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### Friends of Perdido Bay

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# Tidings The Newsletter of the Friends of Perdido Bay

July 2023	Volume 36 Number 3	Jackie Lane -Editor
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# Welcome to all our New Members and Thank You to Our Old Members

It is HOT!! Sitting under a heat dome in the summer is not fun. But you can go swimming in beautiful Perdido Bay. I do. However Perdido Bay is not cool either unless you are swimming in deep water. Right now the bay is pretty brown from the huge amount of rain that fell in Pensacola on June 16. The brown water absorbs heats so at the surface the water is hot, like the air. If we get a few rainy or cloudy days, the water will cool off. You may ask, "Is it safe to swim in Perdido Bay"? I do not know. Generally, the swim report is based on bacterial content. When the bacteria count gets too high (either E. Coli or micrococus), the health departments warn against swimming. But right now, no warnings have been issued.

There are other contaminates in which people should not swim. Heavy metals such as arsenic and barium, and PCB's and dioxins are not great for your health. But these chemicals are not reported and really not measured unless you are a crazy environmental group like ours. And yes, we have found these chemicals in the sediments of Perdido Bay. I wear water shoes as I walk out to keep from touching the contaminated sediments. In spite of everything, swimming in the summer is one of the joys of living on the water, and I am going to take advantage of the opportunity.

The heavy rains in June made the bay more fresh and diluted the effluent from the paper mill. This is good. With all the rain, the bay is less alkaline with a more natural pH (slightly acidic) and more life. Even barnacles are settling on the pilings.

#### Wall Street in the Woods

In 2006, International Paper sold its 5.6 million acres of timberland to limited liability corporations managed by Resource Management Services (RMS), a Timber Investment Management organization based in Birmingham, Alabama. RMS doesn't own the property but manages the properties. In Escambia County Florida, large tracts of forest properties which were once owned by International Paper, have names like Seven States Timber Co., Evergreen Timber Co., Oak Mountain Timber Co. and Tamarack Timber Co. All these timber companies

list an office of Resource Management Service based in Pace Florida, as their agent. Who the real owners of these timber companies are, is difficult to determine. They are real estate investments, managed by RMS. Many of these timber properties may be owned by foreign investors such as the Netherland's retirement funds or John Hancock, which was bought by the Manulife Financial, a Canadian Company in 2004. According to an article in "Landthink", International Paper's sale of their timberlands went mostly to a handful of foreign investors.

Investments in timber are becoming more attractive. An article in "Landthink" makes the case for timber investments. "Timberland investments have attractive cash flow bundles which are diversified". Sources of cash flows include lumber for housing, logs for pulpwood and paper making, hunting leases, cell phone towers, pine-straw harvesting, land development, and most recently, carbon capture and sequestration. These are real returns with low volatility. In an article written by J.P. Morgan Bank in 2022, the case for timber investment is made. "Lumber returns correlate strongly with housing demand, growth and ultimately inflation. And timber's value rises as trees grow." Of course, paper mills are a major market for trees, especially pine trees. Wood used for pulp, however, brings some of the lowest prices of the forest products. Because International Paper can no longer control the price it pays for pulpwood, factors like a booming housing market can impact IP's bottom line, especially if it has to pay more for pulpwood. This may ultimately drive the paper makers to use more recycled fiber.

Because so much land in the U.S., especially agricultural land, has been bought by foreign countries, our government has begun to track the nationality of purchasers of land in the U.S. Beside holding much of our debt, China is the third largest foreign landowner. I remember going down the Tensaw River in Baldwin County, Alabama on a Scott Paper barge. Besides me, there were a bunch of Chinese on the trip. I believe Scott was actively marketing their property to the Chinese. Property in the U.S. is a good investment or has been. With interest rates going up, property increases in value.

Selling trees as a way to capture carbon sounds like a real money maker, especially in a heat wave. Some forests in the North have already gotten evaluations for their carbon capture potential, and forests in the South are waiting. I don't know how the carbon credits are being used to generate money, perhaps as a tax deduction. I know growing trees is considered a form of agriculture and agricultural land is taxed at a much lower rate than regular property. Also the idea of a carbon tax has been proposed, but I don't believe the carbon tax has become a reality yet. But just the idea that you can earn money by having trees growing on your land sounds like a good idea to me. I have a lot of trees. The idea of generating income from trees would give us a new axiom - money just grows from trees. I am sure this carbon capture, has some on Wall Street betting on trees over crypto.

