

Aquatic Invasive Species Behavior Change Design Workshop



Workshop Summary Report

October 22 & 23, 2019

This document is part of the Minnesota Department of Natural Resources (DNR) Invasive Species Program's Community-Based Social Marketing (CBSM) project. The project aims to better promote the adoption of desirable aquatic invasive species (AIS) prevention behaviors and create positive social norms around AIS prevention in Minnesota.

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1. Introduction and Background

The Minnesota Department of Natural Resources (DNR) delivers the Invasive Species Program with the goals of preventing introductions of new invasive species into Minnesota, preventing the spread of invasive species within Minnesota, and reducing the impacts caused by invasive species to Minnesota's environment, society, and economy.

In August 2018, the partnership of AZENTIVE, LLC and Beyond Attitude Consulting was awarded a contract to deliver the Aquatic Invasive Species (AIS) Community-Based Social Marketing (CBSM) project for the DNR. The purpose of the project is to apply behavioral psychology techniques to address human behaviors that contribute to the introduction and spread of AIS in Minnesota waters.

The project was delivered in two parts: the first part focused on the identification and prioritization of pathways and behaviors relevant to Minnesota's AIS concerns. The second part involved primary research on selected AIS pathways to identify barriers and benefits of target behaviors and develop potential implementation strategies. The final part of the project engaged local AIS program managers to tap into their knowledge and creativity and build their capacity to support the development and implementation of CBSM projects.

This report provides a summary of the AIS behavior change design workshop. In particular, the outcomes of small group activities that focused on the top target behaviors identified as part of the AIS CBSM project are compiled and summarized. This includes participant ideas on removing barriers and promoting motivators, securing commitments, effectively communicating, and developing social norms. Ideas generated will be used to help inform future aquatic invasive species programming.

2. Purpose of the Workshop

The final task in Part 2 of the project was an in-person, two-day Aquatic Invasive Species (AIS) Behavior Change Design Workshop for DNR staff, local government staff, and associated local and statewide partners involved in implementing AIS programs in Minnesota. This workshop was designed to build on earlier CBSM training that the DNR sponsored in 2017 and to give participants a learning experience that would help them put CBSM theory into practice.

The objectives of the workshop were to:

- Review CBSM and behavior change theories;
- Inform participants on the results of Part 1 and Part 2 of this project;
- Use research results from Part 1 and Part 2 to collaboratively brainstorm behavior change strategies for target audiences and behaviors; and
- Leverage participants' knowledge and expertise, especially of challenges and opportunities in local jurisdictions.



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The desired outcomes of the workshop were to:

- Have a shared understanding of behavior change strategies and CBSM principles;
- Provide baseline data (Part 1 and Part 2 results) to local partners that they can immediately use to inform their programs;
- Build capacity of individuals and organizations by providing an opportunity to put CBSM theory into practice using real-time data; and
- Generate initial ideas that could subsequently be fleshed out into implementable behavior changes strategies for AIS prevention at various scales throughout the state.

3. Workshop Overview

On October 22 and 23, 2019, the Minnesota DNR Invasive Species Program hosted a behavior change design workshop in St. Cloud, Minnesota with 67 attendees, including 44 participants from 33 counties, 7 statewide partners, and 16 DNR staff. The list of attendees is provided in Appendix A. The workshop was facilitated by Ken Donnelly of Beyond Attitude Consulting.

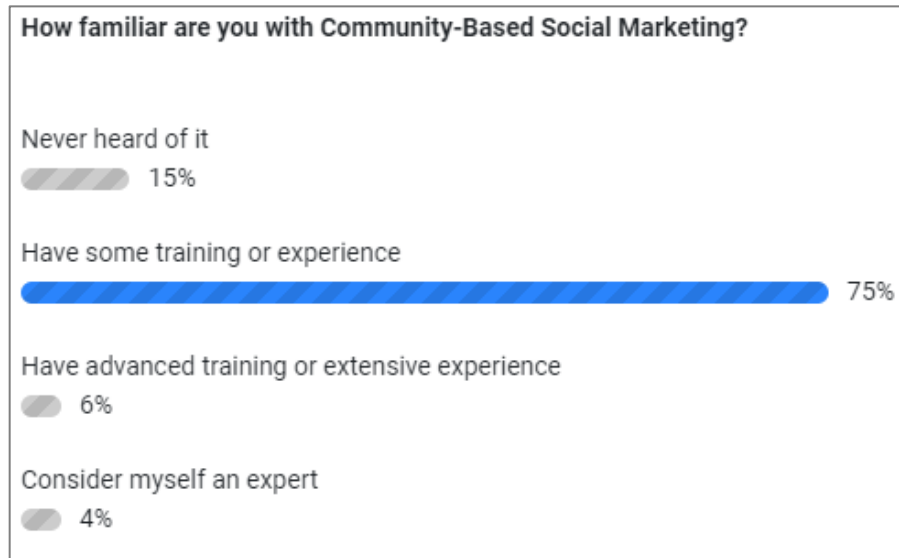
Figure 1: Participants taking part in workshop



At the onset of the workshop, a two-hour introductory and overview training session on Community-Based Social Marketing (CBSM) was delivered to participants. CBSM is an approach that goes beyond traditional information and awareness campaigns to target individual behaviors, bridging the very real gap between awareness and action. It is based on research in the behavioral and social sciences that is effective in changing behaviors and maintaining sustainable behaviors over the long term.

Before attending the workshop, the majority (85%) of participants indicated through a poll that they had at least some familiarity with CBSM. The remaining 15% were not familiar at all.

Figure 2: Poll results for how familiar participants were with CBSM



Following the training session, an overview of the AIS CBSM project was provided, including the purpose, objectives, and main tasks carried out to-date. Findings from the project literature review, behavior analysis, primary research (i.e., surveys and stakeholder engagement session), and Expert Panel sessions were shared with participants.

The remainder of the workshop was spent conducting small group activities to build on the research completed to-date, as well as to leverage participant knowledge and creativity to brainstorm ideas and solutions for consideration moving forward. Ten small groups were formed; each responsible for conducting a deep dive exploration of one of the top ten potential target behaviors identified through the project analyses:

- **Group 1** – Dispose of unused live bait in the garbage (anglers that use live bait)
- **Group 2** – Take unused live bait and packaging home for proper disposal (anglers that use live bait)
- **Group 3** – Take unused live bait home for future reuse (anglers that use live bait)
- **Group 4** – Clean and drain boats and trailers (anglers that use boats)
- **Group 5** – Remove visible debris (shoreline residents that have and move water-related equipment)
- **Group 6** – Air dry for 21 days (shoreline residents that have and move water related equipment)
- **Group 7** – Accurately identify and only sell non-risk and low-risk species (aquarium and aquatic plant retailers)

- **Group 8** – Accept unwanted animals to rehome or dispose of (aquarium and aquatic plant retailers)
- **Group 9** – Recognize and purchase of only non-risk and low-risk species (aquarium and aquatic plant customers)
- **Group 10** – Dispose of unwanted plants in the garbage (aquarium and aquatic plant customers)

Figure 3: Participants working in groups to sort and organize ideas



Figure 4: Participants working in small groups exploring specific behaviors



Each group engaged in four separate brainstorming sessions following this process:

- 1) Individuals had a few minutes to write ideas on their own – one idea per sticky note;
- 2) Each group discussed their ideas and organized sticky notes on flipchart paper based on common themes;
- 3) Each group recorded their top ideas on worksheets provided (See Appendix B); and
- 4) Each group presented their top ideas to all workshop participants.

Small group brainstorming sessions were framed around key CBSM concepts and tools:

1. **Removing Barriers and Promoting Motivators** – Barriers prevent people from engaging in a certain behavior and motivators encourage them to engage in the behavior. CBSM campaigns strive to remove barriers and promote the perceived benefits or motivators of specific behaviors to facilitate adoption of the desired behaviors. Workshop participants were provided with the barriers and motivators for their

groups' respective target behavior identified through the project research. Each group worked to identify ideas to remove barriers and promote motivators.

