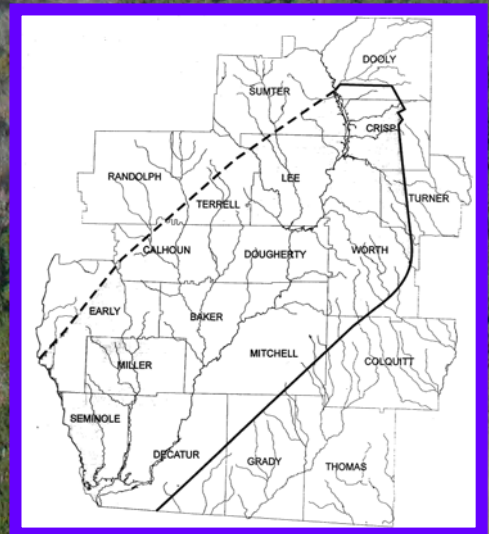


DOUGHERTY PLAIN

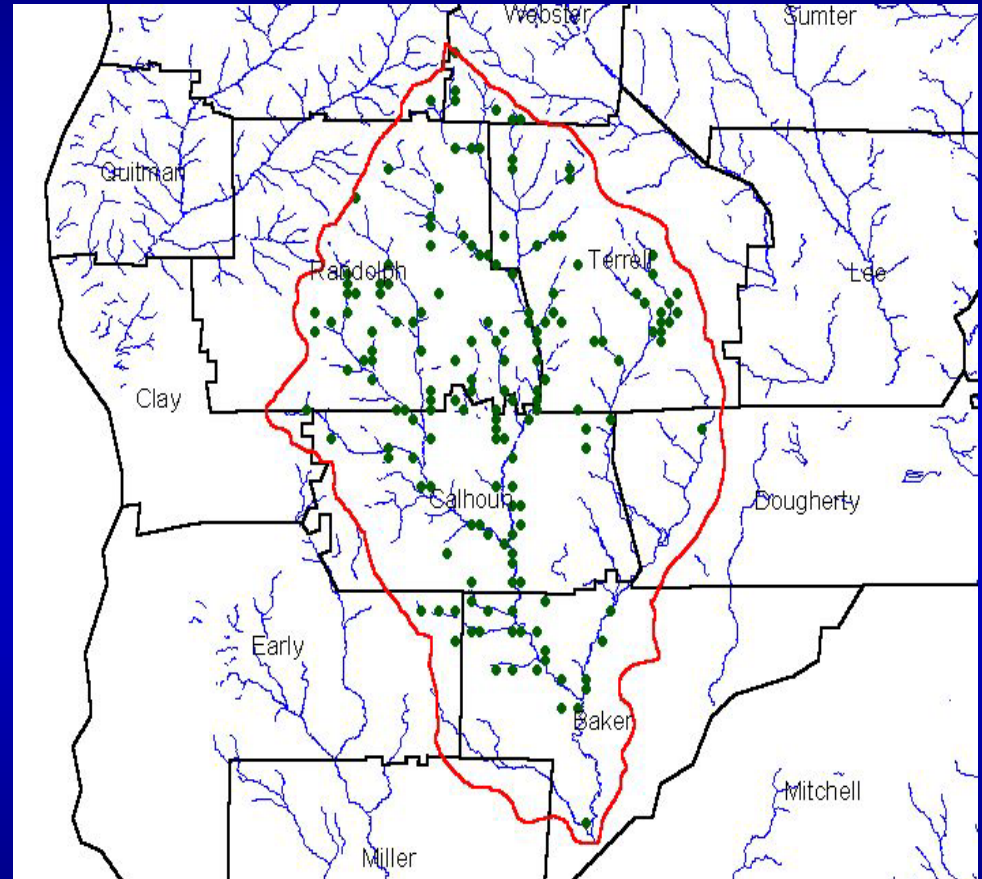


Ichawaynochaway Basin



368.38 Mgals/day

570 cubic feet/second

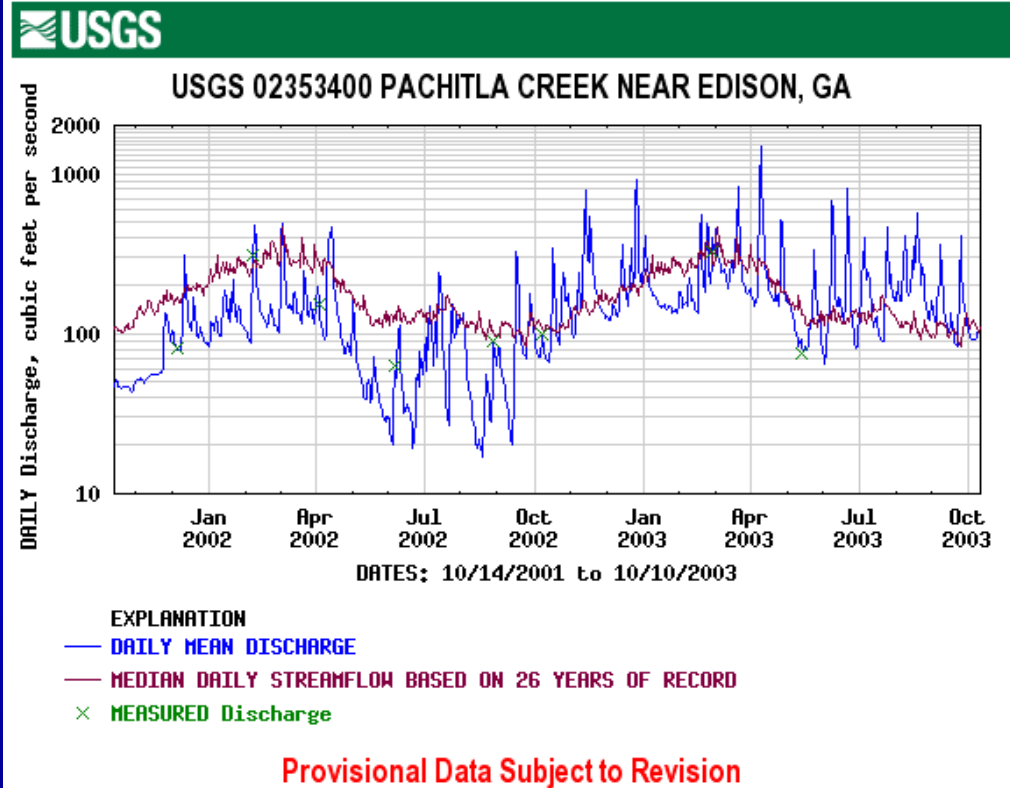


