

Northeast Michigan Great Lakes & Aquatic Education Regional Networking Meeting

November 1, 2007

Great Lakes Maritime Heritage Visitor's Center

Alpena, MI

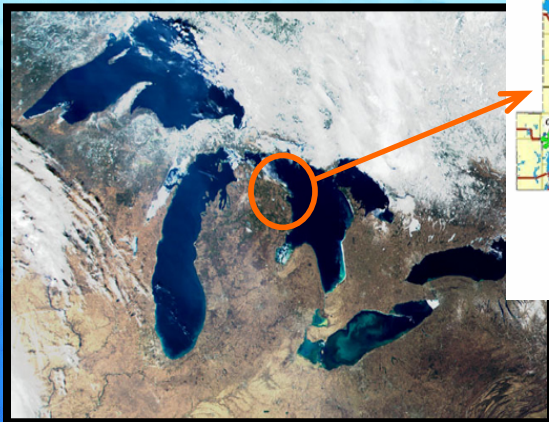
Objectives for Today!

- **Review Outcomes from 2006 Networking Meeting?**
Celebrate the successes from your 2006 NE MI Great Lakes and Aquatic Education Networking Summit contributions
- **A Professional Development Opportunity!**
Learn more about Place-Based Education, the Great Lakes Stewardship Initiative, and examples of applications for our region
- **Focused Planning Discussion around Place-Based Education Interest and Opportunities:**
Identify and develop opportunities that support and add-value to the Great Lakes and aquatic education work you are already doing (or may be interested in doing).
- **Networking!**
A core value in 2006 meeting was networking! Reacquaint and meet new partners, as we hope you will benefit from regional networking again today

How did we get here?
...background & review!

Northeast Michigan

- COP & AMA ESD's (6 counties)
- 14 School Districts
- 17,700+ Students



Examples of Coastal Access Opportunities in NE MI

Natural Resources & Coastal Access...

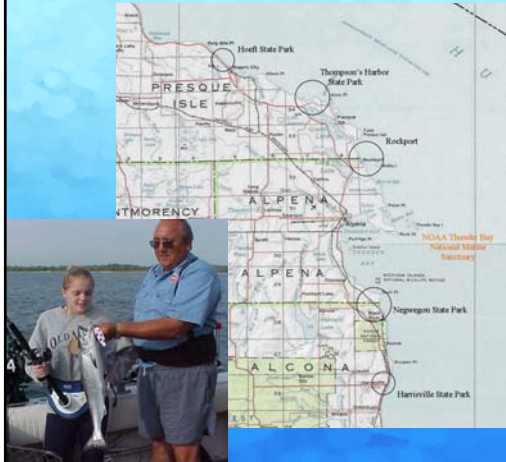


Photo Credits: NOAA TNMS and Michigan Sea Grant

...Maritime Heritage Highlights

Michigan Sea Grant

www.miseagrant.umich.edu

- **Mission:**

Dedicated to the sustainable use of the nation's Great Lakes and Michigan's coastal resources.

- **Strategic Statewide areas of Work:**

1. Aquatic Invasive Species (AIS)
2. Fisheries
3. Aquatic Habitats (Wetlands)
4. Great Lakes Education
5. Sustainable Coastal Communities

(Based on 5-year Strategic Plan)





4-H & Project F.I.S.H.

- 4-H = Youth Development
- National 4-H Sportfishing Program
 - Fishing and Tackle Crafting
 - Aquatic Ecology, People and Fish
- Project F.I.S.H., a partnership to:
....to foster long-term fishing participation and appreciation, through mentor-based and community-based programs



