



## Social Marketing Campaign Aims to Encourage Property Owners to Restore Lakeshore Habitat

By Bret Shaw and John Haack

It is well known that increased shoreland and residential development across the state has had a significant negative impact on natural scenic beauty, water quality, and fish and wildlife habitat. While home owners frequently see their individual property changes as small and insignificant, lake managers and scientists are observing broader trends and some significant impacts from the many small actions that are adding up to measurable changes for the worse in water quality and habitat availability over a relatively short span of time.

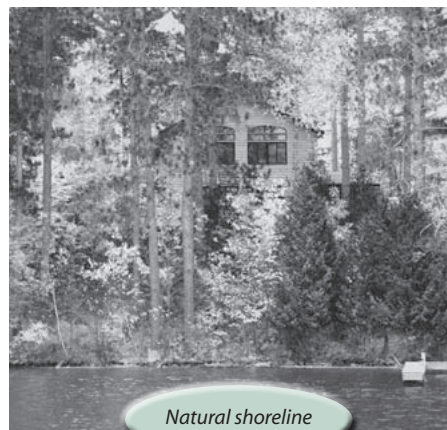
John Haack, an Extension Basin Educator in northwest Wisconsin, had been working on these issues for 25 years. Most strategies that he and his colleagues had implemented to address negative impacts on shoreland ecosystems relied on classical education techniques such as brochures and workshops, operating on the assumption that if people only knew their individual decisions were cumulatively

impacting the lake, they would change their behavior accordingly.

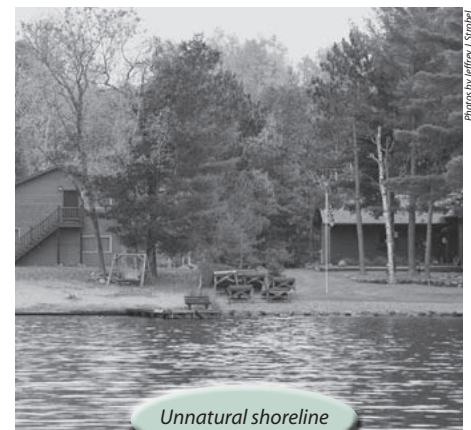
For the past few decades, however, residential development around northern lakes has increased dramatically. Additionally, at least up until the recent economic downturn, people

were also building larger and larger homes adjacent to the lakes and making landscaping decisions such as neatly manicured lawns and sandy beaches that further impacted their shoreland areas.

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Natural shoreline



Unnatural shoreline

Photos by Jeffrey J. Strobel

### What You Say is What You Get:

## Choosing the Right Words to Protect Wisconsin's Lakes and Rivers

By Bret Shaw

Most of us have heard the advice that "it's not just what you say, but how you say it." We intuitively know the words we choose make a huge difference in how others receive our communication. However, when talking about

issues we know a lot about, such as preserving the quality of our lakes and rivers, it's easy for some of us to use specialized language that may not be the most understandable or appealing to many people.

This article will look at some of the findings from a study conducted by Maslin, Maullin and Associates in 2004 on behalf of the Nature Conservancy and Trust for Public Land. The study was designed to look at ways to translate specialized vocabulary into every day language that clicks with voters. The work provided some valuable clues regarding ways to discuss

environmental conservation and water-related issues with the general public.

The research was done using telephone interviews and focus groups and was conducted with 1,500 likely voters across the nation. The research focused on communicating with citizens who were not particularly engaged in environmental issues, rather than conservation groups who tend to be more aware of ecological topics.

Mention "water protection," and you will get people's attention, no matter how you say it or

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### About this Newsletter

*Environmental Communication and Social Marketing* provides a forum for communication between professionals in the social and natural sciences who share a common interest in promoting behaviors that will positively impact the environment. The newsletter is multidisciplinary in nature, emphasizing theoretically-informed, evidence-based approaches to behavioral change.

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*This section highlights research projects in Wisconsin that were recently completed or are currently in progress. Each was designed to provide insights about how to most effectively encourage behavior change to improve the environment. To submit your own project to be featured in future issues, contact Bret Shaw at [brshaw@wisc.edu](mailto:brshaw@wisc.edu) or 608-890-1878.*

### Outreach Program Communicates Impacts of Citizen Stream Monitor Program

Working in conjunction with Kris Stepenuck of the Wisconsin Extension and Department of Natural Resources' Water Action Volunteers and Chris Clayton from the River Alliance of



### Wisconsin's Citizen-Based Water Monitoring Network

Wisconsin and Department of Natural Resources, Extension Environmental Communication Specialist, Bret Shaw, and his graduate assistant, Elizabeth Goers, have been working to increase the visibility and sustainability of the Citizen-based Stream Monitoring Program in Wisconsin.

