G.R.E.A.T.



Grand River Environmental Action Team

P.O. Box 223, Jackson, Michigan 49204

Website: www.great-mi.org 517-416-4234 Volume 19 Number 3 September 2009

GREAT Rivermaster Spearheads Summer-Long River Clearing Work

learing a river of woody debris is a difficult and possibly a dangerous undertaking, but lacking a boat livery service on our Jackson stretch of the Grand River, which normally would keep the river passable, the task most logically falls to an organization such as GREAT. This was Rivermaster Kathy Kulchinski's thinking after the GREAT activities committee decided to extend the proposed August 2009, paddle trip through Jackson beyond the customary Monroe Street take-out, north to the Elks Club property on the river just south of Parnall Road.

After an early spring survey of the river, Kathy determined that the paddle route could not possibly be cleared in the week preceding the August 16, outing. In fact, the river was so obstructed north of Jackson, she

Rivermaster Continued on page 3



Log jam north of Trail Street has trapped yards or trash.

River Clean-up Looks to Extend Effort Beyond City Limits



Fill 'er up! There's lots more trash in the Grand River bound for this dumpster.

Grand River Clean-up 2009
Saturday September 12
9:00-2:00
Consumers Energy Building
Downtown Jackson
Many non-water jobs to do
We need you
Lunch Provided
Call 517-416-4234
with questions

Safe and Serene Paddling With Very Young Children

By Natalie Schroeder, Guest Author

y husband Brian and I, and now both of our two young girls have paddled with the GREAT group on several trips over the years. Earlier this summer we went on the GREAT trip down the River Raisin from Sharon Hollow to Manchester, which was the first river trip for our youngest—she's two. Our oldest had her first river trip with GREAT when she was two also.

With the younger aged children, we have canoed a couple of times each summer on lakes first to test the child's



The author paddles with her husband Brian and their two daughters.

attention span and their ability to follow directions. Also, our girls get into the water for wading frequently and some swimming with floaties in deeper water, so they are not afraid of the water we will likely encounter on a river. Once we saw that our children were capable of sitting for a reasonable period of time, we knew we could begin to prepare them for a river trip. River canoeing is more fun than lake canoeing because of the constantly changing scenery. We begin by acquainting our children with the special qualities that will be part of a river trip. We tell them they will see a secret view of an area that we all think we know well, but how different it is from this quiet, all-natural vantage point.

It would be wise to be a confident and competent adult team before adding the extra responsibility of watching and entertaining a child in the canoe. My husband and I have canoed together over the years, and I have boated much of my life, learning such maneuvers as the J-stroke from both the front and rear of a canoe which enables quick fixes to canoe direction under challenging conditions. Though my husband and I had not paddled this stretch of the

River Raisin, we knew that most GREAT river trips had been relatively easy, and that we would not likely encounter dangerous conditions. We have found that children know the moods of adults, so if you are calm but excited about canoeing, they will be too.

Once the adult team is proficient at handling the boat, including conditions which are less than ideal, they may introduce the unpredictable child. My husband and I recommend a very stable canoe (wide bottom), and we are very firm the "no standing" rule. If the young ones get antsy, they can get a change of scenery by standing between the knees of the front paddler. Kids love to look over the sides of the canoe for fish or turtles, and we have managed this quite

safely by having our two girls look over opposite sides. If there is only one child, the parents can easily compensate for the child's weight on one side by slightly shifting their weight to the opposite side. Our girls have no trepidation prior to a canoe trip, but if we noticed some reluctance, we would take them out on a lake where we could terminate the outing at any time, rather than on a river where we would have to paddle to a designated take-out regardless of the children's patience.

After the whole family is geared up for a river trip, here are some tips for what to bring. We bring a

Safe and Serene, Continued on page 3

Rivermaster, Continued from page 1

believed nothing less than a summer-long effort of weekly clearing sessions could prepare the river for recreational paddling. Starting in May, Kathy put out a call to all GREAT members and any other willing volunteers to meet at Libra Industries parking lot next to the Grand River each Thursday evening to float north to the next major log jamb and attempt to clear a passage.

