



College of Agricultural &  
Environmental Sciences

## Stripling Irrigation Research Park June 2011 Event and Activity Update

### *From the Superintendent:*

To say it has been hot and dry at Stripling Park would be a tremendous understatement. We had one rain event during the entire month of May (and none since), see graph below. As many of you are doing, we are watering like crazy - water prior to planting, water immediately after planting, then water, water, and water again. Some cotton plots have been replanted, others may have to be. We are working hard to maintain crop health in our numerous plots that are so important to much of the research done by our scientists. Our current crops include corn, sweet corn, cotton, peanut, soybean, and tomatoes.

Corn farmers that depend on surface water (ponds, creeks, etc.) are facing a real shortage of water for irrigation as they have been watering their crop almost non-stop. A recent meeting of academic and seed industry folks discussed how to address this issue with corn at a critical stage of development. Here's an excerpt from a report from that meeting:

*"If you discover that surface water supplies are getting short at tassel stage, it is critical that the majority of the water be supplied to corn for the next 18 days following tasseling. Given the current temperatures, wind and humidity, corn water needs will range from .32 to .34 inches per day in this period. Do not ration or shut water off through this period as drought stress will reduce kernel set due to the lack of pollination and kernel abortion and cause the greatest yield loss."* More on that meeting can be found at <http://georgiagrainscrops.com/author/deweylee/>.

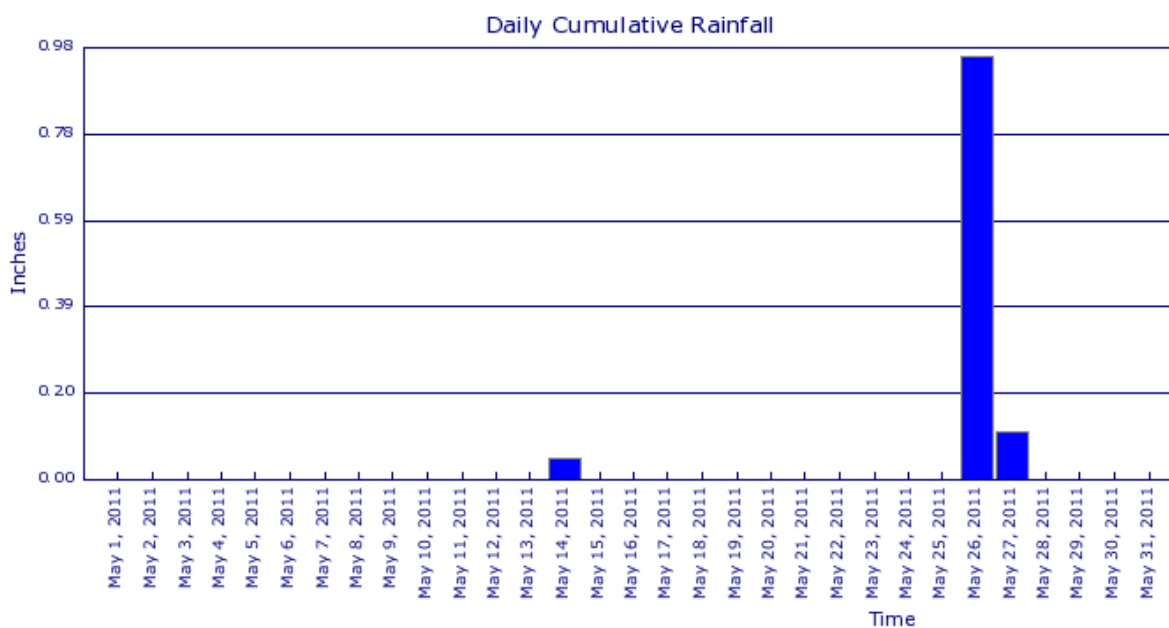
It's interesting to note that the 2011 drought was predicted with a fair amount of certainty as early as last summer. See <http://southeastfarmpress.com/georgia-may-be-set-drought-2011>.

Some have asked how the river levels and ground water levels are faring during this drought. I've included some graphs at the end of this Update to give you an idea of those conditions.