Level 2 stream monitors were recently interviewed and surveyed about what they would like to see happen in order to maintain their commitment to the program. Results indicated volunteers wanted the program to communicate more about how their efforts are making an impact on protecting and restoring Wisconsin's streams.

These findings are being used to more broadly and strategically disseminate stream-monitoring data to various stakeholders in monitors' communities (e.g., media, local leaders, conservation groups, educators). Articles about stream monitors have been published in the Fond Du Lac Reporter,

Cambridge News and Wisconsin Outdoor News as well as an on-air piece on WORT 89.9 in Madison, and more articles about the impacts of the citizen stream monitoring program are currently underway.

Volunteers reported they would like to see more youth involvement, so some next steps include working on educational plans

for teachers and other youth groups. Engaging local leaders

throughout Wisconsin about the value of stream monitoring is also on the agenda. Funding for the grant continues through December 2009. 🌱

*If you are interested in this project, please contact Kris Stepenuck by phone at 608-265-3887 or at: [kris.stepenuck@ces.uwex.edu](mailto:kris.stepenuck@ces.uwex.edu).*



### Research Examines Hospice Role in Disposing of Pharmaceuticals Following Patient Death

Researchers from the University of Wisconsin – Madison recently concluded a statewide investigation into the role of hospice professionals' encouragement of proper medication disposal following patient death. Graduate student James T. Spartz and Assistant Professor, Bret Shaw, from UW-Extension and the Department of Life Sciences Communication found

survey results both enlightening and cause for some concern.

In recent years, a broad range of pharmaceutical compounds have been found in public water systems globally including trace levels of several drugs commonly used in hospice care. The hospice industry was chosen for this investigation because surplus medications are often present during and after home hospice care. It was also thought that hospice professionals would be open-minded to this topic. These conditions were both validated during the course of the survey.

Survey results found inconsistent medication disposal practices among hospice agencies statewide. Survey respondents called for greater clarity and consistency in government regulations regarding medication disposal as well as increased collaboration with pharmacists and more direct leadership from elected officials and the state hospice organization. Barriers to adopting appropriate medication disposal practices were found to be moderate and mainly included the added time and expense it takes to adopt more pro-environmental routines. 🌱

*For disposal guidelines on household pharmaceutical waste products, visit the Wisconsin Department of Natural Resources site at: <http://dnr.wi.gov/org/aw/wm/pharm/household.htm>.*

*For more information, contact James T. Spartz by phone 608-890-2264 or email at: [jspartz@wisc.edu](mailto:jspartz@wisc.edu).*

## ● Person Profile: *John Haack, UW-Extension Basin Educator for Natural Resources – St. Croix Basin*

By Heather Akin, graduate student, Department of Life Sciences Communication, UW-Madison



John Haack

A wildlife biologist by training, John Haack has surveyed and viewed hundreds of miles of lake shorelands in Wisconsin as a private pilot and earlier in his career reviewing shoreland zoning and issuing permits as a water management specialist for the Wisconsin Department of Natural Resources. His experiences showed him that though laws and regulations protecting shoreland property often have the best of intentions, they are not always as effective as they should be at encouraging people to protect their shoreline.

Now a University of Wisconsin-Extension natural resources educator in the St. Croix River watershed in Northwest Wisconsin based in Spooner, Wisconsin, Haack is using his experience and knowledge of the area to implement a community-based social marketing

campaign that seeks to influence lakeshore owners to change their restoration habits on their shoreland property. His project has recently completed the formative research phase to discover strategies that may increase the effectiveness of the campaign (see cover article for results from this survey).

After many years of disseminating information in publications, videos and workshops, Haack began questioning whether these information-based tactics were successful in producing actual behavioral change. "There are challenges to getting people to change seemingly simple behaviors and then to continue these new behaviors year after year. So I was eager to think about that and try something new," said Haack.

Haack had heard about community-based social marketing, which uses marketing techniques to encourage behaviors that can improve the environment. When he learned that Doug McKenzie-Mohr, one of the leaders in the field, was offering a workshop in Minneapolis/St. Paul, he decided to attend. Haack was very interested in the principles of community-based social marketing and felt that they could perhaps be applied to the initiatives he was working on.

Shortly after attending the CBSM program, Haack was appointed to the Shoreland and Shallows Advisory Committee of the Department of Natural Resources, a team charged with forming new strategies to protect and restore shallows and shorelands. He and his team members were eager to pilot some community-based social marketing techniques, but funding for such a program was not immediately available.

So, Haack pursued and was awarded a grant to form a shoreland protection campaign in Burnett County. He believed the county would be a good fit because of an interest in long-range planning for shoreland protection and a great working relationship with county staff. "Scenic shoreland areas, good fishing and clean water are a part of our local culture and are the reason why tourists come here, and it's why lake property values are so high," said Haack.