2. **Commitments** – Research has found that when people make a commitment, such as a pledge or an agreement, they are more likely to follow through with it than if they had made no specific commitment to do so. When the first commitment is to do a small activity, they are also more likely to agree to more difficult future commitments (even when asked for back to back commitments). This is referred to as climbing the commitment ladder. Common forms of commitment take written or verbal forms. Public commitments are made in such a way that others can observe the commitment that was made. They invoke a sense of accountability because those who witness the commitment will expect it to be fulfilled. For this reason, public commitments are stronger than written or verbal commitments that are not shared publicly. Each group generated ideas for commitment strategies which focused on collecting commitments, climbing the commitment ladder, and recording commitments.
3. **Communication Strategies** – Achieving behavior change is most effective when CBSM initiatives are delivered in a personalized way, tailoring the approach and specific information to each target audience. Social research has determined that people are more willing to engage in behaviors in response to direct appeals and when there is evidence of social support for that change. People also often respond best to information received from people they interact with in their communities and whom they trust. For CBSM strategies, this means that promoting desired behaviors, illustrating why the desired behaviors are important, and removing barriers to practicing the desired behaviors works best in face-to face encounters. The communications used in these direct contacts work best when personalized, as people are more likely to remember information that evokes images personal to them. Groups generated ideas to promote behaviors (how to get the information out to their target audience), increase awareness and improve attitudes (why the desired behavior is important for the target audience to adopt), provide feedback (show how many people are adopting the behavior), and foster networking/partnerships.
4. **Developing Social Norms** – People often mirror their attitudes and behavior by observing those around them (e.g. family, co-workers, neighbors). By creating new societal norms that have full community support, desired behavior changes can reach a wider audience. Societal norms are very strong, can vary from culture to culture, and can be difficult to deviate from. Established norms can be broken down and replaced with new ones (e.g. the norm of smoking in other people's homes, in public places, and even on public transportation has been replaced by a more recent non-smoking norm). Norm appeals, therefore, are a way of making group standards more apparent. The ultimate goal of a CBSM campaign is to develop social norms and to normalize behaviors so they

become accepted and common. Social norms develop and strengthen over time. Groups generated ideas to develop and/or strengthen social norms.

Figure 5: Brainstorming activities captured through sticky notes



During the final activity, each group built on the outcomes of their work to develop and present a proposed approach or concept to foster behavior change specific to their target behavior/audience with a focus on a removing one barrier identified in the research. Groups were encouraged to be creative in developing and presenting their concepts.

Figure 6: Behavior change concept developed by one group

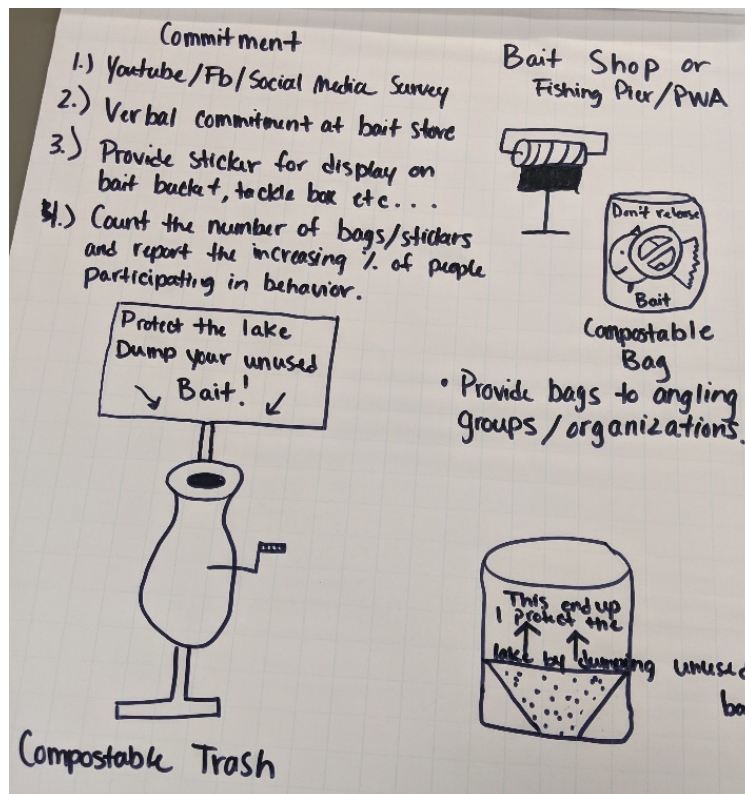
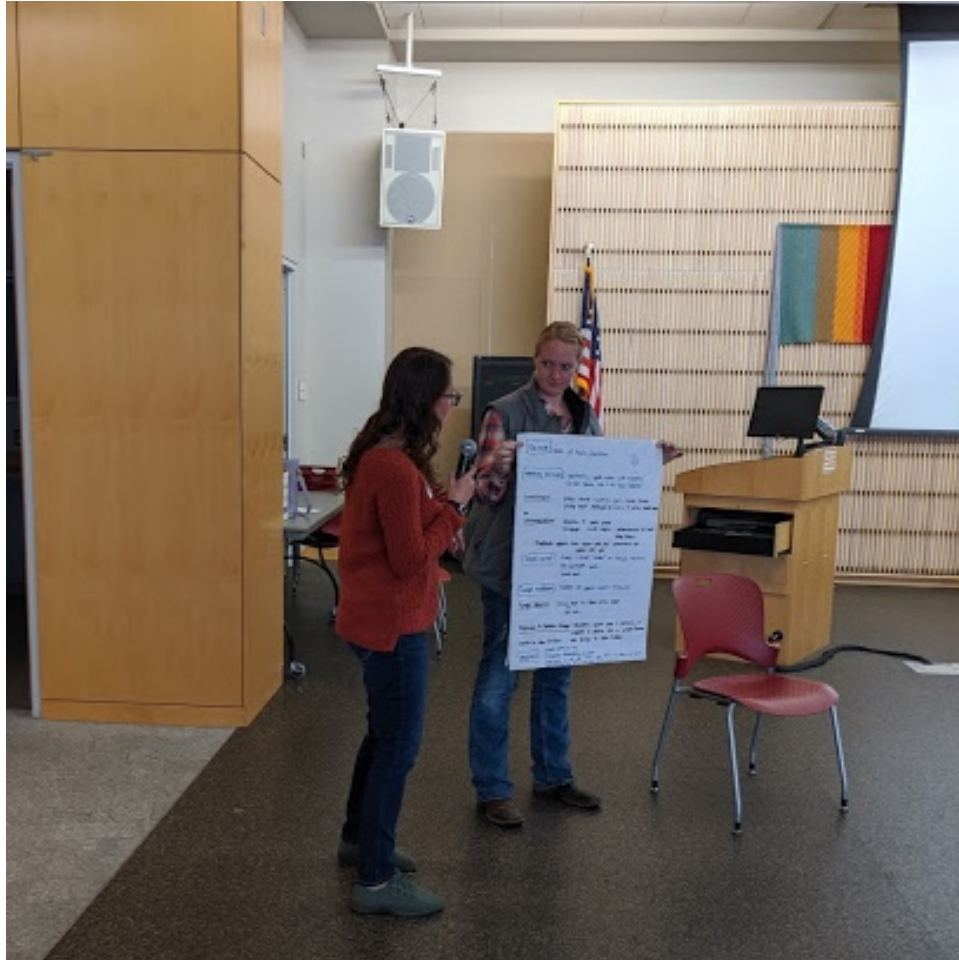


Figure 7: One group presenting their behavior change concepts/approaches.



Detailed outcomes generated by each of the ten groups is compiled in Appendix B.

4. Conclusion and Next Steps

The purpose of the workshop was to engage local partners in AIS prevention, to leverage experience and knowledge, and to inform implementable behavior changes strategies for AIS prevention. Through this workshop, participants experienced a snapshot of what it takes to design a CBSM behavior change strategy; with the understanding it would take more time, research, local stakeholder involvement, etc. to develop a truly implementable program. Ideas and strategies developed here will be used to inform the path forward for the DNR's AIS CBSM Programs. Results will also help formulate next steps to promote adoption of desirable AIS prevention behaviors and to create positive social norms around AIS prevention in Minnesota and beyond.