Pumping Effects on Tributary Streams

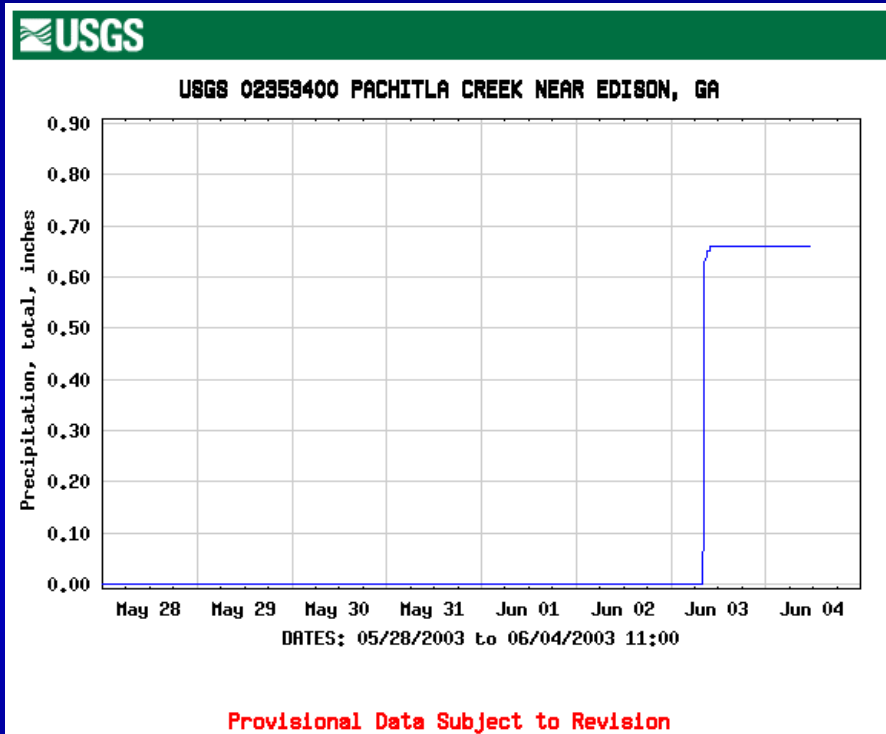


02353400 - Pachitla Creek near Edison, GA

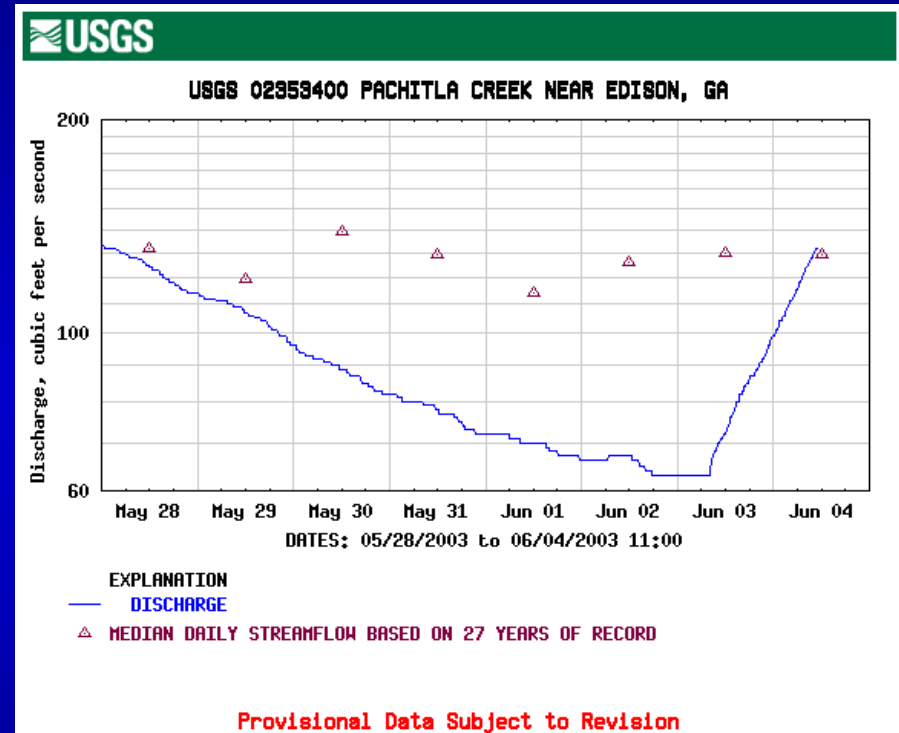
Summer flows are reduced by irrigation pumping