A regular crew consisting of Kathy Kulchinski, Rick Berry, Ben Whiting, and Deb Bucholtz showed up most Thursday evenings. In addition Rod Monasmith, Rod Stopyak Paul Bucholtz, Paul Bucholtz Jr., Jim Seitz, Jon Hoover and Kenny Price helped to cut through and dislodge enough trees and limbs to create passages through six major log jambs plus numerous sweepers(trees resting just above the water) and deadfalls(trees submerged just below the water level).

Not only do we owe a debt of gratitude to these generous and intrepid volunteers for clearing a path for our recreational pleasure, but for providing access to stretches of the river between log jambs that had each trapped many cubic yards of man-made trash. In urban areas especially, rivers can no longer be expected to take care of themselves. We must be prepared to help nature, pick up after ourselves—and after each other.

Safe and Serene, Continued from page 2

long flat cushion for the bottom of the boat, a stadium seat if they want back support, and lots of snacks and drinks. Young ones wear life jackets with floating head supports and crotch straps. We don't bring toys because our kids might put them in the water, but perhaps a toy boat/ fish / or bug towed by a string tied to a cross brace could be fun to watch. Put one on each side for two or more kids so they don't lean over the same side.

We talk a lot on the water about what we're seeing and hearing and about other boaters. We have found the kids ask lots of questions too. It could come in handy to have in mind some ways to engage a restless child such as "I Spy", singing or some other game. Kids are tired at the end of a river trip, but a stop for ice cream will fix in their minds that the day was glorious and they'll want to go again.

See you on the water!

County Removes Local Conservation Office Funding

Contact your Commissioner

The tentative county government budget which begins in January of 2010, was approved by the Jackson County Commission in July. The budget removes \$70,000 of funding from three local groups, including reducing funding to the District Conservation Office from \$20,000 to zero. The Conservation Office is administrator for the Upper Grand River Implementation Project (UGRIP) of which GREAT is a major partner. Through this grant, now in Phase II, GREAT members and volunteers have been participating in environmental water monitor testing and clean-up activities of the local Grand River and Portage River, the dirtiest contributory of the Upper Grand River.

Due to significant cuts in state funding, the future of this office is in doubt. Four GREAT members attended the July meeting and along with others voiced their concerns. Chairman, Jim Shotwell explained they could make modifications to the 2010 budget up to the end of December and could revaluate these reductions. Some commissioners made positive comments about the work of the local conservation district, but did not commit to any action. We urge you to contact your county commissioner to express your concerns. To determine who your commissioner is (PDF Map) and their contact information, please check: http://www.co.jackson.mi.us/Commissioners.asp or call (517) 788-6682.--*Jim Seitz, GREAT President*



Activities such as collection of bugs to determine water 3 quality will lose funding with planned budget cuts.

Six Watersheds Converge in Northeastern Hillsdale County

By Guest Author, Jame Tuttle

ur expedition of discovery occurred because threatened rain canceled the second day of a canoe trip. On Saturday my brother Bill and I had leisurely floated down a stretch of the South Branch of the Kalamazoo River, encountering a few raindrops before eating the burgers and hot dogs waiting for us at the take-out point in a county park near Pulaski in the southwestern corner of Jackson County. As originally advertised by GREAT, this one-day outing might be followed by an optional second day on the river, conditions permitting. I brought along a tent, and my brother Bill and I were game for a second day's adventure, but the weather forecast apparently convinced most that one day was enough. Nevertheless, we pitched a tent and spent an uneasy evening watching lightning and storm clouds pass just north of us along an eastwest line. Later we learned that nearby areas received significant amounts of rain, but we hardly saw a drop. And while we watched nature's act in the evening sky, Bill and I talked about the unusual topography of the region in which we found ourselves, and, with evident time on our hands on the morrow because of the canoeing cancellation, we decided to go exploring on Sunday.