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Appendix A: Workshop Attendees

Name	Organization
Jessica Abarca	Anoka County Parks
Jessica Albertsen	Douglas SWCD
Liz Anderson	Lake County SWCD
Bruce Anspach	Beltrami County ESD
Jim Bartelme	Stearns county COLA
Levy Bergstrom	Cass County
Melissa Bokman	Scott County
Tony Brough	Hennepin County
Jack Bushman	Sibley SWCD
Brooke Buysse	Yellow Medicine SWCD
Andrew Dickhart	Carver County
Adam Doll	Minnesota DNR
Ken Donnelly	Beyond Attitude Consulting
Forest Eidbo	Minnesota DNR
Nicole Erickson	Crow Wing County
Kevin Farnum	Stearns County AIS Committee
Tina Fitzgerald	Minnesota DNR
Jessamyn Foley	Minnesota DNR
Lynn Goodrich	HCCOLA and HCSWCD
Bill Grantges	Itasca County AIS Program
Bryanna Grefthen	Pennington SWCD
Galen Gruber	Morrison County
Tera Guetter	Statewide AIS Advisory Committee
Emelia Hauck Jacobs	Minnesota DNR
Chad Hildebrand	Watonwan County Land Management/SWCD
Jeannine Howland	Minnesota DNR
Philip Hunsicker	Minnesota DNR
Greg Husak	Minnesota DNR
Tim Jackson	Wabasha County
Doug Jensen	University of Minnesota Sea Grant Program
Scott Johnson	Roseau County SWCD
Holly Kalbus	Le Sueur County
Mary Kivi	Benton County AIS Task Force
Karl Koenig	Becker SWCD
Brooke Kor	Lyon County Parks
Spencer Kor	Lyon County Parks
Nicole Kovar	Minnesota DNR
Benjamin Larson	Minnesota DNR
Sascha Lodge	Minnesota DNR
Cole Loewen	Stearns County
Ryan Logan	St. Louis County
Nick Macklem	Hubbard County
Marielle Mateo	Minnesota DNR

Name	Organization
Meg McEachran	University of Minnesota MAISRC
Spencer McGrew	Otter Tail County
Garret Miller	Comfort Lake Forest Lake Watershed District
Sharon Natzel	Hubbard County COLA
Kelly Pennington	Minnesota DNR
Ariana Richardson	Meeker County
Cec Riedman	AID Detectors/Itasca County AIS Program
Candy Rusk	Pelican Lake Association Crow Wing County
April Rust	Minnesota DNR
Rhyan Schicker	Lac qui Parle SWCD
Nicole Schultz	Brown SWCD
Madeline Seveland	Carver County
Rob Simmonds	USFWS
Nick Smetana	Kanabec SWCD
Milo Squires	Minnesota Aquarium Society

Appendix B: Group Feedback

The following are the *raw data* gathered from the groups of participants that each worked on a specific behavior and target audience, applying CBSM principles to explore possible solutions to prevent the spread of AIS in Minnesota. It is important to note that the participants had a range of training and understanding of CBSM, and their expertise and knowledge of the behavior and pathway was also varied. This allows for ample creativity and breadth of ideas to be collected.

Note that none of the data below has been edited for accuracy in terms of properly conducting the behavior to prevent AIS, AIS regulations, or behavioral language. For example, messaging about “dumping” bait needs to be specific and conveyed accurately to achieve the desired behavior for properly disposing of unwanted bait in the trash. Therefore, these data are not intended for immediate implementation purposes. Ideas here showcase the variety of perspectives and expertise participants brought to the table. These ideas will be useful as a starting point to more completely design strategies that can be tested and refined using the CBSM process.

Group 1 – Dispose of Unused Live Bait in the Garbage

Audience: Anglers that use live bait

Removing Barriers and Promoting Motivators

Barriers/Motivators	Ideas
Barrier: No access to onsite disposal amenities	<ul style="list-style-type: none"> • Provide compost access • Provide specialized bait disposal containers • Repurpose bait • Encourage bait sharing and recycling • Develop bait shop protocols and education • Provide educational prompts/reminders at launch site
Motivator: Making a difference through action	<ul style="list-style-type: none"> • Protecting the environment – long-term lake health • Promote benefits and composting • Appeal to values (e.g., tradition, heritage)
Motivator: Comply with laws	<ul style="list-style-type: none"> • Be on the right side of the law
Motivator: Money	<ul style="list-style-type: none"> • Incentivize proper disposal (\$)
Motivator: Having information/signage posted	<ul style="list-style-type: none"> • Advertisement, catchy marketing
Motivator: Easier to dispose of onsite than to take home	<ul style="list-style-type: none"> • Convenience/availability

Commitments

Collecting Commitments	Commitment Ladder	Recording Commitments
<ul style="list-style-type: none"> • Verbal at bait store • Watercraft inspectors at public access • Peer - including lake association, fishing leagues • Trout Unlimited, Muskies Unlimited, Sportsman's Club 	<ul style="list-style-type: none"> • Can receive stickers (species) pledge • Display photos of fish caught with responsible use of live bait • Lake association pledge - we took the pledge to dump our bait, please do the same while on our lake 	(no input provided)

Communication Strategies

Promoting Behaviors	Awareness & Attitudes	Feedback	Networking/ Partnership
<ul style="list-style-type: none"> • Graphics showing • Memes • Notifications at locale • Surgeon General type warning 	<ul style="list-style-type: none"> • Targeting fishing piers • Community events on lakes, vendor sign • Ad on local fishing guide • Billboards with VHS and "don't want to see this? dump it" • Spokesperson like Smokey the Bear 	<ul style="list-style-type: none"> • Amount of compost produced last summer • Bait shop reporting amount returned • Rotating photos of anglers about communications • Give count with pledges at launches • Record in a survey and report numbers each season 	<ul style="list-style-type: none"> • Leverage influential guides and shops • Radio Fan Outdoors • PBS and fishing shows, YouTube • Bait signage on dumpsters • COLAs

Social Norms

Developing Social Norms
<ul style="list-style-type: none"> • Using a cartoon character to post a slogan similar to "only you can prevent forest fires" - only you can prevent the waters from getting AIS • Increased use of highly visible compost locations /trash cans – you can start by planting fake dumpsters/drama dumpsters • Visible bait buckets, turned upside down that has a sticker that you can only read then - unwanted bait

Developing Social Norms
<ul style="list-style-type: none"> • Baggies (compostable) at piers and launches with slogan "keep your bait out of the lake" or "spread love not hate, dump your bait" - dump your unwanted bait in the trash or trash your unwanted bait • Post a sign by trash cans - you hurt the lake when you don't dump your unwanted bait • YouTube, podcasts, fishing guides

Prototype

Prototype
<ul style="list-style-type: none"> • Barrier: No access to on-site disposal. • Motivator: Protect the environment. • Concept: Provide education on proper disposal <ul style="list-style-type: none"> ○ Provide compostable bag and face-to-face education at bait shops. ○ Provide specialized trash receptacle at both PWAs (public water accesses) and fishing piers. Vibrant color, education signage. • Strategy: <ul style="list-style-type: none"> ○ Involve fishing legend Al Linder in PSA's on his show, Linder Angling Edge, Public Radio, and other announcements. ○ Involve local groups – Lake associations, watercraft inspectors, resort owners, Sportsman's Club, Parks and Trails in emptying the trash receptacles. Get "buy-in" ○ Have bags and stickers visible on Al Linder's show and local angling groups. • Commitment: <ul style="list-style-type: none"> ○ YouTube/FB/Social Media Survey ○ Verbal commitment at bait store ○ Provide sticker for display on bait bucket, tackle box, etc. ○ Count the number of bags/stickers and report the increasing percent of people participating in the behavior. • Drawings of signs ("Protect the Lake, Dump Your Unused Bait"), bait receptacles, bags, etc. were also included in this group's prototype presentation.

Group 2 – Take Unused Live Bait and Packaging Home for Proper Disposal

Audience: Anglers that use live bait

Removing Barriers and Promoting Motivators

Barriers/Motivators	Ideas
Barrier: Concerns about odor and attracting animals	<ul style="list-style-type: none"> • Bury • Masking odor



Barriers/Motivators	Ideas
	<ul style="list-style-type: none"> • Doggy bag • Compost • Ice and water
Barrier: Impractical, long travel times	<ul style="list-style-type: none"> • Second bait bucket, insulated • Ice and water to keep fresher • Use sealed container • Provide carrier device bag at access site
Barrier: Alternative disposal methods	<ul style="list-style-type: none"> • Encourage nearby business to provide • Alternate disposal sites • Provide education
Motivator: Use for fertilizer or compost	<ul style="list-style-type: none"> • CBSM strategy to commit to proper disposal • Provide shovel to bury at home • Provide reusable cooler for bringing home bait • Give away garden/flower seeds
Motivator: Provides benefits of composting	<ul style="list-style-type: none"> • Celebrity promo on recycling • Teach benefits of composting, teach to compost with fish • Provide scent masking chemical on-site • Ice machines at access