Pumping Stress Pachitla Creek



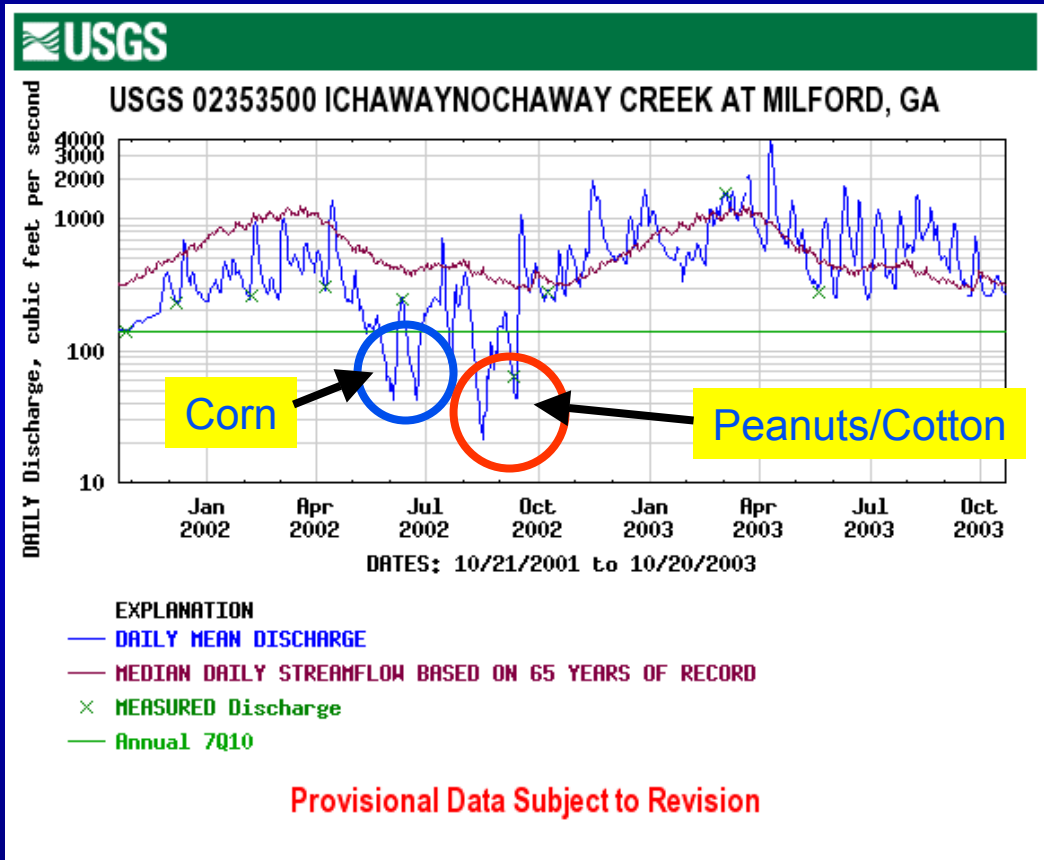
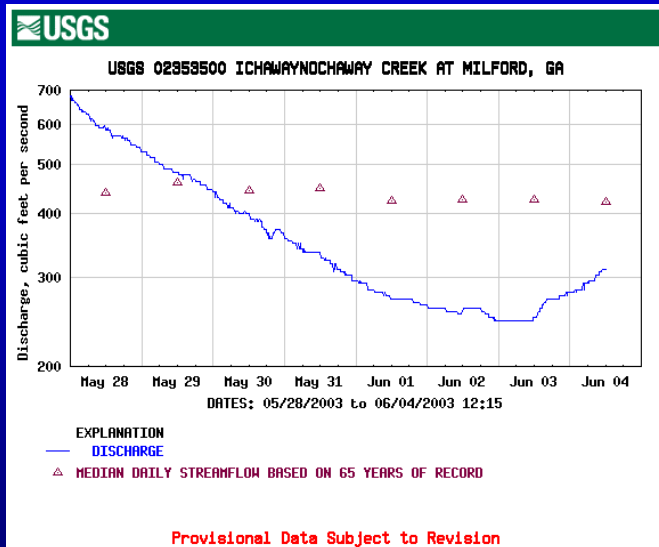
Rainfall