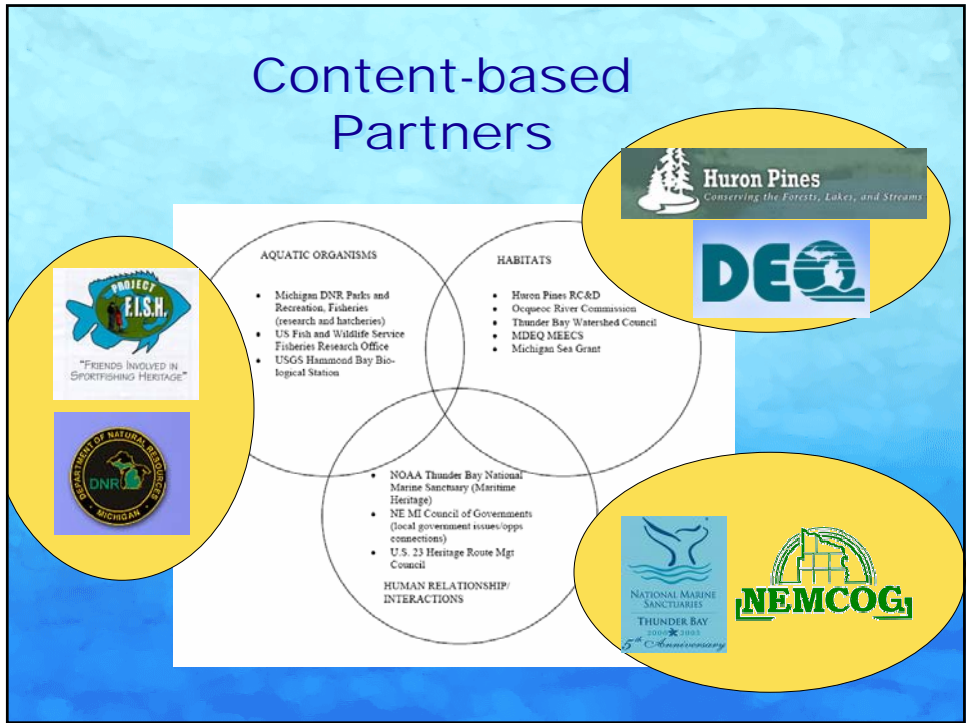
MICHIGAN STATE
UNIVERSITY
EXTENSION

Identified Community, Education Partners

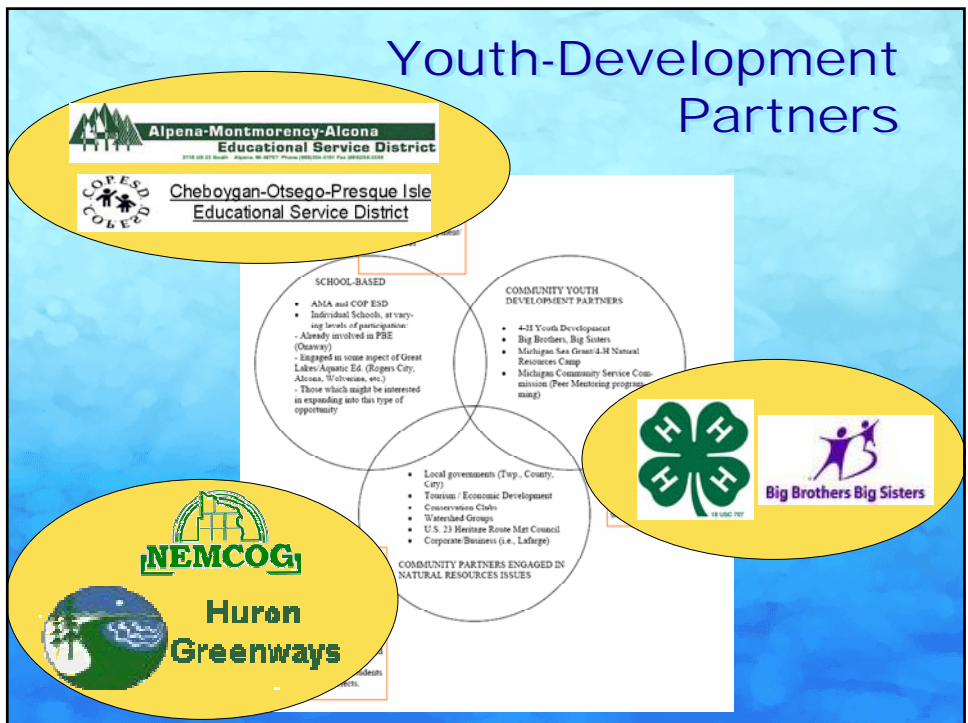
- Schools and Teachers
- MSU County Extension Offices
- County Conservation Districts
- Local Agencies (DNR / DEQ)
- Conservation Clubs & Nature Centers
- Youth Serving Organizations (Big Brothers, Big Sisters.)
- Local Businesses
- Community Foundations
- Parents and Individual Volunteers

