

Flint RIVERKEEPER®

Points



VOLUME 2, ISSUE 4

WINTER 2011/12

From your RIVERKEEPER® - WE ARE GROWING!

As the father of three teenagers, I'm fairly certain that I know growth, what it takes to fuel it, when I see it. And, I can say without doubt that Flint Riverkeeper is growing. We are growing in membership, with over 600 households, farms, businesses, and foundations on our donor list. Our Board of Directors is growing with the sixteenth member, Fred Granitz of the upper watershed, joining the governing body in January. Our sphere of communication is growing, with over 3,000 Facebook 'friends'. Our expertise is growing, with an increasing number of scientists, legal and political experts lending a hand to help us understand our watershed, focus on issues, and achieve good outcomes. Our influence is growing, having built a solid stable of friends and allied organizations, together marshaling our strengths, with a string of victories for the Flint racking up. And, this newsletter is growing, expanding to six pages this issue, to accommodate everything that we need to share with you about your river . . . well, not everything,

but all we can fit in! Flint Riverkeeper is only 3 years old, and has had riverkeeping staff for only 2 years, yet, you and I can be proud together of what we have achieved. Here are just a few key things:

- Major damming projects on the upper Flint have been blocked.
- Strong efforts have been initiated to restore flows in the upper Flint by working on interbasin transfers, and other man-made alterations, to keep low flows from getting so low.
- A fat/oil/grease processing plant that would have polluted one of our aquifer recharge areas in Taylor County has been STOPPED. This folded in with a complex investigation of the plant's investor who has been involved in several alleged illegal dumping activities. Richard Harville of Thomaston has now been arrested, bonded out, and indicted for theft of services (dumping in the Thomaston sewer system) from the City; a detailed investigation of other individuals and circumstances continues.
- A coal-fired generating plant project in Ben Hill County has

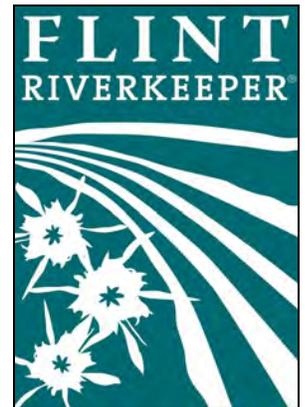
been stymied; a coal-fired generating plant in Early County has been STOPPED . . . DEAD.

—A permit for a mountain-side landfill in Upson County has been blocked. And, there's more.

Each of these has been accomplished by a team of dedicated, highly motivated citizens and organizations. Our allies include: other six other Georgia Riverkeepers (Altamaha, Ogeechee, Satilla, Savannah, Upper Coosa, Upper Chattahoochee), Georgia River Network, the Georgia Wildlife Federation, American Rivers, the Georgia Chapter of the Sierra Club, GreenLaw, the Southern Environmental Law Center, Friends of the Chattahoochee, the Southwest Georgia Sportsmen's Club, the Flint River Chapter of Trout Unlimited, the Georgia Council of Trout Unlimited, Chattahoochee River Warden, Apalachicola Riverkeeper, Tall Timbers Research Station and Land Conservancy, the Southern Conservation Land Trust, *continued on page 5*

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The mission of the Flint Riverkeeper® (FRk) is to restore and preserve the habitat, water quality, and flow of the Flint River for the benefit of current and future generations and dependent wildlife. FRk is a full-licensed member of the Waterkeeper Alliance, an EarthShare of Georgia member group and participates in the Georgia Water Coalition.

Thank you Mary Newcomb!

Many of you know, corresponded with or volunteered with FRK's first employee, Project Manager Mary Newcomb. Hired in March'09, Mary set up and orchestrated the majority of the administrative processes that allow FRK to operate...and she handled all the details that are so meaningful to a non-profit. A long-time resident of the Albany-area, her knowledge and contacts established many of the vendors FRK relies on to get our work completed. Mary resigned in November and will be deeply missed by her co-workers, the board members and FRK members.

Much love and best wishes to you! *Jayne & Gordon*



Mary is pictured here at the Albany membership meeting in October with her husband Ned, her youngest son Edward and her mother Mrs. Jean Rooks.



THE FLINT'S FLOWS:

The First in Our Series on the Natural History of and Issues Affecting the Flint River

Earlier this year the national organization American Rivers approached Flint Riverkeeper about working together on a three-year project to restore and protect the flows in the upper Flint. Simultaneous panic and relief set in: panic because the flow issues are complicated; relief because help had arrived to support work we were already involved in. We anticipate making a steady stream of reports to you on the combined efforts of American Rivers and Flint Riverkeeper over the next several issues, but it also became clear to FRk staff that we need to spend some time informing folks about flow issues in the Flint. We will emphasize 'how the Flint works', upper, middle, lower, and its tributary streams and aquifers, carefully describing the basic physical patterns, weaving in how humans can affect and benefit from those patterns. We will also broaden the presentations to include the animals and plants of the Flint, how they are tuned to the patterns in the creeks and rivers, and affected by any changes. So, this is the first of an information series designed to help all of us, together, understand our watershed, creeks, swamps, aquifers, river, so that we can work better to restore and protect this precious asset.

