Engaging Private Landowners in Conservation

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Overview

• Concepts in conservation behavior
• State of knowledge – conservation behaviors
  – Agriculture
  – Woodlands
• Case study illustration
Concepts in Conservation Behavior*

- Technological Fix
- Cognitive Fix
- Structural Fix

*Heberlein’s “three fixes” from *Navigating Environmental Attitudes*

Photo credit: Stephen Kirckpatrick, Natural Resources Conservation Service
The Cognitive Fix: Why do/don’t people take action?

• Social conditions – norms, trust, relationships
• Relevance to self
• Capacity
• Knowledge
• Knowledge *alone* is not sufficient to change behavior
Many Resource Management Plans

- “Provide information...”
- “Develop informational brochure...”
- “Post information to website...”
When are those strategies successful?

- Someone already decided to do something
- Seeking information to support decision – how to do it, maintain it

Credit: http://www.news.wisc.edu/16673
Concepts in Conservation Behavior

- One size fits all engagement strategies don’t work
- Importance of case specific data, targeting audiences
- We can use, but not solely rely on, lessons from other cases

Photo credit: Adena Rissman, UW Madison
Concepts in Conservation Behavior-Messaging

• “Can we ‘re-language’ our social interactions and get changes in behavior?” (Comito and Helmers, 2011).

• Links to human health and safety – “Connecting conservation to those issues helps ensure conservation shifts from a “nice to have” to a “need to have”’. (FM3, 2013)

• Use woodland owner, landowner * not * family forest owner
• Avoid sustainable land management, stewardship, conservation, preservation
  • (Tools for Engaging Landowners Effectively, accessed 4/21/15)
Chicagoland and Illinois
Land Use Distribution, Chicago Region*

- Agriculture: 32.9%
- Residential: 30.1%
- Open Space: 23%
- Commercial, Transportation, Institutional: 14%

Region counties include: McHenry, Lake, Kane, Cook, Dupage, Kendall, Will; Nowak et al, 2013. Urban Trees and Forests of the Chicago Region. USDA Forest Service Resource Bulletin NRS-84
• 200 respondents from Illinois

• 11 are from Chicagoland region

• 177/200 indicated their forest land is part of their farm

• ~11% of owners have had land <10 years

• Average of ~27 years
Agricultural Landowners
Research with agricultural landowners often pertains to soil and water conservation practices.
What impacts conservation practices on agricultural lands across studies?

<table>
<thead>
<tr>
<th>Variable</th>
<th>+</th>
<th>-</th>
<th>insignificant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size (acres)</td>
<td>37</td>
<td>16</td>
<td>57</td>
</tr>
<tr>
<td>Diversity</td>
<td>22</td>
<td>3</td>
<td>44</td>
</tr>
<tr>
<td>Networks</td>
<td>50</td>
<td>5</td>
<td>149</td>
</tr>
<tr>
<td>Adoption payments</td>
<td>15</td>
<td>3</td>
<td>25</td>
</tr>
<tr>
<td>Slope</td>
<td>21</td>
<td>7</td>
<td>24</td>
</tr>
</tbody>
</table>

What *didn’t* impact conservation practices on agricultural lands?

- Awareness of consequences of environmental degradation (insignificant in all included studies)
- General environmental knowledge (insignificant in 40 of 45 models)
- Knowledge of conservation programs (insignificant in 47 of 62 models)

Most variables were case dependent (e.g. environmental attitudes)
Family Forest Owners
Most research with family forest owners pertains to individual management plans and timber harvesting, not on landscape level restoration.

Photo credit: http://www.dec.ny.gov/lands/5242.html
What impacts timber harvesting on family forests across studies?

<table>
<thead>
<tr>
<th>Variable</th>
<th># of studies, n=28 (+/-)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size (acres)</td>
<td>16 (+)</td>
</tr>
<tr>
<td>Income</td>
<td>8 (+ and -)</td>
</tr>
<tr>
<td>Harvest price/acre</td>
<td>7 (+)</td>
</tr>
<tr>
<td>Absentee owner/distance from residence</td>
<td>6 (-)</td>
</tr>
<tr>
<td>Farmer</td>
<td>6 (+ and -)</td>
</tr>
</tbody>
</table>

Forest landowners and oak

“Most landowners want the oak. Sometimes they don’t like the idea that they have to open up the forest quite a bit to get sunlight to the ground and keep the oak coming back...on one hand they want the oak; on the other they don’t want oak management.”

