

**Environment and Natural Resources Trust Fund  
2020 Request for Proposals (RFP)**

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**Project Title:**

**ENRTF ID: 165-D**

Does AIS Outreach Lead to Behavior Change?

**Category:** D. Aquatic and Terrestrial Invasive Species

**Sub-Category:**

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**Total Project Budget: \$** 473,458

**Proposed Project Time Period for the Funding Requested:** June 30, 2023 (3 yrs)

**Summary:**

This project will augment AIS prevention efforts to increase boater compliance with regulations based on new community engagement outreach, social media and use of waterless boat cleaning stations.

**Name:** Douglas Jensen

**Sponsoring Organization:** U of MN - Duluth

**Job Title:** AIS Program Coordinator

**Department:** University of Minnesota Sea Grant College Program

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Duluth MN 55812

**Telephone Number:** (218) 726-8712

**Email** djensen1@d.umn.edu

**Web Address:** <http://www.seagrants.umn.edu/>

**Location:**

**Region:** Northeast

**County Name:** Cook, Lake, St. Louis

**City / Township:** Duluth

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**Alternate Text for Visual:**

A user of a waterless boat cleaning station using the vacuum tool attracts media attention.

_____ Funding Priorities	_____ Multiple Benefits	_____ Outcomes	_____ Knowledge Base
_____ Extent of Impact	_____ Innovation	_____ Scientific/Tech Basis	_____ Urgency
_____ Capacity	_____ Readiness	_____ Leverage	_____ TOTAL _____%



**PROJECT TITLE: Does AIS Outreach Lead to Behavior Change?**

**I. PROJECT STATEMENT**

Our goal is to pilot an aquatic invasive species (AIS) prevention program which increases boater compliance with regulations based on strategic outreach and community engagement, social media, chatbots (herein called outreach), and use of waterless boat cleaning stations (WBCS). Due to the vast number of water accesses across Minnesota, staffing all accesses with inspectors or with portable hot, high pressure water decontamination units is cost prohibitive and not justifiable based on risk for a vast majority of watercraft. *An alternative control approach is needed.* This project will compare use of 3 existing WBCSs near Duluth to 3 water accesses without WBCSs to determine if the outreach program and availability of WBCS improve compliance with DNR regulations. Outreach will include strategic social media and a new WBCS chatbot for people with questions about AIS and clean boating. A chatbot is a computer program, using artificial intelligence, which conducts a conversation via audio or text. Compliance will be assessed based on current regulations: removed aquatic vegetation, lack of transport of prohibited AIS, and water drained and decontamination when identified. We will pilot to assess value for use elsewhere to help prevent AIS spread and recommend improvements influencing boater behaviors. Disclosure: The PI worked with CD3, the sole manufacturer of WBCSs, by providing technical assistance as they designed their system.

**II. PROJECT ACTIVITIES AND OUTCOMES**

Overview: We will assess differences in boater regulatory compliance at accesses with and without WBCSs: 1) no community outreach, 2) with community outreach, compared 3) to community outreach, and 4) with outreach and without WBCSs. We will test over two seasons since motivational research shows that response to actions-based outreach programs is dependent upon messages *and* time (not mutually exclusive). We expect greatest differences in regulatory compliance, thereby risk reduction by boaters, between Yrs 1 & 3.

	<b>3 Accesses With Existing WBCS</b>	<b>3 Accesses Without WBCS</b>
Yr 1	3 Accesses w/WBCSs – No Community Outreach	3 Accesses w/o WBCSs – No Community Outreach
Yr 2	3 Accesses w/WBCSs + Community Outreach	3 Accesses w/o WBCSs + Community Outreach
Yr 3	3 Accesses w/WBCSs + Community Outreach	3 Accesses w/o WBCSs + Community Outreach

Data on compliance rates will be collected four ways: 1) through observations by “secret shoppers”, staff, student interns, partner organizations and volunteers in the area, who will be trained to collect consistent observational data of boater’s actions at all accesses over three seasons, 2) exit surveys of boaters by staff/partners at accesses who use and do not use WBCSs. Additionally, we will collect data on the percent of boaters who use WBCSs where they exist, through drive-over vehicle counters 24/7, and on tool use by boaters (which tools are used and how long) through the WBCSs, that automatically transmit to the internet. This information will help us understand how boaters use (or do not use) these stations to comply with regulations and to take actions in support of *Stop Aquatic Hitchhikers!* clean-drain-dry-dispose (of unwanted bait) messages by linking direct actions to the tools:

