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Soil and Water Conservation District**
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Behavior Change Grant Project

Final Report through January 2022

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Between July 2020 and September 2021 Natalya Walker, AIS Program Coordinator of North St. Louis SWCD (The District), along with Charles Greenberg and Jack Hasty, AIS Interns, have progressed through planning and implementation of the Behavior Change Grant Project as detailed below.



Part One: Strategy Design and Evaluation



- Task 1.1- Confirmation of Partner Participation
 - Wildlife Forever- The District, along with other AIS prevention programs and the DNR, worked with Dane Huinker from Wildlife Forever to design bait bags with clear and uniform messaging about proper bait transport and disposal.
 - Each bait bag includes a QR code to reach a bait-use survey designed in partnership with the DNR, DNR consultant Ken Donnelly with Beyond Attitude Consulting, the District, and other AIS prevention programs.
 - Bait Retailers- The District reached out to the Cook County Store, Norman's Bait & Gift Shop, the Y- Store (operated by Fortune Bay Casino), Cenex in Tower, and the Lucky Seven General Store in Virginia to introduce the idea of distribution of bait bags at their locations. Each location was enthusiastic with the exception of the Y-Store which has not approved the use of the bait bags at their locations.
 - The Cook County Store, Norman's Bait & Gift Shop, Cenex in Tower, and Lucky Seven General Store in Virginia have all accepted boxes of bait bags and have been distributing them to their customers.
 - Local youth groups- The District has been in contact with a youth 4H group located out of Virginia, Minnesota. Unfortunately, with the onset of COVID-19 and the Delta variant, and the inability for youth to receive vaccinations, it was decided to withhold a youth outreach program involving interaction with the public. An online presentation was offered, however the 4H coordinator clarified they don't have a great online participation rate. It's been decided to move

The mission of the North St. Louis Soil and Water Conservation District is to encourage sustainable use of our natural resources by engaging people in soil and water conservation in northern St. Louis County.

forward with an outreach event involving the District's AIS Program Coordinator and two AIS Interns.

- Vermilion Lake Association- The District has an established relationship with Vermilion Lake Association and often contributes articles to their newsletters. Upon completion of the Behavior Change Project, the District will offer an article detailing the results of the project, and encourage proper bait transport and disposal to its readers.
- Task 1.2- Obtain Permissions
 - Voyageurs National Park asked the District to host a booth at a Fishing Pier Grand Opening.
 - The Cook County Store in Cook, Minnesota accepted to schedule an outreach even in August, 2021. The District will place an information booth outside the front entrance to the store and speak with anglers as they enter and exit the store.
- Task 1.3- Pictures of produced materials:

Item	Pictures
Bait Bags- Designed by Wildlife Forever with input from the DNR, the District, and several other AIS prevention program coordinators.	
Communication with Bait Retailers- contacted and confirmed partnership with the following. All have received, and have been distributing, bait bags.	<ul style="list-style-type: none"> ● Norman's Bait & Gift Shop- Orr, MN ● Cook County Store- Cook, MN ● Cenex- Tower, MN ● Lucky Seven- Virginia, MN
Bait Disposal Pamphlet	<ul style="list-style-type: none"> ● Please see supplemental attached document
Bumper Stickers- Designed by Wildlife Forever with input from the District.	

Item	Pictures
Give-a-ways- Designed by Wildlife Forever Publications provided by Minnesota DNR	https://files.dnr.state.mn.us/natural_resources/invasives/protect-waters.pdf 
Survey (now closed) - Designed by Ken Donnelly and Tina Fitzgerald with input from the District and other AIS prevention program coordinators.	https://www.research.net/r/NSLAIS 

- Task 1.4- Evaluation methodologies

Metric (What element will be tracked)	Evaluation Methodology / Data Tracking Tool	Timing
Pre-intervention behaviors, attitudes, awareness, barriers, benefits, etc.	Results from the Angler Survey Summary Report (DNR Behavior Change for AIS Prevention Project 2019).	Completed, existing data.
Number of bait retailers engaged	Number of bait retailers contacted and the number of bait retailers that agree to distribute bait bags.	Completed: 5 bait retailers contacted, 4 agree to distribute bait bags.
Number of bait bags distributed by bait retailers	The project lead will keep track of the number of bags distributed to each bait retailer. The number of bait bags remaining at each retailer will be counted at the end of the fishing season.	8,000 bags were distributed between the 4 bait retailers. Approximately 5,000 were distributed to customers.
Angler knowledge of bait disposal and AIS risk	A digital survey will be used to collect and compile this information.	After the outreach events and the survey link was distributed, the survey results were analyzed. Please see next section for more detail, and attached document for raw data.

