CHOCTAWHATCHEE RIVER NEWS

The Newsletter of the Choctawhatchee **RIVERKEEPER®**
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Choctawhatchee River Ecosystem Threats and Opportunities

Some threats to the Choctawhatchee River and its ecosystem are obvious or should be obvious. Anyone and everyone who sees very much of the river readily sees that the sediment loading in the river is excessive. Anyone who is observant and sees very many tributaries in the system sees signs of excessive nutrient loading. Persons canoeing on the Little Choctawhatchee or using the river to wade or swim where it crosses Old Power Dam Road sometimes smell a strong sewage and chlorine odor more than eight miles downstream of Dothan's Little Choctawhatchee wastewater treatment plant (WWTP). Some fishermen have reported a sewage odor further downstream at the mouth of the river. The proposed Little Choctawhatchee River reservoir is a threat as it would be analogous to amputation of a human's arm or leg. Persons who are observant see changing weather patterns that increasingly look like the emergence of changes widely predicted as a result of global climate change.

The Choctawhatchee River remains, despite past and present man-made insults, one of the most ecologically diverse coastal plain rivers. However, there are biological signs that the river and its tributaries are in trouble and that the ecological system is still in decline. The most prominent sign of continuing impact of human activities on the system is the decline in mussel species. Recent mussel surveys have found that all species are in decline with smaller numbers of at risk species being found at all or virtually all survey sites. Another sign of concern is an increase in the number of areas with algal blooms due to excessive nutrient loading.

However, not all signs are negative. Recent sturgeon surveys have found an increase in the number of younger fish (4 years old and under) that may indicate that restoration efforts are beginning to pay dividends. The number of smaller sturgeon found and tagged in 2007 was so large that statistical methods normally used to estimate the population could not be utilized.

This volume of the Choctawhatchee River News examines some major threats facing the Choctawhatchee River ecosystem and opportunities that exist or might be brought to bear to proactively address these threats.

The threats that will be examined include:

- Excessive sediment loading
- Excessive nutrient loading
- Unsustainable water resource utilization
- Proposed reservoirs
- Global climate change

Opportunities to successfully address these concerns and problems will be addressed from a variety of perspectives including 1) choices that individuals can make, 2) actions that communities can take, 3) state policies that might be useful, and 4) national policies and programs that may play a role in addressing these concerns.

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Inside this issue.....

President's Message
Chad Brown

I would like to welcome and thank all of our current members as well as our new ones. We have big plans for the upcoming year, and I encourage everyone to be not only a member, but an active member. There is a lot of work to be done as we continue or mission of preservation and promotion. The Choctawhatchee River is one of our most valuable natural resources. Growing up, I recall countless summer days spent on the river; many memories were made. Through our efforts, the river will be a clean, safe place for generations to come. Great fun and adventure awaits you. It's not some far away exotic location; it's just down a county road in our local communities it's- the Choctawhatchee River. I think my lifelong friend Michael Newman said it best, "I rather go off a rope swing on the river than to Disney World."

Michael Newman on the Rope Swing

Riverkeeper's Update
Michael William Mullen

First, Choctawhatchee Riverkeeper, Inc. has just received word that its application was accepted and that it is now recognized by the IRS as a 501c3 charitable nonprofit organization. That is a major development - a step that was long overdue.

Now it is time for the real development work to get underway. Existing CRK river protection and restoration efforts will of course continue. But now there will be an increased effort on needed development activities. These include 1) membership recruitment and development, 2) fundraising including identification of and communication with potential donors through a major donor campaign, 3) community education and outreach including activities both on and off the river for potential members and citizens of the river basin and 4) opening of a CRK office (or offices) and other efforts to clearly establish CRK as the premier river advocacy group for the Choctawhatchee River and its tributaries.

As your CRK I will continue to patrol the river and its tributaries and to be an advocate for both the river and YOU - the inhabitants and users of the river - with the governmental units responsible for protecting water quality and the Choctawhatchee River ecosystem. Additionally, I will soon provide the CRK Board with a detailed work plan, a proposed budget and a draft fundraising plan for their consideration and approval. Paid members of record will receive this information via e-mail. Members are encouraged to send comments or suggestions to either myself or to a member of the CRK Board.

The times ahead likely will present many challenges as our national and perhaps the world economy may be going into a deep recession or even a depression. On the bright side every crisis offers opportunity if we only seek to find it. More people may look to their nearby local streams and rivers for recreational opportunity. Federal funding of the ill-conceived and environmentally disastrous Little Choctawhatchee dam may be even more unlikely to be approved. But even more critically, some folks may begin to think a little more about what is really important. What kind of world will this generations children and grandchildren inherit? Society cannot and must not turn away from solving complex, interacting problems such as energy, water and climate change.

We all can make a difference through our individual actions including supporting groups like CRK!

Meet Two River Heroes - CRK Board Members Joe Paul Jr. and Meg Nelson

I first met Joe Paul, Jr. about 12 years ago. The occasion was an Alabama Water Watch basic water chemistry monitoring workshop at Landmark Park in Dothan. At the beginning of the workshop I asked participants to tell the group why they had given up a beautiful Saturday to attend a workshop and learn to test water quality. Joe Paul told how his grandfather had told him about how the river once was - clear with blue colored waters. As he told the story he was filled with emotions and has tears in his eyes. I had to stop a moment before continuing as he caused me to get emotional and choke up myself.

Joe Paul clearly loves the river as do CRK members and the CRK Board. Recently, in response to the proposal to destroy the Little Choctawhatchee River with an unnecessary and ill-advised dam Joe Paul has become a CRK river hero! Joe Paul approached the Geneva City government about the crisis and was asked to chair a study committee that would report back to the council. The Choctawhatchee Riverkeeper was invited to the study committee member by Joe Paul. As a result of the work of the study committee report the Geneva City Council passed a resolution opposing the proposed reservoir. This was the first victory for the Little Choctawhatchee River and CRK and others opposed to the dam.

Joe Paul has attended meetings of the board of the group that has been the primary proponent of the proposed reservoir. On occasions when the CRK has been unable to attend meetings Joe has reported activities to the CRK.

Joe is an attorney with offices in Geneva, Alabama. He is one of your CRK, Inc. Board members. Joe Paul IS A RIVER HERO!

Thank you Joe!

