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Tidings The Newsletter of the Friends of Perdido Bay

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So why are they still dumping?

While doing some research on the history of the fight to clean up Perdido Bay, I came across some very interesting quotes and information. In 1986, after the clam kill and the citizen outrage, the EPA began a rather large study of Perdido Bay. Originally the EPA study was only going to concentrate on Elevenmile Creek (the creek into which the paper mill dumped), but when the citizens complained, EPA expanded the study to include Perdido Bay, especially upper Perdido Bay. The EPA came out to the bay during three major sampling sessions in 1986 and 1987. The sampling was detailed and extensive. However, what the EPA found, can only be gleaned from several quotes, the EPA scientists gave to the news media. The EPA never summarized their results or published the study. We do have nearly 200 pages of raw data but no report was ever written. In one quote from the Miami Herald publish Feb. 15, 1987, Jim Greenfield the coordinating engineer in Atlanta on the EPA study said: "his agency hasn't dealt with a bay like Perdido before. It's just a non-flushing bay. Anything that goes in there stays in there, even with the hurricanes we had a couple of years ago."

Several years later (1989), EPA and NOAA published a study "Susceptibility and Status of Gulf of Mexico Estuaries to Nutrient Discharges". Twenty-three estuaries in the Gulf of Mexico were examined for rate and volume of freshwater inflow and the ability to flush. Not surprisingly, Perdido Bay ranked high in the ability to concentrate nutrients and medium in its ability to concentrate particles. Corpus Christi Bay and Aransas Bay were in the same high category. On the other extreme were Mobile Bay and Atchafalaya Bay which were ranked low in their ability to concentrate nutrients. Based on these studies, would you place a gross polluter like a paper mill in a bay which has a high potential to concentrate nutrients? Absolutely not. Industries which do discharge into bodies of water which do not have adequate flushing or sufficient water to dilute the effluent, must treat their wastes to a much greater degree than industries which discharge into larger rivers or bays which flush adequate. Of course, no industry wants to spend more than any other industry on their waste water treatment. This would put them at a definite economic disadvantage. Herein lies the dilemma - the paper mill in

Cantonment has always had the same treatment as other paper mills, but the damage to Elevenmile Creek and Perdido Bay has been so much greater because there is not sufficient dilution or flushing.

To make matters worse, the environmental agencies have allowed the paper mill to expand production. In 1978, production of pulp at the paper mill was 900 tons per day. Today the production is 2000 tons per day, and IP wants to expand to 2500 tons per day. While there has been an increase in treatment of the wastes, the release of certain chemicals is increased with increasing production. Examples are salts of caustic sodium, calcium, and sulfate. The paper mill uses sodium sulfide, a very alkaline brew, to break down wood chips into wood fiber, releasing lignins and other chemicals. Most of the organic components and lignins can be degraded to some degree, but the salts can not be degraded. The paper companies like to say that they recycle almost all their cooking chemicals, about 90 to 95% . But the remaining 5 to 10% can be a lot of salts. Recently we measured the sulfate content of paper mill effluent in Elevenmile Creek. It was 530 milligrams/liter. This value is nearly 10 times higher than it was in the 1970's. When you consider the flow in the creek, the total amount of sulfate which is being discharged to Perdido Bay every day, is 103,000 pounds per day. This is a toxic amount of sulfate. As we reported in the last newsletter, calcium is being discharged at the rate of 6,000 pounds per day. Obviously the huge qualitites of these salts is going to have an impact.

The salts however, are not “pure”; they contain metals. In a recent search on the internet, I found a site which sells soda ash, a source for caustic soda in paper making. The manufacturer listed the soda ash as containing: iron at 7 parts per million (ppm), arsenic at 0.01 ppm, and heavy metals such as lead at greater than 10 ppm. So, along with the salts, you are also getting heavy metals. You may ask, don’t the environmental agencies have limits on these heavy metals? Yes, they do. However the paper industry has been able to finagled the heavy metals rule so that certain heavy metals are linked to calcium content. And the paper mills have no shortage of calcium. Several years ago, International Paper was violating the state standard for arsenic which is 0.05 ppm. Recently, IP has just stopped reporting the level of arsenic in their effluent. However we know that arsenic is still present in their effluent. Arsenic was present in the muck which washed onto our beaches after Hurricane Ivan. Recently, clams (tissue) from Perdido Bay were analyzed for heavy metals and mercury. The only metal which was <u>not</u> detected was lead. Arsenic in clam tissue was detected at 2.0 ppm and mercury was surprisingly high at 0.11 ppm. The source of these metals is International Paper. Many of these metals have been linked to a variety of diseases and cancer. Please do not eat the clams. They are contaminated and it is also against the law to eat shellfish from Perdido Bay.

The bottom line is Perdido Bay is just too small to handle much pollution at all. Yet, after 70 years of continual damage and countless citizen complaints, the huge amount of pollution coming from the paper mill continues. As has been mentioned in previous newsletters, a new paper mill was built in Australia in 2007. It produces virtually the same quantity and type of paper as the Cantonment mill, and it uses the same raw materials (pines). The Australian mill discharges 500 gallons of effluent per day, most of which is used for landscape irrigation. The Cantonment mill discharges about 20,000,000 gallons per day. That is right 20,000,000. IP can do much better, but the environmental agencies have knowingly let them pollute and destroy Perdido Bay. A letter from you to EPA or your congressmen might get the government moving to do its job and protect the environment.