In order to develop the campaign, Haack selected two lakes in Burnett County, Des Moines and Long Lakes. The two lakes appeared to be appropriate for research because they were representative of other lakes in the county, including levels of shoreland development, population characteristics, and lake associations that have relatively

normal activity and leadership for the region. Additionally, Haack had access to parcel data that provided him information such as property owners' contact information, lot size and parcel locations. He used the information to recruit participants for research and basic information such as whether property owners lived in or out of state and to conduct a basic shoreland assessment on each property.

"I was particularly interested in field testing a CBSM campaign and learning if property owners with greater knowledge about shoreland conservation actually behaved differently than those with lesser or no knowledge," said Haack. "Previous research in Burnett County indicated that lakes with lake associations know more stuff about lake protection, but in my experience knowledge doesn't equal behavior change when it comes to lakeshore protection."

Haack also did a lot of background work to decide on what behavior change he would target in his campaign, including talking to many other individuals and organizations

conducting CBSM programs. Taking this even further, Haack also toured Des Moines and Long Lakes on a pontoon boat with regional natural resource managers, lake and water conservation specialists, asking them what they would ideally do to enhance the lakes. He found the one behavior they all agreed on was the protection of shoreland buffer zones.

"If we could just leave that 35 foot buffer zone, we'd solve a lot of problems such as water infiltration, soil erosion and loss of habitat for fish and wildlife dependent on these habitats," said Haack. "We're getting an idea of how receptive people are to those messages and what personal or property-related concerns stop them from doing more lake-friendly behaviors. What I'm getting to is that people love fish, wildlife and clean water. But everybody hates geese that poop on their docks and lawns because they're a real nuisance, so maybe we can use that in our marketing campaign. As you put in shoreland buffers, you discourage geese. While folks seem to know the basics of how to protect lakes and what impacts them, they have a disconnect between what they do on their shoreland and the cumulative impacts these actions have on the lake."

Haack and his partners are analyzing data from surveys and focus groups for the project in order to investigate more specific answers to these questions.

But one thing he's already found is that constructing a community-based social marketing campaign can't always follow the same approach.

"The program is not as cookie cutter as I thought. It's much more nuanced. It's always much more complicated," said Haack. "We have to focus on a single audience, and a single behavior. Different audiences have different barriers and different perceived benefits. We are sticking with shoreland property owners, and no one else."

After collecting all his data and officially implementing his campaign, Haack hopes to go back in five years and re-evaluate the shoreland properties on Des Moines and Long Lakes. He'll then determine whether or not there was a change to the buffer zones on these shoreland properties. 🙌

To learn more, contact John Haack by e-mail at [john.haack@ces.uwex.edu](mailto:john.haack@ces.uwex.edu) or by phone at 715-635-7406.

*While folks seem to know the basics of how to protect lakes and what impacts them, they have a disconnect between what they do on their shoreland and the cumulative impacts these actions have on the lake.*



## ● Resources

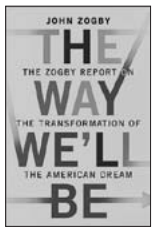
A space to share resources on programs and educational projects aimed at fostering environmental behavior change. To submit a resource, contact Bret Shaw at brshaw@wisc.edu or 608-890-1878.

### Book Review: *The Way We'll Be: The Zogby Report on the Transformation of the American Dream* by John Zogby

Reviewed by Elaine Andrews

In pursuit of a social marketing strategy, educators are encouraged to identify a target audience and investigate barriers to recommended behaviors. While educators understand this idea in principle, they may not know how to apply it accurately. *The Way We'll Be* may help, as it provides an entertaining guide to thinking creatively about potential target audiences. The book highlights details and trends about the American public based on studies of about a half a million

people a year, over the last 7 years. Studies include projects for Fortune 500 companies, utilities, universities, charities, and politicians. The author, John Zogby, is a well-known international pollster who advises a variety of clients, but cautions that polling is only "a snapshot in time."



To understand how Zogby segments an audience, consider this example from the 2004 New Hampshire primary. Zogby's staff had

studied the electorate and determined that Dean supporters were most likely to vote before 5 p.m. and that Kerry supporters were most likely to vote after 5 p.m. While the networks wanted to call a primary win for Dean by the dinner hour, Zogby said "wait," and Kerry surged during the evening polling hours.

Reviewing multiple years of polling results, Zogby has identified what he calls "four meta-movements that ... are redefining the American dream." Communicators may want to use these ideas as a foundation or subtext for any messages. They are: living with limits, embracing diversity, looking inward, and demanding authenticity. He suggests that consumers: "take their cues globally, not locally"; "are inner-directed, network connected, and sensitive to the environment"; and are "sick of false promises and phony claims." Authenticity is a key value. Communicators will have success appealing to the heart, if they also appeal to the head.

