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Tidings The Newsletter of the Friends of Perdido Bay

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Jackie Lane -Editor

Thank You For Being a Member

As in every news letter, we have to thank you for being a member and supporting Perdido Bay. We have not accomplished our goal of cleaning up Perdido Bay, yet. The Bay seems deader than ever even though it may look a little better. We are going to explain in the last article in the newsletter why that maybe. But we have been able to block the big polluter in our bay, International Paper, from getting a permit. The paper mill, first owned by Champion International and then International Paper, has not been able to get a normal permit since 1987. This means that they have been operating for 35 years without a valid permit. So much for rules! The Florida DEP and the EPA have simply turned a blind eye to the damage the paper mill has been doing to our bay. The regulators have allowed these companies to continue to operate while not measuring the parameters which would show the damage. The state no longer does biological assessments to see if there is life in Perdido Bay. Friends of Perdido Bay has had to do the assessments to show the damage. These companies are above the law because they hold such enormous power. It is jobs. We are not against jobs, just the pollution. So we will see how long IP will continue to invest in that old mill. Probably as long as they are making money. But they are operating illegally. This situation is an eye-opener for us that believed our country was governed by laws.

More on Tarkiln

One of the areas where we have had some success is in getting the state to purchase wetlands in southwest Escambia County. One of our longtime members and past Secretary of Friends of Perdido Bay, Mickey Quigley, was instrumental in working with another group, Friends of the Prairie to get the purchase accomplished. She wrote an article for our newsletter. Here is RangerMick's story.

Tarkiln Bayou Preserve State Park, on Bauer Road in Southwest Pensacola, has a diverse ecosystem, including wetlands, uplands and pine flatwoods. For most of the year visitors can easily view White-Topped Pitcher Plants from the boardwalk that directs those visitors over the wetlands. Tarkiln Bayou is often called "Tarklin Bayou" in error. There must have been a tar kiln on the property since the name tar kiln has been on the maps for many, many years. A tar kiln is

simply a hole in the ground with fat wood or lighter wood stacked vertically in the hole. Leaves, twigs, brush are placed on top and burned. The wood heats up, leaks the sap into a gutter underneath and the tar is collected and used for a variety of uses or shipped to a turpentine still for processing.

Before the property was purchased by Nature Conservancy in 1998, the property was free from development and was logged at one time, possibly also used for pig or cattle grazing. A 1950's aerial map mentioned that the property east of Bauer was open with very few trees which was probably used as grazing lands. There is still a cattle dip on the site today which is being monitored for hazardous ground water.

There are still "cat-faces" that are evidence of the turpentine industry. The "old-timers" tell us there are two graves on the somewhere property and Dupont point was called "Piney Point" or "Futes Point" after the people that are possibly buried there. According to the State archeologists, there was a home site there and a fish camp. Tarkiln property was owned by many different families, some of whom had never even seen the property. Causing damage to the properties, routinely every Saturday night, 4-wheel drive trucks would stop at the local Tom Thumb at the corner on Highway 98, fill up with gas and buy their refreshments. They would head one mile south to what is now the parking lot to what they called the "lock-in". They would lock their 4-wheel drive wheels and head out on what were many roads used over many years. Some roads were sandy, others were badly eroded and were carved out by vehicle traffic and were filled with water constantly. Some puddle-filled roads were filled with old dead trees and stumps, others had concrete blocks where people got stuck and tried to get their trucks out of the large puddles. (The State Park eventually named one road Big Muddy due to its length.)

Fortunately people realized that this property was important and worth saving. "Friends of the Prairie" was formed in 1996 by members mostly consisting of a recently disbanded grassroots group that saved Trout Point on NAS Pensacola from development in late 1995. The would-be developer of Trout Point tried to obtain (swap) land on NAS to build homes on the waterfront. After many letters and phone calls to congress, the developer was denied the land swap and was forced to build what is now Herons Forest on Gulf Beach Highway just west of NAS back gate.

