

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

Project Title:

ENRTF ID: 169-DH

Rainy Lake Non-native Hybridized Cattail Removal

Category: H. Proposals seeking \$200,000 or less in funding

Sub-Category: D. Aquatic and Terrestrial Invasive Species

Total Project Budget: \$ 199,500

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

Summary:

Eliminate non-native hybridized floating cattail mats, focusing on a 19-acre bog located in Jackfish Bay, that have displaced native vegetation outside of the Voyageurs National Park area on Rainy Lake.

Name: Eric Olson

Sponsoring Organization: Koochiching Soil & Water Conservation District

Job Title:

Department:

Address: 501 3rd Street, Suite 201

International Falls MN 56649

Telephone Number: (218) 283-1175

Email eric.olson@co.koochiching.mn.us

Web Address: www.koochichingswcd.org

Location:

Region: Northeast

County Name: Koochiching

City / Township: International Falls

Alternate Text for Visual:

The attached map shows the project focus area within Rainy Lake and the four bog removal locations where floating cattail mats can be transported to await removal.

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



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

PROJECT TITLE:

Rainy Lake Non-native Hybridized Cattail Removal

I. PROJECT STATEMENT

The overall goal for this project is to eliminate non-native hybridized floating cattail mats, focusing mainly on a 19-acre bog located in the southwest portion of Jackfish Bay, that have displaced native vegetation outside of the Voyageurs National Park (VNP) area on Rainy Lake within the United States and Koochiching County. These floating cattail mats have limited biodiversity, degraded fish and wildlife habitat, impaired recreational opportunities, and degraded cultural resources compared to native wild rice stands which are connected to the lake's substrate. Removal efforts will be done in consultation with VNP staff, building on their knowledge, research, and current work with cattail removal efforts inside Voyageurs National Park. After the non-native cattail mats have been removed, a native wild rice seed bank residing in the soil will emerge with oxygen, sunlight, and room to grow. The native wild rice will provide a more diverse habitat for aquatic living organisms than the non-native cattail mats.

As water rises in the spring, the lake becomes susceptible to wind and waves causing cattail mats to break free and move from location to location based on wind and current. Once displaced, these floating bogs create navigational and safety hazards, attach to shore, and establish non-native communities in new locations. A response team will be created to identify and move floating cattail mats to one of four strategic locations near areas where these bogs are known to break free. Due to their size, moving floating mats to a secure location can take anywhere from 8-24 hours each instance. Once relocated, floating mats will be staked down to prevent them from moving again and will be removed by grabbing them from the top and picking them out of the water with a backhoe bucket and thumb approach to avoid touching or disturbing the substrate.

Removal efforts will be done when water levels and/or ice conditions are optimal to avoid disturbing the substrate and improve the potential for regeneration of native vegetation, including wild rice. Once removed, the material will be hauled to an upland location nearby where it can decompose in a field and avoid entering the waters of Rainy Lake where it currently thrives. If wild rice does not regenerate naturally over the first spring/summer after removal, wild rice will be planted during the fall of that same year or the following year in order to reestablish a native plant community.

II. PROJECT ACTIVITIES AND OUTCOMES

Activity 1 Title: Survey non-native hybridized floating cattail mat locations

Description: SWCD administrative staff will track project expenditures and prepare contracts with contractors; SWCD technical staff and Rainy Lake Property Owner Association (RLPOA) members will identify areas of known non-native hybridized cattail stands and define the size of the floating mats to determine the largest and most vulnerable floating cattail stands.

ENRTF BUDGET: \$14,000

Activity 2 Title: Move and secure non-native hybridized floating cattail mats at designated locations

Description: Rainy Lake Houseboats will provide equipment and purchase supplies to move and secure floating cattail mats that break free from their original location. Contractors will transport the floating mats to the nearest holding location and stake them down to prevent further hazards and the spread of non-native hybridized cattails.

ENRTF BUDGET: \$61,500



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

Activity 3 Title: Remove and dispose of non-native hybridized floating cattail mats

Description: Once the extent of the floating cattail mats has been identified and the free-floating bogs have been secured, local contractors will be hired to remove the floating portions of the bogs during the summer and /or winter months and bring to an upland location nearby where they can decompose. Follow up with seeding of wild rice and bulrush if not naturally regenerated.

ENRTF BUDGET: \$124,000

Outcome	Completion Date
<i>1. Floating cattail stands will be identified for size and location during summer of 2020.</i>	<i>7/31/2020</i>
<i>2. Free floating mats will be secured and transported back to original location or to nearest removal location each summer and fall and removed during summer and/or winter months.</i>	<i>6/30/2023</i>
<i>3. The main 19-acre floating mat, along with the other small floating mats, will be removed and harvested material will be hauled to an upland location; wild rice stands will be planted by fall of 2022 if they do not successfully regenerate on their own.</i>	<i>6/30/2023</i>

