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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 Springtime

Enjoy the nice weather. In just a few months, we will be in the throws of summer and hot weather. And maybe swimming in the bay. We will have to wait and see on the matter of swimming. We are doing some bacterial testing now and will continue in the summer.

And again, thank you all for being members. Without your help and donations, we would not be here. Recently, I went to a monitoring conference where the monitoring in our local bays was discussed. It is striking how little monitoring goes on in Perdido Bay compared to other bays. I think the environmental agencies just don't want to know. That is why it is so important that Friends of Perdido Bay continue to do some monitoring. Thank you. Escambia County does monitor monthly an upper and lower station in Perdido Bay, for a limited number of parameters.

### Waiting for the Renaissance

International Paper announced in October 2023 that they were shutting down one of their two paper machines. This means that their production of paper pulp has dropped. I emailed the local DEP office to find out what this meant. I have finally heard back from Elizabeth Orr, the district director. She said, in an email dated March 22, 2024, that IP has shut down their whole pulping B-Line. This includes 12 batch digesters, the bleach plant, and chlorine dioxide generator. The B-line produced bleached, fluff pulp for the general market. This means that IP is only making unbleached linear board, I think.

Years ago, IP told us that they had to do some bleaching in order to buy a chlorine product. The company that makes and sells them the sodium for pulping the trees, also makes chlorine. These companies are called "chlor-alkali" industries and they make the sodium and the chloride for the paper industry by splitting salt, NaCl, into the separate elements. They used to use a mercury cathode for splitting NaCl, causing the sodium for pulping paper to be contaminated with mercury. This is where a lot of the environmental mercury contamination came from. However today the chlor-alkali industry is supposed to use a more environmentally

friendly method. In order to keep a balance of sodium and chloride in the market, paper mills were supposed to buy both chemicals. They would get a reduction on the price of sodium if they also bought chloride. So because IP is supposedly no longer bleaching using chlorine dioxide, is the pulping chemical, sodium, costing more? I don't know. IP couldn't remain competitive very long if they had to pay more for their chemicals than the other paper makers.

When IP blew up in 2017, and wasn't discharging to Perdido Bay, the bay returned to life nearly instantly. I was amazed how quickly life returned. First, I saw algae begin to appear on the rocks (rip-rap). Then the small shrimp and crabs, then the fish. The fishermen had returned within a week or two of the explosion. The bay was a lot clearer as well. I haven't seen any real improvement yet. When we see fishermen out in their boats, we will know the bay has improved. Someone put a crab trap out in the water and I went to see how many crabs it had caught. Just one.

Several weeks ago, a Friend of Perdido Bay member called to tell me that there were a bunch of pelicans diving in front of her house down by Lillian bridge. Pretty soon I began to see the diving pelicans in front of my house as well. She told me that it was the menhaden coming into Perdido Bay to spawn and the pelicans were having a feast. Like the salmon which migrate into fresh water to spawn, menhaden do the same thing. They are called anadromous fish. The menhaden probably go all the way to the Perdido River where they spawn. In the summer, we used to see big schools of menhaden and alewives in the bay. They are plankton feeders and make good food for other big predators. But we have seen virtually no schools of menhaden in the summer in recent years. The type of plankton we have blooming in Perdido Bay, mainly blue green algae, are not a good source of food for plankton feeders. In several smaller local bodies of water, such as Bayou Texar, menhaden and alewives used to congregate and use up the oxygen in the water at night. They would die and cause a big stink. This doesn't happen any more. I don't know why.

After a survey of the local shoreline (on the Florida side, east of Herron Bayou) last weekend, my assessment is not good. I saw no grassbeds where I had seen some the summer before. I saw no mussels and the little olive snail which used to be very numerous on the stems of the black needle rush, was not there. I don't know what happened to them. When the paper mill was still bleaching and using chlorine dioxide, we surmised that chlorine dioxide or some other disinfectant product had killed a lot of the larval life. We found rather high quantities of chlorine dioxide (a disinfectant) in Elevenmile Creek in 1995. In 2022, we found that there was something in the Elevenmile Creek water which caused deformed larvae. IP was not supposed to be dumping anything in Elevenmile Creek.

In 2017, after the mill went back on line and the bay went back to its "dead" condition, the pH of the bay started going up. I wrote to Governor DeSantis about this problem, but heard nothing back. Friends of Perdido Bay had several biological surveys done in 2018 and again in 2021. We found something very unusual happening - the dissolved oxygen in Perdido Bay had gone up (along with the pH). The dissolved oxygen in the bay was supersaturated from top to bottom. This had been a bay which historically had low dissolved oxygen, especially in the deeper waters. What could have happened? I started looking at the chemistry of the bleaching chemical IP was using. In several published papers, one of the breakdown products of chlorine dioxide, is dissolved oxygen. But it requires a very alkaline environment in order for this

reaction to occur. The other product released from the breakdown of chlorine dioxide is chlorate, a potent herbicide. This reaction would certainly explain where the dissolved oxygen is coming from and why the algae and grassbeds have died in Perdido Bay. It is hard for me to believe that the EPA would have certified this chemical as the preferred bleaching chemical for the paper industry.