You can probably list off of the top of your head several factors that affect flows in the Flint, so, write them down (before you read on), and see how you do from this list: climate, weather (there is a difference between the two! . . . more on this later in the series), withdrawals, returns (and the difference between the two, *consumptive use*), interbasin transfers (withdrawals with no returns; you can think of this as 100% consumptive use, from the donor creek or river perspective), reservoir and pond evaporation, reservoir and pond release prescriptions, evaporation from the river bed proper, evapotranspiration from plants (brush, trees, crops, lawns), channelization (straightening out creeks, ditching wetlands, paving and piping of straightened creeks, ditched wetlands), hardening of the landscape (aka impervious surfaces . . . paved areas, rooftops, intense soil compaction). How did you do?

As you read back through the list, think of all of these factors in terms of what you learned about (or maybe are still learning) about the water cycle in your science classes. You can start the cycle anywhere, but let's start with precipitation. In Georgia, we don't get a lot of ice and snow, just enough to keep things interesting! Rain is the name of the game in the Flint and wider Apalachicola-Chattahoochee-Flint watershed. And rain is complicated enough! Rain is complicated because our climate and weather has changed over time, both in cycles we can measure, and in long term trends superimposed on top of cycles. Without even getting into discussions of human impacts on climate and weather, the patterns are real, and drive the Flint system in major ways. An exploration of these patterns will be part of this series.

After it rains, several things can happen: water can evaporate almost immediately, it can soak in, and it can run off. What it does depends upon the time of year, time of day, recent rain history, and what it falls on. *Note*: this important crossroads is a place where human activity can unquestionably directly impact what happens. We can change what the rain falls on, and therefore what happens next.

In the upper Flint, rain naturally falls on our portion of the Georgia Piedmont or the Pine Mountain Range. This is an area of clay soils and crystalline rock (granite and other) substrates. There is not much topsoil due to what we lost during King Cotton in the 19th Century and metro north Georgia's recent building boom. Naturally, water does not soak in as much here as further south, but what does soak in is or (in some cases) used to be, important. In the upper Flint, most of the time (except during drought) runoff is the dominant portion of the 'what happens next' equation. This is what drives the ups and downs in our creeks and river. What does soak in becomes part of what are called 'surficial' aquifers, slowly seeping in to our creeks and river, and driving hundreds of smaller springs with the occasional noteworthy (named) one. This seeping and springing drives what we call 'baseflow', the flow that exists in the creeks and river after it has not rained for a long, long time. But, keep in mind, the water originally came from . . . the rain. In later installments of this series, we will get into how the runoff/soaking in/seeping-springing relationship can change, affecting baseflows. We will also explore how ponds and reservoirs, withdrawals and returns, and other human-induced factors change things. As the population and economy of metro north Georgia has grown, so have the demands on the Flint and its tributaries. We will explore all of this.

So, after it rains, runoff is what we see in the creeks and river, and baseflow is what we see after the creek or river has risen and fallen back. This is what we experience as the ups and downs, the behavior of our favorite water body.

(continued)

And, this pattern, even the total volume of water running downstream or soaking in can be changed by humans. We do this by changing the relationships of runoff to evaporation and infiltration (the 'soaking in') as we alter land use. Also, these relationships change, naturally, as we move down the Flint, because the kind of soil that the rain is falling on changes, and because of the way that the creeks and river are cut down into the landscape.

As we move further south, we cross the Fall Line, not too far south of Manchester and Thomaston. Many of you know that this transition area is one of rich natural beauty, mixing Appalachian scenes and species with those of the upper Coastal Plain. We move from an area of excellent whitewater paddling and shoal fishing that competes well among the best in the world to a 'lazier', less tumbling flow with its own wonderful history, culture, recreational opportunities, and economy. What you may not know is that the Fall Line, where Georgia's Piedmont literally falls off to Georgia's upper Coastal Plain, is a demarcation of profound changes in hydrology (literally 'water knowledge' or 'water study') and geology as well. After that gorgeous series of shoals in the Pine Mountain/Cove area, the Flint moves into a lesser known area of very large sandy hills, old dunes, called the Fall Line Hills, stretching for miles. The Flint and its creek tributaries in this area have wide floodplains populated with hardwood swamp bottoms, and flow through sandy soils. And, the soils of the surrounding, rolling hills/dunes that the rain falls on are sandy, too. This is old ocean bottom, and ocean shore, from back when, literally, the beach was only an hour's drive from what is now south metro north Georgia.