With renewed energy and new members after saving Trout Pont, this new group focused on saving the White-Topped Pitcher plant and surrounding wetlands from development. Southwest Escambia County consisted of many wetlands. Much of the water that passes over these wetlands begins at Crescent Lake area and runs southwest to Tarkiln Bayou and Perdido Bay. This new group called itself "Friends of the Prairie" and worked to protect the "Perdido Pitcher Plant Prairie Preserve" as they originally named it. The 900 acres west of Bauer Road and South of the Blue Angel Park property was scheduled to have 1300 homes, a golf course and a marina on Tarkiln Bayou. In January of 1998, when the land purchase looked bleak, Friends of the Prairie and Joe Trapp brought a Lakota Medicine Man down from the Dakotas. The Medicine Man, Solomon, brought a young person with him who was studying to become a Medicine Man in his tribe. We actually held a ceremony on the West side of the site after arriving in a boat from Blue Angel Park. He conducted the ceremony by passing a pipe around to all of us sitting in a circle. Of course, my young children could not take a puff, so he instructed them to simply hold the pipe and pass it on. But "Friends" needed more help to preserve the land.....

It took many letters, news interviews, and publicity wherever they could find it to educate the public of the importance of wetlands and the diversity of the property. This is one of the few areas in the United States that the White-Topped Pitcher Plant exists. There are also three other species of pitcher plants, in addition to other insectivorous plants such as sundews, bladderworts and butterworts.

Friends of the Prairie met often and coordinated their efforts well. Each member of the group brought their own knowledge and talents to the group. One member worked for DEP, another member was a ranking member of Florida Federation of Garden Clubs. Also involved were community activists and an architect. Mickey Quigley worked for the Florida Park System (Big Lagoon and Perdido Key State Parks). Mickey had two children in Hellen Caro Elementary school,

which is located just south of the property. The second grade children at Hellen Caro were learning how to write letters! Mickey and her family drove their jeep around what is now the seven-mile loop out to Perdido Bay and Mickey took pictures of the pitcher plants, the wetlands, and the pine flatwoods. Mickey then took the pictures and information about how important wetlands are to our drainage systems and our waterways to each second grade class. The students wrote letters, gave them to Mickey and Friends of the Prairie who hand-carried them to Tallahassee to the CARL Commission (Conservation and Recreational Lands) meeting. At that meeting, Friends of the Prairie turned the letters over to the Commission after reading a few. It worked! The property was moved up the list to purchase the original 900 acres sooner than expected.

The original 900 acres on the west side of Bauer Road was purchased by Nature Conservancy and turned over to the Florida Park System in April 1998. Approximately a year or so after the purchase of the property, a fence was constructed and vehicles were prohibited from driving on the property.

Mickey had a connection through Boy Scouts with the CO of Marine Corps Aviation School, Lt. Col. Scott Lloyd, at NAS Pensacola. There were young Marines waiting for school to start and were not busy. Eighty-nine Marines volunteered to help with the first International Coastal Cleanup at Tarkiln Bayou in September 1998. In addition, a local 4-wheel drive club volunteered, a group on horseback and our own rangers and other volunteers. Since the property was used for many years as a dump, there was so much trash that in just one day, two 22 foot dumpsters were filled with tires, oil, gas cans, etc.

Today, Tarkiln Bayou State Preserve State Park, eventually renamed by Tallahassee, consists of nearly 4,000 acres which stretches from Perdido Bay to Blue Angel Parkway. For a small parking fee of \$3.00 per vehicle visitors can walk the sidewalk/boardwalk for just over a mile round trip. Native vegetation, wildflowers and carnivorous plants can be seen. There is a longer unimproved trail of 6 miles which is a loop that goes to Perdido Bay and back. Visitors can also park in the parking lot on the west side of Bauer Road, cross Bauer Road, and walk the 2-mile Wet Prairie Trail.

The Florida Park Service currently maintains the property and routinely conducts prescribed burning and exotic plant removal. Nature walks are conducted on January 1st and Mickey has been conducting a nature walk on December 25 for 14 years. For more information on Tarkiln Bayou Preserve State Park see FloridaStateParks.org or contact Big Lagoon State Park at 850-492-1595. Hikes are a great way for the family to get outdoors together and enjoy a few hours of nature which has been proven to actually have health benefits! Take the family to get out to enjoy nature and this great success story, a great addition to "The Real Florida."

