

FRIENDS OF CEDAR CREEK, MEETING, SEPTEMBER 25, 2018

Friends of Cedar Creek met at 6:30 pm at the Dustin ACRES Preserve with soup and brownies to snack upon. The meeting was called to order at 7 pm by President Dave Van Gilder. We do not yet have a speaker for November 27, 2018. Allen Haynes of the DeKalb County Soil and Water Conservation District will speak at the January 2019 on the Cedar Creek canoe trail in DeKalb County. Our March meeting will be visiting and learning at the Yoder sugar bush on Chapman Road. May 2019 will be the annual meeting with a plant sale/exchange as part of the festivities.

There was a question about log jams in Cedar Creek on County Road 72 (Allen/DeKalb county line) and the surveyor activity there. Regulations that may prevail are the 401 regs and the 404 Army Corps of Engineers. requirements. Someone will be investigating this. And there are trees cut down on Old Auburn Road for reasons unknown. Members are urged to contact Dave Van Gilder regarding cutting spray, i.e. Kurt Humbrecht saw spraying 5-6' off the ground on Cedar Canyon Road.

Wildlife sightings: Mark Shure saw deer and a fox without a tail, Fred Feitler saw yellow-throated warblers, Dave Van Gilder is seeing dead warblers downtown Fort Wayne around Wayne and Berry Streets and has seen a doe with a broken, but stiff, leg which has produced twin and triplet fawns and has had two sets of fawns this year (she has been in the area four years!).

Our speaker, Dr. Jerry Sweeten, a new ACRES Board member was introduced. He is a Manchester grad, went back to school, taught at and then retired from Manchester University in May 2018. He had worked at Asherwood for 20 years (an ACRES property). He is a stream ecologist (a generalist). With his wife, Melinda who serves as President, he founded Ecosystems Connections Institute LLC. The mission of the organization is education, research, demonstration of ecological restoration through conservation partnerships. He hires college students as interns.

Dr. Sweeten has written grants for the Eel River watershed. The question of what can one do to maintain and restore the river where the river has been the site of 14 dams between Fort Wayne and Logansport where the territory is fairly flat (glacial till plain) with a drop of only 2' per mile. An interesting discovery was the Greater Redhorse, a sucker fish, in the middle part of the Eel River basin, and apparently only there (in Indiana?). And 25 species of mussels were found, though three were shells only, not living specimens. The water needs to be clean to grow mussels.

He has been looking at dams at Liberty Mills, North Manchester, Stoddard dam at Roann, Mexico and Logansport. Removal of the dam(s) is beneficial to fish movement (a joke: what did the fish say when it ran into a wall? Dam!). His grants allow him to pay \$4000 for the summer and room. The area where the river runs is 85% agricultural with lots of hogs and poultry. The low head dams affect the river and the fish and wildlife in it. Students working learn biology, physics, chemical and human safety.

The dams are generally wood crib dams (wood cages filled with rock and capped with concrete) and approximately one meter high. The dam sites are dangerous if a canoe or kayak goes over them as there is churning of water at the front base. In October of 2012, the Ohio River Basin received funds to remove the dam at North Manchester. Students worked to analyze the 'stage release' as there were concerns about sediments and scouring of the river bed below the dam site. The project left 25% of the dam, which restricts the flow a bit, but still has a riffle, pool and a run. There was a drought in 2012. In April of 2013, the free flow was 10,400 CFS at the site. USGS was hired to run a doppler analysis of a plunge pool (10' beyond the dam) which was shown to be filled with sediment and showing some scouring. This was

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an expensive analysis, but Ecosystems Connections has bought the equipment to do the analysis on other low head dams.

Analyses will be done to map Cedar Creek before, during, and after the removal of the low head dam on Cedar Creek at the Mackel Preserve on Coldwater Road. The work (dam removal) requires a 401 permit, but the analysis will be used to develop the scope to apply for the permit. There are automated water samplers to be used. The Eel River samples every 6 hours for N2, sediment, phosphorous, and the like. The Eel River is one of 41 rivers putting excess nutrients into the Gulf of Mexico hypoxic zone. Also there are endocrine disrupters and pesticides. A QHEI Score (Qualitative Habitat Evaluation Index) of approximately 12 measures with a scale of 1-100 (at 85, life is supported) at 500 meter distances back to 2000-2500 meters from the dam site showed improved quality. Fish are checked in a similar manner with a IBI (Index Body Integrity) showing an improvement of approximately 25% with variety of fish and movement up stream.

The Eel River showed gizzard shad and small mouth bass moved down near the dam site after it was removed. Mussels increased (the babies/spat travel on gills of fish) downstream. Cedar Creek, 100' across at the dam, will reconnect approximately 950' of river when removed. Questions about water quality will be posed and answered and reconnecting river portions may change DNA differences in the animal life.

Pictures of a fish ladder constructed at the Stockdale Mill dam (200' wood crib capped dam, built in 1860, 10 miles north of Wabash) has been successful in allowing fish movement up stream. This has been effective where a dam has not been removed. Tagging fish and automated analysis of water flow, temperature and fish movement has been done. Indiana does not have an up to date policy on dams. Stream restoration and dam removal should be looked at seriously: stop the problem of churning (dangerous for persons and animals) and consider fish ladders if dams can't be removed. Biomark antennae (seven) have been cabled to the automated recorder at the Stockdale Mill site for analysis of fish movement.

Water quality has improved downstream and upstream as shown by mussel growth and propagation. Agencies and others worked with on streams and dams include Ohio River Basin Commission, US Fish and Wildlife Service, and US Geological Survey, Manchester University (Environmental Studies Program). Dr. Sweeten would accept volunteers in his work. His email is jesweeten@ecosystemsconnections.com.

Gretel Smith shared information regarding the reconstruction of the Mackel Dam.

The meeting was adjourned at 8:15pm.

Respectfully submitted,

Mary Anna Feitler, Secretary