Zogby looks to what he calls the "First Globals" to understand where the country is going. While this age group (born since 1979) rates as materialistic and self-absorbed, they are also "the most outward-looking and accepting generation in American history." "They're the first color-blind Americans and the first to bring a consistently global perspective to everything from foreign policy to environmental issues ... to the music they listen to and the clothes they wear". In predicting greater attention to the environment in the future, Zogby describes an "emerging centrist majority ... that is ready to move beyond simply talking about the environment to making changes in their own lives, worldview, and expectations that can lead to real ecological sustainability". Polls about energy policy, for example, indicate strong agreement among most age groups with the idea that "I need to use less energy because my energy use contributes to dangerous carbon emissions;" and "Alternative fuels like solar, wind, and geothermal can create hundreds of thousands of new jobs!" 🌱

*Read this book to learn about audience segments you might not have considered before, and to consider trends in attitudes and preferences, such as taking action to improve our stewardship of the environment – as you develop communication messages.*

## Social Marketing Campaign Aims to Encourage Property Owners to Restore Lakeshore Habitat

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In response to this realization that regulations and education were not having their intended effects in conserving shorelands, Haack wanted to try something new. After being exposed to social marketing, he set out to try this approach on lake-related issues (for more on how Haack learned about social marketing and selected the specific lakes for testing the campaign, see the Person Profile about John Haack on page 3).

Social marketing is an approach to outreach that promotes the voluntary behavior of target audiences by offering benefits they want, reducing barriers they are concerned about and using persuasion to motivate their participation in program activity. A key factor influencing interest in social marketing is its focus on behavior versus other softer outcomes such as increasing knowledge or changing attitudes. Indeed, behavior is truly the only dependent variable that will produce positive, measurable effects on the environment.

With feedback from natural resource scientists, it was determined that the single most important action shoreline property owners could do to maintain water quality and improve fish and wildlife habitat was to preserve or restore buffer zones of native vegetation along the lakeshore. With support from Burnett County and funding from the Department of Natural Resources Lake Protection Grant Program, Haack set out to implement a social marketing campaign encouraging property owners to better manage their shoreline ecosystems.

The first year of the project has been focused on understanding how shoreline property owners think about the issue of buffers and landscaping on their land, what barriers exist toward adoption of the targeted behavior and what would motivate these residents to manage their shorelands in a more lake-friendly manner. Initially, focus groups and interviews were conducted to gain a broad understanding of residents' attitudes and to inform development of a quantitative survey that would be used to inform the planning of an actual social marketing campaign to be launched in Spring 2009. The survey was distributed in Summer 2008, and 165 residents responded with a 72% response rate among residents of Long and Des Moines Lakes. Key findings from this survey and strategies that will be implemented based on these results are described below.

Respondents indicated that the most important benefits of allowing more natural vegetation on the shoreland areas of their property were maintaining good water quality, improving fish and wildlife habitat, and reducing water runoff and soil erosion from entering the lake. So, people seem to understand the benefits of natural vegetation around the lake though the properties of fewer than a quarter of participants meet the intended standards of the county and state shoreland buffer regulation standards. Indeed, there was a significant disconnect between the properties as categorized by a trained field biologist in terms of whether residents met shoreland protection requirements and how residents categorized their own properties. For example, while the biologist rated 50.9% of properties as being most in need of restoration, only 3.1% of respondents felt their property was highly manicured and maintained. While these weren't the same exact categories, it's clear that residents had different ideas of what constitutes a natural shoreline as compared to a biologist. One way to address this misperception in the forthcoming social marketing campaign is to provide pictures of real properties that meet and don't meet shoreland buffer standards to provide greater understanding about the issue.

Respondents were also asked what strategies would encourage property owners to allow a portion of their shoreland to return to a more natural state. The highest rated item was tax credits. Interestingly, however, only 16.6% of participants said they were actually enrolled in the Burnett County Shorelands Incentive Program. This suggests that our campaign will want to find out how we can modify and improve the existing program to encourage more property owners to participate.

Another question asked of residents was what were their barriers to allowing more natural vegetation on the shoreland areas of their property. One encouraging sign was that none of the barriers were perceived as being very important. Among the highest rated barriers for restoring buffers was an obstructed view of the lake and a reduced ability to see children or grandchildren while they are playing in the water. This result suggests that the campaign might emphasize strategic planting

of low growing native shrubs and grasses so property owners still have a view of the lake and the ability to watch over their children.

Another significant barrier was the perception that having a shoreland buffer would prevent their property from having a sandy beach. Statewide standards allow for a 35-foot access corridor and beach area, so the campaign may emphasize strategies to help property owners strike a balance between their desire to recreate by the water and protect the quality of their lake.

One final barrier that rated relatively high was that people were concerned that having a buffer would increase the prevalence of nuisance insects such as ticks. One strategy that property owners with this concern can implement is the use of mulched paths, which ticks avoid.