Ownership motivations conflict with oak regeneration methods

Knoot et al 2010

Photo credits: NRCS
Woodland ownership motivations in Illinois

By area:
1. To enjoy beauty or scenery
2. Part of farm or ranch
3. To pass on land to children or other heirs
4. Privacy
5. To protect nature and biologic diversity

By number of owners:
1. To enjoy beauty or scenery
2. Privacy
3. To protect nature and biologic diversity
4. Part of home or vacation home
5. To pass on land to children or other heirs
Newer forestland owners may be more willing to engage in stewardship activities than previous owners, but they also might not know that the landscape they have “…is a result of logging, grazing, fire, and disturbance.”

Knoot et al. 2009
• Production – active managers, economically motivated
• Protection – non timber amenities, conservation ownership reasons
• Consumption/amenity – values privacy, non timber products
• Recreationist – recreational or retreat purposes
• Passive – indifferent to their woodland or ready to sell
• Multi-objective – part time/previous farmer, working the land

What are the gaps in current research?

- Cross-boundary collaboration at rural/urban interface
- Very small woodlots (<10 acres)
- Suburban/exurban homeowners

Photo credit: Lynn Betts, Natural Resources Conservation Service
Cross-boundary Collaboration
• Collaborative model extensively used in watershed management (public-private lands)

• Private forest lands – largely limited to neighboring landowners (private-private lands)

• Collaboration on national forests (stakeholder involvement in public land management)
Programmatic Capacity

Relational Capacity

Organizational Capacity

Education

Regulations

Individual Capacity

Technical Assistance

Financial Incentives

Trust, Legitimacy, and Fairness

Adapted from Davenport and Seekamp, 2013
How can partner resources and influence be best leveraged to accomplish CRTI goals?
Case Study – Illustration of Message Development
Eastern Marathon County Lakes

- Total county population ~ 134,000
- Eastern lakes project area: ~700 land owners
- 11 lakes
Project Background

• Assessed
  – Trusted information sources
  – Landowner characteristics
  – Perceptions of lake issues
  – Behaviors - Awareness, adoption, and barriers
  – Purpose: Utilize existing networks and organizations to deliver targeted outreach
Survey Development and Implementation

- Marathon County – all landowners in surface and ground watersheds
- Mailed to 685 people
- Four wave hybrid survey

Dear Marathon County Resident,

Some time ago, you received a copy of the enclosed survey. The Eastern Marathon County Lakes Project is working to improve and protect water quality by gathering information from residents to help direct outreach and educational efforts. As a resident in the project area (shown below), your insights are particularly important to us. We would greatly appreciate your participation in this survey to help us learn how we might best serve the needs of the local communities.

You still have the opportunity to complete this survey online by visiting the following website: https://www.surveymonkey.com/s/MCLakes to provide your responses securely online. Please enter the code: 1480 if you choose to do so.

If you choose not to complete the survey online, please complete the questionnaire and return it in the enclosed addressed and postage-paid envelope. The survey should take no longer than 20 minutes to complete. Please read each question carefully.

This is a fact-finding survey to collect baseline data about awareness, attitudes, and behaviors as they relate to lake management and water quality. Your voluntary participation in this survey is very important to help inform the ongoing efforts to improve local water quality and address the needs and interests of the communities surrounding the lakes in Marathon County. This is your chance to be heard. If you have any questions about the survey please contact Dr. Kristin Floress at (715) 346-4135. Survey results will be available fall 2012 at www.co.marathon.wi.us. Thank you in advance for your help!

Dr. Kristin Floress
Assistant Professor
University of Wisconsin-Stevens Point

Gary Wyman
Marathon County Board Chairman and County Board Supervisor District 15

Eastern Marathon County Lakes Project
Your Views on the Local Lakes and Water Quality
Respondents

- 44% response rate
- Older (60 and older, n=116)
- Male (n=188)
- Mostly year round residents (n=182)

Percent respondents by age

- 21-29
- 30-39
- 40-49
- 50-59
- 60 and older
Respondents

- Lakefront property owners (n=140, 53%)
- Producers (n=22, 9%)
- Others (n=100, 38%)
- Enjoy
  - Fishing, hunting, trapping (n=224)
  - Non-motorized activities (n=191)
  - Family events (n=169)
Audience Segmentation

• Consumptive wildlife recreationists
• Lakeshore owners
• Non-lakeshore owners
• General (for basic awareness of project, public lands behaviors)
Consumptive Wildlife Recreationists