Important reminder - The Stripling Park Field Day has been set for July 19<sup>th</sup>. I encourage you to attend all or part of the Field Day to learn about projects at the Park from the scientists themselves. More info will be coming out soon about Field Day.

### ***Weather Happenings at SIRP:***

The total amount of rainfall received at SIRP during May (according to our 'official' rain gage) was **1.12** inches. This compares to 1.24 inches in April, 4.17 inches in March, 4.17 inches in February, and 4.55 inches in January. As always, for information from one of UGA's automated weather stations near you, go to [www.georgiaweather.net](http://www.georgiaweather.net). And yes the AEMN (weather station network) is still in a critical funding shortage situation. From the website: “*The AEMN and this website are currently scheduled to be **shutdown in late Summer 2011 due to a shortfall in funding**. Unless substantial blocks of dedicated funding are committed by early July 2011, we will begin the process of decommissioning weather stations at that time. Once a weather station is decommissioned, current data will no longer be available.*”



### ***4H2O Camp:***

The annual 4H2O Camp will be held June 27 – 29. On Monday the 27<sup>th</sup>, the campers will be at the Flint RiverQuarium to learn all about the Flint and the critters that call it home. On Tuesday the 28<sup>th</sup>, the campers will invade SIRP for a day of fun learning about how water is important to agriculture. On Wednesday the 29<sup>th</sup>, the kids will be treated to a fun day at the Dothan water park. We anticipate the largest number of campers we've had in the 3 years of the camp.

### ***Recent Activities related to the Park:***

- May 3 – Calvin in Midville helping install a new subsurface drip irrigation system
- May 6 – Farmer's Irrigation Update Meeting with Richard Royal
- May 17 – Wilson Faircloth from USDA National Peanut Research Lab
- May 17 – Jim McClatchey, member of the ACF Stakeholders working group
- May 18 – Richard Talley (EarthTec Solutions)
- May 24 – Glenn Hammes (DuPont)
- May 25 – Dow Agriscience visitors
- May 30 – Closed for Memorial Day

## ***Water (and research) in the News:***

USDA research center (*in Watkinsville*) may close

<http://www.gpb.org/news/2011/06/06/usda-research-center-may-close>

House appropriations approves dramatic cuts to ag spending

<http://growinggeorgia.com/news/22-catnew/2165-house-appropriations-approves-dramatic-cuts-to-ag-spending>

For mussels sake, US study could send more water to Florida

<http://blogs.ajc.com/political-insider-jim-galloway/2011/06/02/for-mussels-sake-u-s-study-could-send-more-water-to-florida/>

Interesting reader comments to this article to show the sentiment of some folks:

- *The farmers in SW GA are sucking the aquifer and the Flint River dry and we have to make up for it from Lake Lanier. Why does not the State make the farmers suck it up like we have to and share the pain all around. It is not right for Lanier for have to support the farmers just because corn prices are high.*

- *I like how the farmers are quick to point their finger at metro Atlanta but you can bet they are more than happy to have this big market to sell their crops to.*

- *All used drinking water doesn't make it to the mussels. Some of it leaks out, goes to other basins, etc. Probably 60 to 70% is returned to whence it came. Of course, the main problem for the mussels is the agricultural, ground water withdrawals in SW Georgia which dwarfs the consumption in metro Atlanta, and causes most of the mussel distress.*

Water crisis developing in Georgia corn crop

<http://southeastfarmpress.com/grains/water-crisis-developing-georgia-corn-crop>

Forsyth County plans to appeal judge's water ruling

<http://www.ajc.com/news/forsyth/forsyth-county-plans-to-971321.html>

David Ralston broaches a Tennessee deal: Water for access to Atlanta's airport, Savannah's port

<http://blogs.ajc.com/political-insider-jim-galloway/2011/06/03/david-ralston-broaches-a-tennessee-deal-water-for-access-to-atlantas-airport-savannahs-port/>

Ga. summer expected to be hotter and drier

<http://growinggeorgia.com/scienceeducation/2170-ga-summer-expected-to-be-hotter-and-drier>

Georgia temps soar above normal for fourth straight month

<http://growinggeorgia.com/news/22-catnew/2175-georgia-temps-soar-above-normal-for-fourth-straight-month>