Mitakye Oyasin - All Things are Connected

Editor's note: One of the reasons that this project may have succeeded was the support the Navy gave it. The Navy was definitely in favor of maintaining a zone around NAS Pensacola which was free from development.

A Case for Algal Toxicity

In 1995 when Champion International converted the mill in Cantonment Florida to bleaching with chlorine dioxide instead of elemental chlorine, I immediately noticed a decline in the algal production on glass plates I was raising in the bay for research. It was very noticeable. We still had lots of drift algae but the small one-celled periphyton on the glass plates would not grow. Chlorine dioxide is generated at the mill from sodium chlorate, so I decided to see if I could find a lab to measure these chemicals in Elevenmile Creek. This was before the mill went to dumping in wetlands. In November 1995, I took water samples from the Elevenmile Creek. Sure enough, chlorine dioxide and chlorate were both found at the headwaters of

Date & Place	Chlorine Dioxide	Chlorate
11/28/95 Upper 11 mile	0.4 mg/l	5100 ug/l
11/28/95 lower 11 mile	0.4 mg/l	1700 ug/l
11/30/95 upper 11 mile	0.4 mg/l	8700 ug/l
11/30/95 lower 11mile	0.4 mg/l	3500 ug/l

Elevenmile Creek and at the mouth (See Table). Chlorine dioxide did not diminish but chlorate did. I sent this data to Bill Evans, the wastewater permitting engineer at DEP. Next, we decided to do some

Samples collected August 1, 2022	Average maximum standing crop after 14 days
Control - no effluent	158.90 mg/l
Perdido Bay #1	74.33 mg/l
Perdido Bay #2	74.29 mg/l

algal toxicity studies in 11 Mile Creek at Champion’s outfall into the creek. In 1998, 2000 and 2001, Friends of Perdido Bay paid for static algal toxicity tests. The 1998 algal test showed that the Champion effluent was toxic to the algae. The results from those tests were sent to Bill Evans. Algal growth in Perdido Bay still appears to be suppressed. When the mill blew up in 2017, algae immediately appeared on seawalls. Shrimp, pin fish and other life forms which depend on algae appeared soon after. But today, Perdido Bay is again dead. So we decided to do more algal growth testing. Water samples were taken from Elevenmile Creek (Site #1) and west side of Upper Perdido Bay (Site #2) on August 1, 2022. The results are presented in the Table.

Water from Perdido Bay and Elevenmile definitely inhibited algal growth as compared to the control. These full studies can be found on our website. Effluent from the papermill appears to inhibit algal growth.

When nutrient limits were being set for Perdido Bay, a meeting was held to take public comment on the nutrient limits. At that meeting, I commented about the herbicidal qualities of chemicals in papermill effluent. The DEP responded in the October 2012 report. *“Chlorine dioxide is a broad spectrum bactericide, fungicide, virucide and algaecide that is effective at low concentrations and short contact times (USEPA, 1999)...In the environment, chlorine dioxide rapidly photolyzes when exposed to UV light and because of its high reactivity, it will breakdown rapidly in natural waters containing moderate amounts of organic matter.*

Due to its mode of action and short life in the environment, DEP found no literature to support the hypothesis that the use of chlorine dioxide by the pulp mill had a significant effect on the algae in the bay...” (Page 33).

Well, it looks like DEP is wrong again. These herbicidal chemicals don’t break down fast enough. Since we were able to measure both chlorine dioxide and chlorate (another potent herbicide) in Elevenmile Creek from beginning to end, chlorine dioxide didn’t disappear or break down very fast. Also the literature is full of studies which show chloride dioxide and chlorate’s harmful effects on certain types of algae and life. We have listed some of those papers on our website. It looks like our bay is just super disinfected. No wonder Commissioner Underhill drank the water!! It is time that our government stop trying to fool its citizens and started to do its job. Perdido Bay is no place for a huge papermill like the one in Cantonment Florida. Mobile Bay would be a much better place for this mill.

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 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.

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.

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