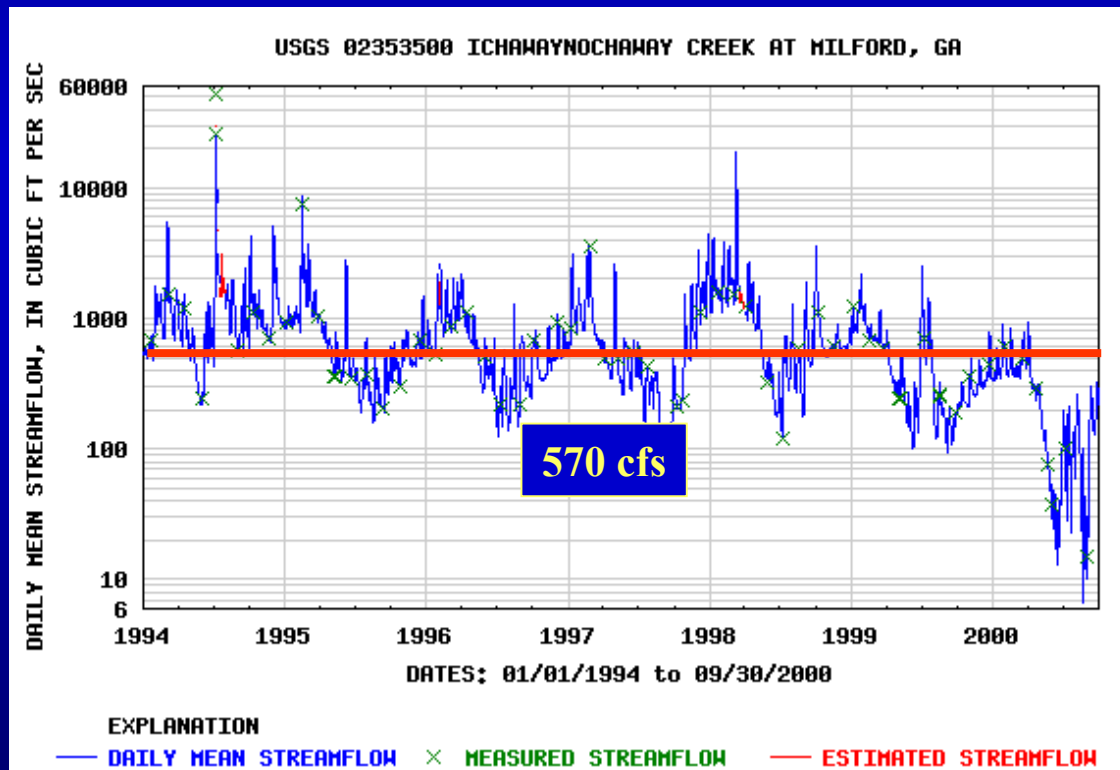
Streamflow



Cumulative Pumping Stress

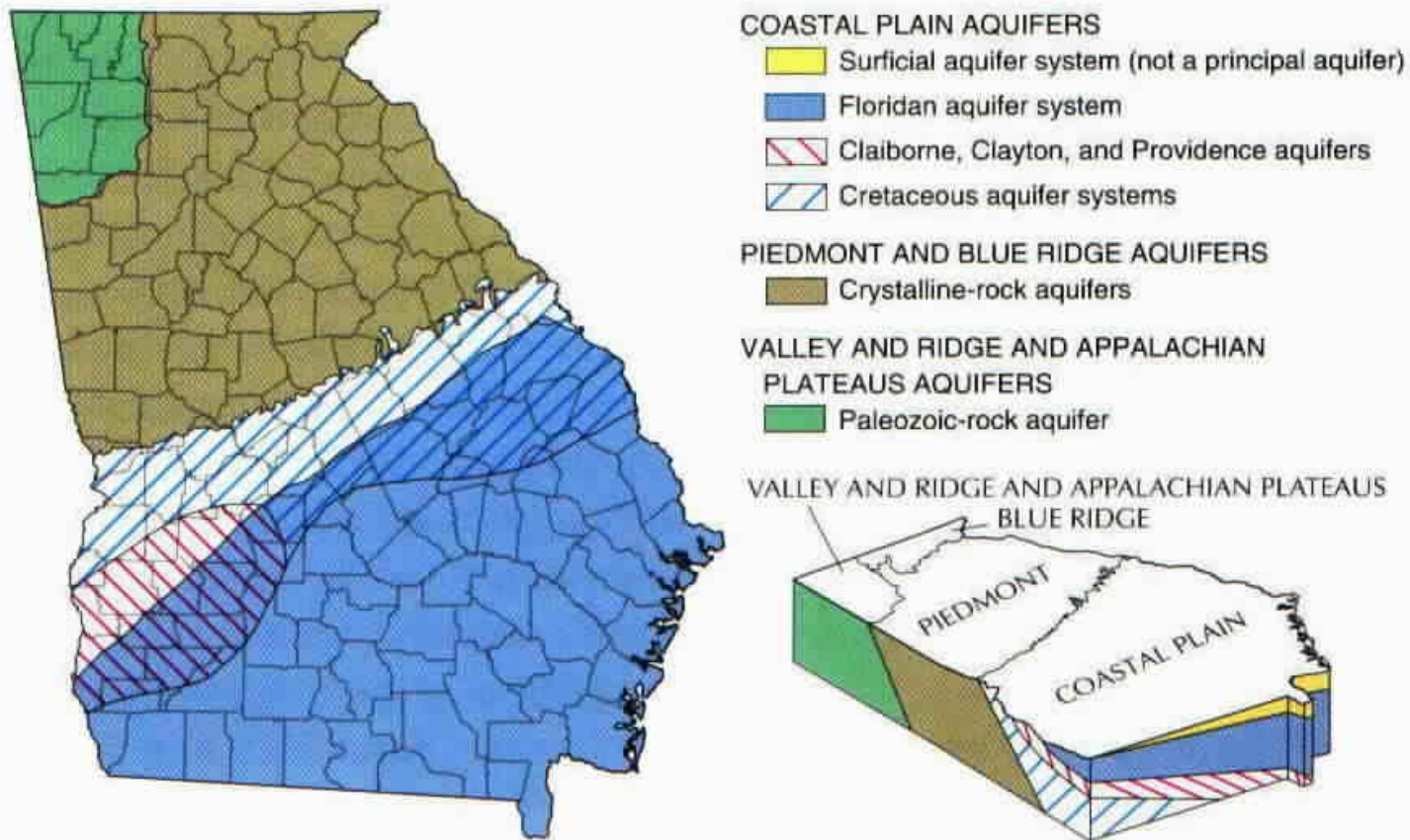


Ichawaynochaway Creek

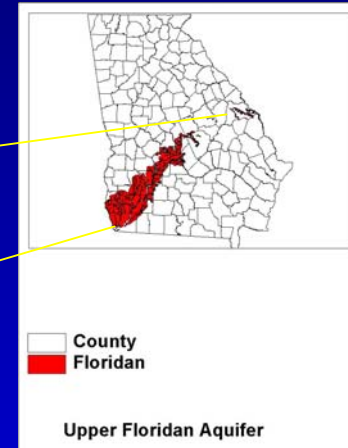
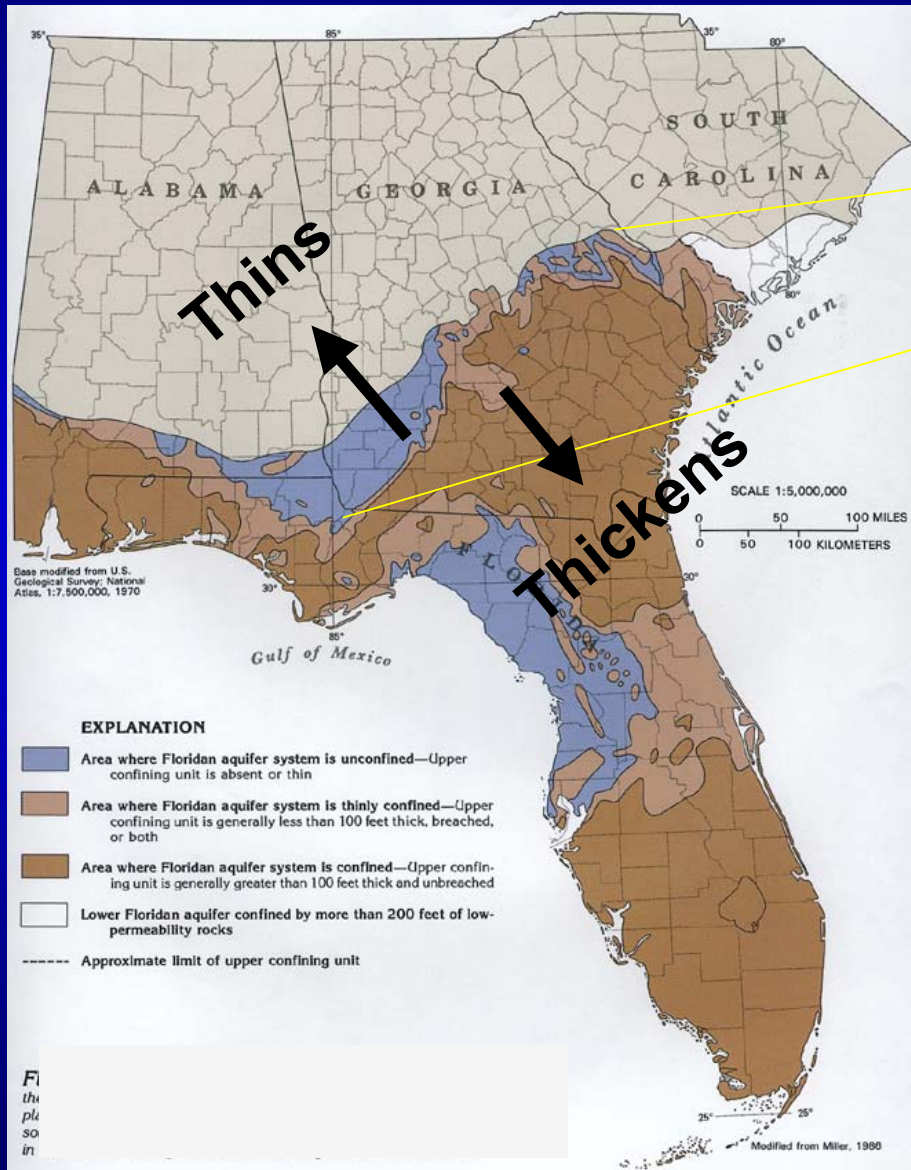


