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Tidings The Newsletter of the Friends of Perdido Bay

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Here we are - back in 2026

We are back – Happy New Year! Will this be the year we finally succeed in getting our bay back? We hope so. It has been killed by the pollution from a papermill. The surrounding beauty is still there but pollutants from the paper mill have robbed the local community of an economic asset which our government and environmental agencies have failed to stop. So you, dear members, are the warriors against this failure by our government. Thank you for your support!

The Rest of the Story

In the December Newsletter we began to tell the story of how the paper industry has tried to hide the damages caused by their discharges of biosolids – 8,000 + pounds per day. The papermill consultants always tried to ignore these solids. But that goo on the bottom was hard to ignore and it consumed oxygen. So where did that goo come from? Papermill consultants tried to point to phytoplankton blooms which were caused by too many nutrients. That was a possible source. But did we see excessive phytoplankton blooms? Not until the paper mill began to dump more nutrients into the bay. When "too many nutrients" became the culprit, all the sudden we began to see lots and lots of algae blooms. Through the 1990's drift algae began to appear at our beaches. The kids would ball it up and throw it at each other. It covered our crab traps. It was a mess and definitely was too many nutrients, probably

mainly phosphates. But too many nutrients would not explain the disappearance of life, until of course, "too many nutrients" caused toxic algae blooms. Yes, that is all possible. We didn't see mass fish kills like a lot of toxic algae blooms; the life in the bay just slipped away (consultant's words)

So, in 2012, the papermill went to discharging their effluent into a wetland (or more accurately some wetlands) to help remove nutrients and some of those biosolids. And yes, the level of nutrients began to decline in the bay. Nutrients were better and the algae blooming at our beaches stopped. But life did not return. And the level of dissolved oxygen in the deeper waters of Perdido Bay was still very low. Perdido Bay was still listed as "impaired" (did not meet the water quality standards) in 2015. But more important, there was still little life.

Then in 2017, the papermill blew up. The papermill was shut down (not making paper) for about three weeks. Within three days of the explosion, algae was again growing on the cement groins at my beach. Then little pinfish began appearing. Soon, fishermen began showing up in the bay. It became very obvious in a short period of time, what was wrong with the bay. It was papermill effluent and it was toxic. Remove the effluent and the bay immediately returned to life. Experiment over.

It sure was toxic. Unbeknownst to us, International Paper (IP) began failing their toxic testing. Between 2015 and 2020, IP failed their chronic toxicity tests 19 times. DEP issued a Consent Order in 2019 for IP's failed tests. This Consent Order which fined IP $190,000 for the toxicity, ordered IP to determine where the toxicity came from. I challenged this issuance of a Consent Order, not because it required IP to determine the source of the toxicity. But because it replaced a 2012 Consent Order which required IP to be incompliance with all state laws. The 2020 Consent Order did <u>not</u> require IP to be incompliance with state laws and it allowed more lax limits for certain parameters like pH. The Administrative Hearing Officer denied my claims.

Recently, I wrote to the Pensacola DEP office to find out just what IP did to correct their toxicity (if they had corrected it). In 2023, IP had additional failures of chronic toxicity. DEP responded as they always do and they always take IP's word for what happened. IP wrote in their report about the toxicity failures in 2023 that the "intermittent toxicity failures are due to variability from multiple sources, including the contributions from ion-salt composition and ECUA reclaim water, although none of these sources act individually as the sole cause of the intermittent toxicity failures." Yep, blame ECUA. Do I believe this? No.

DEP has yet to respond to Friends of Perdido Bay's study which showed that effluent coming down Elevenmile Creek in May 2023 was toxic to mussel larvae. I have always thought that the organisms which the environmental agencies use for measuring toxicity are not good indicators of certain toxicity. There is something toxic as we know from the explosion in 2017 when IP stopped dumping in the bay.

Here is what I think is happening. IP began putting some of their smokestack chemicals in the water using wet alkaline scrubbers to control air pollutants such as particulate matter, sulfur compounds and chlorine-related emissions (per DEP). The exact places where IP uses wet alkaline scrubbers are listed on our website. The discharge of smokestack chemicals began about the same time as the failed toxicity testing. The pH of the bay also became more alkaline. DEP says that these smokestack chemicals go into the wastewater treatment system. So? Certain heavy metals, such as barium, arsenic and other compounds are not broken down or "treated in a wastewater treatment system" as DEP is inferring. Friends of Perdido Bays testing of the bottom sediments in 2021 show that the heavy metals, like barium and arsenic, had gone up from previous samples. Rather the addition of an alkaline fluid was critical for a reaction which I will describe below. The DEP claims that IP is still meeting the pH limit of 8.5. This limit is much too high for a bay which receives acidic water from the Perdido River where the pH is usually less than 7.

This alkaline fluid from the wet scrubbers absorbs carbon dioxide (a gas) from the smokestacks. Carbon dioxide is acid and helps to mask some of the alkalinity in the smokestack fluid. So IP is meeting their pH limit but the acidic carbon dioxide leaves the effluent and the effluent becomes more alkaline. Thus, the pH in the bay has gone up as Friends of Perdido Bay has noted many times. Escambia County has also found increasing alkalinity. So why is this important?

The bleaching chemical which the paper industry uses is chlorine dioxide. This is a chlorine with two oxygens hanging on. In certain parts of the world, chlorine dioxide is a disinfectant and used to treat water to make it safe for drinking (at 0.8 mg/litter). The paper company, Champion International, began using chlorine dioxide as a bleaching agent in 1994 and 1995. Friends of Perdido Bay began testing the water in Elevenmile Creek in 1995 and found chlorine dioxide present at a concentration of 0.4 mg/liter both at the place where Champion discharged into the creek and also at the mouth of the creek where it entered Perdido Bay. There was NO diminution in its concentration. Also present was chlorate, a potent herbicide, from which

chlorine dioxide is made at the mill. In the bay, the herbicidal effects of chlorate were being masked by the huge amounts of nutrients being added to the bay by Champion. When supersaturated concentrations of dissolved oxygen began to appear in the bottom waters of Perdido Bay, in 2020's you knew something was not right. Friends of Perdido Bay had two studies done on sites in Upper Perdido Bay. In 2018, two locations in Upper Perdido Bay had low levels of dissolved oxygen. But by 2021, these stations both had super saturated levels of dissolved oxygen. What could have happened? Remember that bleaching chemical chlorine dioxide with two oxygens hanging off? Under alkaline conditions, the chlorine will release those dissolved oxygens. Viola, low dissolved oxygen is no longer a problem, especially in deep waters. Those 8,000+ pounds of biosolids released by the paper industry are no longer important because low dissolved oxygen is no longer present. Everything is okay! But wait.

Remember that herbicide, chlorate, was also present with chlorine dioxide. It is still there and still inhibiting plant growth in Perdido Bay. That is why in upper and to a less extent middle Perdido Bay there is very little plant growth. Just look at your pilings. This herbicide chlorate is inhibiting healthy phytoplankton growth and only blue green algae are present. This unhealthy phytoplankton will not attract or support herbivorous fish populations.

Continuous "Yuk" phytoplankton

Our last phytoplankton test results from September 5, 2025 where we sampled the upper bay and mid-bay at the Lillian boat ramp, showed the predominant type of phytoplankton was a blue green algae. Not healthy!

Read a new Book About Our Fight to Save Perdido Bay

The title ***is Skin in the Game; The Fight to Save Perdido Bay from Industrial Pollution*****.** On Amazon and other bookstores**.**

Membership and Rer ewals

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 $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 address on the front.

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