Metric (What element will be tracked)	Evaluation Methodology / Data Tracking Tool	Timing
Number of anglers reached at the outreach events	Interns will keep a tally of the number of people that stop at the booth to view materials, ask questions, take the survey, sign the commitment, attach a bumper sticker, etc.	Between the two outreach events, 130 individuals were reached.
Number of anglers that sign the commitment	A commitment, stating they promise to Clean Drain Dry their watercraft and equipment, and properly dispose of unwanted bait and bait water.	During the outreach events 27 people signed the commitments, and two (2) showed interest in the survey and only one (1) took it on the spot.
Number of anglers that are given a bumper sticker	The quantity of stickers on hand before and after an event will indicate how many stickers were distributed at each event. Interns could observe and tally the number of people attaching the bumper stickers on site, if safe and feasible.	During the outreach events all 27 individuals who signed the commitments were given the bumper stickers. Those with vehicles nearby were given the sticker with the backs removed. Additionally 10+ stickers were given to youth (but commitment weren't gathered due to their age). After the outreach events, the remaining bumper stickers were given to Watercraft Inspectors, who then distributed the remaining 160 to public access users.

Part Two: Pilot Test Implementation Tasks and Deliverables

Between June 30th and the end of the boating season in 2021 the North St. Louis SWCD AIS Program Coordinator and AIS Interns implemented the Behavior Change Grant Project and evaluated the results of the project as detailed below.

- **Task 2.1: Implement Pilot**

The District planned outreach events with the goal of both gaining signed commitments from visitors that they'd Clean Drain Dry their equipment and Dispose of unwanted bait, along with the goal of encouraging visitors to take part in an online survey. Once a visitor either signed the commitment or took the survey, they'd be given give-a-ways and a "I Will Clean Drain Dry" sticker to display on their boat, trailer, or vehicle. After the events the surveys would be analyzed to see if there was a difference in response over time and as bait bags were distributed by bait retailers.

- **Task 2.2: Develop a summary report of project activities and results.**

- The target audience was anglers, specifically anglers who use live bait and fish in Minnesota.
- The target behavior was increased knowledge of the laws surrounding bait use, transportation, and disposal. Then the application of the legal requirements to not dump bait in the water, to replace fresh water for remaining bait, and to dispose of unwanted bait in the trash or compost.

- Behavior change intervention strategy design:
 - Bait Bags designed by Wildlife Forever, the DNR, the District and other AIS prevention programs were distributed to 4 bait retailers. As these bags were distributed they reached our target audience, live bait anglers.
 - At outreach events anglers would be asked to sign commitments stating they'd Clean Drain Dry and Dispose properly, and be given a sticker stating "I Will Clean Drain Dry" to display on their boat, vehicle or trailer.
 - All those who stopped for a conversation, whether or not they signed the commitment, were given the bait use information pamphlet, designed by the District in conjunction with the DNR.
 - Anglers would also be asked to take part in a survey which would both share the laws around bait use, and help determine angler's knowledge and exposure to bait related materials.
 - The signed commitments act as a personal commitment, the displayed bumper stickers act as a public commitment. Participation was shared with a local newsletter which was an even larger public commitment, and helped to create a social norm around proper bait transport and disposal.
- Pilot implementation
 - North St. Louis SWCD hosted outreach events at a Fishing Pier Grand Opening at Voyageurs National Park, and at the Cook Country Store (a live bait retailer). Information about this program was shared with Vermilion Lake Association and their newsletter.
 - The District utilized the give-a-ways designed by Wildlife Forever, and had the survey, designed by Tina Fitzgerald and Ken Donnelly, ready on tablets at the booths.
 - The outreach events occurred at the Fishing Pier Grand Opening in July, and the Cook Country Store in August.
 - During the outreach events it was relatively easy to ask visitors to sign a commitment. There was a clipboard with a pen, and we'd talk through the commitment and ask they sign. If they signed they'd receive the bumper sticker and their give-a-ways of choice. If their vehicle was nearby we'd remove the sticker backing and ask they place it promptly.
 - Stickers were observed on boats and trailers at accesses throughout the remainder of the summer.
 - During the outreach events it was found difficult to engage people at the Cook Country Store. At the Fishing Pier Grand Opening, visitors were slow paced, and at the event for a good time. However, at the Cook Country Store, visitor were rushed to get their gas or food, most weren't towing boats so it was difficult to engage them in conversation. Many avoided eye contact. Those that did accept our conversation weren't in a rush, but didn't stick around too long.
 - In both scenarios, at the grand opening and at the country store, it was extremely difficult to get visitors to take the online survey. We'd ask if they would please take a survey as it'd help us learn more about anglers in our area, and that it'd take 10-13 minutes to complete. One person was very enthusiastic, but they'd never fished in Minnesota. Another was interested but was in a rush and asked that I email it to him and to the Lake Association's President. Although a few more showed interest, after hearing it'd take 10-13 minutes, would clarify they didn't have time to take the survey.