Potential impact
of instantaneous
pumping at permitted
rate

Aquifers of Georgia



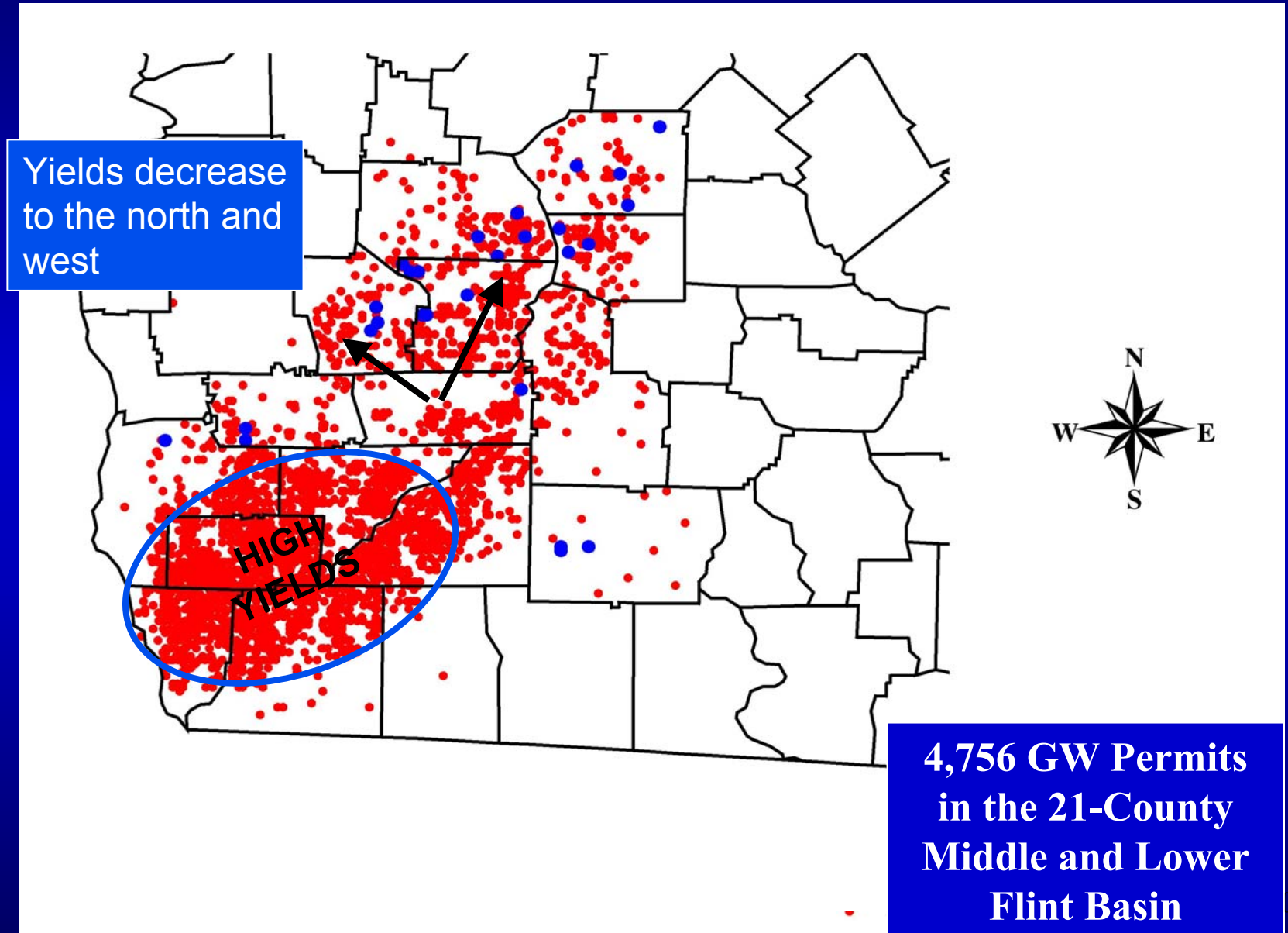
Extent of the Floridan Aquifer



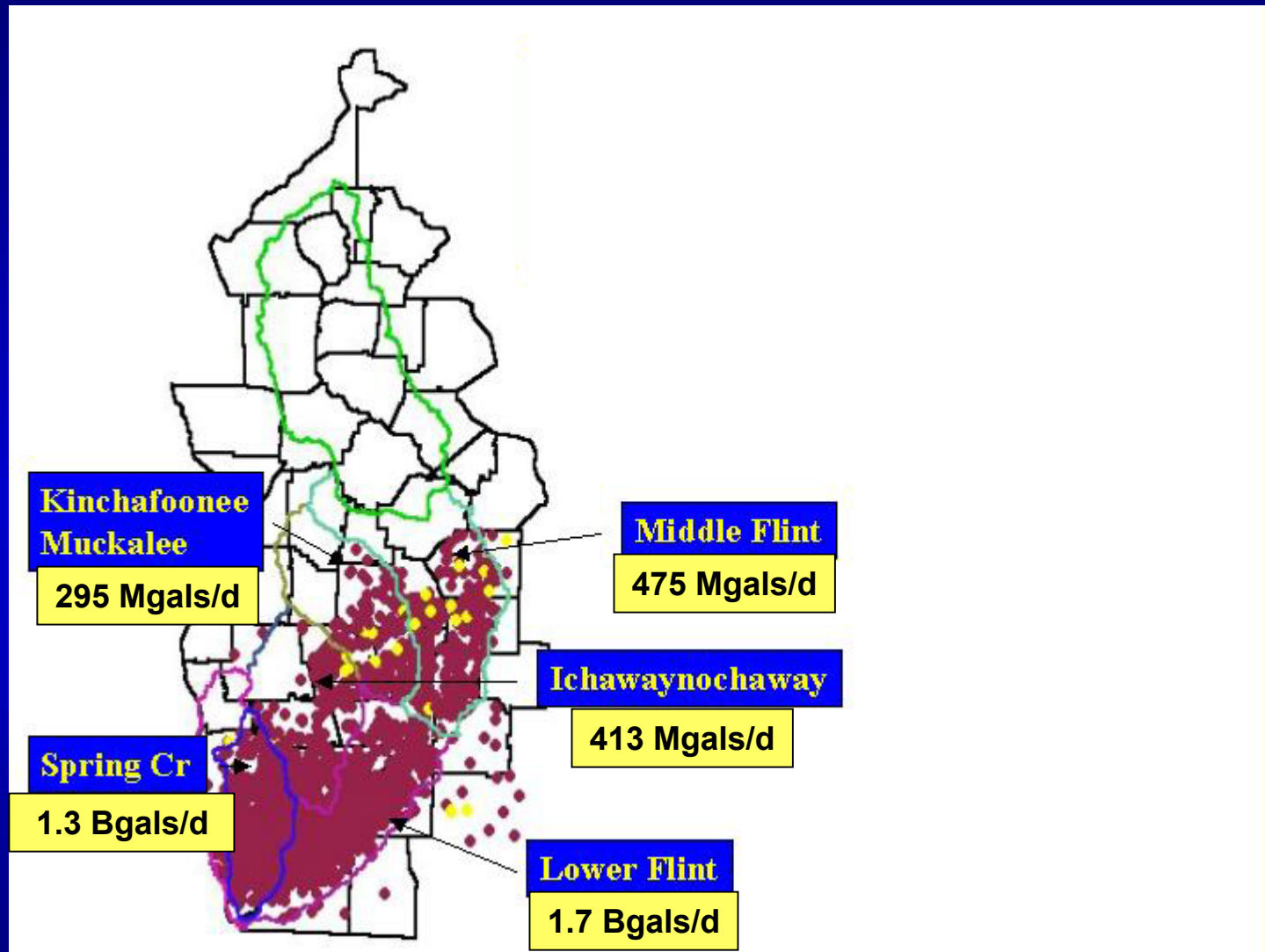