Here, water soaks in more quickly, and the creeks and rivers immediately show the results. Baseflow is relatively higher, per linear mile of creek or river, than in the piedmont, even for the same-sized creek as in the piedmont. Runoff is more attenuated, buffered. The river is bigger, because it is downstream, benefitting from more and more tributaries as it grows, but it is also more stable in its lower flow range. If you paddle or fish the middle Flint during low flow, you can see and hear the water, literally, trickling and flowing into the system from myriad seeps and small tributaries, seemingly magically. But, it is not magic, it is baseflow, lots of it, including input you cannot see and hear in the river bed itself. The mid and upper ranges of flow (medium and flood flows), though attenuated, spread out, are important in this area, too. Flooding is a very, very important part of the ecology and economy of the middle Flint's region. And, the floodplain is an important part of controlling what goes on further downstream, further south. This often-ignored section of the Flint, stretching from approximately where US 19/80 crosses (aka the 'Carsonville' gaging station) to approximately the backwaters of Lake Blackshear, is equally fascinating as the more widely know upper and lower sections, and is absolutely critical to the overall water budget, flow relationships in the region, and therefore our economy. As with the other sections, we will explore this more deeply in future installments.

Lake Blackshear is a good demarcation for the transition from the Fall Line Hills to the Dougherty Plain, sometimes called the Lower Flint though officially that boundary is where the Muckalee and Kinchafoonee join the river at Albany. This is a reach where the tributary creeks and river itself are very, very connected to a major aquifer embedded in karst, limestone layers . . . old seabed of an ancient ocean. This is the one of the recharge areas for the famous and highly productive Upper Floridan aquifer, a major supply of water for much of Georgia, South Carolina and Florida. This area is characterized by numerous seepages and blue hole springs (the northernmost of which are actually under and around Lake Blackshear). The river and even the creeks frequently flow past tall limestone bluffs, dripping with water, many of them fern-laden, gorgeous. And, because it is both a recharge area (rain easily soaking in, river and creek flow, too), and an area of discharge (the springs), the best way to describe it is that the Flint and its tribs have cut down into the top of the aquifer, over a long period of time, and that the flows and supplies in both the surface waters and the underground waters are tightly . . . very tightly . . . connected. The water cycle still operates (precipitation, evaporation, infiltration, runoff, etc), but the budget allocation, if you will, has changed, with vastly more volumes tied up in the infiltration-baseflow portion of the equations. Think of this area as a vast reservoir, natural infrastructure that stores much of the rain and the Flint's water on its way to hook up with the Chattahoochee, forming the Apalachicola, flowing on to the Gulf of Mexico. This underground reservoir, with its surface expression as the Flint and its many tribs, is the focus and source of a huge economic engine centered in agribusiness, an important portion of Georgia's culture and economy.

Above is the basic layout, the setting. Together we will explore the complexities of flow, biology, and economy that are unique to our beloved river system, the things that make the Flint uniquely the Flint. For now, keep in touch, and stay tuned for future installments. And, to explore the areas of the Flint you may not be familiar with, consider joining us on a *Taste the Flint* paddle trip . . . we have them planned throughout 2012 on a variety of sections of the Flint!



Your Financial Support is **VITAL!** Support Flint RIVERKEEPER®

We ask you to give a generous tax-deductible donation today, to make certain one of Georgia's most treasured waterways can be saved for current and future generations. To make a donation, go to www.flintriverkeeper.org OR make checks payable to the Flint RIVERKEEPER® and mail with this form to 211 N. Jefferson Street, Ste. 8, Albany GA 31701, or return this form with your credit card information. The Flint Riverkeeper is a 501c3 charitable organization. THANK YOU for your support!

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<input type="checkbox"/> Family \$50	<input type="checkbox"/> Patron \$100
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A confirmation email will be sent to you. Please ensure that we have your email address by completely filling out the form above, as well as your other contact information.

From your Riverkeeper® cont'd-
 the Nature Conservancy Georgia Chapter, the Shoal Bass Alliance, Georgia EPD's Adopt a Stream program, Keep Decatur County Beautiful, Keep Albany-Dougherty Beautiful, and Flint River-Quarium. Countless individual citizens have made notable contributions and sacrifices; this is a long list, and, it too is growing. There is nothing, literally nothing, that Flint Riverkeeper accomplishes due solely to the efforts of one person, or just our staff and Board. It is the staff's and Board's role to harness the expertise of our allies, and the energy and influence of our membership in an intelligent and directed way, for the Flint. You can continue to help us do this, and to GROW this. Give a Flint Riverkeeper membership as a Christmas gift to your favorite coffee mate, hunting or fishing buddy, member of your Sunday school class, niece or nephew. Do it today, online or via mail. When Flint Riverkeeper grows, your power for influencing public policy through the political system, administrative channels, and the justice system grows.