Another area the survey explored was what wildlife they enjoyed seeing most, with the intent of explaining to residents how pristine natural habitat contributes to the well being of their favorite animals. Respondents indicated that eagles and loons were the animals they wanted to see more of around their properties. For example, in the messaging of our campaign, we will emphasize that loons need natural vegetation for nesting and raising their chicks and both eagles and loons need good water quality and healthy fisheries for feeding.

On the other hand, property owners were not interested in attracting some kinds of animals to their property – most notably geese. One of the insights that emerged from both the focus groups and surveys is that while people may be okay with watching geese fly overhead or swimming in the water, they do not like them congregating on their lawn and leaving unsightly and unsanitary fecal matter behind when they migrate

off to greener pastures. Even for people not focused on water quality and wildlife habitat as a reason for allowing more natural foliage to grow on their shoreline property, the campaign will communicate that lawn-loving geese will be deterred from spending too much time on their land because they fear that natural shoreline vegetation may harbor predators.

The survey also asked respondents about how they liked their property's lakeshore to look. The rationale for this question was that we wanted to know whether property owners would be more willing to just "let it be" and allow natural, native vegetation to take over or whether they preferred a look that was more clearly controlled by the owner, which would suggest a more proactive approach to creating buffers. Responses came in right about the middle of these two extremes, suggesting that our campaign should recommend how to allow more natural elements to emerge in the shoreline area while allowing some flexibility to plant native shrubs and grasses to enhance the buffer's restoration.

Next steps are to use this data to develop campaign materials and strategies, build partnerships with community stakeholders and launching the actual campaign in early Summer 2009. An evaluation protocol has also been put in place to monitor how opinions and attitudes have shifted as a result of the campaign. Most important, individual parcels will be reassessed at the end of the campaign to measure whether this initiative has been successful in encouraging residents to restore buffers on their lakeshore property. 🌱

*For more information on this project, contact John Haack at 715-635-7406 or john.haack@ces.uwex.edu.*

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## What You Say Is What You Get: Choosing the Right Words to Protect Wisconsin's Lakes and Rivers

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where you are in the nation. When communicating about this issue with people in the study, the authors stressed the need to talk about "preserving" water quality. The study indicated that people overwhelmingly agree water quality is a very important issue. The data also indicated while people do not view water quality as a problem now, they do recognize a need to invest in preserving the quality of their water for the future.

The study also suggested it is a good idea to use phrases that imply ownership and inclusion of the water, such as "our" and "we," when discussing conservation. For example, talking to others about "OUR lake" and how "WE need to protect OUR lake..." helps them understand their connection to surrounding water resources. By pointing out that a particular lake is a resource belonging to the entire community and openly recognizing that everyone has a stake in the lake, individuals are given ownership and a sense of responsibility. These inclusive words help increase the likelihood that people will care about the message. An example of a potential message that could be used in a water quality preservation discussion might be, "We need to protect our lakes, natural areas and wildlife habitat for future generations. Unless we act to protect these areas now, many of our beautiful, natural areas will disappear before our children and grandchildren have a chance to enjoy them."

Taking care of our waters is important, and linking that value to benefits for "future generations" consistently tested very well as a rationale for preserving natural resources. For example, 64% of respondents rated "providing opportunities for kids to learn about the environment" as a very important reason for their state or local community to protect land from development. It was interesting to note that there was very little difference between how parents or non-parents reacted to messages emphasizing the value of preservation for future generations.

Vocabulary also makes a difference when using environmental terms to describe people and their interests, such as "conservationists" rather than "environmentalists." Respondents in the study were more likely to view themselves as "conservationists" than "environmentalists." Additionally, people were more likely to be skeptical about the efforts of "environmental groups" as compared to "conservation groups."

A popular tool used to protect the land around Wisconsin lakes and rivers is a conservation easement. However, one of the strongest recommendations to emerge from the study was the need to avoid using the phrase "conservation easement." The research demonstrated that the language used by the environmental community regarding this issue has hurt its public image. Rather than using the

term "conservation easement," the study recommends saying "land preservation agreements" or "land protection agreements." Easements were interpreted negatively by some people in the study because the term made them feel they were being forced into doing (or not doing) something with part of their land. The word "easements" made them think of the types of restrictions they may have had to deal with when they purchased their own property. "Conservation" tends to be a more positive term and pairing this with the word "agreements" or "partnerships" made the concept much more acceptable.

There may be no perfect way to communicate the benefits of stewardship for our natural resources to all audiences. However, this research reminds us that the words we use in promoting our cause can potentially make a big difference in how people respond to what we say.

