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Tidings

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STILL WAITING

We are still waiting to get the results and written report from the biological sampling which had been done by Cardno, our consultant, on April 6, 2021. Two of the old DEP stations in Upper Perdido Bay were sampled for sediment chemistry, sediment life and water quality. The Consultant has verbally told us that there were fewer animals than the sampling done in 2018, which is not a good omen. The bay is worse. The results from the dioxin levels in the sediments at the two stations is also worrisome. Dioxin levels of 14 ppt and 6 ppt at stations 26 and 29 respectfully, are high. Dioxin levels over 7 ppt are toxic and require cleanup. Station 26 is on the Florida side of the Upper bay (in the center) and Station 29 is west of 26 nearly on the Alabama side. These dioxin results are what I had expected. The discharge from the Perdido River pushes International Paper's effluent to the Florida side of the upper bay. This is why you would expect to find sediments laden with dioxin on the Florida side of the Upper bay. We will discuss the report more fully in the next newsletter.

More Islands for Perdido

Orange Beach along with the Nature Conservancy is using some of the money from fines levied by the government in the 2010 BP oil spill to restore and enhance the small islands in Bayou St. John. Two consulting firms have also been hired to develop a restoration and management plan for these islands. This is an area inside the mouth of Perdido Pass which has become a real mecca for boaters. There are four small islands north of Perdido Pass, some of which are badly eroded. (A fifth island will be created by dredging.) The money from the fines will be used to dredge up sand and restore these islands. On the weekend (mainly in the summer) boaters congregate on these islands to sun and swim (and drink). One or two of the islands will also be set aside for bird-nesting (maybe). Read about the project at this website <https://www.nature.org/en-us/get-involved/how-to-help/places-we-protect/lower-perdido-islands/?vu=perdidoislands>.

This is an area which is re-shaped yearly, especially with hurricanes. Perdido Bay (Lost Bay) gets its name from the fact that captains of Spanish galleons knew there was a bay behind the barrier islands but could not find the mouth again. The mouth of the bay has changed repeatedly over several centuries, and so did the line which divides Florida and Alabama. Finally, Alabama decided to dredge out the mouth of the Perdido Bay, and maintain it as a permanent mouth. Since the currents in the Gulf of Mexico flow from east to west, the jetties on either side of the pass were designed to trap the sand as it flowed west. According to a marine engineer, the pass was designed so that it only had to be dredged out once every five years. Perdido pass was also a great place to surf, but recently a sand bar has been formed outside the pass in the Gulf of Mexico. According to the surfers (my son) the waves no longer break right in the pass.

The permanent dredging of the mouth also allowed more saltwater to enter Perdido Bay. Dr. Livingston (the papermill consultant who studied the bay from 1988 to 2007) blamed this influx of salt water into the bay as the reason for the decline of life on the bottom of the bay. Saltwater is heavier than freshwater and tends to flow along the bottom of the bay as a salt wedge. I have found salt water up the Perdido River as far as Highway 90. It is a pretty powerful wedge especially in a storm surge. I am sure with sea level rise, the salt water has advanced even further. There are deep holes in the Perdido River where this salt water sits. Needless to say, there is very little oxygen found in these holes.

The tales of Spanish captains burying their treasures in the "Lost" bay and then not being able to find the treasure again, has led to many a summer's treasure hunt. But we have yet to find pirate treasure.

Lost to Pollution

For many of us, Perdido Bay has been lost to pollution. A bay, which was once famed for its speckled trout and red fishing, has now been lost to pollution from the paper mill. This is a real tragedy, which in spite of environmental regulations, has been allowed to get worse. At one time, I believed that government regulations were just not being enforced. But now I believed that some faction of the U.S. government has actively allowed this debasement of our bay to occur. It is a conspiracy. In spite of our efforts of letters, lawsuits and pressure, the papermill which dumps into our bay has been protected by our government.

Recently in my confronting Escambia County Commissioners and DEP personnel with data showing sediments contaminated with dioxin and heavy metals, I have been hearing a lot about **legacy pollution**. Legacy pollution is apparently pollution which was found on the bottom of Perdido Bay many years ago. According to the government's (I am sure the EPA is involved) thinking, Perdido Bay was already polluted when we got involved, so the government allowed the paper mill to continue to pollute it. Not a very nice scenario. To make matters worse, the government conspired with the scientific consultants and government scientists to cover up this legacy pollution. Just think of all studies which have been done on Perdido Bay since we got involved in 1986, and not one of them mentioned legacy pollution. Dr. Robert Livingston, who studied the bay from 1987 to 2007, never mentioned toxic

pollutants which were on the bottom. Then there were the EPA scientists and the Fish and Wildlife biologists who did sediment toxicity studies and never really found much toxicity. Several EPA scientists tried to point the finger elsewhere. In doing marker studies, there was not a clear progression of papermill pollution from the Upper bay to the lower bay. Paper mill pollution was found in the upper bay and then in the lower bay, but not in the middle at the Lillian bridge where the bay is constricted. Of course not, there is virtually no deposition of papermill sludges in the swift currents under the Lillian Bridge.

