



### Bream Fishermen Association

1203 N 16th Avenue Pensacola, Florida 32503

A NONPROFIT ORGANIZATION CHARTERED IN THE STATE OF FLORIDA

# July / August 2013 Newsletter

# **Meeting Announcement!**

Next Bream Fishermen Association General Membership Meeting will be Wednesday, 7 August 2013. This is an Eatin' Meeting! Doors open at 5:30 PM. Dinner will be served at 6:00 PM. Dinner will consist of a fish fry, cole slaw and hushpuppies. Cost \$8.00/person. 1615 East LaRua Street, Pensacola.

Presentation – Please join us at the August 7<sup>th</sup> meeting as we welcome Dr. Jane Caffrey with UWF and learn about: *Evaluating Success of Restoration Projects - Seagrass Health & Restoration in Pensacola Bay.* 

Issues We are Keeping an Eye On: by Barbara Albrecht, BFA President

#### Aquifer Watch - A Citizen Groundwater Monitoring Program

In May 2013, we learned about Aquifer Water through our speaker Rick Copeland. Dr. Copeland is very interested in expanding his citizen monitoring program to include our area in NW FL and is seeking BFA members who may own a private well to monitor it monthly. Before enrollment into this program can occur, each well must be inspected to determine the accessibility to the well housing. This can be accomplished by a site visit and a photograph. Dr. Copeland is interested in two measurements. The first is depth to water to allow a better understanding of groundwater recharge in our geographic area within the state. The second measurement is to collect data on conductivity (which can occur as salt water intrusion occurs along our coastal areas). Please let us know if you would like to become an active participant in this monitoring program. Time wise it will only take 10 minutes at the most per month. Additional information can be obtained from rick.copeland@dep.state.fl.us.

#### Why is Groundwater a Concern?

For many residents living in East Hill, activities from the now defunct Agrico Chemical and Escambia Treating Company Sites are exposing themselves via a class action suit in which chemicals used during the chemical manufacturing processes have been detected in the groundwater, which has been delineated and occurs below parts of East Hill. The plume is slowly making its way towards Bayou Texar which is where and how it is hydrologically connected and apt to surface. Can a plume change direction? Sure. When water is pumped from the ground in major quantities, a cone of depression can occur – which can serve to "pull" the plume towards it.

The history of the facility began in 1891 with the opening of the Goulding Fertilizer Company. In 1911 the facility was sold to Former Agrico Chemical Company, also known as The American Agricultural Chemical Company (TAACC). The operations were then sold to Continental Oil Company in 1963 and the facility operated as a subsidiary to Continental Oil Company known as Agrico Chemical Company.





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Continental Oil Company is a legacy company to ConocoPhillips, Inc. The Williams Companies, Inc. (Williams) acquired Agrico Chemical Company from Continental Oil Company in 1972. Operations at the plant ceased in 1975 and Williams sold Agrico Chemical Company to Freeport-McMoran Resource Partners (FMRP) in 1987. In 1994 Conoco, Inc. and FMRP entered into a consent agreement with EPA to remediate the site. ConocoPhillips, and Williams acting on behalf of Agrico, managed remediation activities for the Agrico Site and continue to manage the monitoring, maintenance, and regulatory reporting for the site.

In 2001 the Water Management District issued a moratorium on drilling new wells in the area including irrigation wells within the area where impacts exist from the Agrico Site. In 2004 ConocoPhillips agreed to a \$70 million settlement with Pensacola residents whose property is potentially contaminated by a toxic plume that has spread from the old Agrico Chemical Co. fertilizer plant in central Pensacola to Bayou Texar (Settlement #1). Pensacola attorney Mike Papantonio, who filed two suits against Conoco Inc. and predecessor Agrico Chemical Co. in 2001, announced the out-of-court settlement. To read more about this lawsuit, visit: http://www.levinlaw.com/news/conoco-pay-70-million

Members of the public who live in the delineated areas outlined in the first settlement agreed, when they accepted the settlement, to inform future property buyers of the contamination below their homes. Individuals living south of Cross Street, east of Davis Hwy, and north of Brainerd Street are in the Thomas Sub-class (Settlement #2), where as individuals living south of Cross, west of Davis to north Palafox, south to Wright Street, east to 9<sup>th</sup> Ave, and east to Bayou Texar are in the Rabin Sub-class (Settlement #3) group.

