

YES PHASE III FINAL REPORT
WISCONSIN'S LAKE PLANNING GRANT Project No. SPL-256-11
(April 1, 2011 through June 30, 2012)

Overview: The YES Grant project was a four-way partnership, between three separate Washburn County volunteer non-profit organizations working with and through the Wisconsin Department of Natural Resources. It was focused primarily on Washburn County school districts' 3rd through 6th grade students by offering experiential fieldtrips to provide in-depth water quality education on watersheds, water quality and water protection. PHASE III was the final year of a multi-year emphasis on water quality education in northwest Wisconsin.

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Other reporting forms attached separately:

- Final Grant Payment Request (Form 8700-001)
- Grant Payment Worksheet (Form 8700-002)
- Force Account Labor Summary
- Donated Professional Services Worksheet
- PHASE III School Sign-ups Spreadsheet
- PHASE III Budget
- Budget Balance Addendum
- YES Steering Committee Minutes June 20, 2012
- Hunt Hill Quickbooks Detail By Account Report
- Birchwood Schools Project Report
- WCLRA Newsletter

Original Goals:

1. Continue YES Steering Committee to oversee the promotion and development and continuation of this project.
2. Recruit/train Hunt Hill educators in adequate numbers to meet student educator ratio goal of 10:1.
3. Carry out an experiential school fieldtrip to Hunt Hill for each of the five school districts in Washburn County.
4. Refine age/grade appropriate YES Phase III water/watershed curricula based on previous participation in YES Phases I and II fieldtrips.
5. Procure or develop adequate watershed educational tools and supplies

6. Assure water/watershed curricula will meet state environmental educational standards
7. Offer outreach programs to the schools, if a fieldtrip was not possible
8. Collect student and teacher evaluations of their fieldtrip classes and activities
9. Carry out stewardship projects selected by the students themselves to be carried out at school, family homes, or in their community, to meet needs in their own area
10. Report student stewardship project results to their school, school board, community newspapers and organizations which helped support the fieldtrips (chambers of commerce, service clubs, PTA's, community education foundations, other, their own area's lake associations, the three partner non-profits sponsoring YES Project, Wisconsin DNR Lake Planning Grant officials and WAL)
11. Continue cultivating other community financial resources to support future YES Project activities
12. Reconnect youth with nature – particularly as related to water resources

Results - Summary:

The expectations of all school groups participating in the Youth Ecology Stewardship Project were fully met or exceeded as evidenced by the evaluations conducted with each school group. The continued positive reactions of all three active partners to the results of Phase II supported continuing this project and applying for a Lake Planning Grant for a third year - Phase III. We also believed sharing the results of these stewardship projects would generate organizational financial support. However, local community financial support to continue the water quality fieldtrips through community education foundations or corporations was minimal; and efforts to get support in four of the five communities were unsuccessful. Tough economic times apparently worked against us. However, interest on the part of all three co-sponsors and the YES Steering Committee remains and efforts will start again in April, 2013.

Results - Details:

1. The YES Steering Committee was formed with volunteer representatives from the three non-profit partners, school system representatives and Hunt Hill staff. The Steering Committee met less frequently again in PHASE III than during the first two years.
2. Hunt Hill staff, with input from several school district personnel, sought out curricula resources and developed specific programs to offer to school classes. Hunt Hill staff purchased supplies, with advance approval of the Steering Committee and well within the project budget guidelines.
3. Four fieldtrips resulted with 195 students in the YES Project, including all four public school systems in Washburn County (Spooner, Shell Lake, Northwoods – Minong area and Birchwood) and one charter school (Birchwood).
4. Notably, however, 30 school fieldtrips during PHASE III included some water quality curricula developed under the YES Project, compared to three school fieldtrips in PHASE II. More teachers seemed to better understand the importance of their students' respect for and understanding of clean water resources.
5. Student and teachers' evaluations of the YES fieldtrip experience were collected, analyzed and shared with the educators.

6. Local community stewardship projects are still being promoted.
7. Steering Committee member Craig Walkey was again successful in contacting several local community groups (Chamber of Commerce, Birchwood Ed. Foundation, Shell Lake Lions Club)), but only Birchwood responded positively.
8. Hunt Hill attended the Northwest Wisconsin Lakes Conference at the Spooner High School with a booth and handouts describing the YES Project supported by the DNR's Lake Planning Grant program.