Your Choctawhatchee Riverkeeper,

Michael William Mullen

Meg Nelson has been active as a supporter and founder of conservation organizations for years. She works as an environmental and environmental education consultant. She is a vital member of your CRK, Inc. Board. She will be contributing valuable experience and knowledge to the CRK and other Board members. Already she has been a steadying force and pillar of strength and encouragement for the CRK.

I first met Meg several years ago at a meeting, an assembly of conservation organizations in South Walton County. She and her husband own a home at a fish camp on the river.

Meg, like Joe Paul, Jr. assisted CRK, Inc. in its opposition to the proposed Little Choctawhatchee River dam. She made sure that her county commissioners were aware of the reservoir proposal and its implications for downstream portions of the Choctawhatchee River and its citizens.

Meg is another of your CRK Board members. Meg Nelson IS A RIVER HERO!

Thank you Meg!

Your Choctawhatchee Riverkeeper,

Michael William Mullen

Status of Proposed Reservoir

The proponents have selected a contractor to prepare the USACE permit application. It is expected that an agreement will be completed soon for the 12 months of water quality monitoring required for water quality certification.

CRK, Inc. was concerned that funding for the proposed reservoir would be attached to the financial rescue bill. The CRK has researched the act and found that it does not include funding for the proposed reservoir.

Some Recent CRK Patrols and Successes

Alabama Department of Transportation (ALDOT) -

The CRK recently detected and reported a fish blockage problem created some time ago during an ALDOT bridge replacement project on Hwy 130 at the Pea River. The problem was reported to Brian Lassiter, ALDOT 7th Division Stormwater Coordinator on October 2nd. On October 8th the CRK was informed and subsequently confirmed that the riprap barrier had been removed by an ALDOT maintenance crew. This is the second time that CRK has detected a fish passage barrier that has been created by an ALDOT project on a Pea River crossing. These problems have occurred because ALDOT folks did not pay enough attention to their own environmental standards. CRK's reporting of these problems has brought it to ALDOT's attention that it needs to make sure that it follows its own rules that are generally fairly strong!

NRCS - Dale County Office -

The CRK has reported problems with livestock in streams and riparian areas to the Dale County NRCS. Problem areas reported recently include 1) significant length of stream on the Little Choctawhatchee between Hwy 123 and Old Power Dam Road where livestock have denuded streambanks and riparian areas and 2) a site on the mainstem of the Choctawhatchee River. A recent excursion on the Little Choctawhatchee did not detect any cattle in the water or the streamside areas - nor was any new fencing seen so apparently the cattle may just have been moved to another pasture.

Livestock Access Area on Little Choctawhatchee River

Recently Identified Cattle Access Area on Choctawhatchee River Upstream of Newton

Oak Park Subdivision, Troy, Alabama -

Initially erosion and sediment control efforts at this development were done fairly well. At this time CRK is uncertain whether there has been offsite transport of sediment or not. However, as indicated in the images large parts of the site have been bare with no active construction far longer than 14 days. Areas with no active construction for more than 14 days are supposed to be stabilized with vegetative cover (temporary or permanent grass), mulch or a barrier such as plastic. Additionally, the storm drain system inlet protection devices have failed due to lack of maintenance. Finally, there has never been a permit registration form displayed in a way that it is clearly visible at the project entrance. The engineering firm's erosion and sediment control person, a former student of the CRK, was informed that if problems are not corrected by a date certain that a citizen complaint will be filed with ADEM. That complaint has now been filed. A few days later inlet protection devices had been replaced but the site still had no vegetative cover or mulch.

Oak Park: Bare Ground, Failing BMPs and Improper Posting of Signage

Threats to the Choctawhatchee: Excessive Sediment Loading

Erin Bush, Artist and CRK Friend in Sediment Plume

The Data

A report to be released soon by the Geological Survey of Alabama (GSA) will document sediment loading in the main stem Choctawhatchee River system. The report will include data for the East and West Forks of the Choctawhatchee, the upper Pea River, the Pea River and the Choctawhatchee River. Preliminary data presented at the September meeting of the Choctawhatchee-Pea and Yellow Rivers Watershed Management Authority (CPYRWMA) estimated a sediment loading of well over 100,000 tons per year. This estimate was based upon total suspended solids data and a relationship between TSS and bed load that has been observed in the past in GSA data. In any case this sediment load is very high.

The Impacts

Ecological Impacts -

In the riverine part of the system excessive sediment load and related high turbidities have a number of impacts. Excessive sedimentation has changed the nature of the river reducing the number of deeper pools that are utilized for fish habitat. These pools provide areas for fish to rest and are important summer habitat for the gulf sturgeon. Excessive sediment also can cover spawning beds disrupting or reducing fish reproduction. Excessive sedimentation also impacts freshwater mussel habitat.

Excessive turbidity (water cloudiness) impacts the feeding success of fish, increases damage to fish gills and causes stress that makes fish more susceptible to disease. Studies in Georgia have shown that turbidity levels as low as 25 to 30 NTU that persists for any length of time removes sensitive species including darters and stonerollers from streams.

Economic Impacts -

Excessive sediment in the river can increase flooding. Although water is not withdrawn from the river for drinking water, excessive sediment loading can increase the cost of water treatment if surface water is used in the future for drinking water.

The Sources

Major sources of sediment include forestry operations with inadequate riparian (streamside) buffers, row crop agriculture with inadequate drainage and riparian buffers, active gullies, unpaved roads and associated ditches and gullies and construction projects with inadequate erosion and sediment control measures.

The Remedies

Better riparian management will probably require legislative action. The present combination of voluntary BMPs and education simply is not working!

Multiple measures are needed. A mechanism needs to be found to fund public acquisition and or other means of critical riparian area protection. This might include a title transfer fee similar to what has been used for this purpose in Florida. Protection might be through outright purchase or purchase of development rights.

Major sources of sediment such as active gullies and unpaved roads need to be identified and prioritized for treatment to reduce erosion and sediment transport in order to maximize the effectiveness of efforts to treat these problem areas. The USFWS is working with other agencies to obtain this data and begin work to correct these problems. To make this happen and make the kind of difference that is required more resources are needed to address these problems. In Florida a local 1 cent gasoline tax has been used in one or more counties to raise funds to pave roads and stabilize roadside ditches from hilltop to hilltop where unpaved roads cross streams.

