



www.mcecc.org

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Terms in body text that are underlined and printed in green are defined in the terminology section on page 2 of this issue.

Good Web Sites
Good Information

White Lake Association
www.mlswa.org

Fly Ash Resource Center
www.geocities.com/CapeCanaveral/Launchpad/2095/flyash.html

Mercury Thermometer Q & A
www.epa.gov/glnpo/bnsdocs/hg/thermfaq.html

Alternative Fuels Data Center
www.afdc.doe.gov/altfuel/bio_general.html

Plants of the Great Lakes Region
www.great-lakes.net/envt/flora-fauna/plants.html



Your Environment

A collaborative information resource for the Muskegon

Who is MCECC?

WINTER 2003

The Muskegon County Environmental Coordinating Council (MCECC) originated from the Muskegon County 2000 Visioning Environmental Committee. Bill Schroeder founded the Council in 1991. After inception, MCECC became a committee of the Muskegon Economic Growth Alliance (MEGA). When MEGA disbanded, the Community Foundation for Muskegon County assisted in reorganization efforts. In 1998, MCECC created bylaws, incorporated and achieved 501(c)3 status. The Walker Foundation has generously supported the Council since then.

The original membership was a broad based group of business, governmental units, environmental groups, and environmental service firms, many of which are still members of MCECC today.

Some accomplishments include multiple projects with the Lake Michigan Federation and the Annis Water Resources Institute. In addition, MCECC's Land Use Task Force fostered the current Muskegon Area-wide Planning project. Currently, the MCECC coordinates the Muskegon Area Environmental Excellence Awards, is working on a recycling initiative, is completing a directory of environmental organizations in Muskegon County, and is planning an Earth Day Summit in Muskegon County. If you would like more information about the MCECC, visit www.mcecc.org or call 231-557-2915.

Tannery Bay Cleanup Ryan Grant, IMDEQ-Water Division, Grand Rapids District Office

August 6, 2002 marked the start date for the Tannery Bay contaminated sediment cleanup. Up to 80,000 cubic yards of contaminated sediment from tannery waste discharges will be removed from the bay in White Lake.

The cleanup is being performed by Williams Environmental Services and administered by DLZ of Michigan, a Michigan Department of Environmental Quality (MDEQ) contractor. Approximately \$6,000,000 of the project is being paid for by Genesco Inc. (owner of the former Whitehall Leather Company), the MDEQ, and the U.S. Environmental Protection Agency.

The process involves dredging contaminated sediment from the bay and piping it to a treatment facility, constructed next to the old tannery building. Next, the dredged sediment is pumped into large filter presses which separate the water from the sediment. Finally, the dewatered sediment is transferred

from the presses by conveyor belts to a storage area and the material is trucked to a licensed landfill in Ottawa County.

The entire sediment processing and storage area is bermed and covered with blacktop to prevent contaminants from running off the site.

Sediment dewatering liquids and storm waters that accumulate in the working area are channeled into an adjacent lined pit, which is then pumped into a large above ground steel-walled solids settling and holding tank. Water from this structure is either pumped back to the presses for reuse or through the County Wastewater System for treatment and disposal.

To protect White Lake from the dredging activities, a double silt curtain is placed between the bay and lake, which is designed to prevent contaminated material from flowing outside of the containment area and into White Lake. Visual inspections of curtain integrity and water turbidity are conducted regularly during the day to

Upcoming Events

4th Annual Partnership for Health Conference

Environment: Your Health, Your Future

Friday, February 21, 2003

Muskegon Harbor Holiday Inn

Registration deadline: Wed., February 12, 2003

Join us in the investigation of the environment and its relationship to health in Muskegon County at the 4th Annual Partnership for Health Conference *Environment: Your Health, Your Future*.

Conference breakout sessions will explore environmental health issues in the County relating to air, water, land use, homes, and businesses. In addition, this conference will include information sessions where attendees will have the opportunity to discuss a variety of focused environmental topics with experts in their respective fields.