Within the circle on this watershed map are the sources of five (actually six) rivers that arise in northeastern Hillsdale County. Map source: Michigan DNR Website

Watersheds—Big and Small

Surface water wants to flow downward if it can, and it wants to take the easiest possible path — the one with the highest gradient (slope). There are some exceptions: water in a lake, pond, or mud puddle may

have nowhere to go. But flowing water always wants to go downhill by the easiest possible route. And this observation has both large- and small-scale implications. Turn on two garden hoses randomly placed in a field or parking lot. The water from the hoses will flow somewhere, and the two small streams may eventually converge to form a larger one. Or the original pair of streams may wander off in altogether different directions, never to join together, and if the streams never join, we say they are in different watersheds. To illustrate, three rivers join in Pittsburgh to form the Ohio; those three rivers are individually part of the Ohio watershed. On the other hand, the waters of the Missouri and the Hudson never commingle; they are in different watersheds. On a continental scale, every point is in one watershed or another. The Mississippi, including its major tributaries, the Missouri and the Ohio, drains the midcontinent between the Appalachians and the Rockies. The Great Lakes empty into the St. Lawrence. Significant watersheds along the eastern seaboard include the Hudson, Delaware, and Potomac rivers. The Mackenzie watershed, which empties into the Arctic, encompasses much of northern Canada. The Yukon serves Alaska, while the Pacific is served by the Columbia, Sacramento, and Colorado rivers.

From this quick survey of North American riverine geography, we could envision watersheds that drain into the Atlantic (Hudson, St. Lawrence); the Arctic; the Bering and Barents Seas and the Gulf of Alaska (e.g., the Yukon); the Pacific; and the Gulf of Mexico (Rio Grande, Alabama). Then it is a small step to realize that "continental divides" are major watershed boundaries. The prominent divide that follows the crest of the Rockies marks the boundary between the Pacific and Gulf wartersheds. (With one very significant discrepancy the Great Basin, largely comprising Nevada, which has no outlet to the sea.) Similarly, there's an Eastern Divide along the ridgeline of the Appalachians, where water to the east flows to the Atlantic, and water to the west flows to the Gulf. And there's some point, perhaps in New York's Finger Lakes region, where some water heads for the Gulf, some for Lake Ontario, and some for the

Mohawk and Hudson rivers. At that point, three major watersheds coincide.

Watershed boundaries and state boundaries have much in common. On one side of a boundary, you're in one state or watershed, while on the other side, you're in a different state or watershed. The convergence of more than three states or watersheds is exceedingly rare; there are only two places in the United States where five states are located within a tight circle: the Oklahoma Panhandle (Oklahoma, Kansas, Colorado, New Mexico, Texas) and Western Kentucky (Kentucky, Illinois, Missouri, Arkansas, Tennessee). The riverine equivalent of the five-state convergence occurs in the northeastern corner of Hillsdale County where the headwaters of six river systems crowd together. The Michigan Watersheds map only shows five — the Grand, Kalamazoo, St. Joseph, Maumee, and Raisin—but that's somewhat misleading for a couple of reasons. The Maumee River actually flows from Fort Wayne, Indiana, eastward to Toledo where it empties into Lake Erie. There are two tributaries of the Maumee in Michigan. The Tiffin River, known locally as Bean Creek, flows south from the vicinity of Addison, Michigan, to Defiance, Ohio, where it joins the Maumee. Another tributary, the St. Joseph River, rises in Hillsdale County and flows southwest to Fort Wayne, Indiana, where, with another river, the St. Marys, it forms the Maumee. What's shown as the Maumee watershed on the map is really two watersheds — the Tiffin and the St. Joseph of the Maumee.