Drought hampers peanut, cotton crops

<http://www.ajc.com/news/drought-hampers-peanut-cotton-964011.html>

Drought grips Georgia harder

<http://www.wtoc.com/Global/story.asp?S=14835188>

Water wars threaten credit of metro governments

<http://www.ajc.com/news/georgia-politics-elections/water-wars-threaten-credit-966511.html>

Leaf Scorching in Corn Under Irrigation

<http://georgiagrainscrops.com/2011/06/01/leaf-scorching-in-corn-under-irrigation/>

Dry weather and irrigation

<http://georgiagrainscrops.com/2011/05/17/dry-weather-and-irrigation/>

South Georgia farmers grabbing up irrigation pivot alarms

<http://www.walb.com/story/14573773/south-georgia-farmers-grabbing-up-irrigation-pivot-alarms?clienttype=printable>

Georgia Drought CAES website

<http://www.caes.uga.edu/topics/disasters/drought/>

US Drought Monitor website

<http://www.drought.unl.edu/dm/monitor.html>

Here's a link to the paper Calvin and Rad prepared for the 2011 Georgia Water Resources Conference:

[http://www.gawrc.org/2011paper\\_pdfs/7.5.2Perry.pdf](http://www.gawrc.org/2011paper_pdfs/7.5.2Perry.pdf)

***Upcoming Events:***

Jun 28 - 4H2O Camp at SIRP

July 14 - IGEL meeting at SIRP

July 19 - Field Day at SIRP

***Trivia:***

Which part of the body contains the most water: A) the blood plasma; B) the brain and the muscles; or C) the bones?

Answer: A) the blood plasma.

We would like to welcome two new folks to the Stripling Park “family”:

Emily Skinner is now with SIRP as a Utility Worker I. She is from the Pelham area and just graduated from Pelham High School. She is eager to learn new things and is quickly learning how she can contribute to the work going on every day at SIRP.



Justin Pollock is working this summer as a UGA intern at the Mitchell County Extension Office and at SIRP. Justin will be a Junior this fall at UGA and hails from the Vada area of south Mitchell County. Justin’s farm experience has allowed him to immediately begin contributing to the work at SIRP.