Project Deliverables:

1. Water quality curricula used for the fieldtrip programs (available through Hunt Hill)
2. Communications letters explaining the YES Project (available through Hunt Hill)
3. Communications sent to schools in advance of their fieldtrips (available through Hunt Hill)
4. Communications for following up the fieldtrips and reminders about the stewardship projects (available through Hunt Hill)
5. Non-profit partners' newsletter articles (sample attached)
6. Stewardship project guidelines or suggestions
7. Steering Committee sample agenda (attached)
8. Steering Committee fieldtrip tracking – school participation, # students, busing costs
9. Evaluation forms used and results
10. Supplies and resources list
11. Northwest Wisconsin Lakes Conference participation
12. Budget

Program Resources:

1. Project WET
2. Project WILD
3. Acorn Naturalists
4. HACH Chemicals
5. Lisa Gabriel (AIS)
6. UW- Extension Service - John Haack (curricula, watershed facts on Washburn County)
7. UW – Extension Service – Beverly Stencil (evaluation guidelines and forms)
8. Pat Shifferd - retired Northland College professor (evaluation guidelines and forms)

Future plans for YES Fieldtrips:

1. Continued emphasis on stewardship projects.
2. Continued Steering Committee involvement in soliciting financial support from area communities – in Phase III we will also approach service clubs.
3. Steering Committee will continue to meet and plan future action.
4. Hunt Hill to continue to consult with teachers on water resource programs/curricula.
5. Hunt Hill will seek new grant funding sources to continue encouraging fieldtrips.

Recommendations:

- Local lake association(s) are responsible for their own watershed to get the best participation and develop support for fieldtrips.
- There must be consensus on the importance of focusing efforts on youth.
- There must be consensus on the importance for kids of the concept of stewardship or service projects.
- Year-round newspaper articles on local watershed issues will help develop more support for school fieldtrips.
- If no nature center is located near you, ask lake association(s) for help identifying a good fieldtrip location.
- Contact your local Wisconsin Department of Natural Resources personnel – they are very important for the successful implementation of the project, as well as the application process for grants.
- Focus of the fieldtrip curricula should be expected to vary greatly – for instance organizations might also consider aquatic invasives education, shoreline restoration, fish stocking projects, native species support, underwater structure improvement, or rain gardens, or many other topics according to your prioritizes needs.
- School districts need to be consulted about which schools and/or classes should be invited to participate – by involving district administrators and teachers in the planning discussions.
- Public communications about your projects will build support for further efforts.
- Development of the budget should be the shared responsibility of the co-sponsors and the Steering Committee – not one individual.
- If an environmental education organization or nature center is not accessible in your area, educational fieldtrip programing could be accomplished by using DNR personnel perhaps, or UW-Extension personnel, or school teachers following established curricula guidelines.
- Transportation dollars are key – and might be available through fieldtrip budgets within each school district, or from parent teacher organizations.

Accessibility of the Y.E.S. Project Final Report for the general public:

The partner organizations each wrote newsletter articles to share the YES project with their members. The Friends of Hunt Hill posted information on their website at www.hunthill.org. The YES Project materials were shared with other lake associations at the NW Wisconsin Lakes Conference in Spooner, WI. Electronic copies of report materials are available through the FOHHAS (Friends of the Hunt Hill Audubon Sanctuary, Inc.) by emailing requests to: director@hunthill.org.

Submitted by: Storme Nelson, FOHHAS Executive Director

Storme Nelson
2/4/13

The following are articles that have appeared in the Birchwood News and other area newspapers, regarding water quality projects that followed Birchwood School visits to Hunt Hill for Youth Environmental programming.

This information was compiled and presented by:

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Birchwood School

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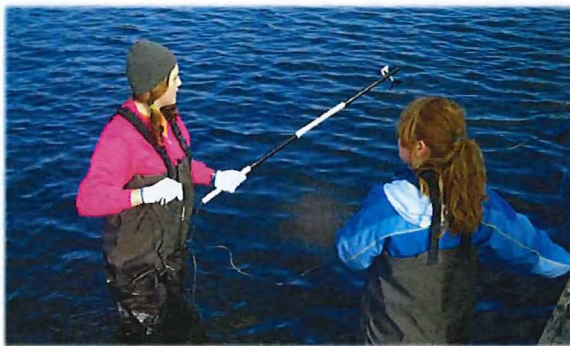
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Birchwood Blue Hills Charter School (BBHCS) experiences and groundwater

The mission statement at Birchwood Blue Hills Charter School is: *To create a learning community of individuals ready to contribute to a global society.* How can we do that? One way is that every so often we try to give our students some new experiences to broaden their thinking. We call them "Experience Days" and – read on to see what we mean...