What does this mean? Individuals living within the boundary of Settlement #1 were found to have chemical constituents related to Agrico Chemical and Escambia Treating Company Sites under their property which is why a sizeable amount was paid out. Individuals living within the boundary of Settlement #2 may one day (years from now) be able to detect chemical constituents from these activities under their property. Individuals living within the boundary of Settlement #3 may never detect any chemical constituents from these activities under their property, but the company is not willing to leave this door open - hence the class action lawsuit.

Here is what we know: Groundwater moves very slowly. Movement depends upon the annual rainfall, geologic composition of the region, and what type of withdrawals are occurring within the region. In NW FL, our groundwater is very close to the surface, even more so as you get closer to water bodies. We receive 65" of rain on average each year and we have highly erodible sandy soils. No rocks occur along the coast. Groundwater may travel inches per year, but when it surfaces and co-mingles with surface water (in a creek or stream) it has the potential to travel miles in a day.

A large industrial facility may pull millions of gallons of groundwater per day for their needs. When this occurs the potential for groundwater to replace what has been removed is accelerated and plumes may shift and change direction. As our technology advances, so too will the ability to detect these legacy chemicals in different media, be it surface water, groundwater, or the atmosphere.





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#### Conservation and Water Quality - by Skeet Lores, retired Environmental Chemist & Fisheries Biologist

Most people know that the productivity of our marine and estuarine systems can depend on the water quality. We can't have the shrimp, crabs, oysters and fish we enjoy if they don't have water that meets the quality that they need to survive. But most people do not realize that the water quality depends on the shrimp, crabs, oysters, fish and many other consumers that live in our bays. Algae are at the base of the food web in our coastal waters and without the primary productivity of the algae in our coastal waters we would not have most of the seafood we all love. However, when we have too much algae in the water, it causes eutrophication.

Eutrophication is the primary water quality problem that affects many of our bays or estuaries and even our coastal waters. It causes problems such as the lack of oxygen or hypoxia and loss of seagrass beds due to decrease in light penetration in the water. Eutrophication is usually thought of as being caused by excess nutrients, but the scientific definition of eutrophication is an increase or excess of organic matter in the system. This increase in organic matter in the system can be caused by a decrease in the consumers like shrimp, fish and oysters.

All of the organisms in our estuaries have a function. They are all part of the conveyor belt that transfers the primary production up the food chain to us. Primary production is all of the plant production produced in the system, the growth of all the algae, marsh grass and seagrasses. This plant growth is the base of the food web that fuels the production of all the organisms we want out of our estuaries and coastal waters. When we produce more than can be consumed it causes problems, and these problems can be major problems such as the lack of oxygen. As we all know, crabs shrimp and fish can't live without oxygen—oysters can, but only for a short time. As long as we have a balance between production and consumption the more primary production we have the more seafood we can produce in the system --up to the point where it exceeds the oxygen supply to the system.

Eutrophication can be caused by an increase in nutrients supplied to the system, but it can also be caused by a loss of consumers in the system. Oysters are valuable consumers in the system; each full size oyster can filter over a gallon of water an hour. However, all of the consumers are important, some for the amount they consume, some for the kind or size of algae they consume. One of my favorites is the copepod, a tiny little crustacean that most people are not even aware of—maybe it is just because I did my dissertation research with them---but I think they are really fascinating consumers, able to eat over 90,000 algal cells a day. They are tiny consumers about the size of a grain of sand, but when the water gets warm, they can go from egg to egg-laying adult in just 4 days and produce thousands of eggs a day. With that kind of reproduction, when they are not consumed, they can quickly eat all the good algae in the system.