Recharge Area

Becomes thinner and less productive north and west of Albany

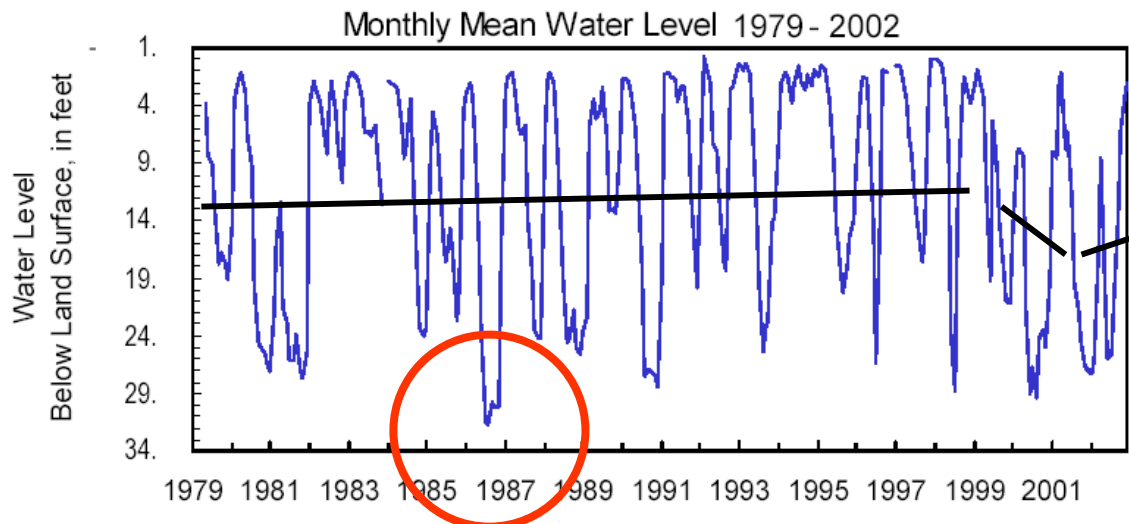
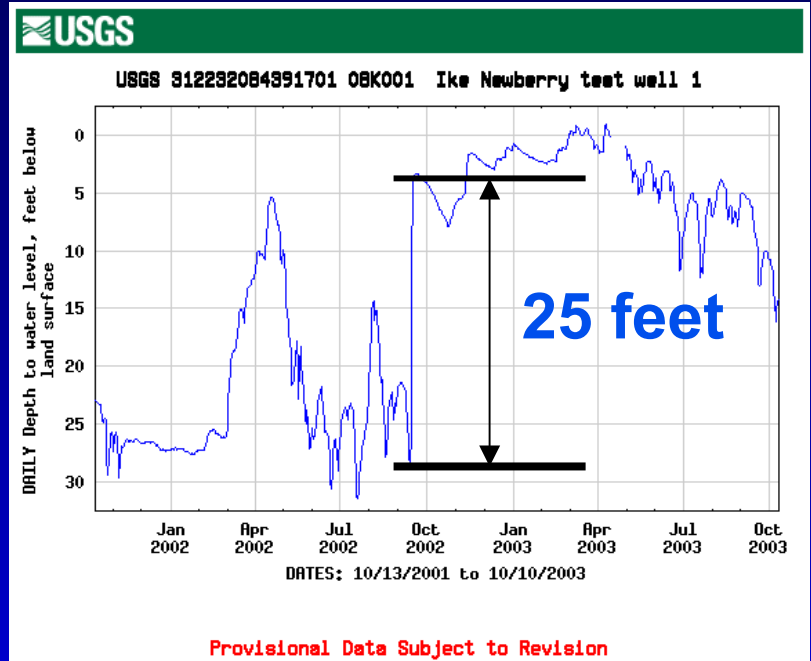
Agricultural Groundwater Use



