



Bulk Rate  
U.S. Postage Paid  
Permit No.1013  
Foley, AL 36535

---

**Friends of Perdido Bay**  
38 S. Blue Angel Parkway  
PMB 350  
Pensacola, FL 32506  
850-453-5488

---

ADDRESS SERVICE REQUESTED

---

# Tidings

 The Newsletter of the Friends of Perdido Bay

---

February 2020

Volume 33 Number 1  
[www.friendsofperdidobay.com](http://www.friendsofperdidobay.com)

Jackie Lane -Editor

---

## **Here we are in 2020**

We are glad to see you are still with us. We intend to make 2020 the year we turn around the bay. Thank you for your support. First, some of the changes we made to kick off the new year. Our address has changed. Every now and then someone's dues renewal gets lost in the mail. We decided that having our mailing address being different from my personal address may help solve the problem. We have rented a mail box at the UPS store. Everyone can start using this address (see above) for your correspondence with Friends of Perdido Bay. Also our dues have gone up to \$20.00 per year per person for the membership. We hope this will not be too much of a hardship on you. Our treasury has over \$6000, but if we get into a legal battle with the paper mill, this amount of money will go fast. We hope our environmental agencies will finally do their job to protect Perdido Bay. That is our purpose, to make our government do the job which our taxes pay for - to protect our bay. No more B.S.

Friends of Perdido Bay spends the dues you send in to do various projects. Besides printing the newsletter, we also pay for testing of our bay. I do most of the sampling and then send the samples off to certified laboratories for the analysis. Occasionally we buy some simple equipment, like the digital pH meter which we have been using a lot lately and some kits for sampling for chemicals. Generally these kits are cheaper when looking for clues in various water bodies. Friends of Perdido Bay also sponsors cash prizes at the West Panhandle Regional Science Fair for the category "Solutions to Pollution". We have been sponsoring these prizes for many years now. We used to do this in conjunction with Champion International, but no longer. We also use our dues to pay for the website, [www.friendsofperdidobay.com](http://www.friendsofperdidobay.com).

One of our members is running our facebook page. Go can go to Friends of Perdido Bay's facebook page and like us there. Also you can post pictures of foam and scum for everyone to see.

## **What is happening?**

In the December's Newsletter, we were following the progress of a Consent Order which the Florida DEP was proposing to issue to International Paper because their effluent had been continuously toxic (to a waterflea and life in Perdido Bay) since 2012. Because of this and other violations to the water quality standards, IP had not been able to get a permit (ever). IP's permit had expired in 2015 and they had been operating in an illegal manner since then. I looked into the Florida statutes to see under what legal authority DEP could allow IP to operate without a permit. It is a legally fuzzy area. IP had made a timely application for a new permit in 2014. DEP just didn't give them one. IP could take DEP to court and make them issue the permit. But of course, IP realizes it can not justify this permit. So IP has just let the permit expire and allowed Florida's DEP to take the rap.

The Consent Order has meanwhile languished as a document which probably will never see the light of a courtroom. New information has come to light which makes this Consent Order obsolete.

It appears that the American Paper Industry is switching to using recycled cardboard. I suspected as much. We were seeing less and less foam on Perdido Bay. This foam is the result of using virgin pine for making the pulp. Virgin pine chips are cooked in sodium sulfite to obtain the pine tree fibers. Most of the cooking chemicals are recovered in a big furnace called the recovery furnace. After evaporation, this wood waste and chemicals burns just like a fuel. The problem was, the process was not 100% efficient. The saltiness in the paper mill effluent was the result of their sodium and sulfur escaping. The air and water pollution from this chemical pulping process is horrendous. The residual resin acids in the effluent made the IP effluent toxic and gave us the foam and scum we saw and still do see. The air pollutants from chemical pulping are very bad.

Now, it just so happens that I can see the smoke from the recovery furnace from my living room window. It used to be that the smoke from the recovery furnaces (there were two) was there day and night. Last year I noticed that occasionally, I did not see the smoke. These days I see the smoke less and less, meaning that they are recovering their chemicals less and less often. I also noticed that we see foam, less and less often.

Not too long ago, I ran into some retirees from IP. They were up on the Perdido River drinking beer around a camp fire. They were friendly. I asked them about IP using recycled cardboard. They said, "Yes, IP can't keep up with the demand for cardboard using just virgin pine. IP needed to use recycled fiber." The IP retirees also told me that we were right about the pollution of Perdido Bay. But it was a paycheck to them so they couldn't say anything. Shortly after this encounter, I saw on the internet that the American Paper Industry was going to use 50% recycled fiber in making cardboard. This is a huge change which will affect many things.

To begin with, I would have suspected the switch to using 50% recycled cardboard would certainly make these paper mills more environmentally friendly. As I understand the process, you just mix the recycled cardboard with some water, grind it up, de-ink the pulp, drain the water, mix it with the drained virgin pulp, drain more water, then you roll it on heated rollers to make your cardboard. The recycled pulp doesn't require cooking or much chemicals so it should be a lot less expensive to make cardboard using recycled pulp; and because it uses less energy and less chemicals, more environmentally good.