...and more!!!

Content-based Partners



Youth-Development Partners



Existing Education Efforts in Region

- Project FISH
 - Project FLOW
 - Great Lakes COSEE
 - Salmon in the Classroom
 - DTE Freshwater Institute
 - Fishing Buddies
 - MEECS – Water Quality and Ecosystems Curricula
 - Water Quality Education
 - Habitat Restoration programs
 - “Kids out Fishing Day”
 - G. L. maritime Heritage education
 - Ocqueoc Celebration Project
 - Fur-Fish-Fun & 4-H
 - Youth Conservation Clubs
 - Watershed Monitoring
 - Community Boat Building
- ...and more!

Physical Assets:

- TBNMS G. L. Maritime Heritage Visitor Center
- Sprinkler Lake Education Center
- Ocqueoc Outdoor Center
- Partridge Point Wetlands Education Classroom
- MDNR Oden State Fish Hatchery's Michigan Fisheries Visitor Center
- Lafarge Paxton Quarry
- Alpena Wildlife Sanctuary
- DNR Coastal State Parks



Visit the new home of
The Great Lakes Maritime Heritage Center
Documentaries

NATIONAL MARINE SANCTUARIES
 — Underwater Preserve —
 THUNDER BAY



2006 NE MI Great Lakes Aquatic Education Networking Summit

The Point?

- Northeast Michigan is rich in partners, programs, and resources

Question for Today:

What can we do regionally to build-upon and add value to your existing work??

2006 Goals and Objectives

- Regional networking and resource sharing
- I.D. regional vision, needs and opportunities
- Position for regional partnerships and funding opportunities.



Participant Roster... ...more than just names/#'s

Northeast Michigan Great Lakes and Aquatic Education Summit
September 14, 2006 Alpena, MI
Participant List

Archambo, Brenda
Surgeons for Tomorrow
1604 N. Beach River Rd.
Cheboygan, MI 49721
Home phone: (231) 625-2776
Work phone: (231) 238-9225
Fax: (231) 238-0949
Email: archambo@survry.net

Surgeons for Tomorrow is a 501(c)3 non-profit organization whose mission is to assist fisheries managers in the rehabilitation of lake sturgeon, a threatened species in Michigan.

Research: We conduct research (net, tag and collect biological data on spawning adults), determine natural reproduction through larval sampling, rear sturgeon in our streamside rearing facility.
Public Relations/Education: We decline more and field trips to the river, to the hatchery, and conduct presentation in the classroom and for civic clubs. We have a website www.surgeonsfortomorrow.org
Scholarships: We coordinate our Sturgeon Granting Program to award posthigh every spring during spawning. On average, we assist 350 volunteers who contribute 3,000 hours to sturgeon protection.
Habitat: We have adopted projects to protect, enhance, and re-wetland spawning habitat.
Membership Fund Development: We rely on membership dues revenue, grants and fundraising to implement our programming.