Based on a memorandum of a study conducted by Fairbank, Maslin, Maullin, & Associates and Public Opinion Strategies. To read the full memorandum of this study, visit: <http://www.floridaaginfo.com/atoz.html> and click on "Language of Conservation." 🌱

*Thanks to the team at UW-Extension Lakes for their editing in creating this article.*

# Environmental Values: Values-Beliefs-Norms Theory

By Rick Chenoweth

Values are often invoked in discussions of how to get people to behave in a more environmentally-sustainable way. There is a substantial literature on values that spans the disciplines of philosophy, economics, political science, sociology and social psychology. The focus in this article is on one theory that attempts to link values with environmentally relevant behaviors.

The values-beliefs-norms theory of environmental concern and behavior emphasizes a series of linkages between environmental values, how individuals make decisions about the environment, and ultimately, how they will choose to behave.

The theory suggests that people have one of three basic general value orientations: purely self-interested, generally altruistic toward all humans, or altruistic toward all living things. Cross-cultural studies of value orientations show that, on average, Americans are more self-interested than people in many other cultures. The implication is that it will be particularly important that environmental communications make explicit the linkages between environmental values and the quality of their own daily lives.

Much of environmental education, especially for younger persons, can be seen as an effort to influence their general value orientation rather than change specific behaviors. Presumably, altruism toward all living things is a general value orientation that, as adults, will make it easier for communication campaigns to create effective behavioral change.

Our general value orientation influences our worldview, that is our general beliefs about the importance of the environment. But the VBN theory makes it clear that having generally

positive beliefs about the environment is not, by itself, enough to directly trigger desirable behaviors. Rather, our ecological world view influences our beliefs about the consequences of environmental change on things we value such as clean air or clean water.

This in turn influences our perceptions about our own ability to reduce the threats to the things we value; "Can I, as an individual, make a difference?" The more that people feel they, as individuals or individuals operating in a group, can make a meaningful difference in reducing the threats to the environment, the easier it will be to persuade them to take the appropriate pro-environmental actions.

Our personal norms, that is, the sense we have of our own personal obligation to take pro-environmental actions completes the set of linkages between general value orientation and it's potential influence on four kinds of environmentally-relevant behavior: (a) political activism, (b) non-activist political behaviors such as voting, and (c) private sphere behaviors

such as choices made as consumers and (d) the behaviors of individuals in organizations where pro-environmental policies might be endorsed.

The important message from VBN is that there is not a direct link between values and behavior; even people with a general value orientation that is favorable toward all living things will not necessarily take the kind of pro-environmental actions that will improve the condition of the environment.

General value orientation is extremely difficult to change in the short term. But for those whose general value orientation predisposes them to change their behavior, environmental campaigns and communications can be productively aimed at strengthening any of the linkages shown in

the model in order to increase the likelihood of changing behavior.

The Biodiversity Project, located in Madison, Wisconsin, specializes in values-based communications and research-based message development aimed at increasing biodiversity. They summarize value-based messages this way:

1. The message engages both rational and emotional dimensions of an issue.
2. Answers the audience's question "why should I care about this issue?"
3. Activates existing values but does not change them.
4. Values shift the debate: no longer just about facts, rather the message is about things we care deeply about.

The Biodiversity Project seeks to meaningfully engage people and empower them to act by helping them to make the connection between the environment, their own daily lives and their basic values. Using public opinion research, they create environmental campaigns and communications that speak to widely held cultural values and prominent public concerns, engaging public audiences on the issue at hand through highly salient, cognitive, and affective approaches. 🌱

The Biodiversity Project website (<http://www.biodiversityproject.org>) is well-worth visiting. It contains examples of values-based communications as well as message kits that are available to the public. The "tipsheet" on communications is excellent: [http://www.biodiversityproject.org/docs/publicationsandtipsheets/communicatingaboutbiodiversity\\_tipsheet.pdf](http://www.biodiversityproject.org/docs/publicationsandtipsheets/communicatingaboutbiodiversity_tipsheet.pdf)

*An excellent review of the idea of environmental values as well as thorough review of research on environmental values can be found at:*

*<http://arjournals.annualreviews.org/doi/abs/10.1146/annurev.energy.30.050504.144444?cookieSet=1&journalCode=energy>*



A Biodiversity Project message that connects biodiversity to the basic value of protecting our children and their future.

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# Changing Public Behavior- Assessing Educator Skills

By Elaine Andrews and Kate Reilly, UW Environmental Resources Center

Funders of environmental outreach programs are increasingly demanding that those efforts do in fact change behavior in a way that has a favorable impact on the environment. It is more important than ever that educators have the skills to create effective programs and be able to document that effectiveness in producing behavior change.

The Changing Public Behavior Project (CPB) is a national effort to build educator skills that will improve citizen involvement in environmental stewardship. The CPB Project provides both online and direct assistance. The resources available to educators are designed to increase educator skills and confidence in choosing outreach techniques that are most likely to lead to measureable results for well-defined target audiences.

