Some (Fairly) Unique Features of Carolina Water Law

Confessions of a "Good Government Guy"

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"Water for All" conference

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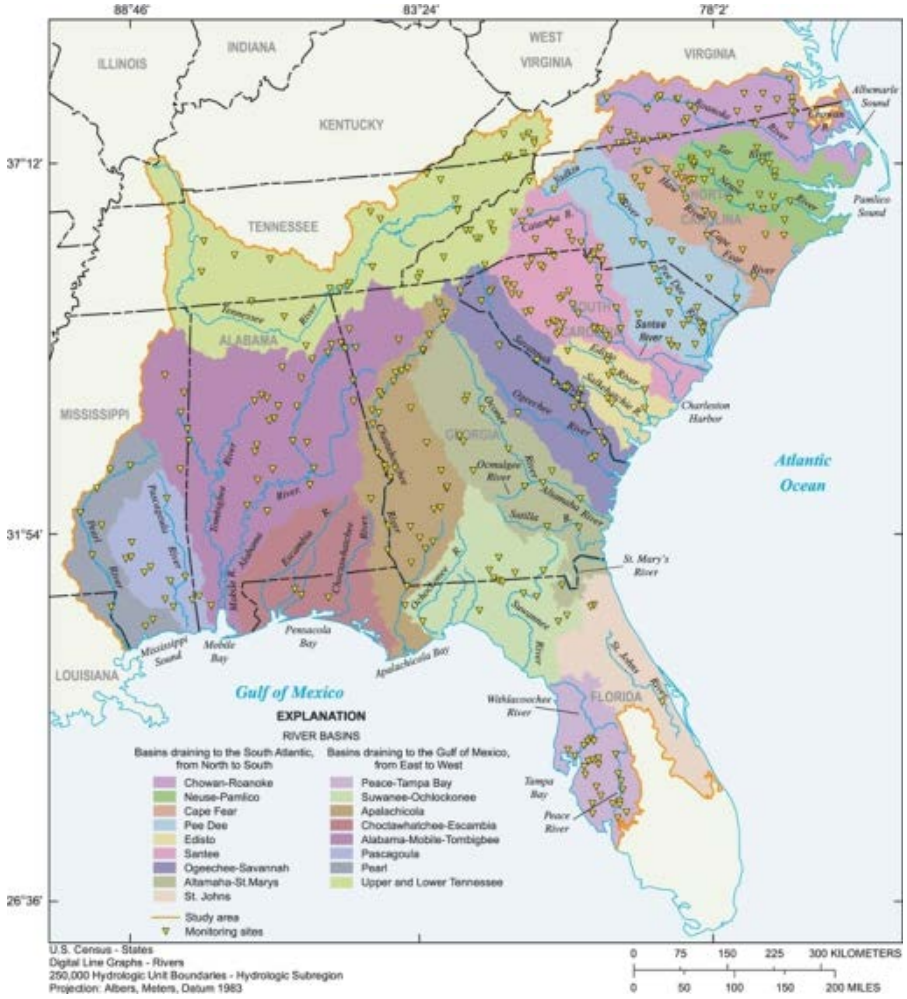
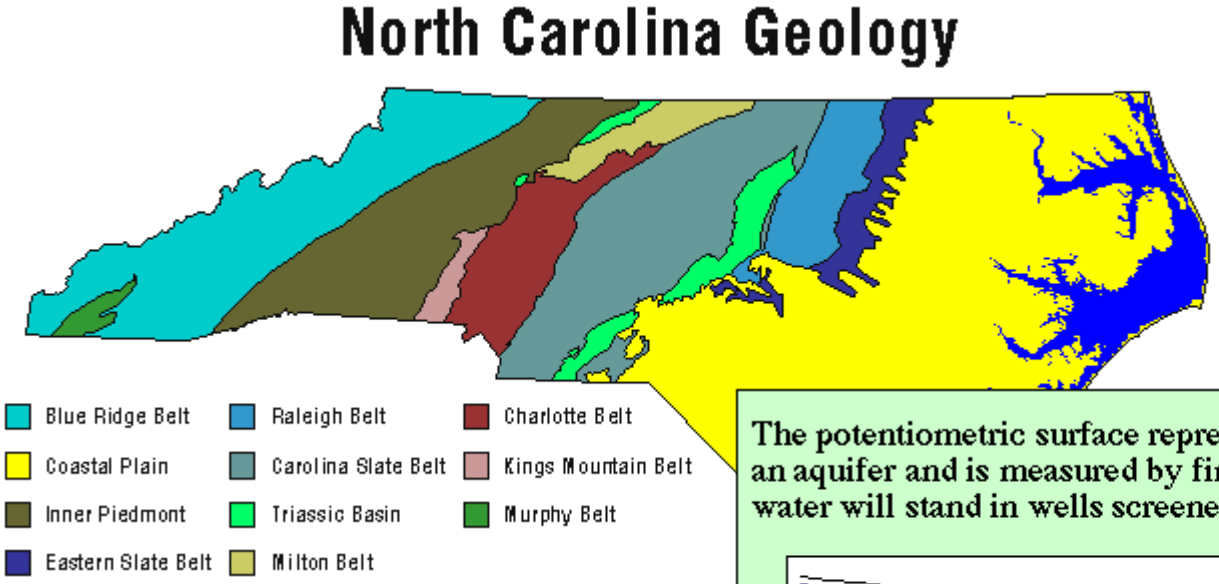
Overview