I just introduced the "St. Joseph of the Maumee" in the preceding paragraph. That's because there's another St. Joseph River that rises in Hillsdale County. Called by locals the "St. Joseph of the West," this river flows to St. Joseph, Michigan, by way of South Bend, Indiana. So, one St. Joseph River flows to Lake Erie via Fort Wayne and Toledo, while the other goes to Lake Michigan through South Bend and St. Joseph. These are indeed very different rivers, even though they're named the same and their headwaters are in walking distance of each other. To summarize, there are six rivers with headwaters in northeastern Hillsdale County: the Grand, Kalamazoo, St. Joseph of the West, St. Joseph of the Maumee, Tiffin (Bean Creek), and Raisin. The first three empty into Lake Michigan, and the last three into Lake Erie, so Michigan's "continental divide" passes through the county. The northeastern corner of Hillsdale County must be pretty high. If six rivers start there, flow in six different directions, and keep going downhill, that corner must be up in the air somewhere.

The Exploratory Narrative Picks Up

After coffee on Sunday morning, my brother and I went searching for The Big Hill in Hillsdale, and we were able to restrict the area to just two townships: Somerset at the northeast corner of the county, and Wheatland just south of the other. US-12, the Chicago Road, passes just below the Hillsdale-Jackson county line, and US-127 runs north-south through Addison along the Hillsdale-Lenawee line. At McCourtie Park in Somerset Center, a stream runs north under US-12 into the manmade Lake Somerset, which feeds the River Raisin. Just to the west is the south shore of the manmade Lake LeAnn, part of the Grand River watershed, and at Moscow, a short drive further west, the South Branch of the Kalamazoo



Southern Jackson and northeastern Hillsdale Counties are shown where many of the rivers we float have their sources. Map source: Michigan. Gov, Center for Geographic Information

flows north under US-12. The Bundy Hill eminence lies west of Lake LeAnn.

Further south, in Wheatland Township, we knew that the two St. Joseph rivers had their headwaters in the southwest, and Bean Creek's tentacles lined the eastern half of the township. From this geography, we estimated that The High Point lay somewhere in Wheatland along a line between Addison and North Adams. We weren't far off. A farmer told us the highest point in Hillsdale County is a field at the southwest corner of Kelso and Wood. From that field, he said, you could see the nuclear reactor smokestacks in Monroe on a Watersheds, Continued on page 8

"Let nature be your teacher."- William Wordsworth

by Emily Curry (GREAT board member and Jackson High School biology teacher)

he science curriculum at Jackson High School offers numerous science courses. These courses range from the traditional biology, chemistry, and physics, and advanced placement courses, to atypical courses for a high school such as forensic science, oceanography, microbiology, and even a course titled Jurassic Park Earth Science, just to name a few. However, for the first time in many years, there is sufficient student interest to conduct two sections of environmental science. That's right, not one but two.



A Jackson High environmental science student checks his dip net for aquatic organisms from the Grand River..

Richard Louv in his bestselling book, *Last Child in the Woods*, coined the term "Nature-Deficit Disorder". Throughout the book Louv makes a strong case concerning the disconnect between many of today's youth and nature. Louv provides many reasons that kids do not get outside and play from technological distractions to stranger danger and even the threat of liability, but if today's youth does not get outside, how will they develop a strong attachment to the natural world? Who will be our future stewards, to protect and care for the land?

One of the goals of the Environmental Science program is to reestablish a strong connection between students and the natural environment. Although Jackson High School is located in downtown Jackson, there are plenty of opportunities for outdoor

education. Last winter biology teacher Janeen Bush's advanced placement students assisted Cascades Elementary students snowshoeing in Cascades Park during gym class. Last May I took each of my four Biology classes to the Grand River to conduct chemical analysis of the water. Future goals for the environmental science program are: to conduct both Spring and Fall analysis of the Grand River; to find an area within walking distance of JHS to conduct reptile and amphibian monitoring in coordination with a state-wide herpetology study by the DNR; to secure grant funding for ROVs (remote operated vehicles), all built and operated by students, that can explore aquatic ecosystems, collect data, and make underwater video; and to secure grant funding to integrate fishing and boating into the high school curriculum.

