

G.R.E.A.T.

Grand River Environmental Action Team

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Spring 2007

New Dahlem Director Will Speak at Annual Meeting

GREAT is pleased to have Brad Whaley, recently named Executive Director of the Dahlem Conservancy as its featured annual meeting speaker. Brad's eagerness to meet members and friends of GREAT reflects his broader vision to bring more of Jackson County's environmental organizations and institutions into contact and cooperation with one other.

Though Brad is solidly grounded in the biological sciences, perhaps an equally important qualification for accomplishing his objectives is his ability to translate less common aspects of science into manageable concepts for the general public. Prior to coming to Jackson, Brad has served as the assistant director at the Glen Helen Outdoor Education Center in Yellow Springs Ohio, and as the education specialist for the Williams Soil and Water Conservation District in Bryan, Ohio.

In both of these positions, Brad was responsible for the planning and implementing youth and teacher education programs. He also conducted residential summer camps, teacher workshops, field trips, and a Master Watershed Stewards Program.

Brad has indicated that he looks forward to meeting with members and friends of GREAT at our annual meeting, and sharing highlights of his past experiences in environmental education. He will also outline his ideas and plans for enhancing the Dahlem Conservancy as well as other outdoor and environmental organizations in our community.



Brady Whaley, Executive Director of the Dahlem Conservancy

Annual Membership Meeting

March 21, 2007

Daryl's Downtown Restaurant

**Complimentary Light Dinner
at 6:30 p.m.**

Meeting at 7:00 p.m.

The Solution to Pollution for Jackson County Lake Communities is \$\$\$\$\$\$



Into the 1960's some environmental experts still believed that the solution to pollution was dilution. That is, if you could spread polluting substances into large enough receptacles (rivers, lakes, oceans), they would, in effect, no longer be harmful.

Considering the length of time it takes the public to catch up to changes in scientific understanding, one can hardly blame residents of lake communities for thinking that little dribbles of pollution from their septic systems could hardly be affecting the comparatively large lakes 100 feet or less from their homes. But as our understanding of the effects of nitrogen and phosphorous on standing bodies of water improved, they could no longer deny that the cloudiness of the water, the increasing presence of aquatic plants and the decline of lake fish stocks, what were the culprits.

Victor Marshall, a biology professor at Jackson Community College, and one of the organizers of the municipal sewer project at Clark Lake in southern Jackson County, explained the history of the problem. When most of the residences on Jackson County's lakes were seasonal, septic systems, though minimal, worked for several summer months. However, as the homes grew larger and came to be occupied year-round, outflow from the septic systems surpassed what the ground could filter before effluent reached the lake. Add to this laundry detergents and powerful household cleaners flowing into the septic systems and the crystalline vacation lakes became visibly degraded.



According to Marshall, state and federal funds became available to assist lake residents in installing municipal sewage systems, but lake residents still resisted ponying up at that time only about \$1500. Today the federal money is no longer available and the price for hooking up each residence is about \$10,000. But the balance of those against and those for has been tipped in favor of paying for sewers.

The early results show that Clark Lake has experienced in improved water quality, residents on lakes such as Columbia, Vineyard, and Wolf have followed suit.

Some concern was raised that the Leoni Sewage Plant, to which all these new systems will be connected, was inadequate to handle the volume. According to Jackson County Drain Commissioner Geoff Snyder, a large expansion and improvement project is underway at the Leoni Plant, and eventually the quality of the outflow from the Leoni Sewage Treatment Plant will surpass that from the Jackson Sewage Treatment Plant on Lansing Avenue.

(Continued on page 3, *Pollution*)



Outdoor and Environmental Groups Meet to Explore Cooperative Affiliation

Nine Jackson area organizations that advocate for outdoor activities and environmental causes met in January at the home of Barbara Anderson. On the agenda was the sharing of activity calendars so that like-minded groups could minimize conflicting events. Also explored were ways these groups might cooperate to enhance each other's efforts

Though the group expressed no desire to elect a slate of officials, the names of Brad Whaley of the Dahlem Conservancy and Travis Fojtasek of Jackson County Recycling came before the group as people who might ably facilitate the new group's work. Other action agreed upon by representatives of the nine organizations was a cooperative celebration of Earth Day, April 22 at the Cascades County Park in Jackson.

Founding Organizations of the Jackson Area Outdoor Coalition

Audubon
Dahlem Conservancy
Falling Water Trail Association
Fitness Council
GREAT
Jackson County Parks Association
Jackson County Recycling
Master Gardeners
Womens Outdoor Activities Club

(Pollution, Continued from page 2) It is expected that long-term benefits of suburban municipal sewer projects will reach well beyond the lake communities. Several of the lakes undergoing sewage improvements flow into the Grand River, while others flow into the Raisin. Ultimately both of these rivers find their way to the Great Lakes. We may be inclined to think the amount of pollution flowing into the Great Lakes from Jackson County is miniscule and insignificant compared to giant polluters like Detroit, Cleveland, and Milwaukee, but it is indeed admirable that Jackson County residents have chosen to bite the bullet and pay dearly to correct their small part of a larger problem.--Bryon Ennis

Opinion

Are Conservation Groups Guilty of Environmental Envy?