Merry Christmas, happy holidays, and Flint Riverkeeper's Board's and staff's best wishes for a safe, healthy, and prosperous 2012.

-Gordon Rogers,
 Riverkeeper and Executive Director



New FRk Board Chairman: Robin Singletary

2012 marks the first rotation of FRK's board chair. Since its inception, FRK has been led by founding member Paul DeLoach. Not only the charter board chairman, Paul has been a unifying force in the creation of the organization enabling donor growth, community outreach, and establishing a strong foundation in all aspects for FRK. Paul will remain on the board of directors as vice-chair Robin Singletary assumes the helm of the organization. Our appreciation is extended to Paul for his countless hours of service and limitless dedication to the Flint River and to the organization that serves her. Paul was honored at the last board meeting with a presentation of a framed W. Cross photo of the lower Flint. We welcome Robin into the chairman's position and look forward to the work that will be accomplished during his two-year term. As a charter board member, he too has been serving FRK since its inception and is dedicated to protecting and restoring the Flint River and her tributaries.



Paul and Robin at the November '11 board meeting

Flint RIVERKEEPER ®

**211 N. Jefferson Street
Suite 8
Albany, GA 31701**

Phone: 229.435.2241

Fax: 229.435.2242

www.flintriverkeeper.org

The Flint Riverkeeper was established in 2008 to address the various issues that are threatening the Flint River and its tributaries. We are working to restore and protect the quality and flow of this immensely valuable resource.

Board of Directors

- Dr. Sam Brewton, *Thomaston*
- Paul DeLoach, *Andersonville*
- Dr. William "Mac" Dallas, *Thomaston*
- Glenn Dowling, *Covington*
- Fred Granitz, *Meansville*
- Jenni Harris, *Bluffton*
- Elliott Jones, P.E., *Atlanta*
- Stan Lumsden, *Peachtree City*
- Brown Moseley, *Bainbridge*
- Mark Redden, *Albany*
- Marilyn Royal, *Camilla*
- Robin Singletary, *Camilla*
- Glenn Sinquefield, *Albany*
- Mike Smith, *Macon*
- Charles Stripling, *Camilla*
- Mark Woodall, *Woodland*

Staff

- Gordon Rogers, *Riverkeeper & Executive Director*
- Jayne Smith, *Director of Development and Outreach*

Get your Flint Riverkeeper decal and proudly display your support of the Flint River!
Yours free with your membership donation or special gift donation to FRK

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Spotlight on Business: White Oak Pastures

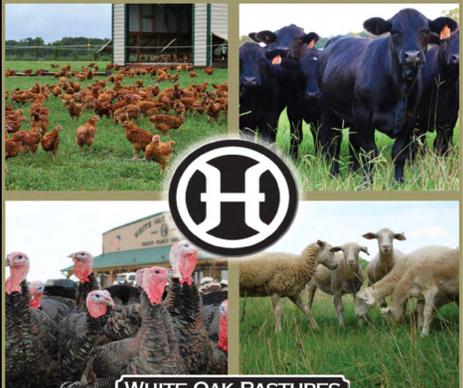
Nestled in the northwest corner of Early County in southwest Georgia is White Oak Pastures, a working family farm specializing in grassfed beef and lamb, free-range poultry, and a showcase of humane animal treatment practices. There is a strong ethic of land stewardship and efficient use of resources that resonates throughout all the activities at White Oak Pastures. The Harris family has been tending this land since 1866 when Captain James Edward Harris settled the land after his service in the Civil War. In the four generations that followed, a natural evolution from farming for sustenance developed into raising animals, mainly beef cattle, to be sold for profit. It was

the modern, industrial practices of food production that led Will Harris III, great-great grandson, to choose to re-institute the sustainable land practices of multi-species rotational grazing practices utilized in the early years on the Harris family farm. Recognized and awarded by numerous organizations, businesses and the State of Georgia for demonstrations in animal welfare practices, environmental sustainability and strong leadership in the local food movement, White Oak Pastures illustrates that healthy resources, a strong commitment to community and a strong economy go hand-in-hand.

Located near Bluffton off Hwy 27, tours are available of the farm and the two abattoirs. Order your grassfed beef, lamb and free-range poultry (chicken and seasonal turkey) from www.whiteoakpastures.com, visit their store or your local retailer..

We take care of the land and the herd, and they take care of us. –Harris family core

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