III. PROJECT PARTNERS AND COLLABORATORS:

Name	Title	Affiliation	Role
Tom Dougherty	RLPOA President	Rainy Lake Property Owners Association (RLPOA)	Assist with initial floating cattail stand survey and with moving free-floating cattail mats back to designated location and staking down to await removal.
TBD	RLPOA Member		
Bryce Olson	Biologist	Voyageurs National Park (VNP)	Advise SWCD/RLPOA members on methods of cattail removal and re-establishing native wild rice stands where cattail mats once were.
Steve Windels	Biologist		

IV. LONG-TERM IMPLEMENTATION AND FUNDING:

The SWCD and the RLPOA will continue to monitor the spread of the non-native hybridized cattails and their locations in the areas outside of VNP. The SWCD will continue to work with VNP on best management practices for controlling the spread and displacement of floating cattail mats along with re-establishing native wild rice stands. Each winter, local volunteers will be sought to plow snow from standing non-native hybridized cattail stands located near shore in an effort to shear the cattail stems off, hopefully causing them to drown and die off when water rises in the spring, flooding them out. If large floating mats continue to break free and re-establish in other locations, the SWCD may seek another grant opportunity.

V. SEE ADDITIONAL PROPOSAL COMPONENTS:

- A. Proposal Budget Spreadsheet**
- B. Visual Component or Map**
- C. Parcel List Spreadsheet**
- D. Acquisition, Easements, and Restoration Requirements**
- E. Research Addendum (Not required at proposal submission stage. Required later in process, if proposal is recommended. Staff will provide further information at that time)**
- F. Project Manager Qualifications and Organization Description**
- G. Letter or Resolution**
- H. Financial Capacity**

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

Legal Citation:

Project Manager: Eric Olson

Project Title: Rainy Lake Non-native Hybridized Cattail Removal

Organization: Koochiching Soil & Water Conservation District

Project Budget: \$199,500

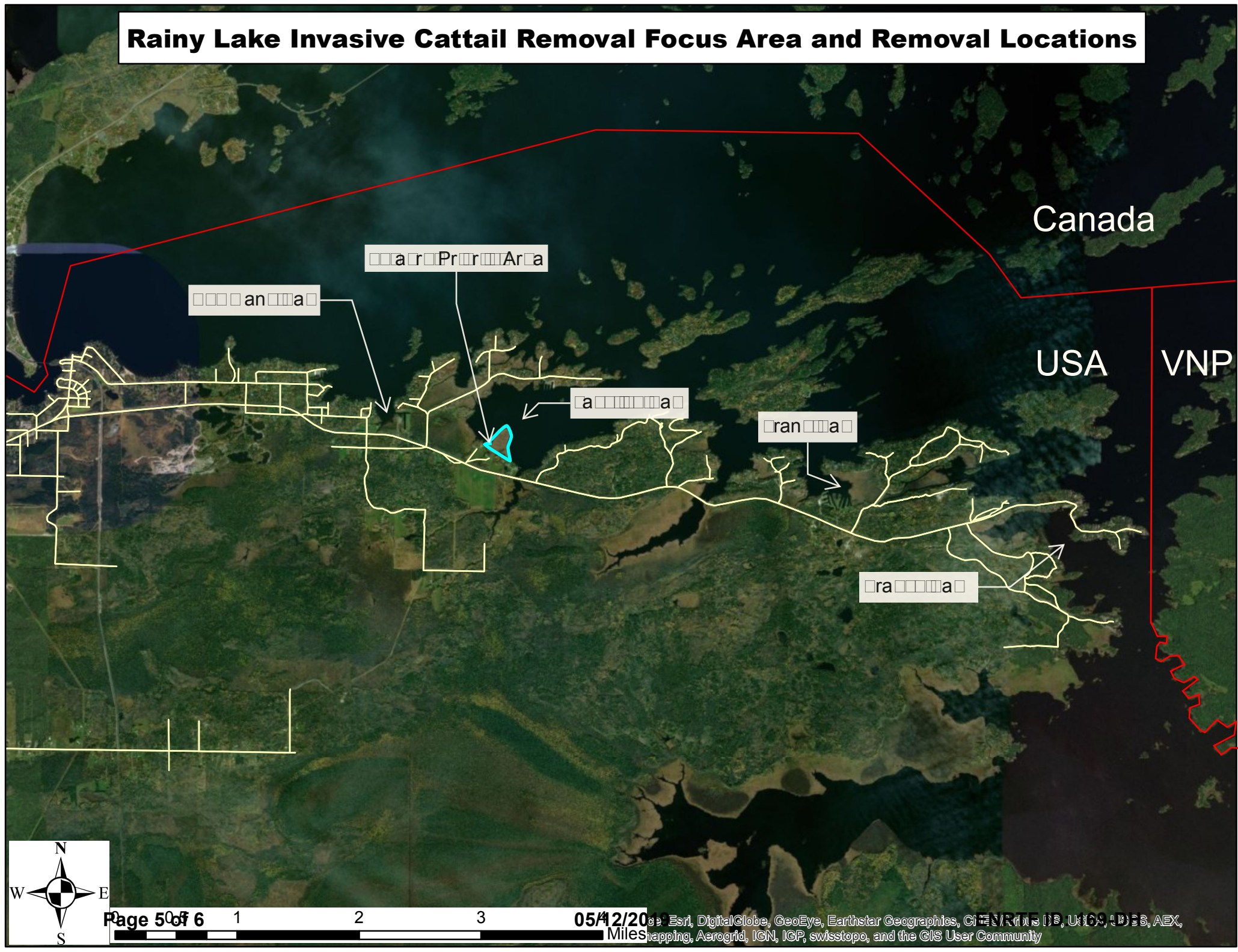
Project Length and Completion Date: 3 years - 6/30/2023