Copepods are also important food for juvenile fish. But it is also important that the juvenile fish are there to consume the copepods, both as a major link in the conveyor belt transferring that production up to us, but that it is also a form of population control on the copepods. Without population control, like I said earlier, the copepods can easily consume all of the good algae in the system, leaving algae that are harmful (like red tides) or too small for most consumers (like cyanobacteria). For example, the result of a monthly survey of Escambia Bay in my last few years of work showed that Escambia Bay is dominated by pico-cyanobacteria in the summer—representing 80 to 95 % of the chlorophyll in the water. These tiny algal cells are only about 1 micron in diameter and they are too small for even copepods to eat. The result is the bay has very low productivity that is useful to us, but still produces enough algae to cause hypoxia in parts of the bay during the summer neap tides.





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Fish like menhaden, which are considered trash fish by some, are important too, even though we don't eat them. They swim around in large schools with their mouths wide-open, filtering algae out of the water. Forage fish like menhaden and others are also important for their function of transferring the algal production to the adult fish we like to catch and eat, fish like redfish, speckle trout and king mackerel. The life cycle of shrimp and many of our estuarine fish involves growing up in our estuaries because that is where the food is, but many of them migrate out of the estuary in the fall to spawn in the Gulf during the winter. Water quality problems usually occur in the summer because that is when the productivity is the highest and oxygen solubility in water is lowest.

So conservation is important to water quality. Our bays and estuaries can be more productive and our water quality improved if we restore populations of consumers to their historical levels. If we postpone our harvest of things like shrimp and oysters thru the summer, they will only get bigger and more valuable for harvest in the fall. That allows them to serve their ecological function as consumers as well as the fish that would be lost as bycatch (which also adds to oxygen demand in the critical summer period). Most of these fish leave the estuary in the fall to spawn in the Gulf. When we take these consumers out of the system before they have had a chance to perform their critical ecological functions, we harm the system. I know everybody has heard the old phrase "a chain is only as strong as its weakest link" —that applies to our estuarine food chain as well.

### Can Air Quality Affect Water Quality? by Barbara Albrecht, BFA President

You bet it can and does. Let's look to China and get an idea of what that country is facing. With more than 13 million cars sold in China last year, motor vehicles and their emissions have emerged as the chief culprit for the air pollution in their large cities. The number of vehicles in Beijing has increased to 5.18 million from 3.13 million in early 2008. We have all heard in the news here lately the air quality problems that they have been facing. One way China is combating this since Jan 2013 is by having prospective buyers enter a monthly draw to win a license plate. Each month 20,000 lucky winners are chosen. The number of people in the draw had reached almost 1.53 million by last month.

Atmospheric depositions occur with each rain event and let us not forget stormwater runoff, a very bad actor in our NW FL water bodies. Much like our region and community, vehicle emissions are compounded by a lack of effective public transportation, low emission standards and the slow development of energy-saving and clean automobile technologies.

Interested in learning more about the types and sizes of industry and potential air quality concerns in your region? Visit http://www.npr.org/news/graphics/2011/10/toxic-air/#12.00/30.5866/-87.0208

During the May 2013 BFA Meeting, Ms. Samantha Sexton, Pew Charitable Trust, provided an overview about the importance of protecting our fisheries along inshore and offshore waters.

Now, Pew is working to collect local stories of fishermen and woman fishing with their fathers and/or mothers. They are looking for short, one to two paragraph stories, to send to our congressmen, senators and local papers. If you would like to participate, Samantha would love to hear your story! Also, if you have a photo of you and your parent(s) fishing that would be an added bonus. Please contact Samantha via email at <a href="mailto:ssexton@ufl.edu">ssexton@ufl.edu</a>, or if you do not have email please contact us at the BFA so we may forward the information





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#### From our Members: compiled by Barbara Albrecht, BFA President

John Chason has been keeping up with the new boat launch on the <u>Perdido River</u>. Make sure to look at the series of pictures posted on the BFA Bulletin Board during your next visit to the Bldg. Also from the desk of John Chason — alcohol use is the leading contributing factor in fatal boating accidents. Some states are lowering the blood-alcohol limit for boaters from 0.10 to 0.08, which is the same threshold for automobile drivers.