**Current USGS Data**

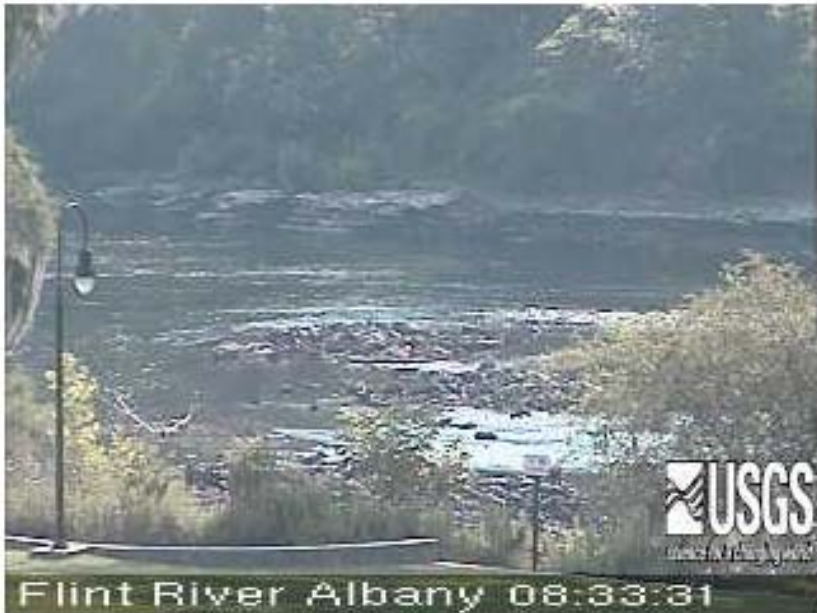
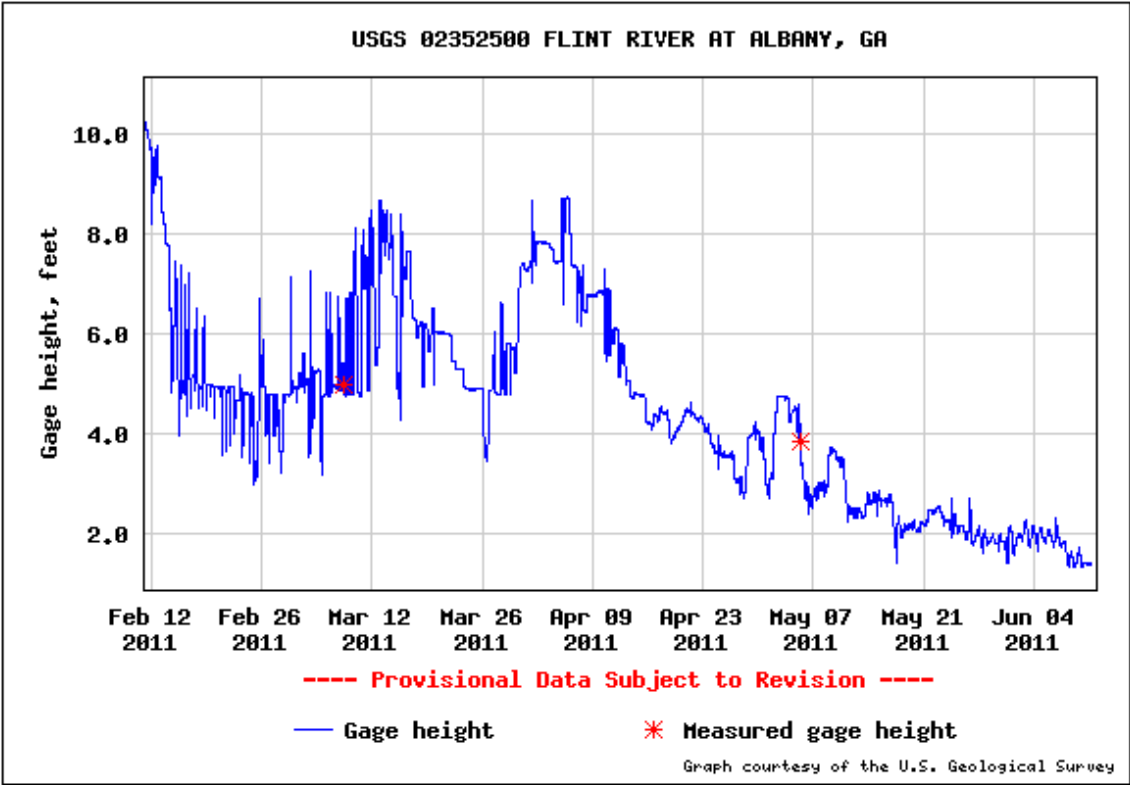
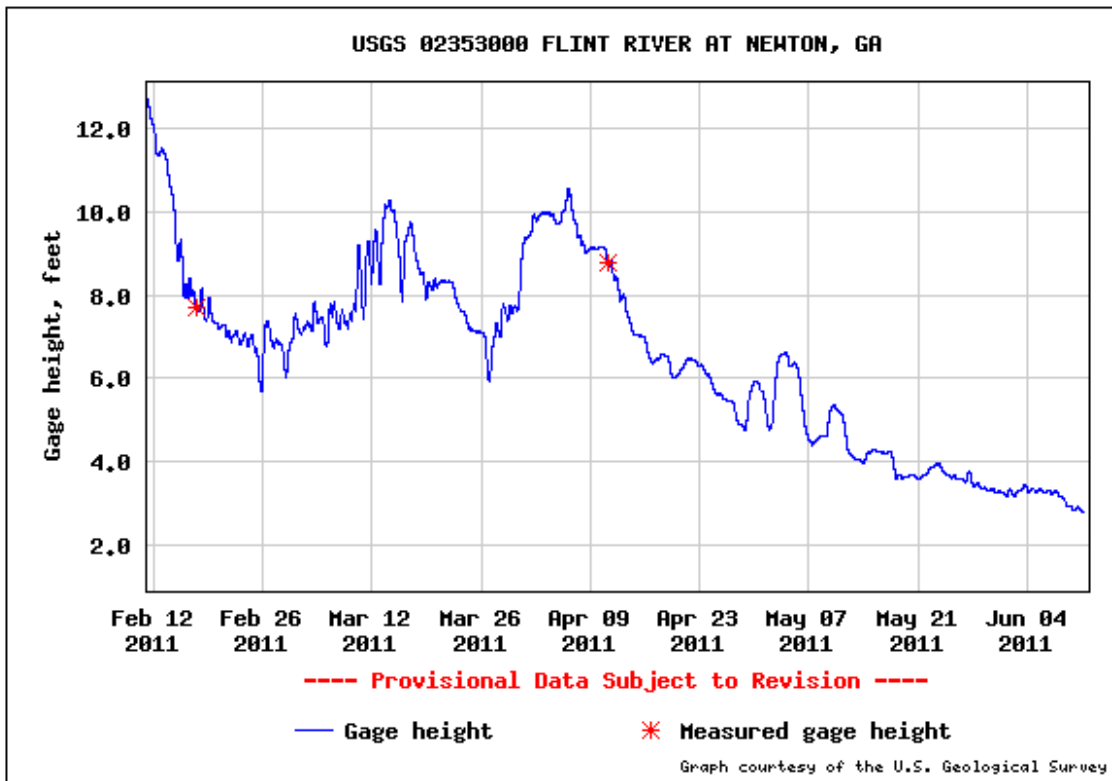