This year's keynote speaker will be Ms. Lana Pollack, President of the Michigan Environmental Council. Currently retired from public office, Ms. Pollack is a leading advocate for the environment, children, and women's rights.

For more information on this conference, visit www.muskegonhealth.net or call the Muskegon County Health Department at 231-724-6246.

Mercury Thermometers

Thanks to Muskegon County Department of Public Works Household Hazardous Waste Program, Muskegon County Health Department is now able to accept your mercury thermometers for proper disposal on an indefinite basis. Mercury thermometers can be turned in at the Health Department's Clinic 9 am-5 pm Monday through Friday. For more information on this program call 231-724-1220.

Terminology

Berm

A mound or bank of earth used especially as a barrier or to provide insulation.

Slurry

A thin mixture of a liquid, especially water, and any of several finely divided substances such as cement, plaster of Paris, or clay particles.

Polyaromatic hydrocarbons

(PAHs) A group of over 100 different chemicals that are formed during the incomplete burning of coal oil and gas garbage or other organic substances. PAHs are usually found as a mixture containing two or more compounds such as soot. PAHs are found in coal tar, crude oil, creosote, and roofing tar, but a few are used in medicines or to make dyes, plastics, and pesticides.

Emergent Vegetation

Any of various plants (as a cattail) rooted in shallow water and having most of the vegetative growth above the water.

Fly Ash Remediation Project

Roger Morgenstern, Communications Director, B.C. Cobb Plant

Birds and butterflies will benefit from a cooperative approach to resolving a Muskegon River shoreline protection issue for Consumers Energy's B.C. Cobb Plant fly ash remediation project.

In early 2001, construction on a large clay-like "slurry wall" began around the 60-acre site east of the Muskegon Causeway and south of the Muskegon River's North Branch. The site has been used to deposit coal ash from the plant's electric generating operations. New state groundwater protection regulations led to the unique project which included building the 3-foot wide wall to connect with the site's natural clay layer 60 to 80 feet below ground.

Consumers Energy needed a protective buffer zone between the riverbank and the slurry wall to maintain the wall's structural integrity. Working with members of the Muskegon Lake Public Advisory Council, Consumers Energy representatives reached an agreement that protects the wall and benefits the environment.

While riprap was required along much of the riverbank, a roughly 800-foot section of shoreline adjacent to a wetlands area has more than 1,000 native plants, including red osier dogwood, elderberry, buttonbush and native grasses. The plants, purchased this past spring through the Muskegon Conservation District, were transplanted on site this fall.

Consumers Energy is working with the City of Muskegon to eventually develop the site as a recreational complex, which is expected to include viewing and fishing platforms along the river. Having the native vegetation in place now is an excellent start to what will be a significant community recreational resource.



Biodiesel Use at Grand Valley State University

Bob Udell, Research Assistant, GVSU - AWRI

Grand Valley State University's Annis Water Resources Institute (AWRI) operates two diesel powered vessels engaged in educational, outreach, and research activities on Muskegon Lake and Lake Michigan. These boats have carried over 77,000 adults, elementary, and secondary school students since 1986 – all the while exposing the passengers to air pollution and reducing the water quality of the lakes on which they cruise. AWRI is trying to resolve the conflict between the interest in improving water quality and the vessels' contribution to reduced water quality by operating their vessels on a newly developed renewable diesel fuel called biodiesel.

The WG Jackson



Biodiesel reduces exhaust emissions, reduces the impact of diesel engine exhaust on water quality, reduces our dependency on foreign oil, and promotes production of West Michigan grown products. Biodiesel can be produced from used cooking oil and many domestically grown crops including: corn, soybeans, peanuts, safflower, pumpkin seeds and others. Biodiesel reduces emissions of green house gases, hydrocarbons, and particulates into the atmosphere from diesel engines.