Since January 2008, the CPB project has provided five workshops for natural resources educators, managers, and administrators from Extension programs, public agencies and non-government organizations. These pilot workshops were designed to reveal which techniques and resources are most likely to increase their self-confidence in applying social science techniques to promote pro-environmental behaviors.

Prior to each workshop, participants received a survey that queried how they perceived their own strengths and weaknesses in applying behavior change techniques. The results were then used to tailor the content of the workshops to the needs of the participants. County Extension educators were more confident about their ability to identify and talk with target audiences than other types of participants. But these same educators were significantly less confident in describing and analyzing an environmental practice than other participants.

The pre-workshop survey described fourteen educator skills and asked respondents to identify those for which they could use the most assistance. Participants were most likely to want help with the following educator skills.

- Developing and implementing outreach activities that influence selected behaviors (79%)
- Using target audience information to assess the potential for behavior change (64%)
- Monitoring (59%) and evaluating results (63%)

The survey also asked about what social assessment skills they needed. The respondents were most likely to want help with the following skills:

- Selecting a data gathering or social assessment procedure (72%)
- Applying a data gathering procedure (61%)
- Analyzing and summarizing results (60%)
- Applying results after data has been analyzed (54%)

The results of the surveys described above make it clear that there is a substantial need for programs that assist outreach educators, especially because of increased requirements that outreach educators be able to demonstrate that their programs do in fact change behavior that has a favorable impact on the environment. Over 50% of workshop participants, sometimes much more, identified 11 of the 21 skills described in the survey as being needed to operate effectively as outreach educators. Professionals do not need to become experts at every skill identified by the CPB Project, but they need to understand the components of behavior change well enough to gather and manage resources to accomplish each element. The CPB project is helping achieve this goal. 🌱

For more information, contact Elaine Andrews from the Environmental Resources Center at [eandrews@wisc.edu](mailto:eandrews@wisc.edu) or visit the project website at <http://wateroutreach.uwex.edu/CPBhomepage1.cfm>

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## Understanding People's Beliefs and Practices about Leftover Medicines

In recent years, scientists have found a broad range of pharmaceutical compounds in the nation's waterways, and more recent research has focused on the presence of minute amounts of medicines in some public drinking water supplies. Pharmaceuticals in waters have been shown to cause harmful effects on aquatic life; their effects on humans have not yet been documented. Some medicines get into the environment when humans pour them down the toilet or sink at home or in institutions; others enter the environment after they pass through humans and animals without being fully metabolized. In addition to water quality concerns, a related issue with leftover medicines is the health threat from increased drug abuse of several prescription narcotics by teenagers and young adults, which are frequently obtained by theft of leftovers from friends and relatives.

With funding from the UWEX Cooperative Extension Eastern District Resource Management Team, a survey was conducted in the summer of 2008 in Calumet, Outagamie, and Waupaca Counties to assess the opinions, disposal practices, and supplies of leftover medicines from a random sample of households in those counties. The survey was jointly conducted by UW Extension Calumet County, the Solid and Hazardous Waste Education Center, and the UW River Falls Survey Research Center. These counties were selected because residents had the same opportunities to participate in leftover medication collection programs, and previously had received the same educational messages about the issue.

Initial survey results suggest that the majority of the public has some awareness of this issue and is making positive lifestyle behavior changes, so future outreach materials and programs can build on this awareness. For example, a majority of the public is aware that leftover medicines should not be flushed in the toilet or thrown in the trash, and believe that leftover medicines are in their drinking water. Slightly over half of respondents

believe that leftover medicines can lead to drug abuse and overdoses. In terms of personal management practices as reported in the survey, fewer people currently flush or put leftover medicines in the trash, and more people participate in medicine collection programs than have in the past.

Quantifying how many households have leftover medicines, and understanding the relative quantities of each type they have will help program planners design better and more relevant disposal systems. This information will also help inform policymakers who are attempting to modify federal and state laws to better accommodate disposal of federally controlled pharmaceuticals. According to the survey, the most common categories of leftover medicines people have are over-the-counter and prescription pain medicines; liquid medicines such as cough syrup and pain medicines; and vitamins and herbs. Knowing that approximately one-quarter of households have leftover prescription pain medications such as Oxycontin and Darvocet – the very narcotics that support drug abuse problems – suggests that collection programs must find ways to accommodate these federally controlled pharmaceuticals. It is also helpful to know that people tend to prefer permanent disposal options, where they can legally drop off their leftover medications daily at a police station or other local facility, over temporary one-day collections where they are given a limited time period on a particular day.

Further analysis of survey data will help to assess whether people of certain ages, income, or education levels tend to have more or less leftover medicine than others, and whether their beliefs and practices vary. This analysis will help program planners best achieve outcomes in a way that responds to community needs. 🌱

For more information on this survey, contact Mary Kohrell by phone at 920-849-1450; or by e-mail at [mary.kohrell@ces.uwex.edu](mailto:mary.kohrell@ces.uwex.edu)

## Can You Shortcut the CBSM Process Without Sacrificing Effectiveness?

By Rick Chenoweth, Ph.D.