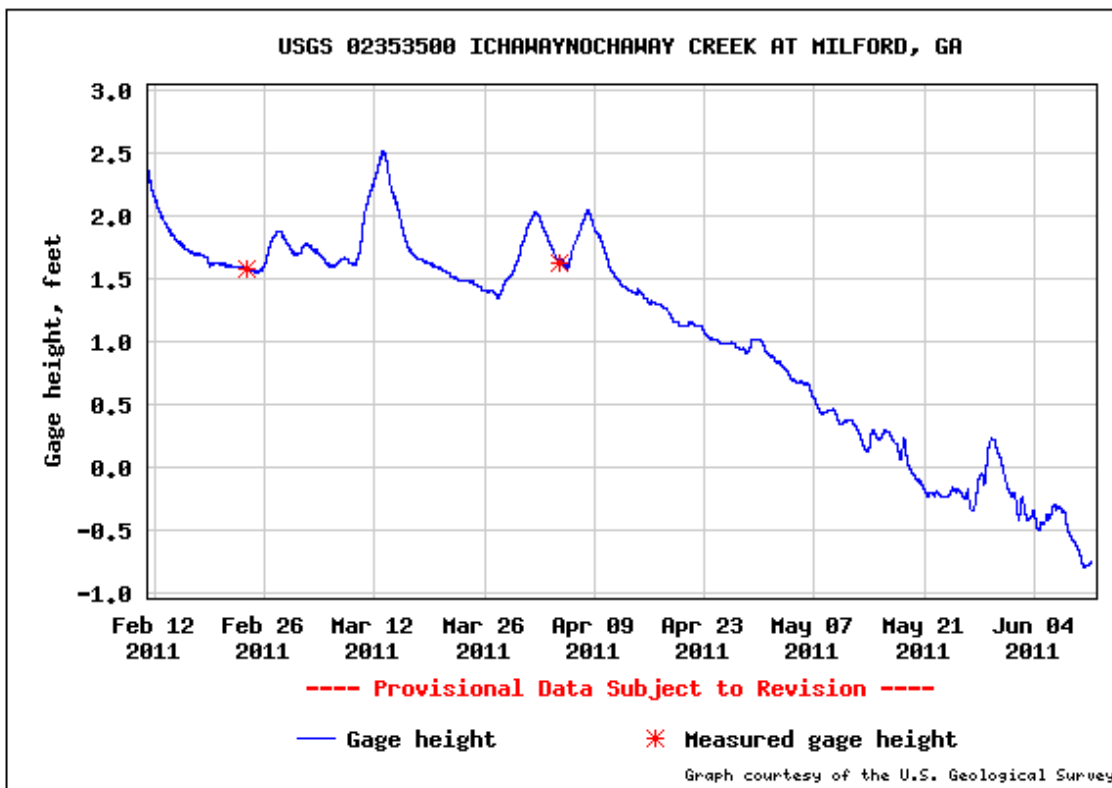
Photo from web cam on the Flint River at Albany (taken June 11).