Commitments

Collecting Commitments	Commitment Ladder	Recording Commitments
<ul style="list-style-type: none"> • AIS inspectors ask for verbal or written commitments • Bait stores ask for commitment when selling bait • AIS inspectors explain risks - give specific examples • Interactive kiosk - takes photo and displays when you agree to properly dispose • Providing sticker for bait bucket • Provide shammy with bait disposal slogan 	<ul style="list-style-type: none"> • Incentive program for written commitment • Sign mural - public commitment to compost • Interactive kiosk - displays photo when you sign agreement • Stewardship program - award in paper 	<ul style="list-style-type: none"> • Bait shop/AIS inspector ask for written commitments • Bait stores give credit for proving commitment (photo as an example) • Social media commitment (e.g. Facebook)

Communication Strategies

Promoting Behaviors	Awareness & Attitudes	Feedback	Networking/ Partnership
<ul style="list-style-type: none"> • Message on bait containers • Boat inspectors educating boaters • Media advertising campaign (TV, Facebook, radio, paper) • Consistent messaging • Signage in a lot of areas 	<ul style="list-style-type: none"> • Provide examples of negative impacts • "Feel good" message of positive benefits • Not knowing what you have, some bait may be invasive • Don't litter/pollute 	<ul style="list-style-type: none"> • AIS inspectors to collect "written" commitments • Online incentive check-in after doing behavior • Record all commitments • Online survey • Less trash/ packaging at access 	<ul style="list-style-type: none"> • Bait shops (advertising, messaging, re-bait incentive program) • Incentive for partners to participate • Resorts, fishing guides • Fishing shows • Online networking

Social Norms

Developing Social Norms
<ul style="list-style-type: none"> • Publicize the number of commitments by others • Constant and consistent message of proper behavior across all media coverages • Using high level influencers/celebrities to do the right thing, guilt or shame for not doing it • Have two doggy bag dispensers at the access - one full, one mostly empty (psychological) • "You stand alone if you don't bring your bait home"

Prototype

Prototype
<ul style="list-style-type: none"> • Barrier: Concerns about odor and attracting animals • Removing barrier: provide scent-reducing biodegradable bait bags • Motivator: message on bait bag – “give a hoot, don’t pollute” • Commitment: Have bait store/AIS inspectors provide bags with verbal commitment. Provide bags at access. • Communication strategies: <ul style="list-style-type: none"> ○ Labels on bait containers ○ Consistent messaging through social media “you stand ALONE if you don’t bring your bait HOME” • Social norms: Sign where dispenser is located with celebrity photo and endorsement

Group 3 – Take Unused Live Bait Home for Future Reuse

Audience: Anglers that use live bait

Removing Barriers and Promoting Motivators

Barriers/Motivators	Ideas
Barrier: Limited knowledge on proper procedure	<ul style="list-style-type: none"> • Access to fresh clean water • Education on rules and regulations • Consistency between organizations • Proper equipment, cost, location, availability
Motivator: Education	<ul style="list-style-type: none"> • Peer pressure • Attending conservation related banquets • Education on rules, regulations, fines • On effort of collecting bait/ limited availability • Positive impact on community
Motivator: Cost savings	<ul style="list-style-type: none"> • Save money • More fishing trips • Money for other things
Motivator: Signage	<ul style="list-style-type: none"> • Brochures, pamphlets, stickers with rules • Concise information
Motivator: Incentives, promotional	<ul style="list-style-type: none"> • Provide water at access • Promo items to promote commitment • Incentive for reusing bait

Commitments

Collecting Commitments	Commitment Ladder	Recording Commitments
<ul style="list-style-type: none"> • Verbal - collecting at landing after inspection, fairs, banquets, events • Visual - written; stickers, bait storage • Physical/location/public - prizes and promo items, stickers, bags, water bottles; training; name/photo on display 	<ul style="list-style-type: none"> • Sign agreement • Social media - contest, take a photo of doing practice and post on social media • "Ambassador" level, bait detectors, proof of purchase 	(no input provided)

Communication Strategies

Promoting Behaviors	Awareness & Attitudes	Feedback	Networking/ Partnership
<ul style="list-style-type: none"> • Face to face - educate public, demonstrations, water exchange • Media, social media videos, PSA radio, Public awareness • Physical objects - stickers, promo items, reusable containers, water onsite 	<ul style="list-style-type: none"> • Cost/cost savings • Availability • Prevent the spread of AIS • Peer pressure • Group organizations to promote and share water 	<ul style="list-style-type: none"> • Media - photo social media • Survey - face to face, survey anglers at landings, bait shops • Tracking equipment purchases - seeing supply and demand, providing incentives 	<ul style="list-style-type: none"> • Businesses • Rentals at resorts • Media • Tournaments • Newsletters, print ads • Banquets • Outdoor educators • Keeping it local • Non-government organizations • Partner organizations

Social Norms

Developing Social Norms
<ul style="list-style-type: none"> • Media advertisement • Ways to save • Recycle center • Communicate and highlight stories • Face to face • Advocate and demonstrate • Install water faucets to replace bait water

Prototype

Prototype
<ul style="list-style-type: none"> • Barrier removal: Provide information in many ways and forms multiple times during the season. Prompts. Bait shops. • Commitments: Signing pledge and incentives offered (rebate on product, punch card). Photos – public commitment. • Communication: Locations and sources of information is presented. Branding products/promo items. • Social norms: peer-to-peer. Discount and commitment. • End result: Videos and photos. Increase in success measured in surveys and social media.

Group 4 – Clean and Drain Boats and Trailers

Audience: Anglers that use boats

Removing Barriers and Promoting Motivators

Barriers/Motivators	Ideas
Barrier: Lack equipment/tools	<ul style="list-style-type: none"> • Sell tools at sport/bait/misc. stores • Educate boaters/anglers on tools needed • Provide tools at access points • Provide inspectors with tools • Educate boaters/anglers on AIS
Barrier: Too much traffic, not enough space	<ul style="list-style-type: none"> • Educate inspectors how to direct traffic • Signage to help with flow • Painting prompts on parking lot • Provide dedicated cleaning spaces
Barrier: Lack access to running water at access	<ul style="list-style-type: none"> • Provide inspectors with water/sponges/towels • Provide decontamination units at access • Provide alternate places for decontamination • Provide running water • Educate boaters where decontamination units are
Barrier: See no need	<ul style="list-style-type: none"> • Educate residents to be example, not exception • Newsletter to residents on proper behavior • Educate how AIS can be transported unintentionally • Designate days for residents to launch/remove
Motivator: They make a difference through action	<ul style="list-style-type: none"> • Provide public commitment opportunities at accesses • Share success stories with media • Reinforce good behavior by inspectors • Give inspectors key CBSM phrases • Provide emotion and values advertisement

Commitments

Collecting Commitments	Commitment Ladder	Recording Commitments
<ul style="list-style-type: none"> • Punch card for inspections/decons • Stickers on trailers for inspectors/decons (given to boaters by inspectors) 	<ul style="list-style-type: none"> • Drawing (public raffle) with punch card entries • Using newsletters to record # of inspections and decons 	<ul style="list-style-type: none"> • Post pledge results at access points • Inventory stickers distributed by inspectors



Collecting Commitments	Commitment Ladder	Recording Commitments
<ul style="list-style-type: none"> • Sign in sheet at access similar to trailheads • Pledges at boat sales, bait sales, equipment sales • Verbal commitments with inspectors 	<ul style="list-style-type: none"> • Stick pledges on wall at point of sale • Have boater sign pledge and place on equipment 	<ul style="list-style-type: none"> • Point of sale - have person at locations to collect • Have a commitment log completed by inspector

Communication Strategies

Promoting Behaviors	Awareness & Attitudes	Feedback	Networking/ Partnership
<ul style="list-style-type: none"> • Social media advertising • Inspector education at accesses • Following the law enforcement 	<ul style="list-style-type: none"> • Spread AIS education • Peer pressure (successful inspections) • Targeting different AIS user groups • "Local" speakers, updates, engaging • Inspector education explaining why 	<ul style="list-style-type: none"> • Community events • End of season presentation • Social media statistics/newsletter • Face to face surveys /providing feedback • Statistics on inspector participation • Local updates on lake efforts 	<ul style="list-style-type: none"> • Target specific AIS user groups • Local news stories • Fundraising events • Volunteer training • Flyer with main points

Social Norms

Developing Social Norms
<ul style="list-style-type: none"> • Network with popular local groups/special events, spokesperson for AIS • Pledges that are visual at access, signatures and photos • Decal on trailers, "I clean, drain, dry" etc. • Show TV/tournament folks participating in behaviors • Encouraging language - "it's something we do rather than asking will you" • Cameras

Prototype

Prototype
<ul style="list-style-type: none"> • Behavior: Boaters at public accesses using tools to clean, drain their boats • Barrier: Lack of tools, education • Removing Barriers: <ul style="list-style-type: none"> ○ Partnering youth groups with inspectors



Prototype
<ul style="list-style-type: none"> ○ Provide starter kits and AIS equipment checklist ● Commitments: <ul style="list-style-type: none"> ○ Pledge through signature, photo, trailer sticker ○ Pledge board displayed at access and online social media ● Communication <ul style="list-style-type: none"> ○ Education of youth groups ○ Newspaper, social media, advertisements at bait shops/stores ○ Feedback: updates from session, year-end presentation etc. ● Social norms: <ul style="list-style-type: none"> ○ Locals and local “celebs” on board receiving kit / alongside youth ○ Punch card ● Approach to behavior change: Education youth group and partnering with inspectors to provide kits to anglers/ boaters who pledge to clean and drain. Youth as value of future. ● Metrics: Punch card with kit; inspector observations/records; keep track of #'s who have own tools versus who don't; questionnaire for going into new season.