Regulations exist for control of excessive erosion and transport of sediment from construction sites. At this time the Alabama Department of Environmental Management (ADEM) is unable or unwilling to use

Excessive Sed. Loading - Concluded on Page 7

Threats to the Choctawhatchee: Excessive Nutrient Loading

Algal Growth in Whitewater Creek

The Data

Preliminary results from a GSA survey of water quality at six mainstem river sites reported at the CPYRWMA September meeting indicated a high nutrient loading in the river. The presence of high levels of phosphorus in the Choctawhatchee River and its tributaries was also found by a Troy University graduate student and reported in 2007.

The Impacts

Ecological Impacts -

Excessive nutrient loading can cause excessive growth of algae and aquatic plants and lower dissolved oxygen levels. High phosphorus levels can change the composition of the algal community leading to blooms of toxic algae. The effects of excessive nutrients are probably greatest when nutrients reach Choctawhatchee Bay. CRK does not know of any outbreaks of toxic algae or toxic algae-related fish kills in the Choctawhatchee basin. However, continued and increasing nutrient levels may lead to toxic algal blooms and fish kills in the future.

Economic Impacts -

Excessive nutrient loading can damage commercial fisheries and recreational fishing. Should water be withdrawn from the river for drinking water in the future, presence of algae could produce a need for additional treatment. This treatment would be needed to address both taste and odor issues as well as remove suspected carcinogens produced by chlorination of water containing organic material.

The Sources

Nutrients come from two types of sources, point sources and nonpoint sources or runoff pollution. Point sources include municipal wastewater treatment plants and poultry processing plants. Runoff sources include agricultural runoff (rowcrop and livestock operations) and urban stormwater runoff.

Point Sources -
Research conducted recently by a Troy University graduate student indicated that some of the highest phosphorus levels in the watershed were found downstream of poultry processing plant and municipal wastewater treatment plant discharges. A recent CRK patrol found strong sewage and chlorine odor in the Little Choctawhatchee River almost nine miles downstream of Dothan's Little Choctawhatchee River WWTP discharge. Dothan's Beaver Creek WWTP has had levels of nutrients exceeding its permit limits for years and is going to be closed.

There is also evidence that the City of Hartford's wastewater treatment lagoon is leaking and contributing to water quality impairment in Dowling Branch.

What this indicates is that ADEM has been very lenient in writing and enforcing discharge permits for WWTPs.

Runoff Pollution -
Nutrient runoff pollution comes from several sources. The general lack of riparian buffers increases nutrient pollution from agriculture. In too many cases cattle have unlimited access to streams or are found in streams. This contributes not only to nutrient loading but also to bacteriological and sediment pollution. In urban areas stormwater runoff contributes a significant amount of nutrients as well as many other pollutants.

The Remedies

Stricter permits and stricter enforcement of permits is needed to reduce nutrient loading from municipal wastewater treatment plants and poultry processing plants. Additionally, treated wastewater and the

Excessive Nutrient Loading - Concluded on Page 7

Excessive Sediment Loading - Concluded from pg. 5

the authority that it possesses to control this sediment source. An upper level official in ADEM has recently told the Hurricane Creekkeeper that the Department is not responsible for enforcing environmental laws and is responsible only for regulating pollution.

Local governments, if they choose to do so, also can establish regulations and programs for controlling erosion and transport of sediments offsite and into streams.

CRK Actions

CRK will identify and report problem areas during its patrols of the river and its watershed by automobile, boat and plane. When ADEM does not act CRK will carefully weigh whether to use provisions of the Clean Water Act to file suit. CRK will also work with the ADEM Reform Coalition and others to correct serious problems at the Department. It deeply troubles CRK to continue to hear allegations of political corruption and lawbreaking at ADEM.

CRK will train interested members and others to recognize and report construction sites that appear to be out of compliance with construction stormwater rules.

What Can Citizens Do?

Citizens can report erosion and offsite sediment transport from construction sites to ADEM. Or, they can report problems to CRK. They can attend training classes that will be conducted soon for CRK members and interested citizens. Citizens can also report problems to their local governments and urge them to act under existing ordinances or to create ordinances to control erosion and sediment transport from construction sites.

Breaking News

A ruling made by the 9th Circuit Court of Appeals should result in development of numerical permit limitations for stormwater construction permits. The ruling was made on appeal of a case previously filed and won by the Waterkeeper Alliance and others. EPA is under an order of the court to set numerical very quickly. The matter is technically complete and probably will result in an interim or temporary standard that will be modified later.

Excessive Nutrient Loading - Concluded from pg. 6

nutrients that it contains should be viewed as a resource and whenever possible be reclaimed for use in irrigation of golf courses and residential lawns. Both of these remedies will require changes at ADEM. The Department will have to quit bending over backward in order to keep wastewater treatment cheap at the expense of water quality and aquatic ecosystem health. Furthermore, it is CRK's understanding that the Department will have to develop policies, rules and regulations in order for reclamation of wastewater to occur in Alabama.

Better control of urban stormwater pollution will require that ADEM and/or local governments put some teeth into stormwater rules and assure that rules are followed with effective compliance enforcement programs that are not in place today!

CRK Actions

CRK will continue to work with others as well as on its own for ADEM reform. CRK will also work to get municipal stormwater permit holders to create and implement robust, effective stormwater management programs. It will do this by doing permit reviews and commenting on permits and by working for reform at ADEM.

CRK will also work at the local level to educate citizens and local organizations about actions that individual homeowners, neighborhood associations and communities can do to manage stormwater pollutants and stormwater volume in a sustainable manner.

In the future CRK will examine priorities and resources and decide whether to begin monitoring for nutrient levels in waters immediately upstream and downstream of permitted discharges.

What Can Citizens Do?

Citizens can avoid using excessive fertilizer on their lawns and they can utilize laundry and dishwashing detergents that contain little or no phosphorus. Citizens who farm or own livestock can utilize riparian buffer zones to reduce nutrient transport to streams and they can minimize livestock access to streams. Testing soils to determine nutrient needs is an economic necessity for farmers. Homeowners should periodically test soils before adding nutrients in order to prevent excessive nutrients from entering both surface and groundwater.