Baughman, Bob
Lafarge Cement - Alpena Plant
1437 Ford Ave.
Alpena, MI 49707
Home phone: (989) 379-2016
Work phone: (989) 378-3380
Fax: (989) 374-7339
Email: robert.baughman@lafarge-usa.com

Lafarge has partnered with elementary and secondary school groups as well as various community and conservation groups to conduct on-site education at the Limestone Quarry located in Alpena as well as the Phoenix Quarry site located on M-22 approximately 12 miles west of Alpena. Examples of activities include:

- Wilson Elementary 6th grade - built nesting sites for mallard ducks and placed them at the quarry, also planted some trees.
- Long Rapids Elementary 5th & 6th grades - conducted a 4-station field exercise to supplement classroom learning - stations included bird identification, wildlife habitat, water quality, and rock/mineralogy results.
- Alpena High School - worked with Ron Worth and the FFA students for habitat planning, tree planting, and pheasant and chukar rearing/releasing.
- Alpena High School Forestry class - tree planting
- Alpena Chapter of the National Wild Turkey Federation (NWTFF) - tree and shrub planting
- Alpena chapter NWTFF & Thunder Bay Walleye Club - sponsored a "Get the Kids Out Fishing Day" - 2005 & 2006
- Alpena Big Brothers Big Sisters organization - sponsored a day for the "Bigs" and "Littles" to be able to spend time fishing together
- Middle schools and science geology groups - fossil collecting in the Limestone Quarry

We welcome additional groups or organizations (educational, community, conservation) who would benefit from the use of our site to supplement their learning or other activities. If you have ideas for an activity or are interested in partnering with us to use a site, please contact any of the following people for more information: Craig Stone - (989) 378-3205, Gail Peterson - (989) 375-3346, Bob Baughman (989) 378-3380.

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- Document Participants
- Contact Information
- Survey/Catalog Region's Programs, Resources, and Assets
- A Networking Tool

Sharing Existing, Model Efforts

- *Great Lakes Education (Michigan Sea Grant)*
- *Maritime Heritage and Education (Thunder Bay National Marine Sanctuary)*
- *Salmon in Classroom (Mich. Dept. of Natural Resources, Rogers City Schools)*
- *4-H Youth Programs (Cheboygan 4-H)*
- *Opportunities with Corporate/Business Partners (Lafarge, Alpena Plant)*
- *Place-Based Education and Regional Support for Aquatic Education (SEE-North)*
- *Ocqueoc Watershed Celebration (Onaway Schools, Ocqueoc River Watershed Commission)*
- *Project F.I.S.H. (MSU Dept. Fisheries and Wildlife, 4-H)*

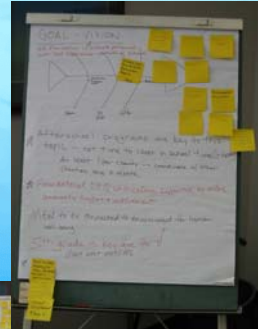


Utilization of Lafarge's Paxton Quarry Site

An example of how one manufacturing facility has partnered with various educational and community groups

Identification of regional vision, needs, and opportunities

- *Facilitated breakouts*
- *Participant working groups determined themes & discussed during afternoon*



Needs, Opportunities Prioritized

- *Continued Regional Networking and Resource Sharing Opportunities*
- *Supporting In-School Programming (PD)*
- *Making Out-of-School, Non-formal Education Connections*
- *Providing Professional Development Opportunities*
- *Fisheries Education is Topic of Interest*



Documenting the Process

Summit Summary

Web Catalog

**Northeast Michigan
Great Lakes and
Aquatic Education
Networking Summit**

Summary

September 14, 2006

**Great Lakes Maritime
Heritage Visitor's Center
Alpena, MI**

Sponsored by:
Michigan Sea Grant
3025 Edmunds, 410 Youth Program
3102 Department of Fisheries and Wildlife

Great Lakes and Aquatic Education Networking Summit
Report by: Braden Schneider, Michigan Sea Grant