Group 5 – Remove Visible Debris

Audience: Shoreline residents that have and move water related equipment

Removing Barriers and Promoting Motivators

Barriers/Motivators	Ideas
Barrier: Physically unable to do so	<ul style="list-style-type: none"> ● Hire/have someone help (licensed/knowledgeable) ● Sell the equipment ● Provide/train individuals with info and education ● Don't move equipment
Barrier: Difficult to maneuver and access	<ul style="list-style-type: none"> ● Rent cleaning equipment ● Provide storage on property ● Hire/have someone help (licensed/knowledgeable) ● Create/provide equipment easy to use ● Provide education/outreach on AIS
Barrier: Difficult activity to do	<ul style="list-style-type: none"> ● Enforce laws/county ordinance ● Time management (allow enough time to complete) ● Hire/have someone help (licensed/knowledgeable) ● Provide info/education and resources to assist ● Make part of relocation contract
Barrier: Lack tools and equipment	<ul style="list-style-type: none"> ● Development of station to provide all tools ● Physically provide tools within community (share) ● Provide additional education/info to train

Barriers/Motivators	Ideas
Motivator: Help prevent spread of AIS	<ul style="list-style-type: none"> • Spread awareness/education • Presenting heritage/protect lake • Utilizing media sources • Provide incentive/benefit to individual • Individual selected as an AIS leader (week/month)
Motivator: Social norms	<ul style="list-style-type: none"> • Storytelling • Spread awareness/education • Social media • Gamify/collect point when do good
Motivator: Positive impact to community	<ul style="list-style-type: none"> • Improves local businesses • Keeps or increases property values • Tell personal stories – positive impact
Motivator: Comply with laws	<ul style="list-style-type: none"> • Larger fines/loss of equipment • Educate on number of people who do comply with law • Create list/record of people violate laws

Commitments

Collecting Commitments	Commitment Ladder	Recording Commitments
<ul style="list-style-type: none"> • Written nonbinding (publicized) commitments (lake associations or other leader) lakeshore owners • One/two/few lake service providers per lake with a contract between all members and contractor • Verbal commitment to clean equipment (dry or decontaminate) before selling • Written signs stating water-related equipment clean when leaving • Inspectors hand out info about cleaning and moving equipment to lakeshore owners 	<ul style="list-style-type: none"> • Newsletters, website, social media, meetings, surveys (follow-ups) • Providing list (options) volunteers, meetings • Website, newsletters, social media, volunteer meetings, awarding people • Businesses (at access/docks call/reach out to them), landowners end of dock meetings, website, newsletters • Provide different resources to boaters, boaters can take info to lake associations 	<ul style="list-style-type: none"> • Form with initial written commitment follow-up and picture • Contract; provide form to lake service provider for lakeshore owner to sign saying they used them • Pictures and list of locations • List of individuals spoken to

Communication Strategies

Promoting Behaviors	Awareness & Attitudes	Feedback	Networking/ Partnership
<ul style="list-style-type: none"> • Written communication (newspapers, newsletters, mailings) • In-person, direct contact (speaking at meetings, workshops, phone calls) • Utilize media sources (radio, FB, websites) • Advertisements 	<ul style="list-style-type: none"> • Quizzes/tests to show what they know • Provide incentive to individuals that remove debris • Videos (how to) - benefits/negatives • Social media - describes benefits/negatives • Pledges 	<ul style="list-style-type: none"> • Surveys (online/ social media) • Follow up - have people sending photos/send thank you notes • Tracking people who like, share, follow, etc. social media • Visual aids to show individuals participating (maps, pie charts, pie graphs) • Program - go to inspectors first before leave 	<ul style="list-style-type: none"> • Non-profits (lake associations, sportsman groups) • Social media/ places where items are sold • County assessor office • Written communication (newsletters, IWIP) • Relationships with lake associations, neighboring counties, committee liaison to relay messages

Social Norms

Developing Social Norms
<ul style="list-style-type: none"> • Community leader(s) that are active in community and knowledgeable about AIS that can be the “go-to” person when individuals have questions or want to start a conversation about AIS - role model, "AIS citizen of the year" for lakeshore owners • Success stories/public praise for all individuals removing visible debris on water-related equipment. Utilize social media, newsletters, papers, websites, etc. • Local regulation (ordinances) that require removing visible debris from water-related equipment before moving • Lake service provider remove visible debris and enforce/re-emphasize idea with lakeshore owners. More education/outreach and training • Cleaning equipment and station for people to go to or local stores sell equipment - readily available/easy to use for landowners

Prototype

Prototype
<ul style="list-style-type: none"> • Behavior: Using tools and equipment to remove visible debris • Motivators:



Prototype	
	<ul style="list-style-type: none"> ○ What's in it for the person/individual (Radio WIIFM) ○ I don't want this to happen to me, comply with law, my equipment is clean
• Commitment:	<ul style="list-style-type: none"> ○ Put a plaque on equipment ○ Agreement with tool kit ○ Pledge from all residents then follow with sellers (FB, CL)
• Communication and social norms:	<ul style="list-style-type: none"> ○ FB, tweet, YouTube, Next door, etc. ○ Newsletters ○ Workshop ○ Advertise in print, radio, TV ○ Public praise ○ Community leaders ○ Feedback through survey ○ Network through LSPs, LAs
• Approach:	<ul style="list-style-type: none"> ○ Get tools and equipment ○ Show people how to use them ○ Rent/borrow the tools ○ Develop tool kit – what, who, where, how ○ Find people who can use it, promote, increase use
• Diagram:	Continuous circle: Rent→Adopt→Promote→Use – repeat!

Group 6 – Air Dry for 21 Days

Audience: Shoreline residents that have and move water related equipment

Removing Barriers and Promoting Motivators

Barriers/Motivators	Ideas
Barrier: Time pressure for sale; too long to wait	<ul style="list-style-type: none"> • Pay for loss of time (direct to owner or indirect to LSP) • Decontamination tech investments
Barrier: Lack of Storage	<ul style="list-style-type: none"> • Provide storage locally
Barrier: No perceived need	<ul style="list-style-type: none"> • Mass media campaign • Targeted, localized CBSM engagement efforts
Motivator: Environmental impact	<ul style="list-style-type: none"> • Messaging that explains dire cost "It's worth the wait - Care for your like"
Motivator: Social norms	<ul style="list-style-type: none"> • Belong to group of owners that are stewards; do the right thing • Local CBSM campaign showcasing owners modeling good behavior

Barriers/Motivators	Ideas
Motivator: Avoid consequences	<ul style="list-style-type: none"> • Increase law enforcement • Increase fines
Motivator: Comply with laws	<ul style="list-style-type: none"> • PSAs/ local media • "It's the law" campaign
Motivator: Good maintenance	<ul style="list-style-type: none"> • Promote 5-star Lake Service Providers that provide "21-day services"

Commitments

Collecting Commitments	Commitment Ladder	Recording Commitments
<ul style="list-style-type: none"> • At lake association meetings, new neighbor committee • At LSP or point of sale • At DNR/county environmental services/ SWCS/WSD offices • Property tax mailings • At public access/landing 	<ul style="list-style-type: none"> • Face to face conversations, ask for verbal commitment (handout item) • Online agreement (map appl. of those agreeing), (demo of successful sale story) • Shoreline signage "I kept my dock out 21 days" • Post card signed agreement in mailer (i.e. property tax mailer) • Written public commitment (from realtor, LSP) 	<ul style="list-style-type: none"> • Postcards • Online pledge (with # of 21-day dry) • LSP 5-star promo for ensuring 21-day dry time - track online