Water, Energy and Climate Change

There is a lot of talk these days about global climate change and reducing greenhouse gas emissions. During the run up to the presidential election there has been and continues to be much debate about energy and energy independence. Some are chanting "drill here, drill now" while others are saying not so fast, yes we need to drill but new domestic oil is not a substitute for alternatives including renewable sources of energy. The reality is that we use 25 percent of the world's oil production but have only 3 percent of the world's oil reserves.

If this situation were not complicated enough all energy alternatives require some water albeit some require much more water than others. A just published special edition of **Scientific American** titled "Earth 3.0" has some very good articles including one on energy and water. The article indicates just how difficult it will be to move from oil to other energy sources. The limiting factor in many instances may be water resources. The article concludes that "Any switch from gasoline to electric vehicles or biofuels is a strategic to switch our dependence from foreign oil to domestic water."

The switch to alternative vehicles will use more water. Assuming that ethanol comes from irrigated corn, electricity for hybrids comes from local power plants, and hydrogen for fuel cells comes from electricity from the standard grid.

Vehicle Type	Water Depleted to Travel 100 Miles
Ethanol	130-6,200 gallons
Hydrogen fuel-cell	42 gallons
Plug-in hybrid electric	24 gallons
Gasoline	7-14 gallons

Water Source	Energy Required to Deliver 1 Million Gallons
Lake or river	1,400 kwh
Groundwater	1,800 kwh
Wastewater	2,350-3,300 kwh
Seawater	9.780-16,500 kwh

As we seek to obtain more water to meet the need associated with alternative vehicles and energy sources we will increase the demand for energy! Producing the energy needs for plug-in hybrids and for delivery of more water from conventional sources will itself require more use of water.

Is the situation hopeless? Absolutely not. But solving our energy, water and climate change corundum will be difficult and will require a change in how we think about resources and resource utilization. The simple fact is that we can no longer produce our way out of this situation. "Drill here, drill now" is at best a temporary transitional strategy and we must choose our mix of energy sources and where we locate their production very carefully. Moving forward in a sustainable manner will require us to manage water quantity on a regional and national level and not just at the local level. At this time we have no agency responsible for water management. The U.S. EPA is responsible for managing water quality and the USGS is responsible for collecting data and monitoring supply but there is no federal agency charged with ensuring efficient use of water.

Energy Source	Water Needed to Generate 1 megawatt-hour of Electricity
Gas/steam	7,400 - 20,000 gallons
Coal and oil	21,000 - 50,000 gallons
Nuclear	25,000 - 60,000 gallons

To make the transition to alternative energy sources and vehicles we must make choices about what energy sources to exploit and where to exploit them so as to be most efficient with water while minimizing global greenhouse gas emissions. To make the transition policies must be developed that require agencies to work together to coordinate water resource policy, energy policy and efforts to reduce the magnitude and impacts of global climate change.

A number of actions can be taken by the nation, its utilities and by individuals to make a difference. Solar and wind energy have the least impact upon water resources and should be utilized to the maximum extent possible. Solar water heating for residences can reduce the need for electrical generation. Many technologies are already available to increase the efficiency of lighting and many appliances. Conservation can reduce the amount of energy that must be generated. Technologies like drip irrigation can reduce the demand for and thus the energy needed to deliver water for agriculture and urban landscapes.

However, in the end it will require new attitudes about mass transit, what crops we grow, where we grow them, how we make, use and dispose of our wastes, even what we eat and how we design our cities. Some things that we do today or the way we do them are simply not sustainable!

Unsustainable Water Resource Utilization Must End !

Current water resource utilization patterns and trends in SE Alabama are not sustainable. Humans in SE Alabama are using water at an unsustainable rate. The problem is not too little water but rather excessive and inefficient water use. The proposal for a reservoir on the Little Choctawhatchee River is a symptom of the pattern of water use that has arisen in SE Alabama. We simply use too much water in our urban landscapes and allow too much water that could be infiltrated into the ground to runoff to the sea.

The citizens of the Choctawhatchee basin have a choice. We can continue to use water resources in the same way that we have always done - inefficiently and wastefully - and resort to damming streams and rivers severely altering and damaging the natural ecosystem. Or, we can examine alternatives that will provide more than adequate water supply while preserving the natural river system. We can choose to do this by using water more efficiently, conserving water and by reclaiming treated wastewater for reuse. Small scale capture and storage of water from rooftops and other impervious surfaces can provide residents and neighborhoods with water for irrigation. Treated wastewater distribution systems can be created to allow reclamation of water for irrigation.

Future water needs can be obtained by careful and sustainable use of currently unexploited groundwater aquifers. Information presented at the September CPYRWMA board meeting indicates that a band of water producing sands that include two aquifer units extent from southwest of Enterprise to north of Dothan and are thicker than previously believed. Daleville has completed a new successful well into one or both of these formations. If these and currently exploited groundwater are inadequate water can be stored in off-channel reservoirs similar to the reservoir created in Dalton, Georgia eliminating the need to dam and kill a river.

CRK Actions

CRK has made defeating the proposed Little Choctawhatchee River a priority. It will also in the near future seek partnerships for delivery of small-scale water conservation and water collection and storage education to citizens of the watershed.

CRK Plan for Sustainable Water Resource Management

Strategies are available to address water supply management from the demand side. There are many actions that can and should be taken to reduce the excessive demand for water.

First, all water systems should be required to price water at the full cost of delivery. Many municipal water and sewer systems use revenues from municipal electricity systems to subsidize water rates including the cost of electricity used to pump water and a reserve for maintenance and replacement of water system infrastructure.

Second, water utilities should use block pricing where the price goes up and not down as water use increases.

Third, the practice of providing second water meters for lawn irrigation should be ended.

Fourth, municipalities should encourage, promote and provide education and technical assistance for commercial and indoor and outdoor residential water conservation and rainwater harvesting.

Fifth, municipalities should pass and enforce land-scaping and lawn irrigation ordinances that reduce water waste and water use.

Sixth, municipalities and counties that are storm-water permit holders should give businesses and developers stormwater detention credit for installation of cisterns. This not only catches water for irrigation but also reduces post-development peak flows.

Seventh, municipalities should install infrastructure for reclaiming and reusing treated wastewater.

Together these measures have been employed else-where to reduce water demand 50 percent or more and should be able to reduce water demand in a similar manner in urban areas in SE Alabama.

These actions can and will reduce demand for water to the point that available groundwater resources can supply needed water for decades into the future.