In the November issue of the *Michigan Environmental Report*, the bulletin of the Michigan Environmental Council, Lana Pollack in her president's column sounds chagrined and perhaps a bit envious of the success such environmental groups as The Nature Conservancy have had accomplishing their mission. She acknowledges that conservancies can raise much more money than advocacy groups like MEC because conservancies have a "happier message." Pollack says that, "... conservancies can promise near certainty of positive outcomes if they meet their financial goals." She adds, "Their projects have beginnings and endings: identify and appraise the property, invite the donors to visit the site and shazam! If the financial goals are met, the land deal can usually be sealed."

The work of advocacy groups on the other hand is more "global, diffuse and abstract." Pollack cites examples for which results are often difficult to pinpoint or take years to realize, such as reduced emissions of mercury from coal-fired generating plants, reduction of phosphorus additives on residential lawns, or improved municipal sewage systems. In addition to the challenge of convincing the public that such advocacy work will ultimately benefit them, there are often vested interests which mount campaigns to cast doubt on the efficacy of environmentally progressive strategies.

As a long-time advocate of thoughtful, effective environmental efforts, I fully appreciate Lana Pollack's desire to rally the troops for "advocacy work" on behalf of the environment. Although it is sound to "lock up" areas of land and water and place them off limits to development, as conservancy groups do, they cannot lock up enough land and other vital resources to protect people from polluting activities. We must respond to human activities which endanger our health and degrade our environment. Lana Pollack has reminded me why I am a member of GREAT and a dozen other advocacy organizations, and why I have a high regard for my colleagues.--Bryon Ennis

EFFECTS OF DAMS AND BARRIERS ON RIVERS

By Ken Dodge

Editor's note-From the time Europeans arrived on the shores of America they dammed up rivers to provide power or to facilitate water transportation, and some time later, recreation. For centuries little thought was given to the long-term effects on those rivers or their botanical and zoological inhabitants. Below, Ken Dodge, a retired Michigan DNR biologist, updates us with information pertinent to our deeper understanding of the effects of man-made structures.

Dams have a variety of effects on river systems and their biological communities. Dams create habitat fragmentation that is detrimental to many fish species. For example, dams block and eliminate spawning runs of species such as lake sturgeon, walleye, white bass, and muskellunge that reside in the Great Lakes but ascend rivers to spawn. Dams also block movements of resident river fish species associated with spawning, feeding, and seasonal habitat requirements. Dams disrupt downstream drift of aquatic insects and other invertebrates that are important fish food organisms. Impoundments created by dams trap normal downstream movement of sediments and woody debris. Stream velocity drops as it enters an impoundment. Therefore, sediment particles drop out of suspension and are deposited in the upstream portions of reservoirs. This sediment degrades habitat and promotes the excess growth of aquatic vegetation. Nearby examples of silted in impoundments with extensive aquatic vegetation growth include Norvell Lake, Sharon Hollow Impoundment, and the millponds at Clinton and Tecumseh. Reduction of in-stream woody debris downstream of dams leads to less cover and habitat for fish and aquatic invertebrates and less hydraulic diversity of the stream channel.

Dams were usually constructed in areas of the highest stream gradient. This enabled the dam builders to create the highest possible drop (most potential energy) with the least possible amount of flooded land. These high-gradient river areas are

essential spawning habitats for several fish species (rock and gravel instead of silt) and highly productive areas for aquatic insects and other fish food organisms.

Dams also affect water quality and quantity. Sunlight on large surface areas of shallow water over dark, organic bottom materials results in increased water temperatures that can have drastic effects on biological communities of the stream. For example, thermal effects of impoundments can make trout streams unsuitably warm for these coldwater fish. Increased evaporation from shallow impounded areas can also significantly decrease stream flow.

Many lakes in the upstream portions of watersheds have lake-level control structures. These lowhead dams disrupt movements of fish and often separate fish from their spawning habitat. Adjustments of lake-level control structures to favor lake property owners can be detrimental to the stream. On structures with adjustable height (gates or stop-logs) when spring lake levels are deemed too high, stop-logs are removed from the structure and the stream channel is subjected to excessively high flows. This can result in bank erosion and increased sediment loads. Conversely, when lake levels are abnormally low (generally in mid to late summer), stop-logs are added to the structure to keep the lake level artificially high. This exacerbates low flow conditions in the stream below the structure and can cause direct fish kills and habitat damage. Lake levels are often dropped in the fall to reduce ice damage to seawalls and beaches. This can result in damage to wetland areas around the lakeshore. If the lake level is not restored early enough in the spring, spawning habitat for early spawning fish such as northern pike is unavailable. Seasonal low water levels also act to encourage dredging and filling that destroys vegetated shallow water habitat that is very important to fish and other aquatic animals.