Finally this spring, to further enhance students understanding of environmental concerns, twenty Jackson County Area schools, ten from JPS, are participating in the Michigan Green Schools Program coordinated by Megan Schrauben at the JCISD, and sponsored in Jackson County by Consumers Energy. This effort is a result of the Michigan House Bill 5554, which states "A public or private school in this state may apply to be designated "green" if they meet ten of the "green" criteria indicated by the state." To earn this certification at JHS, we worked across the curriculum: wood tech students built birdhouses to establish bird habitats, web design students constructed "green" web pages for participating JPS buildings, and AP Biology students assisted in the application process of all ten JPS buildings. It is hoped that this new Environmental Science emphasis will enhance the "green" efforts we have in place at JHS.



Emily Curry gives a close-up view of a crayfish.

GREAT Collaborates with Many Groups to Fulfill its Mission

By Jim Seitz, GREAT President

GREAT can not effectively pursue our mission to promote the protection and preservation of the Grand River Watershed through activities and education without interacting with many other organizations. Some organizations we provide support, others provide support to us, and a few support is both provided and received. The following is the list for 2008-09. Our appreciation!

Public

City of Jackson: Provides support for our Annual Cleanup with use of CMS Energy Bandshell and pick-up trash removed from the river. Board member, Don Nelson is Clean-up Chairman.

District Conservation Office: Administers Upper Grand River Implementation Project (UGRIP) grant (now phase 2) of which GREAT received restricted match funds for completing our agreed tasks. Major efforts have centered on Upper Grand River's very dirty contributory, the Portage River north of the city and water monitoring activities of Grand River Watershed. Board member, Kenny Price is chair of our UGRIP committee.

Hayes State Park: GREAT volunteers, Kathy Kulchinski and Kenny Price teamed with X-Riders kayak sales personnel to do a paddling and environmental demo in celebration of the 50th year of the State Park System.

MSU Extension: Provides technical and educational information with environmental issues and activities. The local office has used GREAT's boats for staff team building and local water resource awareness.

Upper Grand River Watershed Alliance is a coalition of municipalities, agencies, businesses and individuals in the headwaters region of the Grand River; working together to protect and restore the river, its lakes, streams, and wetlands. Key programs are the Upper Grand River Adopt-A-Stream volunteer monitoring program, and assisting headwater communities to improve storm water management and treatment and land use planning. Rivermaster Kathy Kulchinski is a county representative.

Environmental

Jackson Audubon: Promotes an interest, knowledge, and appreciation of birds and other wildlife as well as conservation and wildlife restoration. Bryon and Amy Ennis are text and layout editors respectively of both GREAT's and Audubon's Newsletters and annual brochures. Audubon shares software expense.

Clean Water Coalition: GREAT is a member of this group which advocates for clean water legislation on both the national and state levels. Jon Hoover is responsible for Advocacy issues.

Dahlem Environmental Education Center: GREAT stores their two boat trailers at their 300 acre nature center located south of town. Many GREAT members participate in their UGRIP water monitoring activities and annually there is a jointly sponsored GREAT-Dahlem paddle trip (8/16/09).

JAOC (Jackson Area Outdoor Coalition): An umbrella group of Jackson County outdoor activities and environmental organizations. This group organizes the annual April Earth Day event at Cascades Park where GREAT provides opportunities to paddle. Board member, Bryon Ennis represents GREAT at JAOC meetings.

Jackson County Parks Association: Formed to offer volunteer support for Jackson's 14 County Parks. GREAT provides canoes and support for their annual clean-up of the Cascades.

Sierra Club: Oldest and largest national environmental organization, GREAT is often contacted by state chapters for advice and local contacts for local activities, such as the recent GREAT Lakes Forum at Dahlem. GREAT Rivermaster, Kathy Kulchinski was a panelist.

