Aquatic invasive species and the psychology of color:
Motivating behavior change at the North Arm Public Access

Angie Timmons,
Environmental Services
Background

• Third most used access on Lake Minnetonka with 6,000 launches in a season.
• DNR inspectors are at the access for over 40 hours per week. However, there are significant hours when no inspectors are on-site.
### Problem: awareness ≠ action

<table>
<thead>
<tr>
<th>Awareness</th>
</tr>
</thead>
<tbody>
<tr>
<td>MN DNR studies show that 95% of Minnesotans are aware of invasive species and the laws regarding transportation.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-site observations showed 1 in 5 boaters were not following the requirements.</td>
</tr>
</tbody>
</table>
Typical Response

Put up a sign!
HELP STOP AQUATIC HITCHHIKERS!

To avoid spreading aquatic invasive species
BEFORE launching ... BEFORE leaving:
• Remove aquatic plants and aquatic animals
• Drain lake or river water away from the landing
• Dispose of unwanted live bait in the trash

It’s the Law ... Do Not:
• Transport aquatic plants, zebra mussels, or other prohibited species on public roads
• Launch a watercraft or place a trailer in the water if it has aquatic plants, zebra mussels, or other prohibited species attached
• Transport watercraft without draining water, removing the drain plug, and opening water-draining devices

Minnesota Department of Natural Resources
Bigger and in color!
Add more signs and make it orange!

Tips and tricks to motive behavior change!
Pick one message
Communication Goal

• Increase boater behavior to properly remove and dispose of invasive species when visiting Lake Minnetonka public boat accesses.
Analyze your Audience

Don’t skimp on research!

• Explore the attitudes and behavior of your intended audience prior to developing your message.
• Hire a U of M research student to help!

Tips and tricks to motive behavior change!
Barriers Identified

- Laziness and being in a hurry.
- Poor weather.
- Inadequate facilities – no space at boat access to pull over and follow procedures.
- Uncertain how to effectively clean their boats - unlikely to follow through unless they knew the effort was effective.
- Recommended behaviors are difficult to perform.
- The fight against invasive species is a losing battle.
Installed prompts and changed the environment

- Identified where actions occurred
- Created space to set the social norm
Tips and tricks to motive behavior change!

Prompts reminds us to carry out an activity that we might otherwise forget. Not intended to change attitudes.
Prompts and changed environment
Addressed barriers through communication messages

• Fighting the inevitable. Communicate their actions are worth the effort.

Can you make a difference?
Yes! Every action you take can prevent the spread of aquatic invasive species from this lake and stop new species from coming in.

Spread of invasive species is not inevitable — only a small number of waters are infested.
Every water protected keeps our lakes healthy, protects recreation and saves jobs.
Addressed barriers through communication messages

• Previous efforts focused too much on weeds. People believe they can see invasives.
Provide feedback

Tips and tricks to motive behavior change!

Communicate the social norm and let people know how they are doing (but only when the norm is good!)
Addressed barriers through communication messages

• Empowering messages and recognition of doing the right thing.
Success!

<table>
<thead>
<tr>
<th>Behavior</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weeds attached (failed to take actions to remove weeds)</td>
<td>24%</td>
<td>1.3%</td>
</tr>
<tr>
<td>Drain plug installed (failed to remove drain plug)</td>
<td>18%</td>
<td>9%</td>
</tr>
<tr>
<td>Used designated area to prepare boats for leaving</td>
<td>n/a</td>
<td>91%</td>
</tr>
</tbody>
</table>
Questions?

Angie Timmons, 612-348-2477
Angie.Timmons@co.hennepin.mn.us

Tony Brough, 612-348-4378
Anthony.Brough@co.hennepin.mn.us