Note: Information in this article is taken from the River Raisin Assessment, DNR Fisheries Special Report Number 23, October, 1998. Author: Ken Dodge



Effects of Dams and Barriers

Newer structure on river shows no signs of siltation.

An older series of structures shows signs of siltation and weedy growth on the upstream sides.



Extreme siltation behind man-made structure-- Lake Powell Dam, Arizona

Jackson County Conservation District Invites GREAT Members to Attend Water Protection Workshop

Got Water?

The Stewardship of Our Water Resources

March 17, 2007

8:30 am — 3:15 pm

Grace Lutheran Church

212 S. Sherman Rd

Leslie, MI

Saturday, March 17, 2007

8:30 am Registration

8:50 am Welcome

9:00 am

Guest Speaker: Pat Lindemann,
Ingham County Drain Commissioner

“The Politics of Fresh Water: A Systemic Approach to Managing Watersheds”

9:45 am

Keynote Speaker: Dr. Dave Lusch,
MSU Senior Research Specialist

“Watershed Science”

12:15 p.m. LUNCH

1:00-3:15 p.m.

Breakout Sessions:

% Planning & Zoning for Water Quality,
Michelle Reardon, *MSUE*

% Agriculture Practices & Water Quality,
Dan Hudson, *MSUE Ag & Natural Resources*

% Wetlands & Ponds, Jane Herbert, *MSUE District Water Quality Educator*

% Water Quality Concerns for Homeowners, *MGSP Staff*

Got Water?

The Stewardship of Our Water Resources

March 17, 2007

Send Registration form to :

Jackson County Conservation District

Attention: Amy

211 West Ganson, Suite 200

Jackson Michigan 49201

517-782-7404

Registration Form

Name _____

Address _____

City _____

County _____

State _____ Zip _____

Phone _____

Cell _____

E-mail _____

_____ # Persons x \$12= _____

(\$15 after March 1, 2007)

***Note: We will accept on-site registration (March 17th), but NO MEAL will be available for those who register on the 17th.**

2007 GREAT Activities Calendar

March 21, Wednesday, 6:30 pm
Annual Meeting
Darryl's Downtown Restaurant

April 22, Sunday, 1:00-4:00pm
Earth Day Celebration Activities
Cascades County Park, Jackson MI

All Paddle Outings Meet at Put-in locations @ noon Sunday

April 29, Sunday, Paddle Outing,
Noon-3:00pm approximately
N. Branch, Kalamazoo River(Jackson County)
Put-in: Horton Millpond, Jackson County
Park in village of Horton. Take out: same
Paddle upstream to Reynolds Rd. Bridge,
then back downstream to Horton Millpond.

May 20, Sunday Paddle Outing
Noon-4:00pm approximately
Grand River (Jackson County)
Put-in: Loomis Rd.(east of
Jackson Community College)
Take out: Draper Rd.

Canoes and kayaks may be borrowed from GREAT for scheduled GREAT paddle trips.

No fees are required due to GREAT securing its own liability insurance.

Reserve a canoe or kayak by calling 517-416-4234. Please make reservations by Saturday before the Sunday scheduled outing.

June 10, Sunday Paddle Outing
Noon-4:00pm approximately
S. Branch, Kalamazoo River(Calhoun County)
Put-in: LDrive South (near Homer)
Take-out: M-99 across from
Riverside Cemetery in Albion.

July 15, Sunday Paddle Outing
Noon-4:00pm approximately
Grand River (Jackson County)
Put in: Draper Rd
Take out: Vandercook Lake
County Park. Picnic at park
Food Provided by GREAT

August 19, Paddle Outing with
Great Lakes Paddlers Club
Noon-4:00pm approximately
Grand River (Jackson/Ingham Counties)
Put-in: Tompkins Rd., DNR public access
site N. of village of Tompkins.
Take out: Onondaga County Park
Picnic at park. Food by GREAT.

September 15, Saturday
Annual River Clean-up
Location to be announced
in GREAT Summer Newsletter
and on GREAT website
www.great-mi.org

October 21, Sunday Paddle Outing
With Great Lakes Paddlers Club
Huron River, Washtenaw County
Bring your own bag lunch
11:00 am Sunday. Meet at
Jackson Crossing near Shell Station
Put-in ,12:00 at Hudson Mills Metropark
(Washtenaw County)
Stop for picnic lunch during paddle.
Take-out: Dexter-Huron Metropark
All participants will need to purchase a Metropark day pass for \$4.