Lake Water Quality Testing

What lurks in and around the muck at the bottom of Little Birch Lake? Some of our students have first-hand experience with that muck and the surrounding lake water - literally hands-on and hands-in - as they became environmental scientists for the day. We called our part of the Experience Day on Nov. 8th "Muck Mysteries". One group of students solved these mysteries by walking down to the boat landing on Little Birch with waders and D-ring nets to get samples to test with Labquest electronic probes, thermometers, a secchi disk, and a digital microscope. They tested for and researched how the lake is affected by dissolved oxygen, pH, turbidity, temperature, and flow rate (by the dam). In looking at our muck samples with the digital microscope we were also able to see an aquatic worm and a planaria! The overall goals were to learn how to use some of our science equipment and to spark ideas for future lake water quality projects - science in action in the real world! These goals were accomplished and some mysteries were solved by the lake detectives at the Birchwood Blue Hills Charter School.



BBHCS and the Beetles

by Jenny Landes, Advisor

Although none of them were named John, Paul, George, or Ringo, the students at Birchwood Blue Hills Charter School got to hang out with some pretty important beetles (okay, not Beatles) this year. And now that I



think about it, you could say that these beetles also came from across the pond. But let me explain with this series of photos that show an environmental project that our school participated in, and learned from, this spring and summer.

Lisa Burns, Washburn County Aquatic Invasive Species Specialist, first came to our school in April to tell us about invasive species in our area. We asked for ways that we could help and she suggested a project for getting rid of some purple loosestrife. She explained that because they are not native, purple loosestrife plants actually take over shorelines and take away habitat and food for birds and fish.

In May we planted rootstock in 16 buckets with holes drilled around the base and placed them in pools that we kept filled with water to recreate their marsh-like growing environment. Nets were attached around the buckets and plants. Then Lisa came back in early June to carefully place adult beetles inside the nets with the growing



purple loosestrife. Gerry Johnson from the Red Cedar Lakes Association joined us and explained how this project will really benefit the lake and explained other steps they have taken to eradicate and prevent invasive species.

The purple loosestrife beetles lay eggs on the plants as their last living act, and then the larvae go into the soil and climb to the stems and turn into many more beetles. That's when it's time to release them into stands of purple loosestrife by Red Cedar Lake. The beetles eat the plants voraciously and kill the plant.

They also take the dying plant out of the bucket and plant it at the shoreline because larvae are still present in the soil and will also transfer to the other purple loosestrife plants. Summer school Plant Biology students joined BBHCS to work hard in climbing through the wooded area to plant all 16 buckets along the shoreline.



These beetle releasing volunteers completed this 3 month environmental service project. Back row left to right are: Lisa Burns, Tanner Schonasky, Luke Olson, Tanner Zesiger, Lonnie Bradley, Leigh Hedman, Jenny Landes. Front row: Carly Pedersen, Todd Brunclik, Mariah Lightner.

The students and advisors at BBHCS really appreciate the education we received from Lisa Burns and Gerry Johnson. We also thank Mrs. Rhonda Schultz and her Plant Biology summer school class for their considerable help in releasing the beetles. Now our beetles

can take America, well, the shore of Red Cedar Lake, by storm and eradicate an invasive species!

Groundwater model demonstrations at the BBHCS and beyond

Birchwood Blue Hills Charter School (BBHCS) realizes the importance of our natural resources as well as our natural quest to understand how our environment functions. Twelve of the students at this project based learning school for 7th-12th graders took on the quest by doing hours of research and note taking, preparation, and practice in order to present their learning to classrooms throughout the Birchwood District.