- Clean: marine brush, vacuum, reach tool
- Dry: air blower
- Drain plug wrench (to remote boat plug)
- Dispose vacuum system

As a key outcome of this proposal, we will determine if boaters, based on exposure to messages and with WBCS access, are in compliance with regulations. We will also gain understanding of how tool presence affects effort and/or time boaters spend to be in compliance with regulations. We will work with a company to develop the WBCS chatbot into viable product. As a key benefit, we will assess value of this approach for use elsewhere by counties/communities to help prevent AIS spread, resulting in less AIS impacts on environment, recreation and economies of communities that depend upon healthy waters statewide. This proposal builds upon previous AIS outreach efforts by DNR, Sea Grant, Wildlife Forever, MAISRC, U.S. Fish & Wildlife, 1854 Treaty Authority, parks and counties. This proposal compliments another submitted by Valerie Brady, UMD Natural Resources Research Institute, *How Effective Are Our AIS Removal Methods?*, which assesses biological efficacy of WBCSs. If funded, we will leverage efforts.

**Activity 1: Contact Partners, Develop Program, Select/Install Vehicle Counters, Gather Baseline Compliance**

An advisory board of regional AIS experts will ensure development of a strategic community outreach and



## Environment and Natural Resources Trust Fund (ENRTF) 2020 Main Proposal

engagement program. Accesses with WBCSs will be outfitted with vehicle counters and partners/volunteers will be trained/deployed at accesses with/without WBCSs to observe and conduct surveys on compliance behavior.

### ENRTF BUDGET: \$118,364

Outcome	Completion Date
1. Contact and invite existing and new partners – convene advisory board; contracts set	July '20 – Aug '20
2. Develop outreach program/social media strategy; hold 2 focus groups in TCs and Duluth	Aug '20 – Dec '20
3. Select access locations and install vehicle counters (to access use and non-use of WBCSs)	Sept '20 – Oct '20
4. Collect compliance observations/data at accesses (without outreach); develop chatbot	May '21 – Oct '21

### Activity 2: Implement a Strategic Community Outreach and Engagement Program with Social Media

Develop program empowering positive behaviors of boaters to take actions to clean-drain-dry-dispose. Program employed at accesses with and without WBCSs over two boating seasons. Effective media used include: TV, radio (Sea Grant Files episode) and newspaper PSAs, billboards, water access awareness and social media campaign. Based on input from focus groups to help develop content, graphics and video, implement WCBS chatbot. Roll out social media strategy in based on input from UMD students to boost WBCS use. Compliance data collection continues.

### ENRTF BUDGET: \$236,730

Outcome	Completion Date
1. Implement strategic community outreach and engagement program	May '21 – Oct '22
2. Create, produce and distribute communication and outreach products; refine chatbot	Nov '20 – Oct '22
3. Collect compliance observations, surveys, and vehicle counter data at all 6 accesses	May '21 – Oct '22

### Activity 3: Increase Use of County, State and Tribal Decontamination Stations

To increase use of decontamination units, watercraft users deemed high risk for AIS spread will be encouraged to visit the DNR interactive website ([www.mndnr.gov/decon](http://www.mndnr.gov/decon)), which has locations and hours for most decontamination stations. A new online mapping tool will be available via cell phones that will show proximity to local car washes. Messages will encourage use and rates will be tracked over time to assess if message helped lead to behavior change.

### ENRTF BUDGET: \$118,364

Outcome	Completion Date
1. Create online mapping/education platform	July '20 – Aug '20
2. Collect tool use data (2 seasons); continue implement outreach program & WCBS chatbox	May '21 – Oct '22
3. Submit Final Report	Feb '23

## III. PROJECT PARTNERS:

### A. Partner receiving ENRTF funding (PI served as CD3 technical advisor - no financial gained via this relationship)

Douglas A. Jensen*	AIS Program Coordinator	Minnesota Sea Grant	Program Manager
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### B. Partners NOT receiving ENRTF funding (see attached letters of support\*)