Being able to share ideas, discuss opportunities, challenges, or
as of September 14, 2006 with the purpose of networking and
share and resources, contacts to develop in Great Lakes and aquatic
education through Appendix A. Summit Agenda
network and participants through their role with subject and site
proficiency and necessary resources, formal and
and and activities, business and industry, among other
These participants represented various levels, regional, statewide,
representatives, but it was limited to those who were involved in
business programming to be region (See Appendix B). Participant

g was needed to provide opportunities for sharing information
to progress and progress. Discusses networking opportunities, the
participation, and identify Great Lakes and aquatic education
to opportunities - to include in Great Lakes and aquatic education
program progress, educational for network meeting and
largely informal, and that there is a significant network and
opportunity to examine the regional challenges of shared networking and networking regional
partnerships (Appendix C - Summit Introduction).

This document provides a brief overview and summary of the content and discussion
covered during the networking meeting. Additional information and photographs are
available online at www.seagrant.umich.edu/education/summit

Goal and Objectives:
Participants were asked to accomplish the following goals and objectives:

- 1) Regional networking and
networking meeting during
Great Lakes and aquatic education
program, and activities.
- 2) Identification of regional, state,
local, and international
contacts and opportunities
(See Appendix B - Networking
Resources).
- 3) Providing pertinent contacts
program and program for
networking meeting during
networking opportunities.

Participant Evaluation

Immediate Values:

- Networking and resource sharing primary benefit and value (100%).
- Nearly all (94%) intend to use information and contacts achieved through this summit.
- Resources/contacts useful and add direct value to participant's respective programming (82%).

Participation Evaluation

Building a Foundation for Future:

- Interest in continued networking, noting “meet more often” or “do this more often!”.
- Willing to participate in regional collaboration or partnerships (88%).
- Nearly all (94%) indicated they wanted to stay involved in future regional networking activities.

Celebrate!

Regional Outcomes to Date

- Regional proposal submitted to MDE 2006 (COP ESD, Onaway Schools)
- Regional Project FISH In-service/Training funded (25 COP Educators served)
- Connects with 4-H Peer mentoring grants through Mich. Community Service Commission
- Sea Grant – distribution of opportunities throughout year
- GLFT Grant Proposal – fund planning for regional hub (in progress '07)
- Other Connections

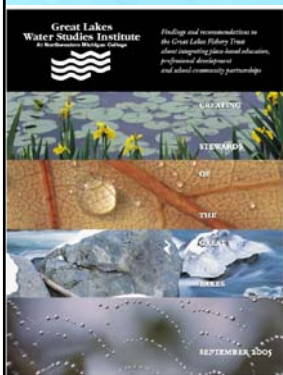
Why We're HERE today!

...an opportunity provided by the
Great Lakes Fishery Trust
through the
Great Lakes Stewardship
Initiative



Great Lakes Stewardship Initiative

GLFT Great Lakes
Stewardship Initiative
(GLWSI 2006)



- Engaging Students with Community through their learning:
 - Place-based Education (Sobel); or
 - Community-based Education (Yoder)
- Great Lakes Fishery Trust:
Funding opportunity in support of development/work through regional education support “hubs”

A Special Thanks to Meeting Planning and Coordination Team:

- Gary Goren, Alpena-Montmorency-Alcona Educational Service District
- Xavier Gaudard, Cheboygan-Otsego-Presque Isle Educational Service District
- Mary Whitmore, SEE-North & Great Lakes Fishery Trust Representative
- Tracy D'Augustino, Sprinkler Lake Education Center & AMA/Iosco Math & Science Center
- Mindy Horn, Onaway Schools
- Brian Matchett, Alcona Schools
- Cathy Green, NOAA Thunder Bay National Marine Sanctuary
- Dave Smrchek, Ocqueoc River Commission
- Mark Stephens, MSU Dept. of CARRS/Project F.I.S.H.
- Brandon Schroeder, Michigan Sea Grant/MSU Extension
- Elizabeth LaPorte, Michigan Sea Grant
- Laura Ingles, Northeast Michigan Council of Governments
- Lisha Ramsdell, Huron Pines
- Tracy Meisterheim, MSU Extension, 4-H Youth Programs, Cheboygan County
- Kathy Karsten, MSU Extension, 4-H Youth Programs, Presque Isle County
- Les Thomas, MSU Extension, 4-H Youth Programs, Alcona County