Emissions of carbon dioxide from biodiesel fuel are significantly higher than petroleum based diesel fuel; however, growing the oil seed crop for biodiesel fuel requires more carbon dioxide than is produced by the burning of the biodiesel in the diesel engine. In other words, operating diesel engines can reduce carbon dioxide in the atmosphere.

Emissions	Biodiesel Compared to Petroleum Diesel
Carbon Monoxide	- 43 %
Hydrocarbons	- 56 %
Particulate Matter	- 55%
Nitrous Oxides	+ 5 %

What is Biodiesel? Biodiesel is a nontoxic, biodegradable replacement for petroleum diesel fuel. Biodiesel is made from vegetable oil, recycled cooking oil, or tallow through a simple chemical process called transesterification.

Is it safe to use in my marine diesel engine?

Yes it is. No modifications to engines manufactured after 1993 are required. Most diesel engine manufacturers have endorsed the use of biodiesel in their engines.

Where can I buy Biodiesel?

Although nearly 20 million gallons of biodiesel are produced annually in the US, there are fewer than 25 locations that offer biodiesel, and only 3 in Michigan. Many users still make their own. Larger producers exist in the Southwest and Hawaii where Pacific Biodiesel manufacturers produce 150,000 gallons per year from recycled cooking oil. Price is the current barrier to increased availability and will only be brought down to competitive levels with increased infrastructure, improved distribution, and government support.

What are the other environmental benefits of Biodiesel over petroleum diesel?

1. 70% less [polyaromatic hydrocarbon](#) emission
2. Elimination of all sulfur emissions
3. Biodegrades 2.4 times faster than petrodiesel
4. Significantly less lethal to aquatic life than petroleum diesel
5. Biodiesel is recognized by the Environmental Protection Agency as an alternative fuel under the Clean Air Amendments and Environmental Protection Act of 1992

The DJ Angus



Emergent Vegetation Project Takes Root

Gale Nobes, Muskegon River Watershed Assembly



Friday, November 8 and Saturday, November 9 were the kick-off dates for an ongoing effort to re-establish wild rice and emergent vegetation in Muskegon Lake and the lower Muskegon River estuary.

The Muskegon River Watershed Assembly (MRWA) was awarded a grant from the U.S. Fish and Wildlife Service's "Great Lakes Coastal Program" to support an effort to address the impacted habitat in Muskegon Lake and estuary. The project proposes to return emergent vegetation to areas where human activities have seriously impacted the historical wetland and aquatic habitats once abundant locally.

The re-establishment of emergents will address a number of important issues. Increasing these habitats will help increase fish and wildlife populations that depend on these special areas. Emergent vegetation is spawning and nursery habitat for fish. It provides food for waterfowl and wildlife. It also has tremendous spiritual and cultural significance to Native American people. In addition, the project will help to address one of the beneficial use impairments identified under the remedial action plan of the Muskegon Lake Area of Concern, the loss of aquatic habitat.

The project will find areas appropriate for the targeted aquatic plants and evaluate techniques used in re-establishment so that the information can be made available to those who wish to do similar work in their own watersheds.

One terrific aspect of the project has been the participation by agencies, organizations, individuals (volunteers) and tribal members. The Assembly has developed a great steering committee and appreciates everyone's efforts. Local business has also stepped in with support for the project. Special thanks goes to Consumers Energy and Michigan Steel for their cooperation and support of the project.

We will continue to look for more partners and support in this effort and we will enhance the project as those opportunities arise. For more information, contact Gale Nobes at 231-924-2060 days or 231-755-4895 evenings or contact the MRWA at 231-591-2324.



Volunteers stop to pose for a picture at the Conservation Club prior to a long day of planting wild rice and emergent vegetation in Muskegon Lake and the lower Muskegon River estuary.

If you would like to submit information on an issue, an environmental organization, or have questions pertaining to an article, please contact:

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 or
 Liz Vos
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 Environmental Coordinating Council**

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