

**Environment and Natural Resources Trust Fund
2011-2012 Request for Proposals (RFP)**

LCCMR ID: 130-E

Project Title: Washburn Milfoil Weevil Pilot Project

Category: E. Aquatic and Terrestrial Invasive Species

Total Project Budget: \$ \$250,000

Proposed Project Time Period for the Funding Requested: 3 yrs, July 2011 - June 2014

Other Non-State Funds: \$ 0

Summary:

Our goal is to demonstrate the potential for milfoil weevils to provide sustainable, safe, cost effective and low-maintenance control of Eurasian Watermilfoil.

Name: Ted Johnson

Sponsoring Organization: Lake Washburn Association

Address: PO Box 26
Outing MN 56662

Telephone Number: 612-619-6533

Email: tjohnsonCPA@comcast.net

Web Address: http://www.minnesotawaters.org/index.php?uberKey=1292

Location

Region: Central

Ecological Section: Northern Superior Uplands (212L)

County Name: Cass

City / Township: Crooked Lake

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

2011-2012 MAIN PROPOSAL

Washburn Milfoil Weevil Pilot Project:

I. PROJECT STATEMENT

Eurasian Watermilfoil (EWM) is an Aquatic Invasive Species, AIS. EWM radically alters lake ecology, crowding out other native species, disrupting species distribution and diversity, and accelerating eutrophication. EWM costs Minnesota hundreds of millions in chemical and mechanical mitigation, lost real estate value, and diminished tourism each year.

Currently chemical or mechanical mitigation are the only tools available in Minnesota to control EWM. Both are expensive and often have negative impacts. There is no EWM approved mitigation method in Minnesota that has proven efficacy without negative impacts.

We have investigated the treatment options, and would like to try to use weevils to control EWM. The milfoil weevil (*Euhrychiopsis lecontei*) is a small, herbivorous aquatic beetle. It feeds and develops only on milfoil (*Myriophyllum* spp.) Weevil larva are stem miners and ultimately kill its host. Our Vendor, Enviroscience, has over 10 years of experience using weevils an effective biocontrol agent for EWM in twelve states and Canada, but Enviroscience has never done a project in Minnesota. The DNR has prohibited the transportation of weevils and the host EWM fragments, and has not been willing to permit weevil treatments. We have negotiated with Enviroscience to specially develop weevils using weevil and EWM stock from Lake Washburn. This will comply with DNR mandates, per discussion with Chip Welling, DNR EWM Coordinator, and allow Minnesota permitting to occur.

Our objective is to demonstrate the potential for milfoil weevils to provide sustainable, safe, cost effective and low-maintenance control of EWM in Washburn Lake, allowing LWA to reduce, if not eliminate the use of herbicides or mechanical control methods. This objective will be accomplished by stocking a total of approximately 24,000 weevils in three to four locations during summer, 2011. Additionally our research vendor, the University of Minnesota (U of M), will collect sufficient, rigorous data to support publication of the findings in one or more peer-reviewed journal articles. This will require pre- and post-application surveys for a minimum of two years. After the initial survey period, surveys will be conducted by LWA, and LWA will report on the lasting effects, as well as to monitor for other AIS. Our hope is that our favorable experience paves the way for statewide use of the weevil.

II. DESCRIPTION OF PROJECT ACTIVITIES

Activity 1: *Pre-commencement Planning and Surveying* Budget: \$2500

When combating EWM the most important thing is complete knowledge of EWM locations and density so [Enviroscience](#) can properly scale the implantation of weevils into Lake Washburn. LWA will fund this initial survey. Additionally we have already

shared fish catch data with the U of M and Enviroscience who both believe Washburn's sunfish population is very low (13 per gill net) and should favor the project success.

Activity 2: Implantation of Weevils

Budget \$50,000

This is targeted for Mid-July 2011. The U of M and Enviroscience will cooperate to collect EWM growth and density data from Washburn and control lakes to judge effectiveness.

Activity 3: Monitoring and Data Collection

Budget: \$200,000

LWA will contract with the U of M to ensure collection of publishable findings to add to the scientific knowledge of weevils as control agents for EWM in Minnesota. According, the costs in this phase will be incurred by the University of Minnesota, who is likely to have at least a full-time graduate student assigned to this study. Researchers will monitor Washburn Lake and two control lakes. Dr. Newman or professorial colleagues will supervise and direct all scholarly work.

III. PROJECT STRATEGY

A. Project Team/Partners

Project Manager--Mr. Ted Johnson has served as president of LWA for the past three years. Ted, is a CPA, a business consultant and has held various executive positions at Companies like AGA Medical, and Digital River. Ted has had operational and financial responsibility for multi-million dollar projects and businesses and posses strong project management skills.

Jeff Forester (Legislative Liaison). Jeff is the Executive Director of Minnesota Seasonal Recreational Property Owners and a published environmental writer.

Dr. Ray Newman, Professor, Department of Fisheries, Wildlife and Conservation Biology, University of Minnesota. (Lead Scientist) Dr. Newman is recognized as one of the national leader in the study of weevils and their use as a biological control agent.