Today's Date: 04/15/2019



ENVIRONMENT AND NATURAL RESOURCES TRUST FUND BUDGET		Budget	Amount Spent	Balance
BUDGET ITEM				
Personnel (Wages and Benefits)		\$ 13,500	\$ -	\$ 13,500
SWCD Administrator, Grant Administration, \$4500 (92/hrs X \$48.74/hr; \$2768 wage/\$1732 benefits), 1% FTE each yr X 3 yrs				
SWCD Resource Conservationist, Technical Services, \$9000 (264/hrs X \$34.08/hr; \$6512 wage/\$2488 benefits), 4% FTE each yr X 3 yrs				
Professional/Technical/Service Contracts				
Contract with Rainy Lake Houseboats to transport and stake floating cattail mats (single source contract based on unique (V-Hull) houseboat for moving cattails, central location in target area, and past experience moving previous floating cattail mats)		\$ 27,500	\$ -	\$ 27,500
Contractor for cattail mat removal and hauling of material off site (TBD by RFP bid process)		\$ 119,000	\$ -	\$ 119,000
			\$ -	\$ -
Equipment/Tools/Supplies				
Green snow fence for temporary housing of cattail mats		\$ 1,825	\$ -	\$ 1,825
Pine posts for staking cattail mats (750 X \$32.50)		\$ 24,375	\$ -	\$ 24,375
Cable ties for staking cattail mats (75 X \$104)		\$ 7,800	\$ -	\$ 7,800
Wild Rice and Bulrush seed for planting		\$ 5,000	\$ -	\$ 5,000
			\$ -	\$ -
Capital Expenditures Over \$5,000				
		\$ -	\$ -	\$ -
Fee Title Acquisition				
		\$ -	\$ -	\$ -
Easement Acquisition				
		\$ -	\$ -	\$ -
Professional Services for Acquisition				
		\$ -	\$ -	\$ -
Printing				
		\$ -	\$ -	\$ -
Travel expenses in Minnesota				
Travel (mileage at current IRS rate) to project area for initial survey of cattail areas and follow up site visits as needed during the project.		\$ 500	\$ -	\$ 500
Other				
		\$ -	\$ -	\$ -
COLUMN TOTAL		\$ 199,500	\$ -	\$ 199,500
SOURCE AND USE OF OTHER FUNDS CONTRIBUTED TO THE PROJECT				
	Status (secured or pending)	Budget	Spent	Balance
Non-State:		\$ -	\$ -	\$ -
State:		\$ -	\$ -	\$ -
In kind: Two (2) VNP staff for project consultations (8 hrs/yr X 3 years X \$50/hr X 2 for salaries/benefits)		\$ 2,400	\$ -	\$ 2,400
In kind: Two (2) RLPOA members for cattail mat locations survey (8 hrs @ \$25/hr X 2), project consultation attendance with VNP (8 hrs/yr X 3 years @ \$25/hr X 2) and assistance with moving floating mats (40 hrs/yr X 3 years @ \$25/hr X 2)		\$ 7,600	\$ -	\$ 7,600
In kind: Donation by Rainy Lake Houseboats for the use of one (1) large houseboat to move extra large mats (2 X per year X 3 years @ \$1000 per day)		\$ 6,000	\$ -	\$ 6,000
Other ENRTF APPROPRIATIONS AWARDED IN THE LAST SIX YEARS				
	Amount legally obligated but not yet spent	Budget	Spent	Balance
None		\$ -	\$ -	\$ -

Rainy Lake Invasive Cattail Removal Focus Area and Removal Locations





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WWW.KOOCHICHINGSWCD.ORG

Project Manager Qualifications & Organization Description

Project Manager:

Eric Olson, Koochiching SWCD Resource Conservationist

Qualifications:

Project manager holds a Bachelor of Science degree in fish and water resources with a minor in soil science from the University from Stevens Point Wisconsin and has been employed as the resource conservationist of the Koochiching SWCD since April 2013. Responsibilities on this project will include selecting contractors for the jobs proposed, project oversight, and making adaptive management decisions pertaining to the tasks at hand with assistance from Bryce Olson (Voyageurs National Park biologist) and Tom Dougherty (Rainy Lake Property Owners Association president).

Organization Description:

The Koochiching Soil & Water Conservation District (SWCD) is a special-purpose unit of government established under state (M.S. 103C) law to carry out conservation programs at the local level. In cooperation with local, state, and federal agencies, the SWCD provides technical expertise and financial and educational assistance to land users to address natural resource issues and concerns.