Communication Strategies

Promoting Behaviors	Awareness & Attitudes	Feedback	Networking/ Partnership
<ul style="list-style-type: none"> • Direct mail • Social media • Leadership messages (lake associations, fishing teams, local celebs) • Lake Association welcome wagon/ direct communication 	<ul style="list-style-type: none"> • Share rate of AIS spread/not too late • You are a steward of our waters • Success stories • 21-Day Dry time is easy solution 	<ul style="list-style-type: none"> • Pledge numbers • Lake maps - adopters/ "heatmaps" of buyers and sellers • Metric/self-reporting or algorithms to track online sales • Share photos of adopters doing right thing 	<ul style="list-style-type: none"> • Craigslist/Face Book Marketplace options • County/state media lists, social media, shoreline contractors list • Lake associations/ COLA/fish groups/churches

Promoting Behaviors	Awareness & Attitudes	Feedback	Networking/ Partnership
<ul style="list-style-type: none"> • Stickers/signage to publicly share • Universal talking points 			<ul style="list-style-type: none"> • Future audiences - high school (teachers, scouts) • Marine dealers/ point of sale

Social Norms

Developing Social Norms
<ul style="list-style-type: none"> • Showcasing local, influential people taking the action • Signage on stored equipment - "this dock is drying to kill AIS. Available for sale on xx/xx/2020" • Show examples of successful LSPs to other LSPs in training to influence all LSPs to take action • Kiosk showing photo of dock owner/local celebrity doing right thing at events • Message: Clean Drain Dry for Docks and Lifts Means 21 Days

Prototype

Prototype
<ul style="list-style-type: none"> • Barrier: No perceived need • Communicate/educate – coordinated effort – with all partners. Tools: <ul style="list-style-type: none"> ○ Mailer to shoreland owners ○ Postcard / signature commitment to use with lake associations at all outlets ○ Possible swag with commitment ○ “Props” to leaders doing action ○ Signs for docks/drives ○ Digital mapping of commitments ○ Direct communication at online sale sites (FB/Craigslist) ○ Annual assessment with all partners and plan for next year • Partners: DNR, Counties, COLA, Lake Associations, LSPs • Research: where are equipment sales occurring? • “Clean, Drain, Dry means 21 days for docks”

Group 7 – Accurately Identify and Only Sell Non/Low-Risk Species

Audience: Aquarium and aquatic plant retailers

Removing Barriers and Promoting Motivators



Developed for the Minnesota DNR: AIS Behavior Change Design Workshop Summary Report

Barriers/Motivators	Ideas
Barrier: Limited knowledge	<ul style="list-style-type: none"> • Disposal instruction supplied with purchase • Formalize training for individuals at retail outlets • Have an AIS track at retailer conferences • Marketing and education programs on native “MN Friendly” water gardens • Retailer certification program (i.e. pollinator neonic-free nurseries)
Barrier: Regulation challenges	<ul style="list-style-type: none"> • Create list of high risk species with panel of experts that is updated yearly similarly to MDA invasive plant lists • Create a government advisory council for industry and regulators • Simplify list, e.g. move regulated to prohibited, only have a single prohibited list.
Barrier: Difficulty identifying AIS	<ul style="list-style-type: none"> • Create tools for AIS identification (tags, labels) and distribute to retailers
Motivator: Follow regulations	<ul style="list-style-type: none"> • Universal database for prohibited versus acceptable species • Legislation for what can be provided or to be trained/certified
Motivator: Protect the environment	<ul style="list-style-type: none"> • Being recognized as a leader and not as an organization causing a problem, i.e. certification process
Motivator: Incentives	<ul style="list-style-type: none"> • Money – grant program and technical assistance for changing store merchandise • Demo site with PR • Free training and education to get certification (i.e. stickers)

Commitments

Collecting Commitments	Commitment Ladder	Recording Commitments
<ul style="list-style-type: none"> • Written commitments at conversations, gathering of retailers, and MN Aquarium Society • Verbal commitments face to face at stores • Commitments to: <ul style="list-style-type: none"> ○ Sell only approved species ○ Label invasives and educate 	<ul style="list-style-type: none"> • Educate staff and consumers • Label regulated / invasives • Buyback program • Sell only approved species • Inspect shipments before accepting them, report contamination 	<ul style="list-style-type: none"> • Tally • Database of people with certifications • Allow online access



Collecting Commitments	Commitment Ladder	Recording Commitments
<ul style="list-style-type: none"> ○ Become certified ○ Training staff ○ Buyback program ○ Education campaign per monthly message ○ Inspect shipments before accepting them and reporting contamination 	<ul style="list-style-type: none"> ● Become certified in “AIS free” etc. 	

Communication Strategies

Promoting Behaviors	Awareness & Attitudes	Feedback	Networking/ Partnership
<ul style="list-style-type: none"> ● Door-to-door, face-to-face at retailers ● Contact headquarters ● Social media with retailer specific group e.g. MN Aquarium Society ● Communicate at retailer gatherings 	<ul style="list-style-type: none"> ● Governor’s advisory council on aquatic trade industry ● Retailers certified listed on a public site and receives visible certificate or state approval ● Tell stories of escaped plants/animals and the impacts – local and visual. 	<ul style="list-style-type: none"> ● Retailers share experience at annual meetings and roundtables ● Public state database of participants in the certification program ● Positive messaging about # of participants and hypothetical impact ● Interview participants and have them share stories 	<ul style="list-style-type: none"> ● MN Chamber of Commerce ● Pet Industry Joint Advisory Council ● MN Aquarium Society ● Find a flagship company to share messaging

Social Norms

Developing Social Norms
<ul style="list-style-type: none"> ● Workshops on MN friendly outdoor water features ● Water Main – tell the story get early adopters ● Promoting and recognizing the good “players” in the community ● Social norm has to go through consumers ● Build momentum of hobbyists through MN Aquarium Society and other organizations



Prototype

Prototype
<ul style="list-style-type: none"> • Barrier: Regulation challenges • Overcoming barriers: Reformatting the prohibited/restricted list to only prohibited. Through a process that involves industry, regulators, consumers, stakeholders. • Promotion: Recognized as good community members. Certification program for retailers that only sell species that are not on the list and train staff to recognize prohibited species that many occur in contaminated shipments and labeling. • Commitment: Publically showing their enrollment in certification program. • Communication: Promote certification through local chambers of commerce and have industry reps from list overhaul be certified. Reach out to larger chains and assist with certification. • Social norms: Promote certified business showing them as model retailers. With large retailers like Petco on certification records they represent large proportion of market share – making it more of a social norm.

Group 8 – Accept Unwanted Animals to Rehome or Dispose

Audience: Aquarium and aquatic plant retailers

Removing Barriers and Promoting Motivators

Barriers/Motivators	Ideas
Barrier: Surrender and takeback programs are not practical for all retailers	<ul style="list-style-type: none"> • Partnership - with pet societies, zoos, other stores, schools • Incentives - certification programs for rehoming • Information - consolidating disposal info and distributing to retailers and consumers • Social media - connect owners with people who want animals • Law - like the bottle takeback program
Motivator: Reputation - "do the right thing"	<ul style="list-style-type: none"> • Award/recognition program, suggested retailers list, take care of all needs of the customer
Motivator: Law	<ul style="list-style-type: none"> • Law requiring, fine if there's no take home program
Motivator: Money	<ul style="list-style-type: none"> • Money - awarding incentives, state subsidies, rehome cost put on owner - surcharge/ return fee

Commitments

Collecting Commitments	Commitment Ladder	Recording Commitments
<ul style="list-style-type: none"> • Set actions required in commitment; host swap page, monthly take back events; showcase animal 30-days before disposal • Public displays/signage, social media, signs on cages/store window, listed on DNR or Habitattitude • In-person, door to door of pet stores to talk to and verbalize commitment • Formal contracts and certification signed agreements with non-profit rehoming groups 	<ul style="list-style-type: none"> • Advertising new program, use TV, radio, websites (Habitattitude, and /or DNR), YouTube, social media • Search optimization for proper disposal • DNR and Habitattitude listing on websites • Award recognition on website given by state • Celebrities contributing to rehome programs - Adam Thielen and Carson Wentz 	<ul style="list-style-type: none"> • State analyst reviews pledges and convenes programs for workshop • Recording their own actions (photos, event attendance) • Track number of programs, events held, # of rehome, # of surrendered • Recording species breakdown • Track formal commitments