When surface water and surface water storage is needed it should be provided by off-stream reservoirs and not by destroying streams and rivers by damming them.

Progress Ongoing Toward CRK Office Space

Work on the Red Root Farm Store has progressed significantly over the past couple of months. Work on the exterior of the store is over 90 percent complete and work inside is nearing completing except for installation of new flooring material. The store may open before the new floor, probably a rock floor, is installed. In that case the floor will be installed later. Work on the office area inside the store is just underway as the existing ceiling was removed the second week of October. Tentatively the office ceiling will be done in pecan salvaged from trees taken down by a tropical storm. As soon as possible after the store proper opens, CRK will locate an office in the store and will move that office to the office space as soon as remodeling of that space is completed. At some point in the future the store owner, Gail Weil, plans to install some solar features into the store's energy systems.

When the store opens Red Root Farm and CRK will have a grand opening. As work moves forward on the remaining store and office remodeling, CRK members likely will be invited to a workday and or a fundraiser to assist with office remodeling and furnishing expenses.

Office Needs

CRK has file cabinets and some basic furnishings but a number of items will be needed once the office opens. A more complete list will be available later but some needed items include:

- A useable desk
- Bookcases
- Basic office supplies
- A functional laser printer or all-in-one printer

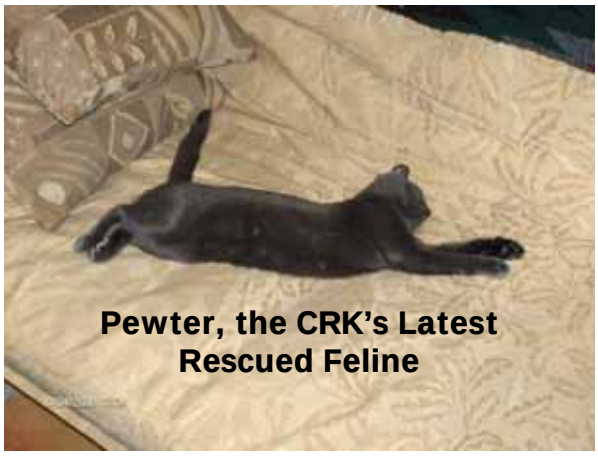
If you have any of these materials available that you would consider donating to CRK, Inc. please let us know. CRK would be pleased with any functional furniture or equipment. If we keep something from going to the landfill it saves resources and reduces greenhouse gas emissions.

Why Does CRK Partner with Red Root Farm ?

It is a natural for CRK to partner with and promote local food producers and processors and in particular with producers who use natural or organic production methods. Using locally grown food products significantly reduces the energy used in producing the food that you eat. Eating locally, regionally and seasonally instead of eating foods shipped via jumbo jet from halfway around the world considerably reduces both one's carbon footprint as well as demands upon water resources. Healthy watersheds are more likely to exist in areas with healthy, sustainable economies. Buying food grown in and around your community and regionally helps to support the economy of your community, watershed and state. Healthy, sustainable economies and healthy aquatic ecosystems are related - you generally do not have one for very long without the other. And finally eating more fresh fruits and vegetables is good for you. So, support local producers like Red Root Farm. Support local producers of meats, peanut butter etc. first then regional producers. Use local or regionally produced fruits and vegetables when in season. This is good for you and your pocket book. It is also good for the river and all of planet Earth.

Shameful !

It is both amazing and disgusting what people throw into and near our streams. Take a trip on the upper Choctawhatchee River at low flow and you will see hundreds, perhaps thousands of tires scattered on the bottom of the river as you paddle. Just about anything imaginable in the way of trash, litter and animal carcasses gets thrown into or along the river. As distasteful and disgusting as this is believe me it gets worse.



Pewter, the CRK's Latest Rescued Feline

Every year during patrols the CRK finds animals abandoned at stream crossings. This kitten which the CRK adopted was one of two found abandoned on the West Fork of the Choctawhatchee River at Brown's Crossing. One was adopted by the CRK's vet and this one, Pewter, was adopted by your Choctawhatchee Riverkeeper. The CRK also has a dog that was dumped in Barbour County four years ago.

It is certain that we will always have sorry, uncaring people among us. People that abandon animals are the same type of people that throw trash into the rivers and streams. Please help stop this problem. Support your local shelter. If your community does not have a good animal shelter consider working with others to establish one. Help by helping animal shelters educate people about neutering and spaying.

If you are in the Troy area, or even if you are not, consider attending the Pike Animal Shelter's Fur Fest on November 1st at the Troy recreation center from 2 until 4. Go to http://www.pikeanimals.org/ or send an e-mail to admin@pikeanimals.org for information.

Join CRK for Outings

CRK Members Take a Break at the Junction of the East and West Forks of the Choctawhatchee

One reason to join CRK is for the outings that CRK will organize on a regular basis. Many if not most folks who love the river spend time on the river if there is any way for them to do so.

The CRK and members of the CRK Board urge you do get out on your streams and rivers for good, clean family recreation. To facilitate this CRK will periodically advertise outings that are open to the public. On some occasions outings will be for CRK members only.

At the current time CRK is aware of only one commercial outfitter in the Alabama portion of the watershed. That outfitter provides canoes for trips on the West Fork of the Choctawhatchee and the upper Choctawhatchee primarily between Dale CR 36 to Newton. For information call (334) 795-1002.

Mussel Observed in Choctawhatchee River on September 14th Float Trip - Probably a Common Species - Likely One of the Villosa's,

Stormwater Pollution Control Efforts Failing !

Anyone who looks at stormwater management efforts, both construction and post construction efforts, in Alabama readily sees that these efforts are failing dismally. ADEM's enforcement of construction permit requirements is so dismal as to be almost nonexistent from an effectiveness viewpoint. Similarly ADEM permits held by local MS4 (municipal separate sanitary sewer systems) are doing little to effectively reduce or prevent pollution and stream degradation resulting from urban stormwater runoff.

Enforcement of construction stormwater permits does not occur in a timely manner and is not strong enough to produce general or specific compliance in the regulated "community". Post-construction stormwater control measures in MS4 Phase I and Phase II MS4 stormwater permits are either inadequate to get the job done or are simply not being enforced by local programs or ADEM.

Whether it is a site in Troy, (top right) that has had significant areas with bare soil and no construction activity in those areas for months, or much worse sites across Alabama with similar conditions that have had multiple large offsite discharges of sediment - permits are being issued but not enforced. As a result water quality and aquatic habitats in streams and rivers across Alabama are being degraded.

