time as they move through several stages of change (precontemplation, contemplation, preparation, action, maintenance, and relapse). The purpose of this study was to examine whether these stages of change may be useful in identifying lakeshore property owners' attitudes and intent toward adopting more natural shorelines. Results provide preliminary support that the SCM may represent a useful framework for understanding property owners' propensities toward adopting more natural shorelines. The authors suggest additional research will improve the external reliability of the SCM as adopted in an environmental context

Citation: Shaw BR, Radler BT, & Haack J. 2011. Exploring the utility of the stages of change model to promote natural shorelines. *Lake and Reservoir Management*, 27:310–320.

- *Comparing two direct mail strategies to sell native plants in a campaign to promote natural shorelines.*

The message strategy tested builds on the “zero-price effect,” which suggests that when faced with a choice between two product options, one of which is free, people respond more readily to the free offer as if the zero price not only implies a low cost of buying a product but also increases its perceived valuation simply in its being characterized as free. Households received a coupon that read “Free pack or \$5 off” with the “free pack” as the visually dominant element or a coupon that read “\$5 off or free pack” with the “\$5 off” designed as the visually dominant element. Otherwise, the coupons were identical. Half of the households randomly received the first coupon and the other half received the second. Coupons could be redeemed at one of five participating nurseries. As hypothesized, results indicated the “free pack” coupon offer was more attractive to recipients with almost twice as many redemptions.

Citation: Shaw, BR, Radler BT, & Haack, J. 2012. Comparing two direct mail strategies to sell native plants in a campaign to promote natural shorelines. *Social Marketing Quarterly*, 18: 274-280.

- *The challenge of self-enhancement bias for educational programs designed to encourage natural shorelines*

This study proposed and found support for a potential barrier to successful implementation of programs designed to promote natural shorelines along residential property. This study explored how the phenomenon of self-enhancement bias may cause property owners to overestimate the natural state of their shorelines, preventing remedial action they otherwise might take if a more accurate self-assessment were available. Results revealed that residents evaluated their own shorelines significantly more natural than did the biologists. This pattern is consistent with the hypothesis that self-enhancement bias may be a barrier to educational programs designed to encourage more natural shorelines among lakeshore property owners. Based on these findings, the authors offer recommendations for lake and water resource managers to potentially improve the efficacy of such programs.

Citation: Amato MS, Shaw BR, Haack J. 2012. The challenge of self-enhancement bias for educational programs designed to encourage natural shorelines. *Lake and Reservoir Management*, 28:206–211.

PRESENTATIONS

2008 Extension Association of Natural Resource Professionals- Madison, WI

2009 Northwest Lakes Conference – Cable, WI

2009 Advanced Lake Leaders – Moon Lake, WI

2010 Wisconsin Lakes Conference – Green Bay, WI

2010 Lake Leaders – UW-Kemp Station

2010 UW-Extension Community and Natural Resource Development Symposium

2011 Advanced Lake Leaders – UW-Kemp Station

2013 Lakes Meeting – UW- Madison Trout Lake Station

2013 Share findings and proposed research at Advanced Lake Leaders – Green Lake, WI

NEWSLETTER ARTICLES

The Lakes Connection Newsletter – 2008 Volume 17, No.4

Association of Natural Resource Extension Professionals Newsletter – 2009

Environmental Communication and Social Marketing Newsletter-Vol 2 Issue 1 Spring/Summer – 2009

Lake Tides Newsletter – 2010

Country Today Newspaper – 2010

UW Madison College of Agricultural and Life Sciences, eCALs – 2010

<http://ecals.cals.wisc.edu/highlights/2010/05/28/grossing-out-for-a-good-cause-sebastian-the-talking-geese/>

Great Lakes Echo – 2013

<http://greatlakesecho.org/2012/01/16/video-this-talking-geese-loves-a-mowed-lawn/>

United States Environmental Protection Agency – 2013 Lake Shoreland Protection Resources Clearinghouse for Information on Lakeshore Protection and Restoration

http://water.epa.gov/type/lakes/shoreland.cfm#CP_JUMP_480580

Yahara Portal – 2013 <http://www.yaharaportal.org/subject/geese>

Great Lakes Echo – 2013 <http://greatlakesecho.org/2013/08/06/survey-reveals-why-lawn-trumps-native-shoreline-and-what-to-do-about-it/>

ADDITIONAL PROJECTS & RESOURCES GENERATED

The following grants were received to support or continue this research program using social marketing to promote natural shorelines:

1. “Using social psychology and tailored messaging to better promote shoreland restoration on Wisconsin's inland lakes.” \$59,242. (B. Shaw, PI, UW-Madison; E. Olson, University of Wisconsin-Stevens Point is co-PI). University of Wisconsin Consortium for Extension and Research in Agriculture and Natural Resources (CERANR) fund. 2013-2015.
2. “Promoting behavior change on Wisconsin's shorelines.” (B. Shaw, PI). University of Wisconsin, Madison, Graduate School. PI. \$27,908, 2013-2014.

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NEXT STEPS

Conduct workshops on effectively promoting shoreland protection – 2014

Field test specific methods for delivering objective feedback about shorelines ecological health to property owners – 2013-2015

Submit additional articles to peer-reviewed journals read by social and natural scientists

RECOMMENDATIONS

Lake property owners may already know about the importance of shoreland habitats but still may have overly manicured shorelines. With local or regional education campaigns, consider using a survey and or focus groups to better understand their self-interests and concerns. Use what you learn to develop more effective educational messages. Our findings identified the following as effective strategies:

1. Promote the use of low growing native shrubs and plants that don't block the view of the lake.
2. Promote native plants as a way to attract more songbirds, frogs and other types of wildlife property owners identified as desired.
3. Emphasize the benefits of natural shorelines for preventing geese from congregating and defecating on their lawns and beaches.
4. Multiple messages delivered over an extended time period may be more effective. Develop educational programs with multiple approaches that work together to influence change.
5. Create long-term lake shoreline owner relationships as real change toward more natural shorelines takes time.
6. Property owners likely see their property as more natural than it is. A shoreland self-assessment score sheet may help them objectively rate the condition of their property.
7. Achieving behavior change in shoreline maintenance requires patience. Anticipate incremental behavior change over time.
8. Use logos to create a more unified and recognizable brand.
9. Promote mulched pathways and mulched edges as a way to reduce tick exposure.

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