**Importance of Being a Good Steward of Property**
- Very Important: 164
- Important: 45
- Neutral: 3

**Property ownership: Consumptive Wildlife**
- Shoreland owners: 112
- Agricultural producers: 20
- Other resident: 83
Consumptive Wildlife Audience – Trusted Information Sources

### Trusted Information Sources - Consumptive Wildlife

<table>
<thead>
<tr>
<th>Source</th>
<th>Very much</th>
<th>Moderately</th>
<th>Slightly</th>
<th>Not at all</th>
<th>Not Familiar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newspaper</td>
<td>14</td>
<td>34</td>
<td>51</td>
<td>59</td>
<td>12</td>
</tr>
<tr>
<td>Internet</td>
<td>27</td>
<td>33</td>
<td>27</td>
<td>47</td>
<td>23</td>
</tr>
<tr>
<td>Radio</td>
<td>7</td>
<td>26</td>
<td>46</td>
<td>68</td>
<td>12</td>
</tr>
<tr>
<td>TV</td>
<td>8</td>
<td>34</td>
<td>55</td>
<td>60</td>
<td>0</td>
</tr>
<tr>
<td>***DNR</td>
<td>64</td>
<td>53</td>
<td>40</td>
<td>40</td>
<td>4</td>
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<tr>
<td>UWEX</td>
<td>33</td>
<td>27</td>
<td>32</td>
<td>47</td>
<td>27</td>
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<tr>
<td>FSA</td>
<td>10</td>
<td>21</td>
<td>25</td>
<td>65</td>
<td>42</td>
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<tr>
<td>NRCS</td>
<td>38</td>
<td>40</td>
<td>34</td>
<td>30</td>
<td>27</td>
</tr>
<tr>
<td>Marathon County</td>
<td>41</td>
<td>47</td>
<td>32</td>
<td>37</td>
<td>16</td>
</tr>
<tr>
<td><strong>Neighbor</strong></td>
<td>56</td>
<td>51</td>
<td>41</td>
<td>41</td>
<td>7</td>
</tr>
<tr>
<td><strong>Sportsmen's Club</strong></td>
<td>56</td>
<td>34</td>
<td>23</td>
<td>39</td>
<td>25</td>
</tr>
<tr>
<td><strong>Lake Association/ District</strong></td>
<td>65</td>
<td>39</td>
<td>21</td>
<td>35</td>
<td>17</td>
</tr>
</tbody>
</table>
Consumptive Wildlife – Buffers

- Only 15 of the respondents who are lakeshore owners and participate in wildlife related recreation have buffer
- 27 stated it didn’t apply to them
Consumptive Wildlife – Barriers to Buffers

- Biggest barriers
  - Don’t know where to get assistance
  - Cost
  - Time
### Overcoming Barriers: Where to get Assistance

<table>
<thead>
<tr>
<th>Function of</th>
<th>Partners</th>
<th>Message</th>
<th>Message Delivery</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td>Lake groups (sportsmen’s clubs, association) Marathon County CP&amp;Z</td>
<td>Message: Shoreline vegetation makes fishing and hunting better, and there are places to help you. Behavior: Call partner organization</td>
<td>Mass media</td>
<td>Increased knowledge of where to get help</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><em>Best for raising awareness something exists among non-adopting audience (and occasionally for very simple behaviors)</em></td>
<td>Increased awareness that shoreline vegetation is related to fishing</td>
</tr>
</tbody>
</table>

- Enhance capacity of partner organizations
- Makes behavior *relevant* to the target audience
- Doesn’t include a lot of information about *why*
- Specific, simple behavior
# Overcoming Barriers: Cost and time

<table>
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<tr>
<th>Function of</th>
<th>Partners</th>
<th>Message</th>
<th>Message Delivery</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity</td>
<td>Lake groups (sportsmen’s clubs, association), neighbors with buffers, Marathon County CP&amp;Z; garden centers</td>
<td>It is easy to establish and maintain shoreline vegetation, making fishing and hunting better. Behavior: Ranges from simply not mowing to establishing native vegetation. <em>Potential message: Fish more, mow less</em></td>
<td>Peer to peer communication – commitment to attend event, commitment to establish vegetation Neighbor shoreline visits/party/tour Coupons for garden centers Volunteer assistance Cost share</td>
<td>Increase in shoreline protected by buffers</td>
</tr>
</tbody>
</table>


Take Home

• Each population is different, but almost all benefit from peer influence, networks
• Social data vital – behavior change strategies and outcomes need to be developed and monitored
• There is no technological fix for most conservation issues