Playing Dumb

The clam kill which is referred to above, occurred in early October 1986. Prior to the kill, the clams were so thick at our beach that you could not walk, without walking on 8 or 9 clams with each step. One day, all the clams came out of the bottom. Over several days they opened up and died - 100% at our beach. Naturally we were horrified. What could have caused this catastrophe? Our family, while knowing that the bay was being polluted by the paper mill, never really paid too much attention to what the paper mill was doing. That all changed with the clam kill. We also never had much to do with the Florida Depart of Environmental Regulation (now called Protection, DEP). That has also changed. On October 22, 1986, we noticed that all the clams which had come out of the bottom of the bay, were dead. We called the DEP to report the disaster. The biologists were sent out. They took water samples. What ever chemical killed the clams had long since disappeared. A biologists from the Dauphin Island Marine Lab collected the clam shells and did a chemical analysis. What ever chemical had killed the clams had not accumulated in the shell. It was a big mystery. Bob Kriegel who was then deputy director at the DER office in Pensacola said he just didn't know what could have caused the clams to die.

We have come to know that he did know what caused the clams to die. Recently as I have been going through old files, I came across letters written by Champion to the DER office in Pensacola. These letters detail the work Champion was doing on their wastewater treatment system at the same time the clams died. It was too much of a coincidence. In one particular chilling statement, Champion engineer, David Areneaux, describes, just before the clams died, how Champion lowered the level of their treatment ponds by pulling the weirs, thereby draining the accumulated sludge into Elevenmile Creek and Perdido Bay. Champion did this without regard to the fact that this material, which was dangerous, was being dumped into a bay where people swam, ate the fish, and used for recreation. The letter shows a callous disregard for other peoples' properties and for the environment from a Champion employee whom we regarded as a friend. David Arceneaux has since died, but the pollution which he released is probably still resting somewhere on the bottom of Perdido Bay in the years of accumulated sludges.

What is Going On?

On July 11, 2011, Friends of Perdido Bay was notified that the Florida DEP was giving Emerald Coast Utilities Authority's new sewer plant on Escambia Bay, called CWRF, a "minor permit revision" to build a pipeline around International Paper's treatment ponds to hook into the pipeline which is coming to the wetlands surrounding Perdido Bay. This pipeline will carry approximately seven million gallons a day. Originally, in the new IP permit, there was a provision that IP could use the effluent from the CWRF, if they determined that they could use it. There was no requirement in the new permit that they had to use ECUA effluent. We understand that currently, IP is using up to 2 million gallons per day of ECUA effluent. The permit revision allows ECUA to build this pipeline as "dry". In order to discharge domestic sewage into this pipeline, ECUA would have to get a permit revision for the CWRF plant and that has not been applied for.

The location of the CWRF and ECUA's pumping sewage all around the county seemed very suspect to me. The location of the old sewage treatment plant in downtown Pensacola was from an environmental standpoint, a much better place to discharge sewage than pumping it up to the upper end of a bay and then discharging it. There was much more dilution in Pensacola Bay. But Pensacola did not want a sewage treatment plant on some valuable property in downtown. It also gave a bad odor to downtown Pensacola. ECUA is claiming that the water coming from the

CWRF is “reclaimed”. Gulf Power is using the effluent in their cooling towers. But is Gulf Power using all the effluent or just some of it? Is all the effluent being evaporated in Gulf Power’s cooling system? The ECUA effluent which is going into the wetlands surrounding Perdido Bay, is it coming from Gulf Power or from ECUA? The whole project has had a “ smoke and mirrors” character. I believe that building the plant in the upper end of Escambia Bay was just a way of bringing more ECUA sewage into Perdido Bay. As discussed above, adding more nutrients to Perdido Bay is certainly not a good idea.

We are watching!

Many of you may have noticed that ECUA is opening up their new wetland discharge section along Blue Angel Parkway and Lillian Highway. As we have discussed in previous newsletters, effluent from wetland discharges do not just dribble out of the wetlands along the entire shoreline. Rather the effluent makes its own channels through the wetland and flows out at discreet points - sometimes very few points. The new wetland section has a large part of its shoreline along a small canal which runs behind the La Paz subdivision and along the lower part of Bayou Marcus Creek. Any nutrient rich waters discharged into that small canal would not have sufficient dilution or mixing. There would be an algae bloom and a real mess. The past owner of that ECUA property thinks that the sewage will come out into Bayou Marcus at a low area and not come out into the canal directly. There is a high berm along the canal which will inhibit the flow. This high berm is the old railroad bed from a logging railroad built in 1868. But any flow of nutrient rich water into the canal will cause trouble. Friends of Perdido Bay has several members along the canal who have volunteered to monitor the nutrients in the canal. In preparation for the sampling program, we took samples several weeks ago before the discharge into the new wetland section began. The total nitrogen values are already too high. The total nitrogen in lower Bayou Marcus was 3.2 mg/l and in the canal was 3.0 mg/l. These values should be less than 1 mg/l (preferably not higher than 0.36 mg/l) to not cause trouble. The total phosphorus values were too low to detect however if phosphorus should start appearing from the domestic wastewater, algae will begin to appear. We hope it doesn’t , but our interested citizens will monitor the situation.

By the way, your dues help pay for the testing and the test kits the citizens will be using to monitor the water in their backyards. Thank you.

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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