Support for this regional meeting provided by the Great Lakes Fishery Trust's Great Lakes Stewardship Initiative
(online at: <http://www.gFLT.org/Stewardship.htm>)

Zint and Fortner (2001)

- Enhance and sustain existing quality education efforts
- I.D. and fill gaps
- Promote awareness and access through networking opportunities.



Dr. Michaela Zint, Assistant Professor
School of Natural Resources & Environment, University of Michigan
Doss Building 435 East University, Ann Arbor, MI 48109
(734) 763-4961, mzint@umich.edu

Dr. Roseanne Fortner, Professor
School of Natural Resources, The Ohio State University
210 Kortmann Hall, 2021 Coffey Rd., Columbus, OH 43210-1083
(614) 292-9823, fortner.2@osu.edu

With assistance from:

Alan Crook, Fish & Wildlife Resource Education Specialist
Ontario Ministry of Natural Resources, P.O. Box 7000
Peterborough, ON K2J 8K5, Canada
(705) 753-2551, alan.crook@mnra.gov.on.ca

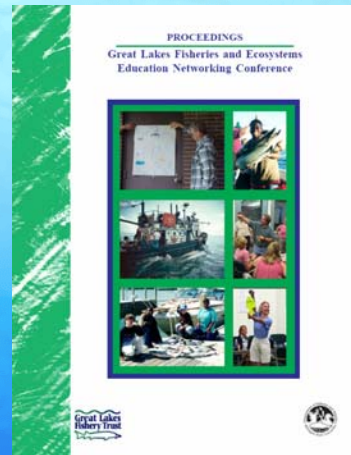
Allison Schuster, MS Candidate
School of Natural Resources & Environment, University of Michigan
Doss Building 435 East University, Ann Arbor, MI 48109
(734) 763-4961, aschuster@umich.edu

Dr. Jae Young Lee
School of Natural Resources, The Ohio State University
210 Kortmann Hall, 2021 Coffey Rd., Columbus, OH 43210-1083

August 2001

G. L. Fisheries and Ecosystems Education Networking Conference (Dann 2003)

- Don't "reinvent the keel."
- Sustain quality programs, adapt to local context, and draw on existing successes.
- Focus on integrated, experiential (hands-on) "realworld" learning.
- Empowering learners toward stewardship



Place-based Education (Sobel, GLFT)

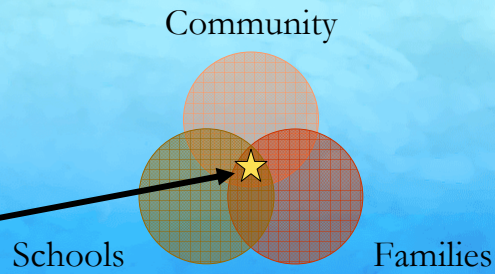
- ▶ Uses the local community and environment as a starting point for teaching/learning
- ▶ Focuses on issues and topics that are of concern to the community
- ▶ Emphasizes hands-on, inquiry-based, real-world experiences

...More than one field trip or work bee



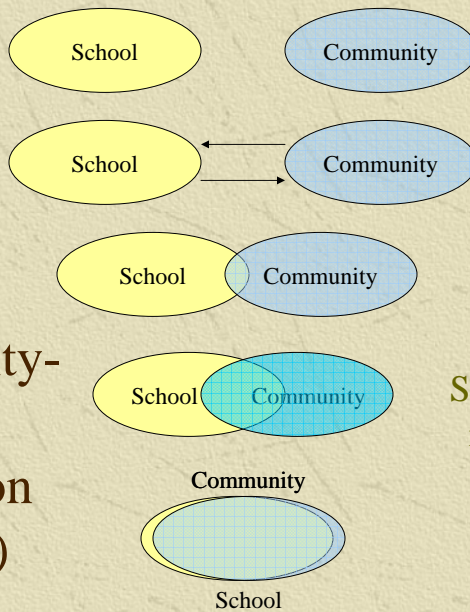
How can we build Overlap between Schools and Community?? (Epstein)

Epstein's Spheres of influence on Learning



Where we would like to be working!