### **Pretty Bleak**

The monitoring workshop, which was held by the Pensacola Perdido Bay Estuarine Program the last day of February, was interesting because it gave an overview of the monitoring going on in the local estuaries. In the Perdido Watershed, not much was going on. Auburn has a citizen monitoring network over in Lillian. A few people in Lillian use test kits to monitor the Alabama side of the bay. Escambia County monitors an upper and a lower station on the Florida side of the bay and a few tributaries into Perdido Bay. International Paper monitored their discharge wetlands and some sites along Elevenmile Creek. It looked like no one was measuring the biological health or the fisheries in Perdido Bay. Only the occasional studies of Friends of Perdido Bay on the biological health of the Upper Bay and various water parameters which we measure in the Upper bay are the sole pieces of information on the health of the bay. The DEP makes up a list of impaired waters from the data which the county generates, but I do not think that list is accurate. Upper Perdido Bay was impaired for nutrients, due to high chlorophyll a values, and bacteria, due to elevated Enterococcus. Today it is only impaired for bacteria. The lower bay is not impaired at all. The adage "If you don't look, you will not find" is the moniker for the environmental agencies. Those of us who attended the meeting and live on Perdido Bay, advocated for more testing. I don't think this is going to happen.

EPA, through their lab in Athens Georgia, used to be the government agency that did all the big studies on Perdido Bay. The EPA laboratory in Gulf Breeze studied the Gulf of Mexico, both the sediments and the water quality. The EPA's budget has been severely cut over the past 10 years and the only thing the EPA does now, is give advice. Biologists from Santa Rosa County were complaining that many grassbeds in Santa Rosa Sound have died and the EPA won't help. Most of the sampling in local waters was done by the state environmental agency. The Florida DEP and Alabama ADEM did the monthly sampling for water quality parameters. The states's environmental budgets have been cut. So monthly monitoring has been turned over to the local counties. Escambia and Santa Rosa County Florida got a grants from the Restore Fund (money from the 2010 oil spill) to run their monitoring programs. But this money will run out and then what will happen? I don't know what Baldwin County is doing? Maybe the citizen monitoring program is replacing the state monitoring.

But the trend is clear - no public money for environmental monitoring. Environmental programs on every level are getting axed. Good luck. This is where private programs run by local citizen groups, such as Friends of Perdido Bay, using certified labs to do their testing may be the future of monitoring in the U.S. It is a bleak future with very little government money expected to go to the environment. Of course, there will always be the entities who are

regulated. They will continue to do their testing as required by their permits. But who is going to oversee them? The regulated community tends to cut corners when times get tough.

### Making Money, And Paper

Recently International Paper announced the retirement of their long-time (30-year) president, Mark Sutton. He had worked at International Paper as an engineer, most of his career. His replacement, effective May 1, is Andrew Silvernail who is currently a director at KKR & Co., a global investment firm. Mr. Silvernail had been Chairmen and CEO of Madison Paper Co., a small papermaker in Maine. I thought that it was unusual that a large paper making company would hire an investment adviser over a technical person as its president. But then I looked at IP's financials. IP over the past 5-years, has paid about a 5% dividend on its stock. This is very good considering this is about the maximum you can get on a C.D. About 53% of its earnings were going to shareholders. This pay out to shareholders doesn't leave much money to invest in pollution control.

Even in a good year, it is hard to make money making paper. It seems like IP has great sales but low net profit. There are a lot of expenses. This was especially true in 2023 when its net income of \$302 M was down 83% from FY 2022. The high dividend has attracted many of Wall Streets biggest firms. Institutional investors own over 50% of IP's stock. Vanguard owns about 12%, Black Rock 9% and State Street 7%. I am sure most of these retirement investment companies do not want IP to cut its dividend to pay for pollution control. And if you own shares of Vanguard, which many of us do, you want your Vanguard stock to do well. This is the problem. Pollution control is not a high priority on Wall Street, but profits are.

It appears as if there is a surplus of bleached paper pulp. White paper is as cheap as I have seen it in years. Even paper towels are less expensive. IP's financial data at the end of 2023 reflected the low return. In 2023, IP's profit margin was only 1.6% down from 8.2% in 2022. Its earnings per share were \$0.87 in 2023 down from \$4.97 in 2022. (This data comes from Yahoo Finance). IP also had a high debt level. So with Wall Street running the show, maybe you can see why pollution control is not on the top of the investment list. And certainly our concerns on Perdido Bay probably barely raise a blimp of concern.

<h3>Membership and Renewals</h3> <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 \$30.00 per <b>year per voting member</b>. 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>	<input type="checkbox"/> New <input type="checkbox"/> Renewal Amt. Enclosed\$ _____ _____ Name _____ Address _____ Phone (     ) _____ e-mail _____ Phone (     ) _____
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