An often larger insult and longer lasting degradation is being caused by failure of MS4 permit holders. By not requiring developers to install measures to maintain pre-development runoff volumes, MS4s are allowing streams to be severely degraded if not virtually destroyed. The responsibility for the MS4 permit program in Alabama belongs to ADEM and it simply does not have either the resources or the will to do the job.

Reportedly, the USEPA is not pleased with ADEM's efforts and is beginning to put pressure on ADEM to make changes. These changes can not happen fast enough!

This is a national problem !

The National Research Council has just released a 500+ page report that is very critical of stormwater management in America. The press release is titled "EPA's Stormwater Program Needs a Significant Overhaul To Improve its Effectiveness and the Quality of Urban Streams".

The entire report can be downloaded at

http://www.epa.gov/npdes/pubs/nrc_stormwaterreport.pdf

The NRC press release is available at

http://www8.nationalacademies.org/onpinews/newsitem.aspx?RecordID=12465

Alabama Stormwater Partnership Formed

It is very appropriate and understandable that environmental groups from across Alabama have formed an Alabama Stormwater Partnership to work on the stormwater management issue at the local, state and federal levels. The CRK will be an active member of the partnership.

Additionally, your own Choctawhatchee Riverkeeper has been asked and will serve on a Waterkeeper Alliance Stormwater Committee.

“Let it Mellow If It’s Yellow” - Things You Can Do to Conserve Water

The phrase “let it yellow if it’s mellow” has been attributed to former California Governor Jerry Brown (if you don’t know what it means Google the phrase). The CRK newsletter will from time to time have a “let it yellow if it’s mellow” update. The simple fact is that we are using more water than is sustainable and there are many ways that we can save. CRK asks readers to submit new ways to save water that they have learned about and have employed. When CRK receives a good practice it will run it in the next newsletter. The following suggestions come from NRDC with some additions and editing for length from your CRK.

What you can do:

Take smarter showers - Showers can account for up to 16.8 percent of home water use. Installing a low-flow showerhead will save 2 gallons for every minute of showering. A family of four using low-flow showerheads can save about 20,000 gallons of water per year. Another simple way to save on gallons is to take shorter showers. A typical shower lasts about eight minutes and uses about 17 gallons, while an efficient shower lasts three or four minutes and uses 7.5 gallons. Purchase a shower timer if you need a reminder. You can also turn off the water while soaping up or shampooing, and keep a bucket in the shower to collect excess water. You can use this extra water to irrigate your plants. If you have small kids, you can save additional water by turning bath time into play time: Wash the kids together and save time, money and a couple tubs of water.

Install an ultra-low-flush toilet or a toilet displacement device - Toilets are water hogs. About 28 percent of the water you use in your home gets flushed down the toilet. That amounts to more than 4 billion gallons of water in the U.S. each day. That's why federal law now mandates that all new toilets installed for residential use be low-flush toilets. Conventional toilets generally use 3.5 to 5 gallons (sometimes more) of water per flush, while low-flush toilets use 1.6 gallons of water or less. If you're not building a new home, you can still benefit by installing one of these toilets. Still have an old toilet? You can save more than 1 gallon of water per flush with a displacement device -- a brick or plastic milk jug filled with water or pebbles placed in the toilet tank to reduce the amount of water used per flush.

Install flow restrictor aerators - Placing these inside faucets saves 3 to 4 gallons per minute when you turn on the tap. Of course, you can also help out by doing simple things such as not running water in the sink while soaping your face or brushing your teeth.

Repair leaks - Fix leaking and dripping faucets as soon as possible to save water and lower your water bill. A dripping faucet can waste up to 20 gallons of water per day. A leaking toilet can waste up to 200 gallons every day. Not all leaks are visible: Diagnose leaks in your toilet by placing some food coloring in the tank, waiting 30 minutes and checking if it appears in the bowl. If it does, you've got a leak. You can also check for other types of leaks by reading your water meter when no one is home and no appliances are in use. Then check it again later. If the meter numbers have gone up, you've got a leak. It's easy to find do-it-yourself instructions online if you'd like to do the repairs yourself.

Landscape in tune with the natural environment - Planning on new landscaping? Try succulents or native plants, as some can go more than a week without watering. Cluster plants together with similar water needs and design your irrigation system to give them just what they need. Remember to adjust your irrigation controllers as weather conditions change. You can even buy a smart controller that automatically adjusts for weather conditions. To manage your current lawn or garden, water early (before 6 a.m.) or late (after midnight) or on cooler days to reduce evaporation. Check your irrigation system regularly to make sure that you are not watering paved areas. Do not use an automatic timer to operate your sprinkler unless your system incorporates rainfall and/or soil moisture sensors that override the timer if water is not needed. Allow your grass to grow a bit taller to reduce water loss by providing more ground shade for roots and promoting soil water retention. Don't fertilize, because the faster your vegetation grows, the more it eats. Avoid daily waterings, because skipping days encourages deeper roots. And use a rain barrel(s) to water your plants when possible. Consider redesigning your lawn and garden to reduce water use and maintenance needed by replacing turf grass with areas that are mulched or landscaped with groundcovers. Maintain only the amount of turf grass needed for the desired visual opening(s) and for children to play if you have youngsters.

Use water wisely in everyday activities - Wasting water is easier than you might think. An open faucet lets about 5 gallons of water flow every 2 minutes. In the kitchen, you can save between 10 and 20 gallons of water a day by running the dishwasher only when it's full. You can save even more by washing dishes by hand in a sink or dishpan containing water, rather than by running the tap continuously as you scrub. Run the clothes washer only when full as well. Sweep sidewalks and driveways instead of hosing them down -- washing a sidewalk or driveway with a hose uses about 50 gallons of water every 5 minutes. When you wash your car park it on a grassed area so that the water does double duty. Even better, use a car wash as they typically use less water than washing your car at home.

Simple Things Individuals Can Do to Fight Global Warming

Just because our national government and for that matter our state government has failed miserably to address global climate change does not mean that each of us can not act.