Community Service

Big Brothers/Big Sisters: Requested GREAT to provide some members to help with their two scheduled paddle activities. Board members Kenny Price, Kathy Kulchinski, Emily Curry, and Lee Kettren have volunteered.

Elks Club: Created a trail on their premises for take out of August 16th paddle. A.cookout will follow in their pavilion The Elks are interested in cleaning-up and improving the navigability of the Grand River north of town and have assisted with UGRIP activities.

Fitness Council: Umbrella group of other organizations to promote fitness activities. GREAT's event calendar is posted at their web site. GREAT provided advice, pretrip scouting, debris removal,, boats, equipment, and paddling support for their recent "Paddle to Work" event. **Non Profit Network:** As a member, GREAT receives valuable information on the administration of a 501 (c) 3

valuable information on the administration of a 501 (c) 3 non-profit organizations. Several GREAT members have attended their seminars on a variety of topics.

Red Cross: GREAT demonstrated paddling safety and rescue procedures at their annual youth camp. The Red Cross also conducted a CPR class for GREAT board members

River Art Walk: GREAT board member Kenny Price serves as liaison to this group who's goal is to create a walking/biking trial along the Grand River in downtown Jackson.

GREAT Board

Jim Seitz, President
Jonathan Hoover, VP &
Recording Sec.
Carol Scott, Treasurer
Bryon Ennis, Trustee
Don Nelson, Trustee
Kenny Price, Trustee
Lee Kettren, Trustee
Ken Dodge, Trustee

Kathy Kulchinski, Rivermaster Nancy Lapinski, Membership Secretary Special Assignments: Louise Hefka, Publicity Betty Desbiens, Historian

Todd Zeller, River Consultant

GREAT Newsletter

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Editor: Bryon Ennis (bryon_ennis @sbcglobal.net) GREAT is a tax deductable 501c3, non-profit

organization.

Watersheds, Continued from page 5 clear day, and, looking down, you can see the sources of several rivers. The farmer was partly right. You can see small bodies of water in different directions, but everything within eyesight to the north and east feeds Bean Creek, and just maybe it's possible to see the headwaters of the two St. Joe rivers from that vantage point.

I was wrong about The Big Hill. Although the line between Bundy Hill and the fallow field at Kelso & Wood is undoubtedly high, it's the height of the underlying water table that fuels the springs that provide the water that always flows downhill. South-central Michigan reputedly sits atop one of the largest aquifers in the country, and that explains a lot. The northeastern corner of Hillsdale County must be considerably more elevated than the Great Lakes because all that river water wants to keep going downhill.

Crowded Triangle of Watersheds

It's nine miles from the south shore of Lake LeAnn (Grand River watershed) to the headwaters of Otto Creek (St. Joe of the Maumee watershed) near Church & Jerome Rds. in Wheatland Twp. The Kalamazoo River in Moscow Twp. is just 2.5 miles west of the 9-

Contact GREAT:

mile line. A triangle connecting these three points has an area of 11.25 square miles — equivalent to a circle with less than a 4-mile diameter — and portions of six watersheds lie that within Braxee Lake, north of Bundy Hill, is considered the source of the Grand River. After investigation,I determined that an unnamed creek flowing into Grey Goose Lake near Jerome, Michigan, must be the source of the River Raisin. The South Branch of the Kalamazoo begins at Addison Road just above North Adams. As noted above, the two St. Joe rivers rise near the corner of Church & Jerome Rds. And Bean Creek has numerous tributaries in the immediate area, of which Posey and Williams Creeks are prominent. If we connect the sources of the Grand, Kalamazoo, and St. Joe of the Maumee, the resulting triangle will contain the sources of six rivers within 14.25 square miles — an amazingly compact area equivalent to a 4.25-mile diameter circle.

I don't know anywhere else in the U.S. where six watersheds crowd together as much as in the northeastern corner of Hillsdale County. Quite remarkable indeed!

Telephone

517-416-4234

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