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# Tidings

The Newsletter of the Friends of Perdido Bay

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Jackie Lane -Editor

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## **Happy New Year (we hope)**

We hope you had a nice holiday and will have a healthy, safe New Year. Friends of Perdido Bay intends to stick around. There's lots to do - monitor the effect of International Paper's changes on the bay, track DEP's efforts to weaken environmental protection, be watchful for new threats to the bay, and be thinking of positive actions that can be taken to improve the bay. The Florida DEP is not doing much in the way of sampling Perdido Bay. So our big New Year's goal is monitoring Eleven mile Creek and Perdido Bay. The dues which you send in will allow us to do some limited water quality monitoring. There were some indications that some of the BP money would be used to begin monitoring programs in our estuaries by the University of West Florida. But so far there doesn't seem to be any funding. Sadly, our environmental agencies seem to be less and less concerned about recording any problems and more and more interested in making it look as if no problems exist. Our job is to give you an objective look at the way things really are in Perdido Bay. Of course, if you live on Perdido Bay, you can go out and look at the bay. You can try fishing or look at the number of boats that are fishing. Our general impression is that things are not changed on Perdido Bay compared to previous years. The studies which took place during the 2000's by Dr. Robert Livingston documented the decline in the life of Perdido Bay. Dr. Livingston attributed this decline to too many nutrients added to the bay by the paper mill. He said nutrients produced harmful algae blooms which killed off life in the bay. We agreed with Dr. Livingston that life had declined (see any shrimp lately?) but not primarily because of too many nutrients. The decline was caused by too many papermill chemicals in the bay, which probably will not improve unless the production at the mill declines. This is not likely to happen soon. But we believe that it is important to keep this issue before you, the affected parties.

## **Fading Memories**

I have decided that the big polluters, like International Paper, think that the longer they keep Perdido Bay polluted, the fewer and fewer people will remember what the bay was like

before this pollution ruined the bay. If those of us who remember what the bay was like before paper mill pollution would only die, the memory would disappear and the remaining memory would only be the polluted bay. The new generation would not be harassing our government to do something about this pollution. As late as the 1990's grassbeds were present in the upper bay, and we were able to catch fish and see the life associated with the grassbeds. Today no grassbeds exist, and very little life.

There is a new generation of government scientists also. They tend to accept all data generated by industry as true. They feel that they are lucky to have a job and do not openly question industries. If they question industry-backed data, their job is eliminated, or at the very least, the questioning scientist is stuck in a back room and not allowed to talk to the public.

The same thing can be said about good tasting strawberries and tomatoes. If agriculture interests only wait long enough, there will be no one left who remembers what good-tasting tomatoes and strawberries were. The important thing to the ag industry is in growing products that can be shipped long distances and still look beautiful. You don't know that it doesn't taste good until after you buy it. This is becoming a re-occurring theme in our lives. Do I think that our quality of life is declining? Yes. The global economy has done very little to improve life in the U.S. We have a lot of inexpensive products made in Asia but it has caused many detrimental changes in this country - more pollution, fewer jobs, and, yes, tasteless tomatoes. If those of us who see these changes in our society would only die, the "new" lower standard for quality of life would be the standard. Well, let me say this, I am not disappearing without a few comments.

### **The Nutrient Standard**

Over the years, we have been reporting on Florida DEP's attempts to set actual numeric values for how much nitrogen and phosphorus can be in our water bodies without causing algae blooms. This has not been an easy task. The state still does not have numeric nutrient standards and several lawsuits promise to delay implementation of a standard even longer. The state now has what is called a "narrative" nutrient standard. This standard reads: "In no case shall nutrient concentrations of a body of water be altered so as to cause an imbalance in natural populations of aquatic flora and fauna". The wording of this standard is just too general and vague to allow the environmental agencies to use it for enforcement or writing permits. Therefore, actual numeric values of nitrogen and phosphorus would be much easier for environmental agencies to use.

Most people agree that too many nutrients in our water bodies cause problems. The nitrogen and phosphorus cause plants to grow in the water. These plants die and use up oxygen, often causing fish kills. The whole process of over nitrification is called eutrophication. The nutrients come from many, many sources - fertilizers, septic tanks, sewage treatment plants, etc. The difficulty is setting a number to which all parties can agree. Many factors affect "safe" concentrations of nutrients in different parts of the state. Fresh waters need one standard, salt waters need another. In the current proposal each estuary (a place where salt and freshwater mix) in Florida is going to have its own Total nitrogen and Total Phosphorus values. These values have been or will be calculated using models, studies and other information.

For Perdido Bay, the total nitrogen and total phosphorus values are supposed to be set by June 30, 2013. This is the date which is in Florida's yet-to-be-passed nutrient rule. Guess what model, DEP has chosen to set the nutrient limits? That is right - the flawed model of Dr. Livingston. Based on his study, Dr. Livingston said that the year he began the study (1988), the bay had a healthy assemblage of phytoplankton (microscopic floating plants). So, the nutrient values Dr. Livingston chose for "safe" nutrients are the ones from the years 1988 to 1991. After 1991, sometime bad happened to the bay's phytoplankton according to Dr. Livingston. At this point we don't know if Florida's DEP will chose the upper bay or the lower bay levels from 1988 to 1991; the nutrients in the lower bay were, and are, much lower than the nutrients in the upper

bay. Never mind that we have pictures of excess algae at our beaches in 1988 or that the EPA study in 1986 found that certain nutrients were too high, especially in the upper bay. According to Dr. Livingston's report, things were good in Perdido Bay in 1988. Things were probably a lot better in 1941 (the year before the paper mill went into operation), but nobody was taking data back then. Our environmental agencies have decided that the new norm for a clean Perdido Bay will be 1988, not prior to paper mill pollution in the bay. Of course, all the old time residents on Perdido Bay know that the bay was hardly clean in 1988.