Communication Strategies

Promoting Behaviors	Awareness & Attitudes	Feedback	Networking/ Partnership
<ul style="list-style-type: none"> • Utilize community leaders • Reach retailers where they meet and promote • Reach out to customer so they ask for it • Share information on how others have done this 	<ul style="list-style-type: none"> • See value of recreation for them • Increase interaction with customer • Retailer see themselves as ethical - environmentally and socially • See the examples of bad impacts due to released species 	<ul style="list-style-type: none"> • Use store computer to track information and upload to a central database • Ask retailer to report # and species • Use social media to see if the retailer are promoting re-homing on social media • Survey businesses • Track any monetary incentives provided 	<ul style="list-style-type: none"> • AIS groups • Existing events and partners (humane societies, aquarium societies) • Sea Grant and Habitattitude • Customer base - reach with social media, community leaders • Retailers and supplier networks (business)

Social Norms



Developing Social Norms

- Visible stickers/certification that the retailer takes animals back
- Distribute lists of all the retailers that accept animals
- Start with big retailers, peer pressure within and to other businesses
- Show successes - pictures of happy people adopting animals and bringing in animals, social media can help promote this as standard behavior
- Prompts, information materials, information on how to bring in animals

Prototype

Prototype

- Focus: Partnerships related to rehoming programs
- Target audience: Small retailers and the private groups that do the event
- Target behavior: Retailer to host and sponsor a surrender event, website exchange
- Concept: Have an unwanted pet, this is where to surrender. Create a network for rehoming – long term sustainability
- Strategy:
 - Tell them about benefits – to themselves and other (motivators spreadsheet)
 - Bring retailer and private group together to work out details of surrender event, sponsorship, etc.
 - Create event, publicize
 - Hold it
 - Maintain connection and plan
 - Toolkit
- Brands/taglines:
 - Don't release, protect our environment
 - New home for Nemo
 - Rehoming our animals responsibly (ROAR) – already exists
 - Retailer: We help you rehome!
 - Re-home not release
 - Do right by your pet, don't release
 - Animal adoption – good for you, your pet, and our state
 - Habitattitude – already exists
- Track success: # partners, events, people who attended, animals surrendered, animals adopted, % awareness raised, views/shares on social media

Group 9 – Recognize and Purchase of Only Non-Risk or Low-Risk Species

Audience: Aquarium and aquatic plant customers

Removing Barriers and Promoting Motivators

Barriers/Motivators	Ideas
Barrier: Believe it is legal if available for purchase	<ul style="list-style-type: none"> • Store certification that they only sell native • Create a labeling program similar to non-GMO/organic
Barrier: Limited knowledge to customers	<ul style="list-style-type: none"> • Impacts on MN • Negative impacts on hobby • Website that identifies "legal species" • Use messaging to connect specialists
Barrier: Identify AIS	<ul style="list-style-type: none"> • Create a reliable naming of species in trade • Smart advertising on forums/online resources
Barrier: Personal exchanges	<ul style="list-style-type: none"> • Create trade/exchange programs at shops • Information on dangers of privately-traded organisms • Smart advertising on forums/online resources • How to dispose of properly if no longer wanted
Motivator: Protect MN environment	<ul style="list-style-type: none"> • Financial burden on LGU/State • Show native species and how AIS affects them
Motivator: Responsible hobbyist	<ul style="list-style-type: none"> • Certification/training courses • Sticker on tank itself – certified native

Commitments

Collecting Commitments	Commitment Ladder	Recording Commitments
<ul style="list-style-type: none"> • At retailer, possible discounts • Online pledges • Pledges at clubs/events 	<ul style="list-style-type: none"> • Sign a pledge • Social media "badge" • Sticker or rock to show pledge non-risk or low risk for pond or aquarium 	<ul style="list-style-type: none"> • Photo or name posted at store • Sign at water garden posted • Tally of verbal commitments • Sticker/signs/rocks handed out, keep count • "MN safe"

Communication Strategies

Promoting Behaviors	Awareness & Attitudes	Feedback	Networking/ Partnership
<ul style="list-style-type: none"> • Creating plan/ toolkits for aquariums • Purchase from local stores/clubs, not online • Develop a common logo that identifies low risk • Online stores have terms and agreements 	<ul style="list-style-type: none"> • Podcasts • "Global plants for our hobby; Native plants for our lakes" "MN safe" • Social media • Smart advertising to promote low risk • Show "invasives" overtaking native landscapes (before/after) 	<ul style="list-style-type: none"> • Survey - "MN safe" purchases - 5 step to keep environment clean • Obtain commitment to reinforce attitudes • Tracking how many online purchases 	<ul style="list-style-type: none"> • Minnesota Aquarium Society • Podcasts • Club meetings • Partner the stars from "Tanked" to share messages

Social Norms

Developing Social Norms
<ul style="list-style-type: none"> • Promoting norms through YouTube, podcasts, celebrities, influential consumers for purchasing non risk or low risk • Peer pressure, commitments through social media; posting photos of tanks • Catchy slogans/saying in various ways - t-shirt, sticker, etc. - MN NIAS (pronounced "nice") - Non Invasive Aquatic Species • Knowing what you are buying either from stores or online having a set standard of using scientific names

Prototype

Prototype
<ul style="list-style-type: none"> • Barrier: Assume that a species is legal if available for purchase • Audience: Live plant customers (internet purchases) • Approach: Targeted internet campaign <ul style="list-style-type: none"> ○ Facebook sponsored ads, internet ads directed at people who visit websites that sell live aquarium plants and animals ○ Click leads to website or popup with more information <ul style="list-style-type: none"> ▪ List of illegal MN species (or higher risk) matched with good alternatives ▪ Button to "sign the pledge" to commit to purchase non-invasive species for their aquarium (collect email) <ul style="list-style-type: none"> • When signing says "you're the "xxx" person to sign • Email social badge to share online with catch phrase • discounts to local participating stores sent via email

Prototype
<ul style="list-style-type: none"> ○ Potential slogans/taglines “I like Minnesota NIAS” (non-invasive aquatic species)

Group 10 – Dispose of Unwanted Plants in the Garbage

Audience: Aquarium and aquatic plant customers

Removing Barriers and Promoting Motivators

Barriers/Motivators	Ideas
Barrier: Lack of knowledge of invasive plants at stores	<ul style="list-style-type: none"> • Signage about proper disposal at retailer • Pamphlets/handouts at retailers • Clear labeling on plants • Ask at point of sale to pledge to do proper disposal • Promote native plants for sale at retailers
Barrier: No defined disposal process	<ul style="list-style-type: none"> • Clear policies at transfer station • Proper training of staff at stores • Find simple way to kill plants • Catchy slogan about proper disposal • Leverage social media
Motivator: Benefits of protecting the environment	<ul style="list-style-type: none"> • Promote native species in retailers • Ads that show negative impacts • Showcasing model behavior/ heaping praise • Celebrity endorsement
Motivator: Economic benefits	<ul style="list-style-type: none"> • Tax write-off/credit • Rebate for returning unwanted plants to store
Motivator: Avoid consequences	<ul style="list-style-type: none"> • Extra enforcement • Signage in stores with penalty information • Ad campaign about penalties/consequences

Commitments

Collecting Commitments	Commitment Ladder	Recording Commitments
<ul style="list-style-type: none"> • Verbal agreement at point of sale • Written agreement and public posting at point of sale • Incentive/ prize for commitment 	<ul style="list-style-type: none"> • Verbal commitment at store • Written commitment at store (sticker/signature) • Written public commitment (sticker, tag, etc.) 	<ul style="list-style-type: none"> • Posting commitments at store • Posting commitments in clubs/newsletters • Posting commitment on social media, #, Instagram



Collecting Commitments	Commitment Ladder	Recording Commitments
<ul style="list-style-type: none"> • Commitment and clubs/ Facebook groups 		

Communication Strategies

Promoting Behaviors	Awareness & Attitudes	Feedback	Networking/ Partnership
<ul style="list-style-type: none"> • Signs showing physical action of behavior • Consistent "catchy" slogan • Well-known spokesperson • Positive messages on social media • Incentives 	<ul style="list-style-type: none"> • "It's easy" • Protecting lakes and rivers – legacy • Virtue - right thing to do! • Positive contribution to the community • Showing negative impacts of aquatic as invasive 	<ul style="list-style-type: none"> • Posting signed commitments in store, etc. • Posting commitment on social media • Tracking and publicly displaying pledges or disposals/trade-ins • Publicly showing incidents of aquatic plants in the wild 	<ul style="list-style-type: none"> • Retailers - "big box" - pet or aquarium • Garden clubs, hobby clubs, civic clubs, faith • Schools • Shows, media, radio, TV • Waste disposal orgs • Neighborhood or HOA, lake associations