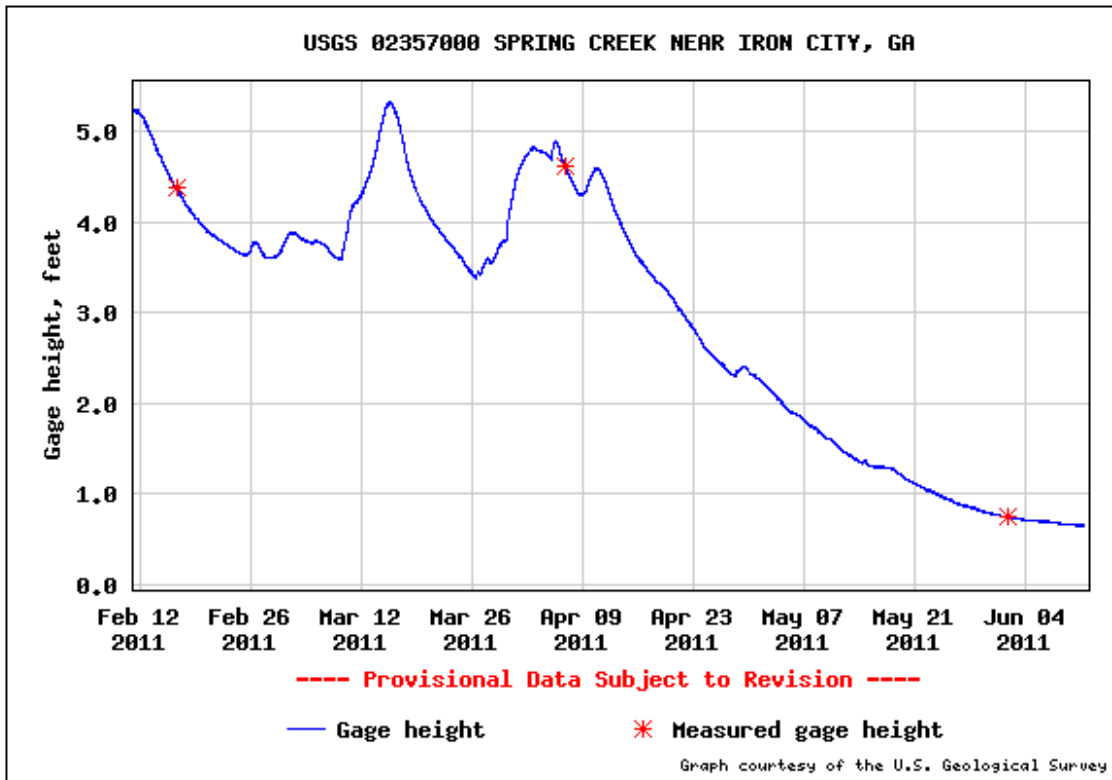
Stream gage data from the Flint River at Albany.