*In each issue of the newsletter, we will use this column to address one question raised by readers about the use of social marketing and communication tools, including Community-Based Social Marketing (CBSM). We don't pretend to have all the answers; rather we hope to shed some light through the lens of the social and behavioral sciences. Indeed, readers who have wrestled with some of the questions that will be addressed in this column are invited to share their experiences and solutions with other readers. In this issue, we look at selecting a single behavior to target using the CBSM approach.*

One question that arises among those considering community-based social marketing (CBSM) as a program design approach is whether or not, or to what degree, all of the steps in the process must be followed in order to achieve the kind of behavioral change desired. Some have noted that in his book *Fostering Sustainable Behavior: An Introduction to Community-Based Social Marketing*, as well as in his workshops, Doug McKenzie-Mohr implies that unless the CBSM process is adopted wholesale, leaving nothing out, the overall effectiveness of the program design could be compromised. But what is the evidence for this? Are there some short cuts you can take, still appropriately label it a CBSM program and still be effective? Given the time, expertise and difficulty in finding funding for CBSM projects, these are important questions.

In her 2006 UW-Madison Master's Thesis titled *Exploring the Utility of Community-Based Social Marketing as a Program Design Approach*, Cassie Wyss explored this issue in detail. Her research question was: "How useful is community-based social marketing as a program planning and design tool for environmental behavior change practitioners?"

In order to answer this question, Wyss (2006) pointed out that CBSM is a marriage of social marketing and applied psychology, packaged in a way that is intended to be both practical and useful for changing environmental behavior at the individual level. Thus, CBSM has two distinct components: first, the process or "steps" that one goes through in program design, and second, the various behavioral change tools that can be used when designing the program.

Applied psychology is the basis for the CBSM behavioral change tools that include: commitment, prompting, social norms/social pressure, persuasive communication, behavioral incentives, and removing external barriers.

By contrast, social marketing is the basis for the CBSM methodology/process: identifying

barriers to a chosen sustainable behavior within target audiences, designing a strategy that utilizes behavior change tools, piloting the strategy with a small segment of a community, and finally, evaluating the impact of the program once it has been implemented across a community. If all of McKenzie-Mohr's recommendations for how to accomplish each step were necessary for success, the design and development of CBSM programs might involve more time, expenses and expertise than is typically available to environmental practitioners.

In her thesis, Wyss concluded that though there is a substantial research-based literature that confirms the effectiveness of CBSM tools in changing behavior of all sorts, there is little evidence to support a claim that the CBSM process must be adopted wholesale in order to have a successful program design.

In addition to her review of the literature, Wyss conducted interviews with nine environmental professionals in Wisconsin knowledgeable both about the CBSM process and the behavioral change tools. CBSM was overwhelmingly viewed as useful, specifically its behavior change focus and overall research-oriented conceptual framework. However, the enthusiasm and interest demonstrated by interviewees was offset by concerns about the utility of the approach in terms of time, cost, impracticality, and the narrow scope of CBSMs applicability.

Despite these concerns, Wyss concluded that understanding the CBSM approach had value for environmental professionals even though it may not be possible to fully complete all of the steps set forth by McKenzie-Mohr. Specifically, she concluded that CBSM had three characteristics that could lead to an effective behavior change program:

- The step-by-step planning framework is very useful. Even if the CBSM methodology is not followed completely, it at least provides a blueprint for developing a program aimed specifically at behavior

change rather than the more common approaches that aim to raise awareness or change attitudes with little regard for actually changing behavior. It offers a place to start and a guide that can be followed.

- The behavior change tools of CBSM are useful in helping design behavior change programs. They are not dependent on the CBSM methodology, and this, combined with their relative ease of use, makes them very helpful for practitioners. The tools are the result of years of psychological research. Because this research is not something most environmental practitioners can take the time to review, CBSM does a great service by bringing these findings to practitioners in the field in a packaged, easy-to-use form.
- Another useful component of CBSM is the research-oriented design framework it suggests. While not all practitioners can make use of such an approach, incorporating formative research into program design can be extremely useful for practitioners. The basic idea of the CBSM approach is to really understand those for whom the program is being designed (benefit and barrier research), to fully test a program's ability to overcome the salient obstacles to more environmentally-friendly behavior before it's implemented in full (piloting), and to evaluate that program so that it can be continually improved (evaluation). This can be quite a different approach for practitioners, especially those working at the community level. At its core, the CBSM approach suggests that well-designed programs come from well-informed practitioners. Building knowledge about peoples' perceptions of what will be the negative and positive consequences to them personally were they to change their behavior is essential for creating an effective program. 🙌