Marty Hilovsky (Vendor & Scientist) is CEO of Enviroscience and has worked with weevil projects for over 10 years in 12 states and Canada.

B. Timeline Requirements

When combating EWM in a lake, there is no clear start or end point. Even after implantation lakes must be monitored in the future. However for LCCMR grant purposes however we would start the project in July 2011 and end in July 2014.

C. Long-Term Strategy and Future Funding Needs

For Lake Washburn this is a one-time project. The LWA hopes that the academic knowledge and data collected will provide a model for other lakes. With clear, measurable data of efficacy, the Minnesota DNR could approve the use of weevils as another tool to mitigate EWM in Minnesota. The Washburn is a good lake for such a pilot study because the EWM infestation is not well established, and there is a strong commitment from the lake association and the broader community.

2011-2012 Detailed Project Budget

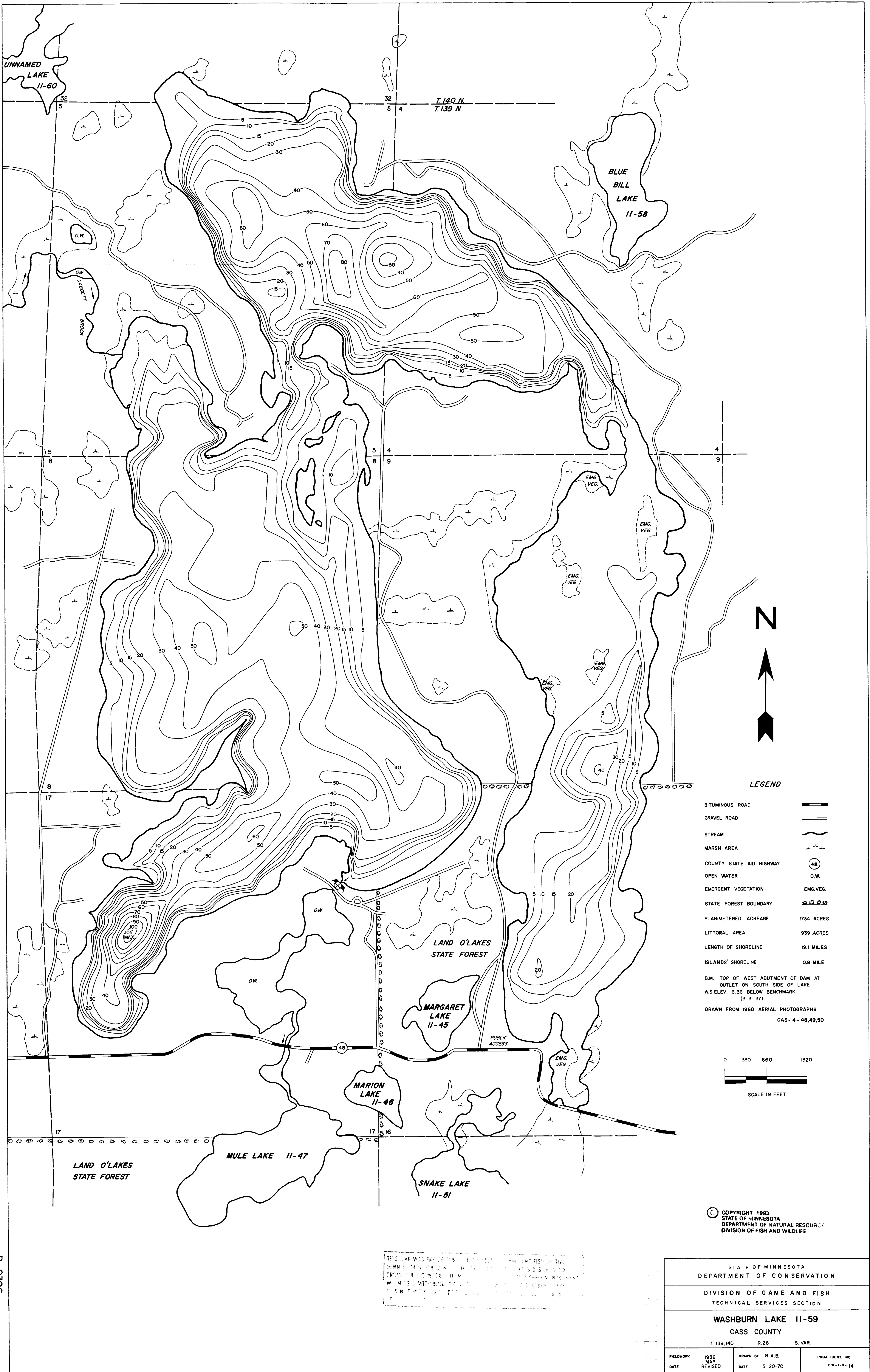
INSTRUCTIONS AND TEMPLATE (1 PAGE LIMIT)

Attach budget, in MS-EXCEL format, to your "2011-2012 LCCMR Proposal Submit Form".

(1-page limit, single-sided, 10 pt. font minimum. Retain bold text and DELETE all instructions typed in italics. ADD OR DELETE ROWS AS NECESSARY. If a category is not applicable write "N/A", leave it blank, or delete the row.)