# **Global Warming**

The fact that our climate is warming has few doubters. Hot summer after hot summer, storm after storm has made believers even out of the most reluctant people. But the causes of this warming may still be questionable. There is no doubt that the levels of carbon dioxide have risen over the past 50 years. Carbon dioxide is measurable. And I am sure there is a very high correlation between the level of carbon dioxide in the atmosphere and the temperatures of the earth. But there are other factors and gases which influence the temperature of our earth beside carbon dioxide. One very potent gas which traps the earth's heat more that carbon

dioxide is methane. Methane can trap six times more heat than carbon dioxide. The involvement of methane in global warming has spawned the idea of capturing cow farts and banning gas stoves in houses. These ideas are pretty non attainable. But I read the other day about the U.S. helping to cap a blown-out gas well in Turkmenistan which has been spewing huge amounts of methane into the atmosphere. This gas well had blown out about 20 years ago and had been releasing this heat-trapping methane into the atmosphere. I was in Turkmenistan about five years ago and everyone knew about it. The Turkmenistan government had set the well on fire to keep people away, as methane is poisonous. It had been burning a long time. This well, in itself, probably contributed some to global warming and I often wondered why we didn't help Turkmenistan cap this blown-out well.

Another factor in global warming is the intensity of the sun. The sun has cycles of intensity, which are never mentioned when global warming is discussed. Right now the sun is in an eleven-year cycle of increasing intensity which will peak in 2025. So why are these factors never mentioned when global warming is discussed? The media has focused on carbon dioxide to the exclusion of these other factors. This has made me wonder who is going to make money from carbon dioxide capture and global warming. Well, the timber interests and Wall Street! As my late husband used to say - "It is an ill wind that doesn't bring someone some good".

#### Where is the Smoke?

For years, we used to see a plume of smoke from the recovery furnace at the paper mill. It was a constant sight when we looked to the North. Year after year, we could see the smoke and the smell that came with the smoke. The recovery furnace burnt the "black liquor" which came from the pulping process and recovered most of the cooking chemicals. A strong solution of sodium hydroxide and sulfur was used to break down the wood chips into wood fibers and the lignin that glued the fibers together. This solution was black from the lignin. About 70% of the liquid in black liquor was evaporated off and the remaining mixture was burned until only the cooking chemicals remained and were reused. Once ignited, there was enough fuel in the black liquor to keep burning. The steam from the recovery furnace was used to run the mill. Additional power for the mill operation comes from power boilers. This smoke or steam from the recovery furnace was a constant sight, day in and day out, as we looked North. After the mill blew up in 2017, the smoke from the mill was only visible occasionally. Now you can't see the smoke at all.

I e-mailed DEP to find out if IP had changed their processes or why we no longer see the smoke from the recovery furnace. DEP said that they didn't have any indication that anything had changed at the mill. They sent me a copy of IP's 2022 air report. IP was still reported using their recovery furnace. But I am sure that DEP is able to see (or not see) IP's plume of smoke. Not only has the smoke from the recovery furnace disappeared but so has the smell. Maybe you are not aware of it, but do you smell the "papermill" smell anymore? I don't and really don't miss it. But something has definitely changed. Whatever has changed at the mill, DEP is not aware.

## **Capturing Carbon Dioxide**

From the report which DEP sent me on IP's air emissions, I could see that IP was capturing carbon dioxide. This was a big issue with IP. They had championed capturing carbon dioxide many years ago. On IP's two power boilers, IP was reporting using sodium alkali wet scrubbers. One power boiler used natural gas for fuel and the other power boiler used coal and biomass from tree trimmers as fuel. Liquid sodium hydroxide or sodium alkali, as IP calls it, absorbs carbon dioxide from the air. The carbon dioxide (which is acid) in the air reacts with the sodium alkali to form sodium bicarbonate. If this solution is then subjected to an acid, the carbon dioxide will bubble out. This was an old science experiment used in grade school to show what happens when you add an acid to a base (the exploding volcano). The volcano part was the carbon dioxide leaving the baking soda once you added an acid like vinegar.

The question is where is IP dumping this sodium alkali mixed with carbon dioxide? And where does this sodium alkali come from? My best guess is that the sodium alkali with the carbon dioxide is being dumped back into Elevenmile Creek. It would be a clear liquid and couldn't really be detected. To dump this solution into their main effluent would cause IP to violate the pH limit in their permit. Where does this sodium alkali come from? Probably the alkali part of their bleaching operation. If IP does dump this sodium alkali into Elevenmile Creek, this would be a violation. IP is only permited to discharge stormwater into Elevenmile Creek. I strongly suspect that IP is dumping this concoction into the headwaters of Elevenmile Creek. I have measured a very alkaline discharge in Elevenmile Creek coming off the IP site just north of the Kingsfield Road Bridge. Not only would this discharge contain the absorbed carbon dioxide but all the combustion products from the power boilers and the bleach plant chemicals. This is not something which should be dumped into Elevenmile Creek and then Perdido Bay. The discharge would contain barium, arsenic and other chemicals which we find in the sediments of Perdido Bay. I have reported my findings to DEP but their budgets have been cut and they no longer have resources to do any field work.

Folks, this is the sad state of affairs of government. Due to budget limitations, everything is getting cut. I certainly don't believe in taking on any more debt, but our government is not going to be able to provide proper services to its citizens. That is where Friends of Perdido Bay comes in. With our limited budget, we are doing the testing. We will report on our findings in the next 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	New Amt. Enclosed\$ Renewal	
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