Permitted Groundwater Withdrawal



Upper Floridan Aquifer 08K001 Early County

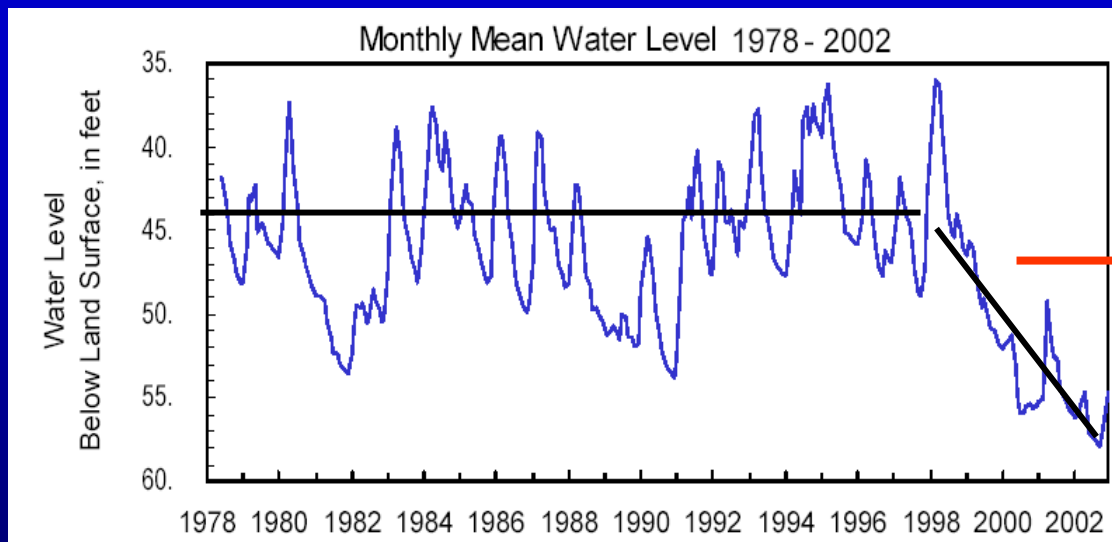
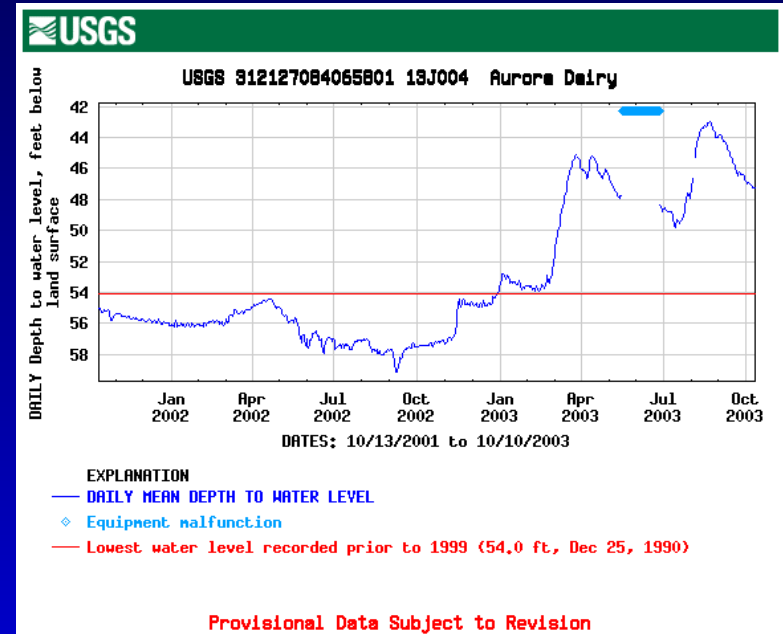