The following are some things that most of us can do to reduce our carbon emissions:

- Ask for paper bags when you check out at the grocery store instead of plastic. *Even better carry you own cloth bags (you may forget sometimes but the more you do it the more it becomes a habit).*
- Recycle and buy minimally packaged goods as much as possible.
- Buy produce from local sources and eat more raw fruits and vegetables and less processed food - this is good for your health and for the Earth.
- Wash clothes is cold or warm water - not hot water.
- Install low-flow showerheads and install a on off valve in the showerhead. Wet yourself, lather and rinse. You can save lots of water!
- Run your dishwasher and your clothes washing machine only when you have full loads.
- Replace standard light bulbs with compact fluorescent bulbs.
- Plug air leaks in windows and doors to increase energy efficiency.
- Replace old appliances with new energy efficient appliances when replacement is needed.
- Walk, bike, carpool or use public transportation whenever possible.
- Adjust your thermostat—lower in winter and higher in summer.
- Close blinds on south and west facing windows on summer days to keep heat out and open them in the day in winter to get some solar heat gain.

Whomever is elected our next president write them and tell them to keep their promises to address attack climate change head on. Urge your state legislators and Governor Riley to get a tax holiday in place for solar energy equipment and energy conservation measures for homeowners and businesses. Together we can make a big difference.

From the EDF with additions by your CRK.

CRK Welcomes the Following New Members

Jamey Avery (Sunfish)
Teisha Avery
Anthony Kidd
Mark Quattlebaum
Bridgett Quattlebaum
Thomas Farmer
Matt Perry
Jason Woodham
Chad Brown (Sunfish)
Erica Proffer
Stacy Kelly
Dixie Lee Reynolds
Joe Paul
Ralph Byram (Largemouth Bass)
Meg Nelson (Sunfish)
Gary Weil (Largemouth Bass)
Michael Newman

Thank you !

Please consider joining or otherwise supporting Choctawhatchee Riverkeeper, Inc. Your support will be deeply appreciated.

CRK Seeking Volunteers

CRK will move into an office at the Red Root Farm Store in the near future. When that happens there will be opportunities for volunteers to assist both in the office and with patrol and water quality monitoring efforts.

Maybe you are a college student and need some experience to flesh out your portfolio. Maybe you are a high school student looking for some experience that might provide an edge when you apply for a competitive scholarship. Do you have experience with and access to GIS software? Maybe you are retired and want something to do outside the home? Perhaps you have fundraising or technical experience to lend to CRK?

If any of these statements are true please contact CRK 334-807-1365, riverkeeper@troycable.net

Join / Support CRK

The People's Streams and Rivers Will Only Be Protected
When They Take a Direct Interest in Protecting Them !

Membership Categories and Fees (all memberships are annual memberships except for life membership):

CRK Regular Member - $30
CRK Student Member - $15
CRK Supporting Member - Sunfish Category $100
CRK Supporting Member - Largemouth Bass Category $250
CRK Supporting Member - Sturgeon Category $1000
CRK Individual Life Membership - $2,500
CRK Corporate Sponsor - Bronze - $1,000
CRK Corporate Sponsor - Silver - $2,000
CRK Corporate Sponsor - Gold - $5,000
CRK Corporate Sponsor - Platinum - $10,000 or greater

CRK will not as a matter of policy and principle accept funds from any corporation with on-going, unresolved pollution violations. CRK simply wants to avoid any real or perceived conflicts of interest. Therefore, any offers of funding for donations from firms that CRK is not familiar with will not be accepted or will be held until the firm is researched. Any funds that would create a conflict of interest will be returned.

CRK knows that there are many good corporations that are exemplary environmental stewards. CRK simply must put its integrity above any short term monetary interest.

Reduced Rates Are Available for:

Waterkeeper Alliance Member - Regular Membership - $10
Alabama Rivers Alliance Member - Regular Membership - $15
Choctawhatchee Basin Alliance Members - Regular Membership - $15
Students 18 and Under - $15
Iraq/Afghanistan Veterans - $20

Note: ***All dues are tax deductible!*** Choctawhatchee Riverkeeper, Inc. is a 501c3 charitable organization. Life Membership and Corporate Sponsorship funds will be utilized to create an endowment fund for CRK. All new members will be recognized in the CRK newsletter unless they ask to remain anonymous.

To join or contribute to CRK, Inc. print this page, circle the membership category that you choose, complete the form and mail it to: **Choctawhatchee Riverkeeper, P.O. Box 6734, Banks, AL 36005**. Make checks or money orders payable to: Choctawhatchee Riverkeeper, Inc. Cash and in-kind donations of materials or services are also appreciated. Contact the CRK for more information - riverkeeper@troycable.net 334-807-1365.

Name:

_____

Address:

_____

E-mail: (needed for alerts)

_____

Phone Numbers: Day _____ Evening _____

Do you live on or own property on the river or one of its tributaries? ____ Yes ____ No
Do you regularly use the river for recreational purposes? ____ Yes ____ No
For purposes of legal standing where on the river or on what tributary does the above apply?

_____

__ Yes, I would like to receive the CRK Newsletter as a pdf file (approximately 1-2 MB) at this e-mail address

Who has the authority to say someone else is not being a good steward of the environment ?
Anyone who notices !

Dear Governor Riley:

Thank you for once again stopping a LNG facility with a destructive, open-loop warming system that would damage or destroy valuable gulf fisheries. Other technologies that will not damage or destroy fisheries are available. You made the correct and righteous choice.

While you are addressing environmental threats it is high time that you take steps to address the environmental disaster at the Alabama Department of Environmental Management. Our state's lead environmental agency is broken beyond any reasonable chance of repair without drastic action. The Department is very poorly led and unable or unwilling to serve the interests of Alabamians today or future generations that will inherit the degraded streams, rivers and lakes that are a result of ADEM failures. An assistant to the ADEM Director has told citizens that the Department is not responsible for enforcing the environmental laws that protect our air and water and that ADEM is only there to be a regulator. ADEM at this point is about as effective at its job as regulators of our financial system have been.

Currently you can address the disaster at ADEM both with future appointments to the Alabama Environmental Management Commission and through whatever influence you have with AEMC members and the Director. ADEM can address its funding issues without help from the general fund if it has your support. It can increase permit fees some but it may need legislative approval to increase fees to what they need to be to do all of the inspections and monitoring required to protect the citizen's air and water resources. ADEM could also think outside of the box and with support from yourself and the legislature it could use small fees on water and sewer bills, not unlike the fee on garbage, to fill funding gaps. Such a funding mechanism could provide needed funding without significant impact on consumers and without touching the general fund.

