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Tidings The Newsletter of the Friends of Perdido Bay

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Lots of News

Occasionally as we write this newsletter we have few topics to discuss. But this time, lots of news is available to report. So here goes. At the top of the list is that Perdido Bay, along with Escambia Bay, has been selected to be in the National Marine Estuary Program. The Escambia County Commissioners nominated these bays several years ago for this program, and it has finally become a reality. What this is going to mean is still unknown. Definitely money, if Congress doesn't remove it (\$2 million), but what else, who knows. Unfortunately as we have seen over the many years, a lot of money has been spent on Perdido Bay without attacking the real problem - the paper mill effluent. Nobody wants to say anything bad about a major employer in the area, even if it has cost the area jobs and revenue because of the polluted nature of Perdido Bay. I am sure the big polluters on Escambia Bay are also going to try and deflect any criticisms of their effluent. Escambia County Environmental Department is going to be the led agency on this grant so we will try and let everyone know what is happening. Remember these are public funds and should definitely be used to protect public resources, like Perdido Bay.

Another bit of news, is that funds from RESTORE, are going to be used to restore Elevenmile Creek and other watersheds in the area . RESTORE was an act set up by Congress (in Washington) to disseminate some of the monies from the BP oil spill. Remember, way back in 2010, when the BP oil well blew up and oil fouled our beaches for several months. Monies collected from fines have been trickling down over the years for projects to help the environment. The process which the affected counties and states have set up to prioritize which projects get funded from RESTORE, has been laborious, tedious, and time-consuming. I stopped going to the meetings several years ago. If you are a planning consultant, it was also enriching. For Perdido Bay, some of the BP oil spill money was used to buy land along Herron Bayou for a new county park. This park is still in the planning stages. The only other project in the Perdido Basin, of which I am aware, is the Elevenmile Creek project. There may be others in Baldwin County.

The Elevenmile Creek Restoration plan was developed by Escambia County to help control bacteria pollution in Elevenmile Creek. Way back in 2012, Elevenmile

Creek was placed on Florida's Impaired Waters List, for among other things, too many fecal coliforms. Between January 1, 2004 and 2012, Elevenmile Creek exceeded the state limit for fecal coliforms 38 times. This was too much, and Elevenmile Creek was deemed "impaired". I think there is a very good explanation for that - International Paper was discharging into the creek and IP still had ponds. The Florida Department of Environmental Protection in a study in late 1990's for fecal coliforms in Elevenmile Creek found that whenever it rained more than 2", sludge was swept out of IP's ponds into Elevenmile Creek. This sludge contained fecal coliforms, among them *Klebsiella pneumoniae*, which can cause flesh eating diseases. So if someone happened to be sampling after a rainfall, fecal coliform would be high. But after 2012, IP no longer regularly discharged to Elevenmile and they no longer had settling basins. IP took out their settling basins and began discharging to a wetland. IP still discharges stormwater to Elevenmile and after heavy rains, this can be a significant flow of the creek.

So Escambia County, as part of a Total Maximum Daily Load requirement for the state, had to develop a bacteria pollution control plan. The RESTORE money is part of that plan to help reduce fecal coliforms in Elevenmile Creek and surrounding watersheds. A major part of the RESTORE money was used to purchase properties from people located in the floodplain of Elevenmile Creek. If you remember, properties in Bristol Park, Bristol Woods, Bristol Creek and Ashbury Hills neighborhoods were flooded by excessive waters from Elevenmile Creek during the heavy rainfalls of April 29, 2014. It was the second time some of these people had been flooded by Elevenmile. Using both RESTORE money and money from a FEMA grant, Escambia County offered to buy out properties which flooded. Much of the reason Elevenmile Creek flooded people's homes was because, as attorneys claimed, a dam broke at IP. It became a class action lawsuit in 2017. The property was appraised and not everyone agreed to sell their property at the appraised value. But some did. The rest of the RESTORE money will be used to restore the stream channels in Elevenmile, 10-mile, 8-mile, Hurst Branch and Coffee Creeks; create wetlands; look at sanitary sewer expansion; and retrofit stormwater treatment. The Elevenmile Creek watershed is expected to be impacted by development in the future, as the Navy Credit Union expands.

Upper Perdido Bay Placed on Draft Impaired Waters List

At a recent meeting, the Florida DEP announced that Upper Perdido Bay was being placed on Florida's Impaired Waters List for two parameters - bacteria (Enterococci) and Nutrients (Chlorophyll-a). This is a very interesting development. I don't know if it will result in good or bad things happening on Upper Perdido Bay. If the DEP actually tries to correct the problem, maybe something good will come. Where to start. Back when Dr. Livingston was working for Champion and then IP on Perdido Bay, he identified nutrients from the paper mill as the BIG problem on Perdido Bay. According to Dr. Livingston, the nutrients from the paper mill cause an outbreak of a toxic algae, *Heterosigma*, which killed life on Perdido Bay. This was another case of "fake" news. We never saw any dying fish or other sea life as you would expect from an outbreak of toxic algae. Life in Perdido Bay just slipped away (to paraphrase Dr. Livingston's conclusions). No folks, it was the bleaching chemicals from the new process

at the paper mill which killed life in the bay. When IP blew up in late January, 2017 we saw how nice our bay could be and once IP started back up, how the chemicals from IP just killed off life again. While we didn't believe Perdido Bay was being killed by the toxic algae, *Heterosigma*, we were able to verify that it was present in Perdido Bay. Whether or not it was truly toxic or present in sufficient numbers to cause any problems, we were not able to verify. The question was - how did it get into Perdido Bay? Once Dr. Livingston stopped studying the bay, *Heterosigma* was no longer found.