Interestingly enough, Dr. Livingston's model (it is not really a model) is not the only model available for Perdido Bay. In the first go-around for establishing Total Maximum Daily Loads (TMDL), Perdido Bay was declared "impaired" for nutrients. The DEP then began an exercise to determine what level of nutrients Perdido Bay could handle without generating plankton blooms. This exercise to determine safe nutrient levels for the TMDL process came before attempts to establish nutrient levels for a nutrient standard. CDM, a national engineering firm, was hired by DEP to develop a nutrient model for Perdido Bay. The model that they developed was much more scientific and realistic than Livingston's arbitrary pick of the year 1988. I obtained a copy of the results of this model and except for a few input numbers, the model was very good. Not too surprisingly, the CDM model was quietly buried by DEP. When I attended a meeting on nutrient standards in the Perdido estuary, the DEP didn't even mention the CDM model. DEP was pushing the Livingston model. When I questioned DEP about why they had not considered the CDM model, there were a lot of dumb looks. Obviously, some very powerful people are trying to hide the truth in order to protect the paper mill. I have stopped attending these nutrient meetings. These meetings are obvious attempts to hide the truth and are just too frustrating.

In the second go-around for the TMDL process, Perdido Bay was found to no longer be impaired for nutrients. So we don't have to worry, DEP has declared "No problem exists." That just goes to show you how well placed people can influence the results.

The current status of the nutrient rule is still in limbo. Both the EPA and Florida's DEP have nutrient rules for Florida's fresh waters. The DEP rule also includes nutrient values for some salt water estuaries. The Florida and EPA rules are nearly identical, but Florida's has a lot of reference to "site specific alternative criteria" which could be used to get around meeting the criteria in fresh waters. The Florida rule has been passed by Florida's Environmental Regulation Commission and is awaiting ratification by the Florida legislature which is now in session. The EPA is waiting for Florida's rule to be ratified, and then the EPA rule will begin to be implemented on June 4, 2012, maybe. This date has been pushed back many times. I do not know the status of the lawsuits against both rules. Many public utilities, including our own Emerald Coast Utilities Authority, are up in arms about how these rules are going to impact their budgets, and have filed lawsuits and challenges to the rules.

The values in the DEP rule which are being proposed for fresh waters in the Panhandle West are: 0.06 mg/L for Total Phosphorus and 0.67 mg/L for Total Nitrogen. Both of these values are higher than the values which have been used for many years for safe levels of nutrients in this area, as developed by the Escambia Bay Recovery Program in the 1970's. Their recommended level of total phosphorus was 0.05 mg/L and total nitrogen was 0.36 mg/L. You need both nutrients in excess to get algae or plankton blooms. As reported in a past newsletter, the value for Total Nitrogen in Bayou Marcus was 3.1. mg/l and the total phosphorus was less than 0.019 mg/l on July 31, 2011. The very high total nitrogen was offset by the very low phosphorous so that no algae could bloom. The question is: where are these high nitrogen values coming from? In early December, we measured the total nitrogen again in several places. The total nitrogen in Bayou Marcus was slightly lower than the previous reading at 2.9 mg/L. It may be that the source of this very high nitrogen was likely Elevenmile Creek. The Total nitrogen in

Elevenmile Creek at road 297A (which is almost pure papermill effluent) was 9.5 mg/L. This is an exceedingly high value and obviously would not meet the proposed state standard of 0.67 mg/L. Almost all the nitrogen is in the form of organic nitrogen which means it is associated with the Total Suspended Solids. IP does not have a permit limit for Total Nitrogen. However, if Florida adopts the total nitrogen limit of 0.67 mg/l for the fresh waters of Elevenmile Creek, IP will definitely not meet this limit. The very high total nitrogen levels which IP is discharging into Elevenmile Creek and Perdido Bay are also going to impact any attempt by ECUA to increase their discharges to Perdido Bay. The value of 3 mg/L which Friends of Perdido Bay measured in the vicinity of Bayou Marcus would prohibit ECUA from discharging any more nutrients to Perdido Bay. We are going to monitor this situation closely. Once IP diverts their total discharge to the wetlands, I doubt that the all the total nitrogen will be removed. The data that IP presented at the administrative hearing on their permit showed that approximately 15% of the nitrogen would be removed. This level of removal is not nearly enough to meet the state standard in fresh water.

As an aside, Elevenmile Creek was horrible in early December. The dissolved oxygen was very low, and it was very turbid and dark. IP has apparently gone to activated sludge and is discharging huge amounts of solids. We will measure that next time.

### Escambia County's Corporate Welfare

It has come to our attention, that Escambia County is allowing International Paper to dump the ash from their coal and wood-burning boilers at the Escambia County Landfill for FREE. In August 1996, Escambia County Commission passed a resolution to allow Champion International (the past owners of the mill) to dispose of 200 cubic yards/day of boiler ash at the Escambia County Landfill for no charge as landfill cover. In exchange Champion agreed to take the natural gas generated at the landfill. Today, IP is still taking the very toxic boiler ash to the land fill but is not using the landfill gas. Gulf Power is. What should Friends of Perdido Bay do about this? This will be a topic at our next board meeting. There are many implications and ramifications we must consider. What would IP do with this very toxic waste? Let it run into Perdido Bay? With a compliant DEP, it is a real possibility. We will save this discussion for a future newsletter.

#### **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 right and 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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