This school year the BBHCS received a grant from the DNR in the form of a Groundwater Sand Tank Model. The DNR provided the school with the model and a day of training on its use. Jenny Landes attended this training and was able to digitally record the session given by Kevin Masarik (Groundwater Education Specialist from UW-Stevens Point) and Dr. David Hart (Hydrogeologist with the Wisconsin Geological and Natural History Survey). These digital recordings became the basis of the research for the students as they were able to view experts teaching the water cycle, what groundwater is, and about the rocks and soils that



are present in our Wisconsin aquifers. All of these concepts and more are demonstrated through injecting food coloring (which represents pollutants) into the model (which simulates a watershed) and watching it move underground (through different rocks, but not through the clay layer) toward the lakes and rivers.

The twelve students that chose to learn about and demonstrate this science project are: Kayla Hartl, Dana Olson, Jon Trude, Tyler Herricks, Angel Laone, Ashleigh Englett, Beth Trude, Meredith Harrington, Adara Glenz, Annesa Loew, David Paulson, and Lee Pisa. They worked in pairs to present to 8 different classes at Birchwood School and Birchwood Discovery School and they presented the model to the public at their May 15th Presentation Night. If any group or club in the Birchwood area is interested in having students demonstrate the model for them, please contact Jenny Landes at the BBHCS any school day (715-354-3464). And as always, we welcome visitors - so please stop in and see the Groundwater model or just check out this unique educational option we have in Birchwood!

Helping keep the water clean

by Linda George, Birchwood School Program Director

Students from the Birchwood Blue Hills Charter School (BBHCS) and Middle School students from Birchwood School took part in a water stewardship program at Hunt Hill last fall. The program was funded by the Youth Environmental Stewardship (YES) grant that combines funds from the WI DNR, Washburn County Lakes and Rivers Association (WCLRA), Long Lake Preservation Association (LLPA), and Hunt Hill. Schools that are in the watershed have access to the grant money that funds trips to Hunt Hill for water stewardship programming.

Students are asked to do a water stewardship project following the trip. BBHCS students were presented with the idea of painting reminders, near Birchwood storm sewers, that the water goes to the lake. The idea came from YES committee member and Birchwood area resident Craig Walkey. Some of the steps students took were: asking the Birchwood Village Board for project approval, mapping storm sewers, research and development of design, proper paint to use, how much to purchase, and going to Greener's Lumber to order, and requesting and receiving funding for paint from Birchwood Area Lakes Association.

BBHCS students put a lot of work into this project to give back to the community. They ask in return that you also give back and do your part in protecting the water supply for future generations.



Numerous environmental opportunities for Charter School students

- Andrew Aslesen from the Wisconsin Rural Water Association came in and gave a great presentation on ground water and water quality. He used a model to demonstrate how water moves underground and how it is affected by wells, pollution, rocks, etc. This was very educational and will lead to future project ideas.

- Lisa Burns, Washburn County Aquatic Invasive Species Specialist, met with us to give background and ideas for collaborative projects that will benefit area lakes and rivers. This will involve service learning activities that will take place this spring and summer.



- We “explored the natural world” by going to Hunt Hill Audubon Sanctuary with the 4th-6th grade Birchwood Discovery School students to learn about water and shoreline stewardship. The students spent an active day doing water testing on a lake, learning about pollutants and how they affect the environment, playing games to learn about wildlife habitats, searching for macro invertebrates, and learning about the importance of shoreline buffers.
- BBHCS was also lucky enough to have a guest speaker, John Haack from UW-Extension, come to our school and take us to Doolittle Park to educate us on shoreline buffers and their benefits. Special thanks to Linda George for setting up these valuable opportunities. We hope that these experience days will lead to some future projects and activities that will positively affect a local lake or river.

Birchwood Blue Hills Charter School is project based learning for 7th-12th grade. Each project is tied to academic credit (you see examples of Science above). Most projects are generated by each individual student based on their interests. The students and staff at BBHCS would be happy to have you visit our school. A great place to start is on our website – www.birchwoodcharterschools.com. We also invite and encourage parents and community members from the surrounding area to give us a call and set up a time when you could stop in and visit. The students are great about answering questions, so please call Todd Brunclik or Jenny Landes at 715-354-3464, or Jeff Stanley at 715-354-3471 or email: jstanley@birchwood.k12.wi.us, tbrunclik@birchwood.k12.wi.us, or jlandes@birchwood.k12.wi.us and let us show you what happens at BBHCS!