But the "too many nutrient" theory persisted. In 2012, DEP and EPA establish specific nutrient limits on bays in Florida. The specific nutrient limits were prompted by these supposed outbreaks of toxic algae, both in Florida and on the Chesapeake Bay. Was this "fake" news as well? Thanks to Dr. Livingston's work, Perdido Bay has the highest limit for total nitrogen and one of the highest limits for total phosphate in the state of Florida. These very high limits were necessary to accommodate the very high nutrients put into the bay by the paper mill and its sludges. The paper mill sludges contain high levels of organic nitrogen and phosphorous. So based on the level of nutrients, you would expect lots of algae and blooms of algae as we saw back in the early 1990's. But no - no algae, very little blooms of phytoplankton, no menhaden fish which eat phytoplankton, only a dead bay. Why? Because paper mill chemicals are herbicidal. Whether this is unintentional or intentional is not known, but nevertheless there are definitely herbicides being put into Perdido Bay. To control, algae blooms? Yes. But herbicides only work where the paper mill effluent is strong enough and not diluted, like at the mouth of the Perdido River or the mouth of Herron Bayou where seagrasses grow (see our website for seagrasses at the mouth of Herron Bayou).

So, plankton blooms represented by high levels of chlorophyll a, must occur away from areas influenced by paper mill chemicals or where there is sufficient dilution, like at the mouth of the Perdido River. We could not find out from DEP where they found high blooms of algae and high chlorophyll a. Maybe this is just a ruse to try and deflect our contention that paper mill chemicals are herbicidal. However during the IP shut down, we notice algae growing on our rocks and possible blooms of phytoplankton.

Just how DEP and other affected parties are going to solve the problem with nutrient enrichment in Upper Perdido Bay is going to be interesting. Emerald Coast Utilities Authority (ECUA) currently discharges approximately 15 million gallons of effluent a day into Upper Perdido Bay. This stuff, in spite of the fact it is tertiary treated, still has nutrients. It was absolutely ridiculous that DEP allowed ECUA to discharge their effluent into a little bay which does not flush very well, like Perdido Bay. But there was all this hype about IP using 5-million gallons of reclaimed water from ECUA, and how wonderful it was. But then more quietly, ECUA also pumped an additional 5-million gallons of water to dilute IP's effluent in the wetland. This 5-million gallons really didn't help dilute the toxic material in the effluent as 90% of the trees in the wetland died anyway. ECUA has told me that they pay the electrical charges for pumping this 10-million gallons a day up the hill to IP from the Central Reclamation Facility north of the old Monsanto plant along the Escambia River. In addition, ECUA has a bill of \$46,000 a month for pumping approximately 15-million gallons of wastewater a day from downtown Pensacola up to the Central Reclamation Facility. They pass these expenses on to the rate payers (us). It is another case of a public/private partnership where the public pays. One

of ECUA's Board Members - Dr. Larry Walker was always adamant about sending all ECUA's wastewater to Perdido Bay. Well, he got most of it into Perdido Bay.

The move of the downtown wastewater treatment plant out of downtown was a boon for redevelopment in downtown Pensacola. The smell from the wastewater plant discouraged anyone from living nearby. But the fact remains that water runs downhill, and it is expensive to pump wastewater around, so other options should be pursued before pumping is considered. By the way, those big pipes along Blue Angel Parkway, are replacement pipes for a forced main (pumped). According to ECUA, they just replacing and not adding to effluent coming into the Bayou Marcus Wastewater Treatment Plant.

As for high levels of bacteria, this is not too surprising. We have reported high levels of coliforms and fecal coliforms for years. These bacteria grow in the organically rich and low dissolved oxygen environment of Perdido Bay. They are not necessarily associated with human excrement. Recently DEP has switched to a new indicator for bacterial contamination - Enterococcus. Friends of Perdido Bay does not test for this organism, but we will see if we can find an easy test for this particular bacteria. DEP has told me it is a better indicator of bacterial contamination than coliform as it lives better in salt water. But if DEP is finding high levels of Enterococcus in Upper Perdido Bay, it may be an a good indicator of high bacterial levels, not from human excrement. This would be good, if DEP does something about these high bacterial levels, i.e., identify the source of the enrichment which allow the bacterial to grow. But instead of trying to clean up the source of contamination, I am afraid the state will declare Upper Perdido Bay off limits to swimming. The state has a new classification for Class III waters - waters only to be used for boating and not swimming. This would lower the protections which Perdido Bay has now and open it up to more pollution. This would lower property values on Perdido Bay even more. This is something we would definitely fight, so stay tuned. It is important that we stay vigilant because our government works for polluters and not for us.

Oops! Ran out of Room. Have to include news of our clam testing and discussion of septic tanks to the next Newsletter in December. And thanks for your support.

Membership and Renewals

Tidings is published six times a year by Friends of Perdido Bay and is mailed to members. To keep up with the latest news of happenings on Perdido Bay, become a member or renew your membership. For present members, your date for renewal is printed on your mailing label.

Membership is \$10.00 per year per voting member. To join or renew, fill out the coupon to the rightand mail with your check to the address on the front.

Friends is a not-for-profit corporation and all contributions are tax-deductible. Funds received are all used for projects to improve Perdido Bay. No money is paid to the Board of Directors, all of whom volunteer their time and effort.

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