Dynamic recharge

Aquifer is thin

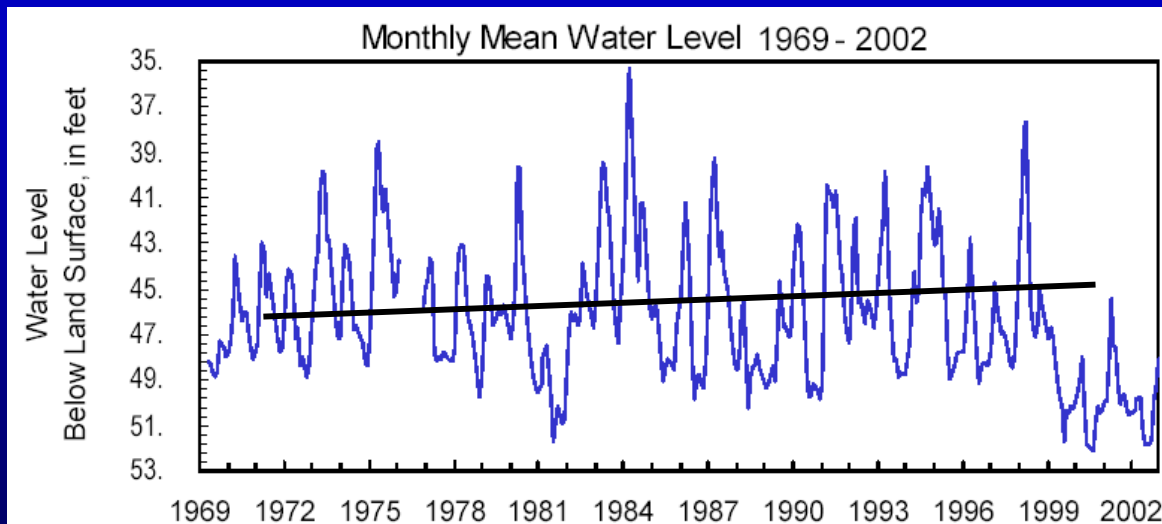
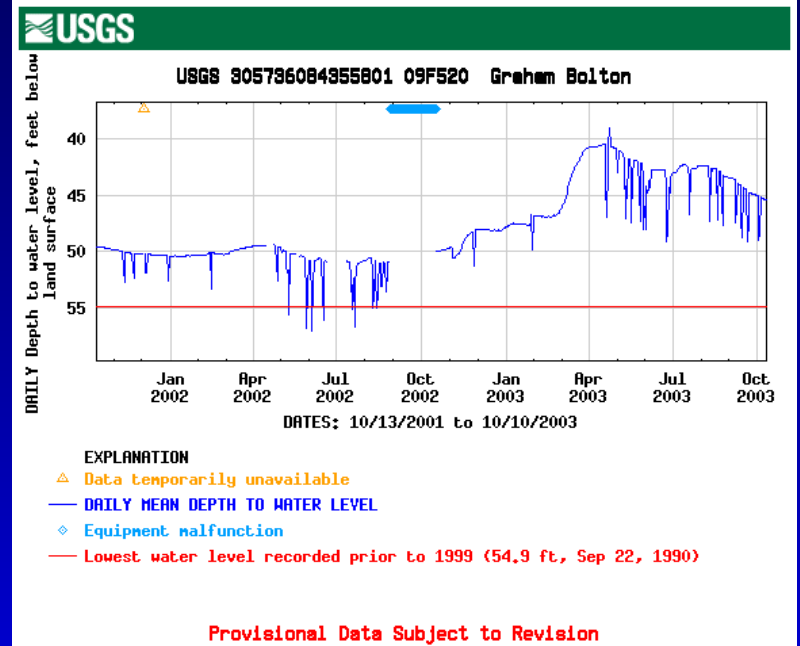
**Large seasonal
decline-densely
spaced wells**

Upper Floridan Aquifer 13J004 Mitchell County



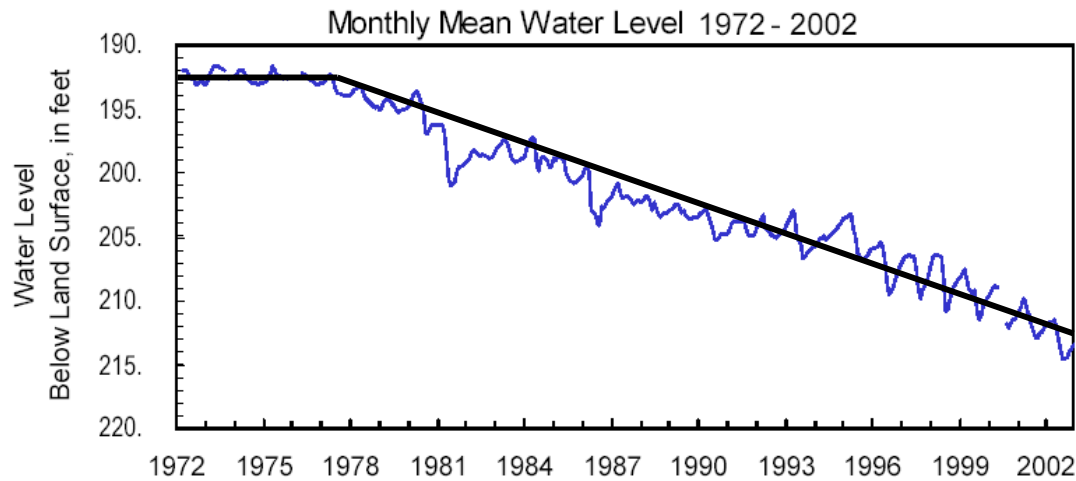
Current Level

Upper Floridan Aquifer 09F520 Decatur County



Water levels partly controlled by elevation of Lake Seminole

Upper Floridan Aquifer 15L020 Worth County



**Groundwater levels
have declined 23 feet
since 1977—about
1 foot per year**

HB 237--Water Resources Implications

Pros:

1. Extends authority of Director to deny future permit applications for ag. withdrawal from stream based on availability and impacts on other water users.
2. Permit can be revoked for nonuse.
3. Development of a regional water development and conservation plan(s) by EPD.
4. Future permits issued will be consistent with plan(s).

Cons:

1. Encourages development of irrigation ponds (filled by seasonal runoff)—could change natural flow regime of streams and needs study prior to implementation.
2. Factors for determining impacted stream systems do not include aquatic inhabitants (fish, mussels, etc.).
3. Mechanism for reducing ag. pumping during crisis situation is limited by appeals process...crisis likely would exacerbate during prolonged appeals process.
4. Permit trading will lead to net increase in water use (estimates suggest that at present only 10% of permitted ag. pumping potential is utilized). Need controls on re-issue of permits.
5. Does not include provision to convert existing ag. permits from land/pumping rate basis to volumetric basis.
6. Does not include water conservation, nor increased efficiency incentives.

Riparian Law

“Riparian proprietors have a common right in the waters of the stream... Riparian proprietors have no title to the water which flows over their land, but are entitled to a reasonable use thereof... The property, therefore, consists not in the water itself, but the added value which the stream gives the land through which it flows.”

Price v. High Shoals Mfg., 132 Ga. 246 (1909))

End