Tyler Kasper*	Environmental Specialist	1854 Treaty Authority	Advisory Board/Partner
Sonja Smerude*	AIS Program Coordinator	Lake Co. SWCD	Advisory Board/Partner
Edward Rudberg*	CEO	CD3 Corporation	Advisory Board/Ex-officio
Kevin Cornick*	Supervisor	Canosia Township	Advisory Board/Partner
Bill Grantges	AIS Program Coordinator	Itasca Co. SWCD	Supporter
Anita Provinzino*	District Administrator	No. St. Louis Co. SWCD	Advisory Board/Partner
Jeff Lovgren	AIS Program Coordinator	Lake Vermilion Association	Supporter
Joan Farnam*	Board Chair	Cook Co. SWCD	Advisory Board/Partner

## IV. LONG-TERM- IMPLEMENTATION AND FUNDING:

This project is an investment in long-term prevention of AIS through a community outreach and engagement program and WBCSs aimed at improving compliance rate by boaters, which can be scaled up elsewhere.

## V. TIMELINE REQUIREMENTS: July 2020 - March 2023 (2.75-years)

**Attachment A: Project Budget Spreadsheet**  
**Environment and Natural Resources Trust Fund**  
**M.L. 2020 Budget Spreadsheet**

**Legal Citation:**

**Project Manager:** Douglas Jensen

**Project Title:** Does AIS Outreach Lead to Behavior Change?

**Organization:** University of Minnesota Duluth

**Project Budget:** \$473,458

**Project Length and Completion Date:** 2.75 years: July 2020 - March 2023

**Today's Date:** April 9, 2019



ENVIRONMENT AND NATURAL RESOURCES TRUST FUND BUDGET		Budget	Amount Spent	Balance
<b>BUDGET ITEM</b>				
<b>Personnel (Wages and Benefits)</b>		\$ 316,624	\$ -	
Program Manager \$126,091, 50% FTE for each of the 2.75 yrs (74% salary, 26% Fringe)				
Assistant Program Manager \$150,858, 100% FTE for each of the 2.75 yrs (77% salary and 23% fringe)				
Communications Specialist \$17,175, 10% FTE in each of years 1 & 2 only (77% salary and 23% fringe)			\$ -	
3 Student interns, \$22,500, each student 10% FTE for each of the 2.75 years (100% salary)				
*Note: ~75% of MN Sea Grant staff salaries depend on external grant funds				
<b>Professional/Technical/Service Contracts</b>				
Contract Graphics Designer		\$ 8,000		
Contract Production of Duluth-Based Video Company		\$ 5,000		
3 Year Lease On-Line Mapping Tool		\$ 12,500		
Contract with Company to Create a WBCS Chatbot		\$ 25,000		
Contract for Focus Groups (2) Facilitator		\$ 2,000		
<b>Equipment/Tools/Supplies</b>				
Vehicle Counter Installation (\$750/location x 6 locations)		\$ 3,750	\$ -	
Focus Groups (2) Supplies and Expenses		\$ 1,000		
<b>Capital Expenditures Over \$5,000</b>				
<b>Fee Title Acquisition</b>				
<b>Easement Acquisition</b>				
<b>Professional Services for Acquisition</b>				
<b>Printing</b>				
Community Outreach and Engagement Products: Television PSAs Buys (2 seasons @ 5 placements ea) = 10 @ \$1,000 ea. Radio PSAs Buys (2 seasons @ 5 episodes ea @ 5 radio stations @ \$350 ea). Newspaper PSAs (2 seasons @ 5 placements @ 5 newspapers \$600). Billboard Rentals (2 seasons @ 4 mo buys @ 5 placements). Facebook Earned Media (1/week @ 20 weeks, May-Sept) @ \$50)		\$ 83,500	\$ -	
<b>Travel expenses in Minnesota</b>				
Community Outreach and Engagement Travel and Event Expenses: Lodging \$1,725, Per Diem \$850, Booth Rentals and Ads \$3,511, Mileage \$1,030, Vehicle Rental \$140		\$ 7,256	\$ -	
Community Research to Access Sites Travel Expenses: Lodging 10 trips \$1,800, Mileage \$3,100, Per Diem \$825		\$ 6,435		
Travel Expenses for Collecting B-roll Video and Stories of People Using Lakes and WBCSs and Focus Groups: Lodging \$510, Per diem \$850, Mileage \$694		\$ 2,393		
<b>Other</b>				
		\$ -	\$ -	\$ -
<b>COLUMN TOTAL</b>		\$ 473,458	\$ -	\$ -
<b>SOURCE AND USE OF OTHER FUNDS CONTRIBUTED TO THE PROJECT</b>	<b>Status (secured or pending)</b>	<b>Budget</b>	<b>Spent</b>	<b>Balance</b>
<b>Non-State:</b>		\$ -	\$ -	\$ -
<b>State:</b>		\$ -	\$ -	\$ -
<b>In kind: MN Sea Grant unrecovered Indirect Cost @ 33%</b>	secured	\$ 156,241	\$ -	\$ 156,241
<b>Other ENRTF APPROPRIATIONS AWARDED IN THE LAST SIX YEARS</b>	<b>Amount legally obligated but not yet spent</b>	<b>Budget</b>	<b>Spent</b>	<b>Balance</b>
		\$ -	\$ -	\$ -