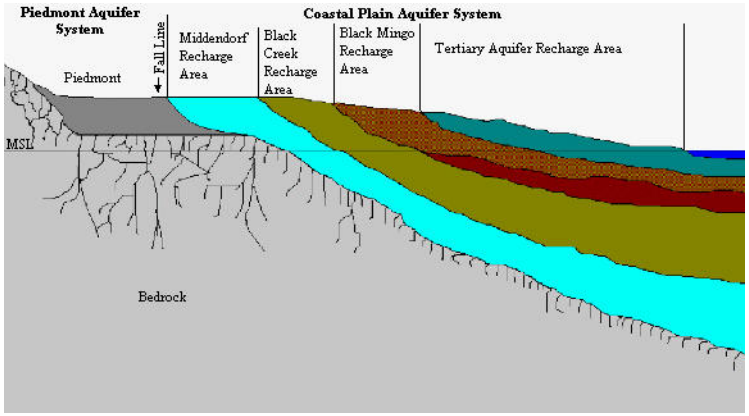
- Thinking about water at multiple scales
- What's regulated and what's not when it comes to water in NC…and why?
- What's planned about water in NC, and how?
- Strengths/weaknesses/opportunities/threats for Carolina water resources

On scale: the region, the states, the basins

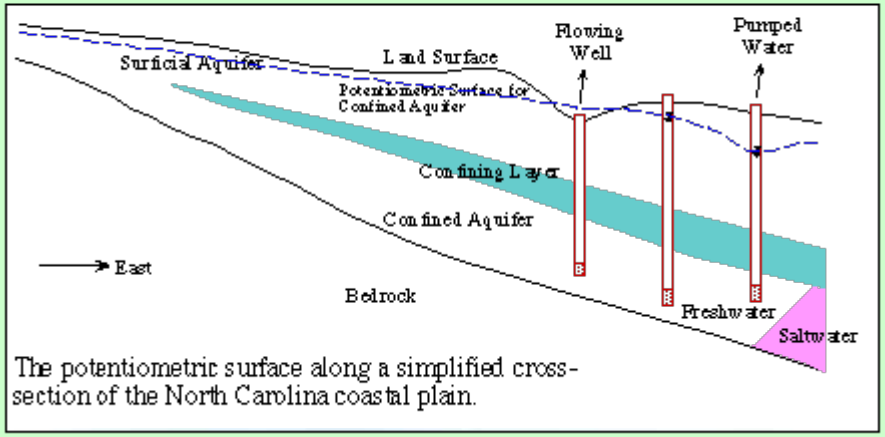


Aquifers in the Carolinas





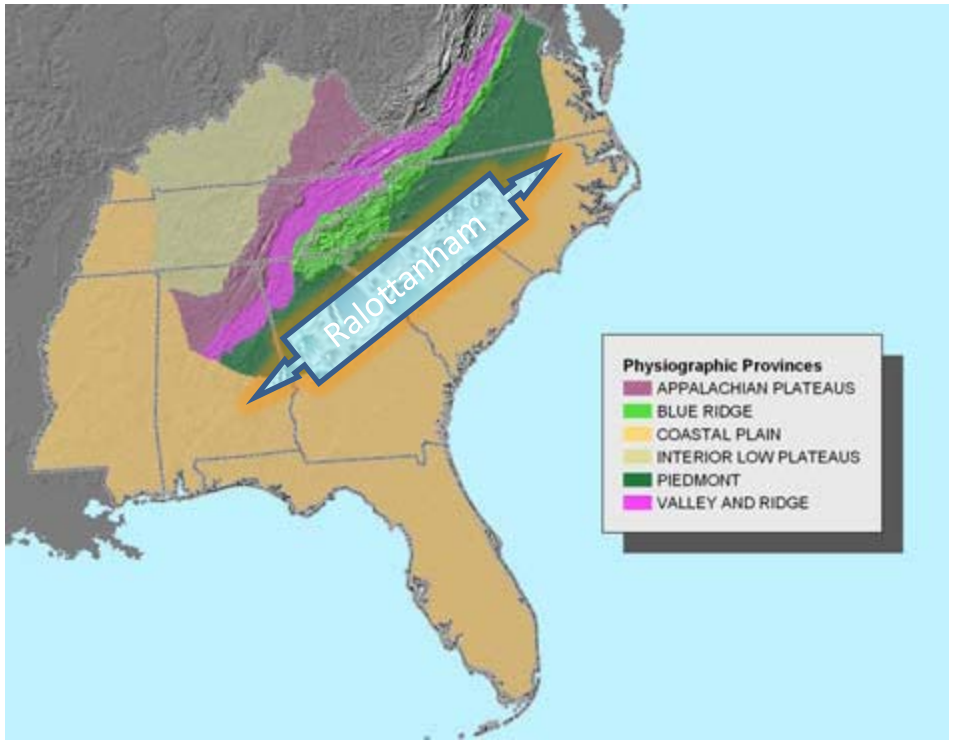
The potentiometric surface represents the water pressure in an aquifer and is measured by finding the level at which water will stand in wells screened in that aquifer.



The potentiometric surface along a simplified cross-section of the North Carolina coastal plain.