Aquifer levels in Ft. Walton Beach have declined more than 100' since 1980 (NWFWMD). Waters throughout the state are being depleted and impaired. Flows at <u>Silver Springs</u> are already reduced to a third of historic measurements. Why is this happening? State water managers have failed to set minimum flows and levels for the spring, something that the state legislature instructed them to do 40 years ago in 1972. People should be worried.

Low water levels in late 2012 caused a 200 mile stretch of the <u>Mississippi River</u> to shut down to barge traffic, thus stifling and paralyzing commerce on one of the most vital inland waterways in the US. How does that translate to you and me? This closure caused many consumer products that we take for granted to cost us more.

Many of our beloved and beautiful waterways in Florida are currently under threat. Close to the state capital, a lake has broken out with toxic algae that causes skin rashes and liver damage in humans and kills wildlife. The fact is, hundreds of manatees, dolphins, birds, and fish have been washing up dead on both the east and west coasts. Those waters are fouled by sewage, manure, fertilizer, and sewage — pollution that fuels algae outbreaks.

In Southeast Florida's <u>Indian River Lagoon</u>, algae outbreaks are causing what *Discovery News* calls a "mass murder mystery" — a dead manatee floats up about every two weeks. The tally there since last summer is over 111 manatees, along with more than 46 dead dolphins and 300 pelicans. In Orlando, the spring-fed <u>Wekiva River</u> is covered by slimy algae and residents are warned to stay away from <u>Lake Harris</u> and <u>Little Lake Harris</u> which have turned murky brown from another algae outbreak.

There's a persistent algae outbreak off the popular tourist mecca of <u>Sanibel Island</u> causing a water treatment plant on Southwest Florida's <u>Caloosahatchee River</u> that's supposed to serve 30,000 people to shut down because the algae makes the water unusable — even dangerous — for drinking. In Jacksonville, residents are seeing signs that the "Green Monster" massive algae outbreak is coming back on the <u>St. Johns River</u>. The Green Monster covered almost 100 miles of the <u>St. Johns</u> with slime in 2005 and 2009 causing public health warnings, fish kills, and turning water pea-soup green.

Interested in learning about your favorite river(s) and minimum flow status or where it falls on the priority list, please visit: <a href="http://www.nwfwmd.state.fl.us/rmd/mfl/mfl.htm">http://www.nwfwmd.state.fl.us/rmd/mfl/mfl.htm</a>

### Want to know what the BFA has been up to and what we are doing to protect our backyard.

Please attend our general membership meeting and receive an update on our activities. BFA Meeting will be Wednesday, 7 August 2013. Doors open at 5:30 PM and dinner will be served at 6:00 PM. Cost is \$8.00/person.



A very Special Thank You to our Sponsor, Society of Environmental Toxicology and Chemistry (SETAC) for our printing needs!







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**The Bream Fishermen Association** is a not-for-profit organization dedicated to the promotion of the conservation responsibilities as well as the recreational enjoyment of fishermen, hunters, campers and related outdoorsmen.

It is the objective of the BFA to support, develop, and implement programs that will:

- 1) Improve the quality of our environment;
- 2) Protect and maintain our present wilderness type lakes, rivers, swamps, marshes, bays, forests, and beaches in their natural undeveloped state; and
- 3) Advance the causes of plant, marine, and wildlife preservation.

Membership is open to all individuals who support these objectives. Please join the BFA by sending us your contact information (name, mailing address, phone, and email) be sure to notify us if you prefer to receive notices and announcements by mail or email, and \$10 annual dues to our mailing address: 1203 North 16<sup>th</sup> Ave, Pensacola, FL 32503

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