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Tidings The Newsletter of the Friends of Perdido Bay

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Thank you for your support

Your support has made us independent of government funding. We are a self-<u>supporting</u> group. Any budget cuts or DODGE eliminations cannot affect our operations. We are an independent group, thanks to you. I am sure there are many people who would love to eliminate us and hope we will go away. But we have persisted because our bay is still being polluted mainly by the papermill. It was so obvious in 2017 when the papermill blew up and stopped discharging into our bay for three weeks. In a very short time (3 days) our bay was clear and full of life, including fishermen. Today, it is dead again. In this newsletter. I will try and explain why. The bay is or was obviously being manipulated with chemicals. Part of the story is given below.

Again – THANK YOU.

The Birds Tell Us A Lot

When you see the pelicans diving like crazy, you know there are fish. This usually means that the menhaden or other migratory fish are coming into the bay. But the pelicans are rarely here. There used to be several pelican nesting areas around the bay - one on the islands in the mouth of the Perdido River, another up Heron Bayou. I don't see the pelican nesting areas anymore. Another fish-eating bird, the osprey was always noticeable in the Spring when mating occurred. They would circle around in the sky making a highpitched whistle trying to attract a mate. This Spring, I heard no whistles and saw no ospreys circling around overhead. It takes fish to feed ospreys. No fish, no ospreys.

Another bird which has left us is the great blue heron. I had one which was almost like a pet watch dog. It would sit on one of my cement groins and catch minnows. In the evening, if someone came along, it would fly off and make a loud honking sound. I always knew when someone was near the wall. No watchdog heron anymore, because there are no fish to catch. I also sit and look for minnows or baby fish. There are none. WHY?

After much thought and deliberation, I think that the algae which the fish feed on, is not there. For years, according to the scientists which studied the bay, the bay was over nutrified with too many nutrients like phosphorus and nitrogen. And we saw the results of too many nutrients. In the late 1990's, huge amounts of algae bloomed at our beaches. It covered our crab traps and was a nuisance. Dr. Livingston, the papermill consultant, blamed much of the over nutrification on the papermill. Limits for nutrients were put in IP's permit (the 2012), and International Paper went to an overland discharge which removed more nutrients. Did these measures work?

We are supposed to think so. But after, IP blew up in 2017 and was not discharging to Perdido Bay for several weeks, plankton blooms began to occur. Perdido Bay was turning green and exceeding the chlorophyll a limit which had been established in 2012 when specific nutrients limits were put on every bay in Florida. The specific chlorophyll a limit for Perdido Bay was higher than most bays in Florida but not high enough to allow the papermill to discharge without causing algae blooms. The point is – the new bleaching agent which the paper mill had switched to in 1995, chlorine dioxide, produced a biproduct, chlorate, which was herbicidal. Friends of Perdido Bay sampling of Elevenmile Creek in 1995 clearly shows chlorate present in Elevenmile Creek water (See our website for the numbers). So I suspect that the paper mill was hoping that this chlorate would be sufficient to inhibit any excessive blooms of algae in Perdido Bay.

Friends of Perdido Bay has been actively monitoring the chlorophyll a values in Upper Perdido Bay and sending our values to the Florida DEP. There have been exceedance of the chlorophyll a limit in Upper Perdido Bay which is causing the paper mill a little heartburn. With the exceedances of chlorophyll

a values, Upper Perdido Bay has been deemed "impaired" for nutrients and a TMDL (Total Maximum Daily Load) is being done to establish the correct nutrient level. Normally Florida DEP would have a consultant do a TMDL for Upper Perdido Bay. But in this case, the Pulp and Paper Industry has taken control of establishing nutrient limits for Upper Perdido Bay. This is highly unusual. But since the Florida regulators can't say "NO" to the pulp and paper industry, it is the Pulp and Paper Industry which is now calling the shots.

To make matters worse for the Pulp and Paper Industry, International Paper is supposedly no longer bleaching their pulp, according to the Florida DEP. This would mean "no chlorate" to control algae blooms. So Pulp and Paper is using some other way of controlling algae blooms! A weed killer? Who knows. But what I do know is that the algae in Upper Perdido Bay is suppressed. I am trying to run tests now to show that the algae is suppressed.

You may ask, why did the EPA allow Champion and then IP to use chlorine dioxide bleaching when they knew that it produced a bi-product, chlorate, which was herbicidal. As EPA said in their justification for allowing chlorine dioxide, it sharply reduced the production of chlorinated chemicals, like dioxin. But chlorine dioxide had other advantages for the pulp and paper industry; it could produce, under the proper conditions, **oxygen**. Having a chemical which could put oxygen in the water, was a dream chemical for the paper industry. For years, the sludges and oxygen consuming chemicals which the pulp and paper industry released into the environment, harmed our environment. For years before 2017, all honest studies showed the very low levels of dissolved oxygen which were present in the deeper water of Perdido Bay, especially in the summer. In 2018, Friends of Perdido Bay commissioned a study which showed low dissolved oxygen in deeper waters. The 5,000 to 10,000 pounds a day of Total Suspended Solids (TSS) which the paper mill released daily only made the low dissolved oxygen situation worse.

The paper industry and their consultants just tried to ignore and downplay the harmful effect of these solids. In the early 1990's, Champion did modeling studies which didn't even take into account these solids. The Florida regulators in Tallahassee agreed with the Livingston study when he said that the low dissolved oxygen was coming from the Gulf of Mexico (now called Gulf of America). The Pulp and Paper Industry did not want any more stringent limits on the amount of Total Suspended Solids which they were permitted to release into the environment. The 5,000 to 10,000 pounds (dry weight) were the allowable legal limits which were given in IP's permit.

To have a chemical like chlorine dioxide, which produced oxygen was a dream for the pulp and paper industry. However, there was a drawback. It took very alkaline water for this chemical reaction to realize its full potential. In 2017, International Paper got new air permits for their 30 + places where they release chemicals into the air. Several of these air permits allowed IP to use "wet alkaline air scrubbers", especially on their power boilers. This alkaline discharge goes into their effluent and is discharged with the effluent. I don't know if all the effluent from their "wet alkaline scrubbers" goes to the Rainwater wetland. I think some of the very alkaline water goes directly down Elevenmile Creek. We have measured alkaline water in Elevenmile Creek. But it is enough alkalinity to get Perdido Bay water to increase its alkalinity and also dissolved oxygen. Voila! In the study which Friends of Perdido Bay commissioned in 2021, the deeper water in Perdido Bay had lots of dissolved oxygen. In some cases, it was super saturated. The oxygen deficit which had existed in Perdido Bay before had magically disappeared. **Chlorine dioxide was a wonderful chemical.** Is the EPA complicit in this deception? You bet!

Interview About Your Pollution Experience.

The University of Florida has an oral history project where they record live interviews with people about certain local issues. They are looking for people to interview about local pollution issues in Pensacola. They are inviting people to share their pollution stories. They will be in Pensacola on Saturday April 12, 2025 from 10 to 2. If you are interested in sharing your story go to: spohp@clas.ufl.edu to set up an interview.

Get a New Member and Spread the Word

There is an additional membership form in this newsletter for you to give to a neighbor or friend so that they can become members of Friends of Perdido Bay. By getting new members we can spread the news about our sad plight and efforts to restore a once beautiful bay to life. Memberships are only \$30.00 per year. The more people, the better.

Membership and Renewals Tidings is published six times a year by	New	
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.	Amt Enclosed \$ Renewal	
Membership is \$30.00 per year per voting member . To join or renew, fill out the coupon to the right and mail with your check to the	Name	
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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.	Phone () email	