The EPA had done sediment sampling in Perdido Bay yet refused to release the results. Last year, I submitted a Freedom of Information Act request to the EPA, for this data. I was informed that “it didn’t exist”. Clearly, this was a lie. In 1993, the EPA put out a report in draft form showing Perdido Bay sediments were the most toxic of all estuaries in the Gulf of Mexico. This report never came out in final form because the EPA claimed the report had errors. Another lie.

Then there was the 19-year Livingston study which showed that life in the bay declined over the course of the study. He attributed this decline to blooms of toxic algae *Heterosigma*, due to too many nutrients. After Livingston stopped studying Perdido Bay, the toxic algae *Heterosigma* was not found again. International Paper did plankton studies from 2012 to 2020. No toxic algae. Yet the bay continued to decline. I concluded that Livingston either had to have made up the story about *Heterosigma* or else some other entity had to have put the toxic plankton in the bay. Since Livingston was covering up for the toxicity of the chemicals, I believed the “toxic algae scenario” was formulated by the government and the chemical industry. It has been one coverup after another by our government. When will it end?

A Reason for Hope

At some point, International Paper will get tired of paying the expenses associated with trying to explain away their pollution and still not have a permit. And it is very doubt that they will ever be able to get a permit for Perdido Bay. Now that we are able to do studies showing that IP’s sludges are toxic and that life on the bottom of Perdido Bay is practically non-existent, it would be very difficult for the environmental agencies to issue any permits to IP. Shawn Hamilton, who is now acting director of DEP, and I had that discussion about a year ago. The study we did in 2018, showing benthic diversity was very poor in Upper Perdido Bay, really threw a monkey wrench into DEP’s plans to issue a new permit to IP based on their wetland studies.

Since 2012, IP had been doing studies in the wetlands where they discharge, to try and show that the effluent was not harming the environment. But of course, it was harming the environment. The consultant for IP, Dr. Wayne Nutter, did detailed studies of life and various parameters in the wetland quarterly. He then wrote a yearly report. Over the years, Dr. Nutter showed that while life had changed in the wetland, there was still life. The change in life in the wetland was not good. Places where there had been pitcher plants and sundews were replaced with cattails. Cattails became the predominant plant. Over 90% of the trees died due to the flooding and toxicity of the effluent and had not really been replaced after ten years of

study. But a few animals were able to live in this mess, although it was nothing like it had been previous to the flooding by the paper mill effluent. For the water quality parameters which IP couldn't meet, the DEP was going to give IP variances or "site specific alternative criteria". This was the plan. Somehow, DEP was going to substitute life in the wetland for life in Perdido Bay and give IP a permit based on life in the wetland. But then we were able to do our 2018 study and show life in Perdido Bay was worse than it had been previously, not better.

This had been the argument for giving IP a conditional permit and allowing them to go to the wetlands in 2010. Perdido Bay was going to be better because the wetlands were going to remove nutrients. The wetlands did remove nutrients but unfortunately because of the false assumptions of the Livingston report that nutrients were the problem, the wetlands didn't help. Diverting the effluent to the wetlands only allowed additional contamination of the wetlands by dioxin and other toxic metals to occur. Dioxin is not a nutrient.

We can only hope that International Paper is as tired of the perfidy, as we are. We want our bay back and we want IP to spend the money to clean up the contamination which they caused.

A Better Clean Water Act

One of the reasons, this pollution of Perdido Bay has continued so long is due to the Clean Water Act. "Grandfathering" clauses in the Clean Water Act allow old technology and the pollution it causes, to continue. The paper industry has managed to keep these ancient paper mills running (and still make money) using this old technology. The paper mill in Cantonment Florida was built in 1942. There are some even older mills in the U.S. No new mills have been built in the U.S since the 1970's. New technology of closed-loop does exist. This should be required by the Federal government. Give the companies tax incentives to install this new technology or what ever it takes. I think we can see that paper mills are extremely polluting. The states themselves are not going to require new technology. It is going to take a Federal mandate to make this happen. Hopefully, companies like International Paper will push for this themselves. At some point, they must be tired of playing this game of more expensive studies using dishonest consultants to try and make a buck and get a permit. Those of us on Perdido Bay would be grateful.

<p>Membership and Renewals</p> <p>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.</p> <p>Membership is \$20.00 per year per voting member. To join or renew, fill out the coupon to the right and mail with your check to the address on the front.</p> <p>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.</p>	<p><input type="checkbox"/> New</p> <p><input type="checkbox"/> Renewal</p> <p>Amt. Enclosed\$ _____</p> <p>_____</p> <p>Name</p> <p>_____</p> <p>Address</p> <p>_____</p> <p>Phone (_____) _____</p> <p>e-mail _____</p>
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