Getting ADEM to effectively enforce the pollution laws is another matter. This will require politicians like yourself to stand up to the polluters. You must insist that AEMC members and the ADEM leadership use all of the powers that ADEM has and to request additional power from the legislature as needed to protect the people's air and water.

Michael William Mullen
Choctawhatchee Riverkeeper
Choctawhatchee Riverkeeper, Inc.
P.O. Box 6734
Banks, AL 36005

This letter from your Choctawhatchee Riverkeeper was published in the Montgomery Advertiser on October 18th.

CRK and Its President "Enforce" Public Trust Doctrine

In short, the public trust doctrine states that the government is supposed to protect commonly held resources such as water, shorelines, fisheries so that they are available for everyone. This doctrine was established by Roman Emperors and passed to us through English Common law and adopted quickly by the individual states.

Your CRK President Chad Brown found that a private landowner had fenced off public right-of-way at Adams Mill (CR 59) on the Little Choctawhatchee River. Shortly thereafter both he and the Choctawhatchee Riverkeeper contacted the Dale County Road Department. The CRK letter pointed out that the county was in effect violating the public trust by allowing access to the river through public property to be blocked. Shortly afterward the CRK found county crews removing the gate and fencing and also clearing brush to improve access. Thank you Dale County for doing the right thing!

Image Showing Fence Down at Adam's Mill - Full Access Has Been Restored

Threats - Concluded from Page 1

In addition to these very specific threats perhaps the greatest threats to the Choctawhatchee are complacency or a sense that as an individual that one can't make a meaningful difference.

CRK can help on both counts. Come out to the river with us and see how beautiful your river is. Join Choctawhatchee Riverkeeper, Inc. We can and will show you ways that you can help!

Images from Your Little Choctawhatchee River..

These images and those on the next page were provided to Choctawhatchee Riverkeeper by Hunter Nichols a photographer and student at Auburn University - Thank you Hunter!!!

…. a River Worth Saving from Destruction!

With help from you and others, Choctawhatchee Riverkeeper, Inc. will go to the mat to assure that the beauty of this river remains and is not destroyed by an expensive and unneeded reservoir!

Critical Times, Critical Decisions and World Changing Actions

The United States and for that matter all of the nations and all of the people of the world are at this time making decisions and taking actions that almost certainly will have major implications for a long time - perhaps even forever. While leaders are focusing on the temporal financial crisis larger, more critical crises that if not addressed and addressed soon will likely result in serious even fatal consequences for millions of human beings.

If we do not make a speedy transition away from oil to renewable energy sources we could face economic catastrophe that makes the current meltdown seem trivial. If we do not drastically cut greenhouse gas emissions and make preparations for the changes that will result from changes already made in the Earth's atmosphere, it is very likely that there will be extinctions of a magnitude that man has ever seen. Climate change and related food production disasters are likely to cause millions of people to be homeless and millions to die of starvation, disease and warfare as nations and people struggle over food and water shortages.

These predictions come from numerous scientists perhaps most notably NASA's James Hansen. Hansen believes that the Earth is at or even past the tipping point - the point at which global climate changes will begin to increase at an increasing rate. Hansen believes that mankind has at best about 10 years to make serious reductions in greenhouse gas emissions.

To date the United States had been essentially AWOL on climate change. Not until relatively recently has the U.S. administration even admitted how serious this challenge to mankind is. One candidate for vice-president has even reportedly expressed a view doubting that human activities are not influencing the Earth's climate. If we are to successfully address climate change and at least minimize to the extent possible permanent ecological degradation and mass human suffering energy policy in America as well as public attitudes must adapt rapidly.

Just like the web created by this spider, relationships between our actions and everything else are connected and often very complex. We simply can not solve this problem with painless, technological fixes alone. Habits will have to change. Some things will have to be different. There will be inconveniences. Change produces fear but we must overcome fear to avoid disaster. We must embrace change if we are to survive with a healthy environment and a relatively peaceful world.

As a 501c3 organization Choctawhatchee Riverkeeper, Inc. cannot and will not endorse specific candidates. We would not do so if we could. However, CRK can educate its members and others about the environmental consequences of policy options.

America needs to become energy independent for security and economic reasons. However, there are ways to become energy independent that begin to break our dependence on fossil fuels and thus to address global climate change. America needs also to become more efficient in how it uses energy. Technology can help but policies (collective choices) and our individual choices are also vital to conserving and otherwise using energy wisely.

As you decide whom to vote for in November please consider which candidate will be more likely to implement energy and environmental policies that respond to the climate change crisis. Then go out and exercise your privilege by voting!

The mission of the Choctawhatchee Riverkeeper is to protect and restore the river and its tributaries. We do this primarily for the people who live in the watershed and who will live in the watershed in the future. Our goal is to assure that water quality is maintained in the spirit of the Clean Water Act so as to assure that waters are drinkable, fishable and swimmable. Attaining and maintaining this goal requires strong permits that are enforced in order to control point source pollution. It also it requires land use and land management that pays adequate attention to maintaining riparian buffers, preserving and restoring wetlands and avoiding needless pollution of streams and rivers.

Therefore, the Choctawhatchee Riverkeeper will use a toolbox of methods to protect and restore the river and its tributaries. We will regularly patrol the watershed via land, water and air to monitor water quality and detect problems and areas of concern. We will respond to citizen reports of concerns or problems. We will follow the actions of responsible parties including federal, state and local agencies and when appropriate and necessary challenge those actions administratively and legally. We will monitor discharge monitoring reports made by permit holders in order to intervene if responsible agencies do not do so. We will work to educate citizens and their elected leaders about actions needed to protect and restore the river. We will work alone and with others to restore portions of the river or its tributaries. And, finally we will work to make the public aware of the wonderful resource that they have in the form of the river by encouraging non-consumptive recreational use of the river.

Join us in our efforts by becoming a member of or making a donation to Choctawhatchee Riverkeeper, Inc. Choctawhatchee Riverkeeper, Inc. is a 501c3 charitable organization. Contact us for a membership brochure. Phone 334-807-1365 or send an e-mail to riverkeeper@troycable.net - *Choctawhatchee Riverkeeper.*

Choctawhatchee **RIVERKEEPER**®
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