## **F. Project Manager Qualifications and Organizational Description**

**Douglas Jensen**, Extension Assistant Professor and Aquatic Invasive Species Program Coordinator at the University of Minnesota Sea Grant Program, has 40 years of experience in aquatic research, outreach, and education. Of that, 25 years has been as an expert on aquatic invasive species (AIS) specializing in community outreach and engagement programs with an emphasis on social science research, behavior change and evaluation. He has been responsible for overseeing programs, outreach, grants, budgets, and supervising staff and interns. During his career, Jensen has managed 41 national, regional, local and private grants collectively worth over \$2.8M.

Jensen has directed or collaborated on more than 100 AIS campaigns, programs and projects. Some efforts have been hailed at the highest levels of government. In 2004, the Bush Administration recognized *Habitattitude*<sup>™</sup>, a national campaign which he helped create in collaboration with the Pet Industry Joint Advisory Council and U.S. Fish and Wildlife Service, as an innovative partnership between business, government and academia addressing national policy objectives. *Habitattitude*<sup>™</sup> educates aquarists and water gardeners encouraging actions to prevent the release and escape of pets and plants. He has been honored over two dozen times with state, regional and national awards. In 2012, he was honored to receive the first ever National Invasive Species Outreach Award by the federal Aquatic Nuisance Species Task Force, National Invasive Species Council, and Federal Interagency Committee for the Management of Noxious and Exotic Weeds – the only one given to-date. In 2014, he was honored to receive the Wildlife Forever *Stop Aquatic Hitchhikers!* Achievement award.

Jensen provides leadership on task forces at national, regional, state and local levels. He is co-chair of the federal Aquatic Nuisance Species Task Force's Communication, Outreach and Education Committee, which supports two national campaigns, *Stop Aquatic Hitchhikers!*<sup>™</sup>, and *Habitattitude*<sup>™</sup>. He is the Great Lakes Panel on Aquatic Nuisance Species' Information and Education Committee Chair, Minnesota Invasive Species Advisory Council member, DNR's Statewide Aquatic Invasive Species Advisory Committee ex-officio member, and Initiative Foundation's AIS Pilot Project Proposal Review Team member. He provides technical support to St. Louis County's AIS Program and to CD3, the sole manufacturer of waterless boat cleaning stations. Jensen's degrees are in biology (B.S.) and education (M.Ed.) from the University of Minnesota Duluth.

As proposed project manager, Jensen will oversee all aspects of activities. He will lead an advisory board of AIS experts who will help guide development and implementation of the project. He will oversee community outreach and engagement work by an assistant manager who will work directly with partners, including municipalities, townships, lake associations, non-profits, local businesses and industries. He will supervise the assistant manager, who will collaboratively plan meetings, trainings for partners and volunteers, direct development of observing standards and exit surveys for boaters, and produce and distribute community outreach materials. Jensen will track outcomes and impacts and prepare progress and completion reports for LCCMR as requested. Contract graphic designer will design products. Publications assistant will identify vendors and order community outreach products.

**University of Minnesota Duluth (UMD)** is a comprehensive four-year plus graduate teaching and research institution located in Duluth, MN, St. Louis County. The university's sponsored programs administration office oversees extramural funding and allows the university to successfully manage many federal and state grants, including all reporting and tracking. Minnesota Sea Grant has dedicated accounting staff who assist project managers with tracking grant spending and ensuring that spending follows specifications in grant budgets and timelines.