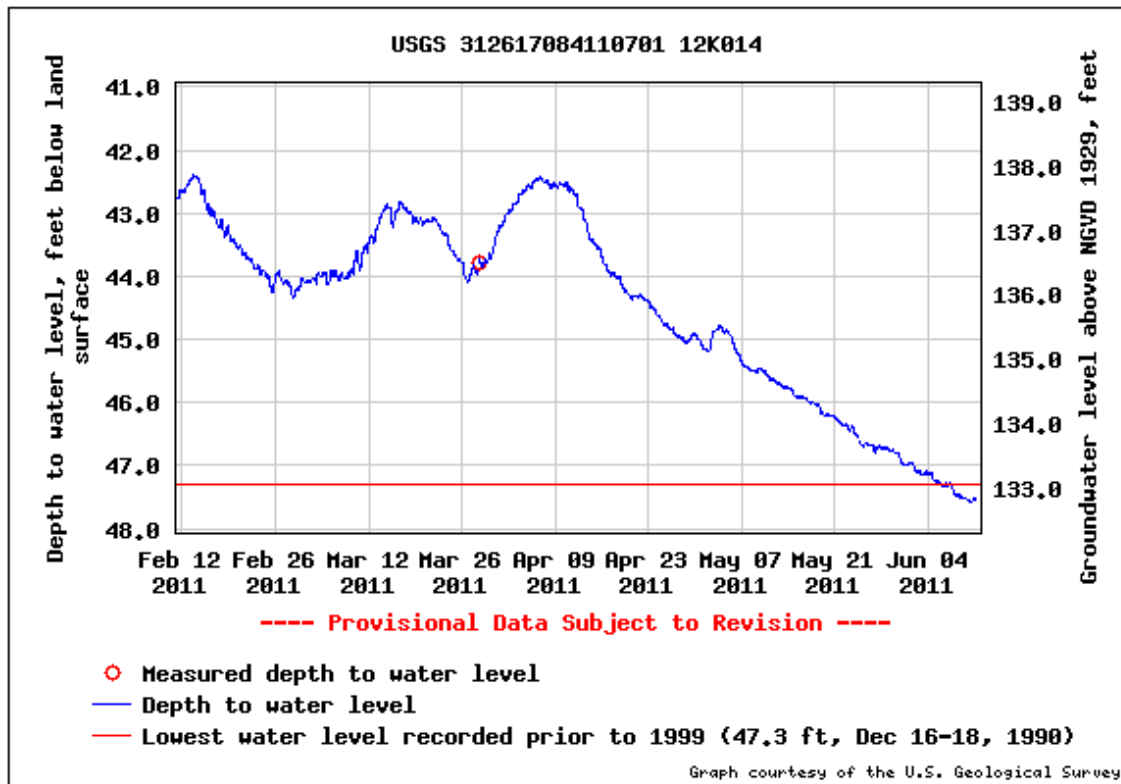
Stream gage data from the Flint River at Newton.



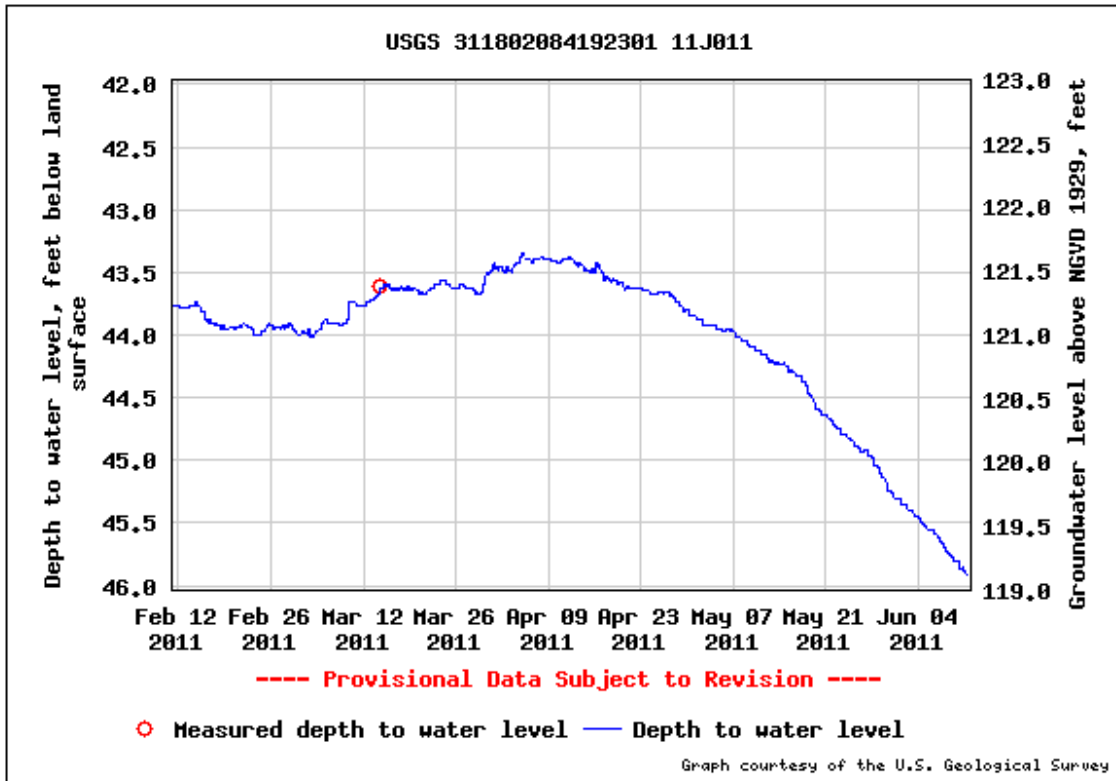
Stream gage data from the IchawayNochaway Creek at Milford.