Plus there is the positive aspect of recycling. In most people's minds, recycling is good. It is reusing a commodity which would just end up filling up a landfill. It is a waste of something which can be re-used. So what is wrong with using recycled cardboard? Just look at Perdido Bay and maybe you can tell. Perdido Bay is as dead as I have ever seen it. There are no fish, no birds. It is hard on a person's soul to see a bay that was once partially alive, so dead. This is true not only of the bay which I see, but also up and down the bay. I have heard from many people up and down the bay - it is dead. Even down at Alabama Point, there are few fisherman and fewer people catching fish. I believe this lack of life is being caused by the switch to using recycled fiber.

Why? I don't know all the reasons that using recycled fiber has caused this to happen to Perdido Bay. Certainly Perdido Bay is small and doesn't get much dilution, so chemicals build up in the bay and do not disperse. And people who live on Perdido Bay, know where these chemicals are coming from - from the papermill. There are no other large dischargers to Perdido Bay. We can see when the papermill changes its processes. It is so obvious.

What are these chemicals? Sodium hydroxide for one. The sodium hydroxide, used to cook the virgin pine is for the most part, recycled. Sodium hydroxide is also used to take the inks off the recycled cardboard. What comes out of the de-inking process is a clear, very basic fluid which probably contains all types of heavy metals maybe in trace quantities. Printing inks contain lead, zinc, cadmium, nickel, copper. The problem is what to do with this fluid with heavy metals. IP can probably only dispose of part of this de-inking fluid in their wetlands because it will kill the plants due to its alkalinity. So you dispose of this de-inking fluid in other waste streams - like Elevenmile Creek or maybe even Perdido River. Since it is a clear liquid, it isn't noticeable like the waste from virgin pine pulping which is nearly black. But first, you try to neutralize the alkalinity of the sodium hydroxide by running this fluid through air scrubbers to take carbon dioxide out of the air. Carbon dioxide is used to acidify basic fluids. So you can get two uses out of your sodium hydroxide - you can de-ink your recycled fiber and you can take the carbon dioxide out of the air. You can announce then, that you are removing your greenhouse gases. You are a hero. Everybody thinks you are an industry which is environmentally conscious. Maybe the EPA will even give you pollution credits, or you can trade the carbon dioxide you are taking out of the air with another industry which doesn't have excessive sodium hydroxide like the paper industry. Everything is good.

Not quite. You still have to get rid of that sodium hydroxide with its heavy metals from the inks and all the chemicals from the air scrubbers along with the carbon dioxide. The carbon dioxide might help to neutralize the sodium hydroxide for awhile, but like I described in the last newsletter, the carbon dioxide will come bubbling back out of solution when it hits the local acid waters. What is left after the carbon dioxide bubbles out is an alkaline solution which contains sodium, heavy metals, and all other air pollutants which are left behind. It is a clear solution so it is not obvious. It looks like clear water.

This is exactly what I am measuring in Elevenmile Creek and maybe even the Perdido River. IP is using Elevenmile Creek to dispose of part of this alkaline, sodium hydroxide effluent. They do not have a permit for this. At the headwaters of Elevenmile,

just above the Kingsfield Road Bridge the pH measures an alkaline 7.5 (I have pH readings as high as 8.8). Then you go down the creek a little bit and the carbon dioxide which is removed from the air has reacted with the sodium hydroxide and you get a less alkaline effluent with a pH of 6.8. It is a timed chemical reaction. By the time the water from Elevenmile Creek hits the bay, the pH has started to go back up. The acidifying carbon dioxide has bubbled back out into the air and the bay is left with alkaline water with trace amounts of heavy metals from the inks. I have measured the pH at my beach at 8.1 and down at Alabama Point, the pH is 8.2.

But there is more. Depending on where the recycled cardboard came from, from what wood it was made and a host of other variables, the recycled cardboard can contain antifoaming agents, binders, biocides, byproduct contamination, plasticisers, polymeric resins, and solvents and other things. It is very difficult to predict from day to day exactly what chemicals will turn up in the recycled fiber. To make a long story short, this is not something you want to put into a bay which doesn't flush. Or to let your dog swim in an apparent clear creek.

**What Can Be Done?**

**Closed Loop!** If there was ever a time to install this technology, it is now. This technology exists. However, IP says it is too expensive. Let's be positive and buy it for them. There is a huge pot of money out their from the oil spill in 2010 - the Restore money. A huge bureaucracy has been formed to decide what to do with this money. I believe a lot of it has been wasted just in planning. A closed loop technology of all waste streams, would solve the problem immediately for the bay. We wouldn't have to keep fighting about whether the bay was bad or not. It would certainly be a positive step. We can save papermill jobs and save our bay. Who can argue with that?

<p><b>Membership and Renewals</b></p> <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 \$20.00 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>	<p><input type="checkbox"/> New</p> <p><input type="checkbox"/> Renewal</p> <p>Amt. Enclosed\$ _____</p> <p>_____</p> <p>Name</p> <p>_____</p> <p>Address</p> <p>_____</p> <p>Phone ( _____ ) _____</p> <p>e-mail _____</p>
---	---