Michigan Inland Lakes Convention

Paradise Lake

Pilot Boat Washing Station Project

A GLRI collaboration by
Little Traverse Bay Bands of Odawa Indians Department of Natural Resources and Partners,
Michigan Department of Natural Resources and Paradise Lake Improvement Board.

Funding Amount: $174,612

Project Period: August 1st, 2011 - July 31, 2013

Presentation By:
Kira Davis, Water Quality Specialist
Little Traverse Bay Bands of Odawa Indians
Natural Resource Department
&
Catherine Freebairn
Treasurer of Paradise Lake Improvement Board
May 3rd, 2014
Federally recognized through Reaffirmation by Federal Government: Sept 21, 1994

Surface Area of Tribal Lands (acres): 216,749

Total miles of rivers and streams on Tribal Lands: 394

Acres of lakes/reservoirs/ponds on Tribal Lands: 27,553

Acres of wetlands (including coastal): 35,647

Miles of Great Lakes shoreline: 110
Historical Timeline

- 1836 Treaty of Washington
- 1855 The Treaty of Detroit
- 2000 Great Lakes Consent Decree
- 2007 Inland Consent Decree
How do we address water quality issues and impacts?

• Seek Partnerships and collaboration
• Community Involvement and Support
• Education and Outreach
Invasive Species in Paradise Lake

• Eurasion Milfoil
  \textit{(Myriophyllum spicatum)}

• Zebra Mussels
  \textit{(Dreissena polymorpha)}

Picture taken: Department of Ecology, State of Washington

Picture Taken: Enviro Science Incorporated

PARADISE LAKE
Eurasian Milfoil Distribution Map
July 6 and 7, 2011
Emmet & Cheboygan Counties, Michigan

Legend
- Eurasian Milfoil: Dense
- Eurasian Milfoil: Sparse
- Eurasian Milfoil: Absent

Notes: Survey grid point spacing = 300 feet
Approximate Eurasian Milfoil acreage = 700 acres
Management Methods

- Biological Control - Weevil (*Euhrychiopsis lecontei*)
- Laminar Flow Aeration
- Bioaugmentation System
Paradise Lake Access & Boat Wash Station Completed
Signs at Boat Wash

BOAT WASH INSTRUCTIONS
1. SET TIMER (PAST 1 MINUTE)
2. HOLD WAND FIRMLY
3. POINT WAND IN SAFE DIRECTION
4. DEPRESS TRIGGER

NO CAR WASHING!
HIGH PRESSURE MAY DAMAGE PAINTED SURFACES
NO USE OF SOAPS, DETERGENTS OR OTHER CHEMICALS

Paradise Lake
Boat Wash

PROJECT PARTNERS
Little Traverse Bay Bands of Odawa Indians Natural Resource Department
State of Michigan Department of Natural Resources
Paradise Lake Improvement Board

PURPOSE OF THE STATION PROJECT
The Paradise Lake Pilot Boat Washing Station Project will reduce the chance of spreading and transporting invasive species into and out of Paradise Lake, the Great Lakes waters and connecting waterways by:
- Providing a free boat wash for lake users to clean and rinse their boats, boat trailers, other watercraft, and gear before leaving and entering Paradise Lake.
- Identifying the need and providing education and outreach on practices that riparian owners and recreational users can implement.

THANKS FOR FUNDING TO:
The United States Environmental Protection Agency 2011 Great Lakes Restoration Initiative & Emmet County, &

THANKS FOR LABOR TO:
The Paradise Lake Pilot Boat Washing Station Workgroup members who were instrumental in all components of the project, a project that would not have been successful without their participation.

For further information on The Paradise Lake Pilot Boat Washing Station Project please feel free to contact any of the partners.
Engaging the Community

- Formed the PLPBWS Workgroup & Sub-Committees.
- Involved in review of preliminary design, chose AIS to be highlighted on laminated AIS Boat Cards, chose promotional items, approved all logos, rack cards and signs, planned ceremonies and conducted surveys.

Picture Courtesy of: Clean Boats Clean Waters Program
Ribbon Cutting Ceremony
Collaboration Continues...

- Rain Garden Installed
- Future Greenbelt Project & No Mow Zone
- Installation of 3 Paneled Kiosk
- Renovations to Site
- Education and Outreach
Analysis of Survey of Riparian Owners

- Participation
  - 40% Pre-Riparian
  - 37% Post-Riparian

1. Do you live on Paradise Lake?

- Yes, permanently
- Yes, seasonally
- No, not at all
- No, I rent out the property
- Yes, but I rent out the property when I am not there
Comparison of Pre & Post Riparian Surveys

How often do you wash your boat before and after leaving a water body?

- No answer
- No boat
- Never
- Once per season
- A few times a season
- Before and after leaving a water body
- Both a few times a season & before and after leaving a water body

Pre-Survey (n=120)
Post-Survey (n=110)
Comparison of Pre & Post Riparian Surveys

Do you use any best practices, or take any actions, to prevent the spread of invasive species?

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<tr>
<th>Answers</th>
<th>Pre-Survey (n=120)</th>
<th>Post-Survey (n=110)</th>
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What do you think most prevents you from taking action against invasive species?

- No answer: 22
- No boat, N/A: 1
- Knowledge: 39
- Time: 13
- Money: 15
- Tools: 32
- Other (some were "no boats"): 9
- Nothing: 1
Will Boat Washes be Used and Supported?

Comparison: Will you use boat washes in the future if available?

Pre-Survey (n=120)  Post-Survey (n=110)

Yes: 46%  Yes: 45%
No: 54%  No: 55%

Comments on the Boat Wash Station or any other aspects of project

- No answer: 46%
- In support of project: 45%
- Not in support of project: 13%
- Other: 4%
Project Transferability

• Find Partners and identify Stakeholders.
• Find out what legal documents, agreements, permits are needed before project start date and/or construction.
• Expect delays.
• Layout and Design- Seek Input.
• Existing power and water source.
Project Transferability Continued...

• Where will the waste go?
  - Natural infiltration or constructed?
• Maintained by staff or voluntary?
• Hot water and/or set up for disinfectants.
• Is the project sustainable?
• Acknowledgements:
  - U.S Environmental Protection Agency
  - Region 5 EPA
  - Partners: Little Traverse Bay Bands of Odawa Indians, Michigan Department of Natural Resources, & Paradise Lake Improvement Board
  - Environmental Services Staff

• Supporters and suppliers of Information for Grant Proposal:
  - Carp Lake Township
  - Paradise Lake Association
  - Friends of Paradise Lake
  - City of Petoskey, Allen Hansen, Parks and Recreation Director
  - Michigan State University, Jo Latimore, Ph.D., Project Coordinator for Clean Boats, Clean Waters
  - Beckett & Raeder, Inc. Tim Knusten
  - C2AE, Larry Fox
  - Higgins Lake Foundation and Association, Rick and Ann Meeks
  - Tip of the Mitt Watershed Council
  - Pickeral and Crooked Lakes Association
  - Glen Lake Association, Sarah Litch
  - Freshwater Future

*This list is not limited to these individuals or groups that showed support for this project but were instrumental in supplying information or support for the 2011 proposal and application process.*
Questions?

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