Social Norms

Developing Social Norms
<ul style="list-style-type: none"> • Use aquarium and water garden group to put "pressure" on members • Use variety of Minnesotans (young, old, M, F, white, non-white) in your advertising campaign – "We all do this." • "Make it Minnesota" - Paul Bunyan or familiar character

Prototype

Prototype
<ul style="list-style-type: none"> • Barrier: Lack of knowledge of invasive aquarium plants • Motivator: Protect the environment – it's that easy • Target Audience: Aquarium and water garden enthusiasts – members of organized groups • Approach: Use member or leader of organized groups to demonstrate proper disposal method for aquarium plants. <ul style="list-style-type: none"> ○ Share message using existing channels (mail, YouTube, FB, email) ○ Encourage partnerships between organized groups and aquarium and water garden retailers ○ Spokesperson asks for commitments



Prototype

- We are doing this, why aren't you?
- public commitments via existing channels and point of sale at retailers
- Then commit to sharing message

Appendix C: Post-Workshop Participant Feedback

The following summarizes the valuable feedback provided by the people that participated in the AIS Behavior Change Design Workshop on October 22 and 23, 2019 in St. Cloud, MN. The DNR will incorporate this feedback into future behavior change initiatives.

Overview

- An anonymous online survey was completed by 42 of the 66 workshop participants within one month of the workshop being held.
- Participants had various levels of experience with CBSM and behavior change theories.
- A vast majority of the participants learned something through the workshop activities. For example:
 - Stepping through the CBSM process was educational.
 - Using real-time Minnesota data was valuable.
 - The data and the process will be used to inform local AIS programs.
- Participants built a network of support with one another and they look forward to continued collaboration.
- Small improvements could be made by the organizers, including:
 - A more thorough explanation or demonstration of the small group exercise process using post-its and flip charts.
 - Providing definitions of CBSM terms on the tabletop worksheet notes and power point instructions.
 - Less time and more focused reporting out of the small groups to the whole group.
- A few points of clarification based on survey feedback:
 - Many respondents mentioned collecting commitments. Behavior change tools such as commitments could be used on their own, but are most powerful when used in conjunction with barrier/benefit data, piloting and evaluation efforts.
 - Some respondents mentioned they would like to collect their own local data. The existing survey data is available to use and contain a large enough sample size to reflect statewide trends, therefore, there is no need to repeat that work for those audiences/behaviors.
 - Some respondents mentioned they would implement ideas generated during the workshop. All ideas generated are preliminary and are not intended for immediate implementation purposes. Ideas can be used as a starting point to more completely design strategies that can be tested and refined using the CBSM process.

Knowledge Gained

Before this workshop, about half of the participants had some sort of previous training in CBSM and/or behavior change including informal/coursework experience (48%) and/or attending past workshops (64%). Some participants had no previous training (25%).

Nearly all participants agreed (64%) or strongly agreed (29%) the workshop increased their understanding of CBSM and how behavior change strategies might be used to prevent the introduction and spread of AIS. They also agreed (71%) or strongly agreed (14%) their peers in their small group increased their understanding. Only one participant disagreed with both of these statements.

Nearly all participants agreed (81%) or strongly agreed (17%) that the format of the workshop allowed for knowledge transfer by putting CBSM theory into practice.

Participants are eager to share what they learned with others

For some participants, simply stepping through the basic CBSM concepts and process itself was educational. For others, more concrete CBSM behavior change strategies to work with specific audiences were developed. The data collected by DNR was helpful and should be used to inform efforts that focus on removing barriers and getting people to commit/pledge to take action. Participants plan to share and discuss the CBSM process, strategies, and tools with the people and organizations they work with/for.

What will you share with others?

“The most useful take home was the process for developing strategies. The brainstorming process and how to arrive at solutions given these data was very helpful.”

“The fact that we need to get people engaged and make them take the pledge to clean drain dry. We do a lot of advertising with billboards and posters, but we don't actually have them 'commit' to these actions. Having even a sign up sheet or something similar, saying that they pledge to clean drain dry would be a good idea.”

Participants will use their experience walking through the CBSM process to inform their work

They plan to meet with colleagues, committees and others to start incorporating what they learned about CBSM principles and tools to increase their current AIS program effectiveness and efficiency.

What will you do next related to using CBSM for your AIS program?

“Meet with my colleagues, review audiences, barriers, benefits and workshop report. Then we'll figure out what action we want to target in our county and use the tools you created to start making strategies and campaigns.”



“Look for ways to apply CBSM principles to make our current program more effective. For example, can we get commitments from the public?”

“Remove barriers and work on gathering public commitments.”

Participants are excited about the networks built and future collaboration opportunities

The workshop provided an opportunity for participants to build a network of support. They look forward to continued collaboration through sharing ideas, expertise, resources and solutions with people doing similar work. The data provides a foundation and working through the CBSM process provides a framework for future work.

What was the most significant outcome of this workshop, in your opinion?

“AIS professionals left the workshop with many program ideas and a framework for developing new, SUCCESSFUL programs. They also left the workshop with a support group of contacts for other AIS professionals.”

“As a new employee, it was good for me just to see that the more traditional ways of promoting the prevention of AIS are at its limit and we need to start incorporating more strategies to engage the public in participating in the clean drain dry movement. It was also good to meet fellow AIS program people that I can reach out to for ideas or assistance if needed.”

“That while there is plenty of work to be done, we're not that far off from breaking down barriers and adopting social norms. Our biggest resource is our network within the our respective communities and collaborating with our colleagues.”

“Not only understanding the data that was collected from the study, but also being able to use that data (through various techniques/methods) to help spread AIS awareness and prevention.”

Logistics

Timing

Was the appropriate amount of time/detail spent on the following topics listed below? The table below shows survey responses. The table header shows what participants would prefer for future workshops.

A Little More	Same	A little Less
Detail in the DNR project overview and results (60% just right; 36% too little)	Detail in the overview of CBSM and behavior change theories (76% just right)	Time for each small group to report out to all participants (63% just right; 20% too much)

A Little More	Same	A little Less
Detail in the instructions for the small group exercises (45% just right; 38% too little)	Time for each small group exercise (62% just right; 19% too much; 14% too little)	
	The number of: people in each small group (91%), behaviors addressed (62%), and target audiences addressed (83%) were just right.	

Resources

About three-quarters of the participants agreed or strongly agreed the resources (survey results, barrier benefit matrix, and tabletop notes) provided to them before and during the workshop enhanced their participation in the workshop. About 20% responded neutrally (neither agreed nor disagreed) and only two to four disagreed/strongly disagreed with the usefulness of the resources.

Next Steps

Participants want technical support and additional training, but are unsure of their specific needs at this time

Most were unsure of the technical support they will need. They expressed they would need help to develop methodologies for piloting and evaluating programs. Access to various levels of consultation ranging from a basic review of ideas/plans to professional expertise would be helpful. Some need more staff time, resources or expertise.

“Any help would be appreciated. Reviewing a plan before it’s piloted might be a good start. That would be a good opportunity for others to provide feedback and ideas and perhaps lessons learned from other organizations.”

“Evaluation is always tough. How do you know that your CBSM program was the reason for your perceived success? What aspect of your CBSM strategy was most effective?”

“Practical application of CBSM principles.”

A majority of participants are interested in additional training and resources such as: emails and newsletters with project updates, resources to read on their own, online webinars, and in-person meetings or workshops.

Conclusions and Takeaways

The wide diversity of expertise and areas of interest of the participants in the room was an essential component of this workshop. The most challenging part of the workshop



appeared to be identifying barrier removal strategies – some behaviors had many barriers to address while others had very few. However, the facilitators felt the overall energy increase over the two days. Participants creatively generated preliminary solutions for the ten discrete behaviors and three target audiences. This was possible because the participants were able to use real-time Minnesota data collected earlier by the DNR. The overall structure and content of the workshop worked well for a majority of the participants. A few small improvements could be made, including:

- A more thorough explanation or demonstration of the small group exercise process using post-its and flip charts.
- Providing definitions of CBSM terms on the tabletop notes and power point instructions.
- More time or prioritization of barriers to be addressed.
- Less time and more focused reporting out of the small groups to the whole group.

This workshop approach could be used as a model for other organizations looking to accomplish similar work. The DNR Invasive Species Program will continue to engage partners on CBSM initiatives for AIS prevention.