Community-based Education (Yoder)



Serving as a resource for achieving community goals

What's the Opportunity for NE Michigan?

Fisheries Education

- “Saving the Salmon” (NSTA)
- Commercial Fisheries/ Aquaculture – Lubec, Maine (Sobel):
 - high school students are working with historic commercial fisheries and emerging aquaculture businesses to revitalize their community.
- NE MI Applications?
 - Sturgeon protection, research, habitat?
 - USFWS/DNR research/monitoring?
 - Aquaculture – Cedar Brook Trout Farm
 - Revitalizing Charter Fishing Industry

Watersheds/Habitats

- Mill Creek Project (Yoder):
 - bio-monitoring, data collection for agency, and work with local landowners
- “Wetlands Work” (NSTA)
- “Measuring River Pollution” (NSTA)
- Water Quality Monitoring (Sobel):
 - “students at Taylor County High monitoring the Econfina River and have now been contracted by Buckeye Cellulose to help in the restoration of San Pedro Bay.”
- Habitat Restoration (Sobel):
 - “The STRAW Program (Students and Teachers Restoring a Watershed) works with more than 50 schools in the San Francisco Bay area on restoring riparian habitat, clearing debris from streams, and researching native species.”
- NE MI Applications?
 - Ocqueoc River Celebration (public outreach)?
 - Watershed/River Monitoring?
 - Invasive Species Control -- Purple Loosestrife Project?
 - Storm Drain Stenciling?

People: Historic and Today

- Discovering & Interpreting local Resources (Sobel)
 - Littleton H.S. students planning and mapping a trail that loops through historic sites in their school district
 - Littleton 3rd graders producing a book [sold in local bookstores/visitor centers] recounting the way their town has changed over time
- Polk County, Oregon Comprehensive Plan (Yoder):
 - The formulation and development of plans, maps, surveys, inventories, or other documented elements of the planning process
- NE Michigan Applications?
 - U.S. 23 Heritage Route/Tourism Projects/Products?
 - Marine Sanctuary Research/Interpretation?
 - DNR Parks interpretation?
 - Interpretive/management support for city, twp., county recreation properties?

Environmental Learning Centers Build by Students, For Students

(SOBEL) Rachel Marchall Outdoor Learning Lab:

- Developed "Riverwalk" interpretive signs
- Students creating River Discovery Center Museum

(YODER) Bob and Pat Straub Environmental Learning Center

- Natural Resources Academy

(NSTA) Praise Acres Project

- Students study, develop, manage a local citizen's property



Potential Learning Labs for Students investments??

- TBNMS G. L. Maritime Heritage Visitor Center
- Sprinkler Lake Education Center
- Ocqueoc Outdoor Center
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- MDNR Oden State Fish Hatchery's Michigan Fisheries Visitor Center
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NATIONAL MARINE SANCTUARIES
—& Underwater Preserve—
THUNDER BAY



IA ideas: Sense of Place

Local PBE Examples already at work!

- PRESQUE ISLE: Onaway Schools – Ocqueoc River Celebration, a partnership with Ocqueoc River Commission
- ALPENA: Alpena Film Festival – discovering National Marine Sanctuary and Underwater archeological resources
- ALCONA: Alcona H.S. Ag and Natural Resources Program – entrepreneurially engaging in resource-based activities of the region (maple syrup making, aquaculture through local trout farm, etc.)

Northeast Michigan is rich in resources,
school and community partners...

...how do we make connections and add-
value to the work you are already doing!

Questions??



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