Stream gage data from Spring Creek near Iron City.



USGS ground water monitoring well in Baker Co.



USGS ground water well in west Mitchell Co., near SIRP.

*Photos of Recent Activities:*



Dr. Spark's field technicians stringing tomato plants.



Those same tomatoes a few weeks later.



Planting cotton in the subsurface drip irrigation test.



Irrigating corn with one of SIRP's 2-tower center pivot systems.  
Soil moisture station is visible in the center of the photo.



Ivey and technician from Ag Technologies installing new Trimble autosteer system.



Irrigating research plots of sweet corn. Plant stress sensor is in center of photo.



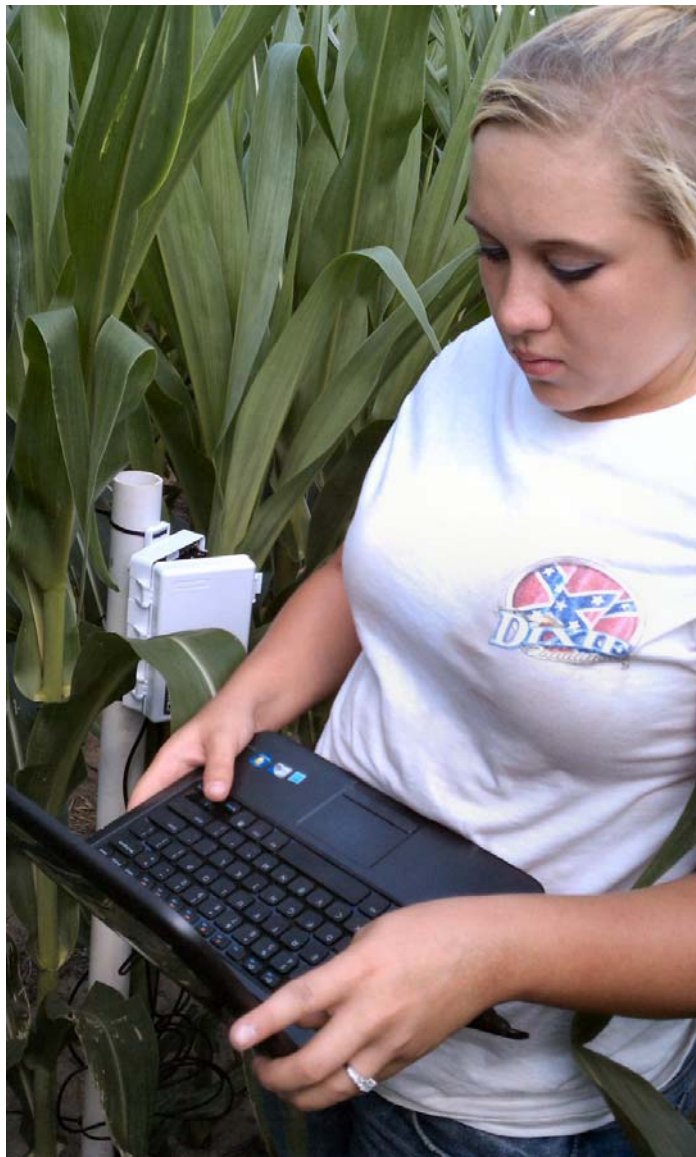
Richard Royal (left) discusses activities of the Water Council. Christian Braneon, Ga Tech grad student (right) also presented about his research project.



Emily and Cal Meeks (grad student) hoe cotton plants to establish alleys for plots in the subsurface drip irrigation study area.



Pulling the pump from one of SIRP's wells to repair the wiring.



Emily downloads soil moisture data from one of our corn plots.