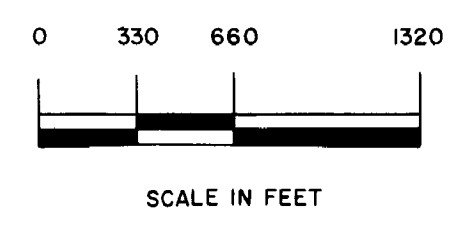
IV. TOTAL TRUST FUND REQUEST BUDGET *[Insert # of years for project] years*

BUDGET ITEM <i>(See list of Eligible & Non-Eligible Costs, p. 13)</i>	AMOUNT	
Personnel:		
Graduate Student (2 and half years full time)	\$	87,500
Ray Newman (10-20% over two and half years)	\$	75,000
Contracts	\$	-
Enviroscience --Purchase Contract for Weevils (includes breeding, and rearing with materials from Washburn Lake, as required by DNR. Contract Also includes follow-up services)	\$	50,000
Equipment/Tools/Supplies: N/A	\$	-
Acquisition (Fee Title or Permanent Easements): N/A		
Travel:		
University Personel Travel & Expenses	\$	25,000
Enviroscience (in state travel)	\$	10,000
Additional Budget Items:		
LWA Survey Expenses (Scuba rental primaryy)	\$	2,500
TOTAL ENVIRONMENT & NATURAL RESOURCES TRUST FUND \$ REQUEST	\$	250,000
SOURCE OF FUNDS	AMOUNT	Status
Other Non-State \$ Being Applied to Project During Project Period:		
	\$ 2,500	<i>LWA Funded</i>
	\$ -	
In-kind Services During Project Period:		
LWA Volunteer Hours (Snorkel, Scuba, Surveying) (500 hours for two years at 15\$per hour	\$ 15,000	LWA Supplied
Remaining \$ from Current ENRTF Appropriation (if applicable):	\$ -	
Funding History:	\$ -	



LEGEND

- BITUMINOUS ROAD
- GRAVEL ROAD
- STREAM
- MARSH AREA
- COUNTY STATE AID HIGHWAY
- OPEN WATER
- EMERGENT VEGETATION
- STATE FOREST BOUNDARY
- PLANIMETERED ACREAGE 1734 ACRES
- LITTORAL AREA 939 ACRES
- LENGTH OF SHORELINE 19.1 MILES
- ISLANDS' SHORELINE 0.9 MILE
- B.M. TOP OF WEST ABUTMENT OF DAM AT OUTLET ON SOUTH SIDE OF LAKE W.S.ELEV. 6.36' BELOW BENCHMARK (3-31-37)
- DRAWN FROM 1960 AERIAL PHOTOGRAPHS CAS - 4 - 48,49,50



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STATE OF MINNESOTA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF FISH AND WILDLIFE

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STATE OF MINNESOTA DEPARTMENT OF CONSERVATION		
DIVISION OF GAME AND FISH TECHNICAL SERVICES SECTION		
WASHBURN LAKE 11-59 CASS COUNTY		
T. 139, 140	R. 26	S. VAR
FIELDWORK MAP DATE	1936 REVISED DATE	DRAWN BY R. A. B. DATE 5-20-70 PROJ. IDENT. NO. FW-1-R-14

B-0396

B-0396

Project Manager and Qualifications & Organizational Description

Project Manager

Mr. Ted Johnson has served as president of Lake Washburn Association for the past three years and is chairman of the Association's AIS Subcommittee as well. Mr. Johnson, is a CPA, a business consultant and has held various executive positions at Companies like AGA Medical, and Digital River. Mr. Johnson has had operational and financial responsibility for multi-million dollar projects and businesses and posses strong project management skills. Mr. Johnson will use a steering committee with key personnel to ensure the proper subject matter experts are appropriately engaged.

The Steering will Consist of:

Jeff Forester (Legislative Liaison). Jeff is the Executive Director of Minnesota Seasonal Recreational Property Owners and a published environmental writer.

Dr. Ray Newman, Professor, Department of Fisheries, Wildlife and Conservation Biology, University of Minnesota. (Lead Scientist) Dr. Newman is recognized as one of the national leader in the study of weevils and their use as a biological control agent.

Marty Hilovsky (Vendor & Scientist) is CEO of Envirosience and has worked with weevil projects for over 10 years in 12 states and Canada. <http://www.envirosienceinc.com/cgi-bin/displayContent.pl?type=section&id=253>

Organizational Description

The Lake Washburn Association is 501 (c) 3 in good standing with the state of Minnesota. The mission of Lake Washburn Association is to ensure that our beautiful lake and its environment will survive to be enjoyed by future generations. The Association draws most of its members from property owners around the lake. The Association has membership of around 250, mostly made up of property owners from around the lake. Before EWM was discovered, the Association had over \$20,000 in reserves (for just such situation). Since discovery of EWM, a two year fundraising campaign has raised around \$30,000 with an additional \$30,000 in pledges for restricted AIS Reserves.

The Association has a vigorous membership base, and because of the lake's size and regional importance, we can draw a volunteer base from the wider community.