- The District followed up and forwarded the survey link to the Vermilion Lake Association President and ask they include it in their next regular email list notification.
- The District then published a short article summarizing this effort and shared with the Vermilion Lake Association newsletter, with another link to the survey.
- Evaluation
 - Pre-intervention data summary
 - Prior to the Behavior Change Project the DNR had conducted a survey of anglers in 2019, resulting in 1,964 participants.
 - Overall, anglers had an awareness and knowledge of AIS issues, however there were gaps between answers in awareness, knowledge of proper procedures, reported behavior and observed behavior.
 - Metrics tracked
 - Through this Behavior Change Project a similar survey was conducted as the 2019 survey. Similar questions were asked, specific to bait use, transport, and disposal, as well as inquiries of exposure to the various tools and product distributed in 2020 and 2021 (bait bags, bait bins, posters, tool stations).
 - Post-intervention data summary
 - Participants in the 2021 survey gave very similar answers as to the 2019 survey. Most reported taking correct actions, most were familiar with the proper actions to take for bait disposal and transport. There was a small increase in correct answers around awareness and concern around AIS, which is encouraging.
 - Please see document “Final Report. Survey Analysis” as it compares answers given in the 2019 survey and the 2021 survey, with analysis for each question.
 - Discuss demonstrated behavior change
 - Of those who answered the 2021 survey (46), only 4 had seen the bait info poster at a bait shop, and 5 had seen the bait bag distributed by bait retailers. Of those who had seen the bait bags, 4 read the printed message and all agreed the information was helpful to some degree as a source of information, and as a guide to proper behaviors around bait transport and disposal. The bait bags, though not seen by most survey participants, were seen as helpful reminders that could aid in behavior change.
 - Along with the bait bag distribution, was the signed commitments and bumper sticker placements. Throughout the later summer the bumper stickers were observed on trailers and boats at public boat launches. Inspectors would use them as a conversation piece and encouraged thorough inspections. Boats with bumper stickers were very well kept, and the boaters took initiative in removing plants and water before inspectors would ask.

Overall, it was observed to a small degree that the distributed bait bags, placed bumper stickers, and signed commitments helped increase awareness and correct behaviors around bait transport, bait disposal and Clean Drain Dry practices.

Survey results suggest bait shops and watercraft inspectors are a trusted and desired source to distribute AIS prevention information. In future projects the District would encourage bait bag distribution along with posters placed at bait retailers. Bumper stickers should be given to anglers who take part in signed commitments, both by watercraft inspectors, and at outreach events. The District will continue to attend outreach events at fairs and festivals, but would not return to the outside of a bait retailer as it's difficult to pull people aside as they're going about their days.

In the future, if the survey continues, we would send it out via online platforms through a trusted local source, such as a lake association or fishing tournament directors. Or continue the QR code distribution through bait bags and information pamphlets.

The District enjoyed planning and implementing this Behavior Change Project and looks forward to discussing the results of this project with other AIS prevention programs, and hearing the results of other projects.