Our (region's) big water challenge: growth in areas lacking water storage

A huge percentage of the South's population, growth and economic prospects lies in the piedmont . . .



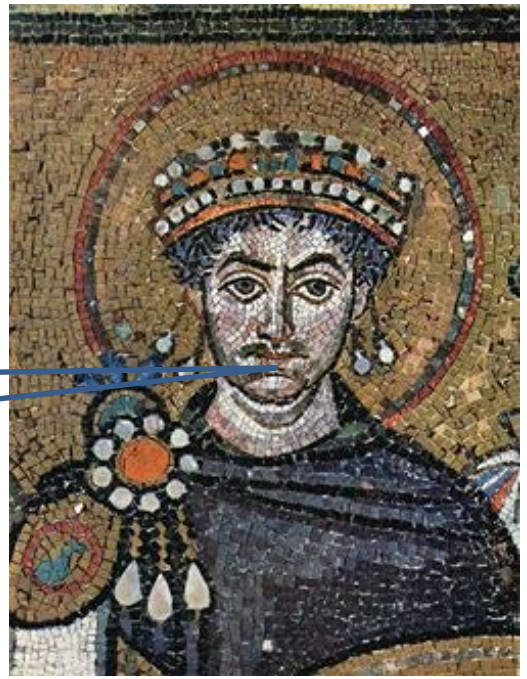
. . . a region with good average precipitation, but small streams and low yields from groundwater. Shallow reservoirs have severe nutrient overenrichment problems.

Result: low resilience; high susceptibility to drought; almost certain escalation in conflict over water unless growth stops.

What's regulated and what's not in NC water…and why

- Extraction

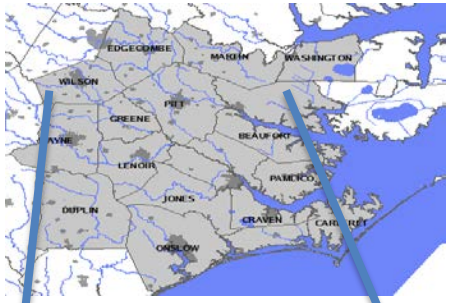
Not!



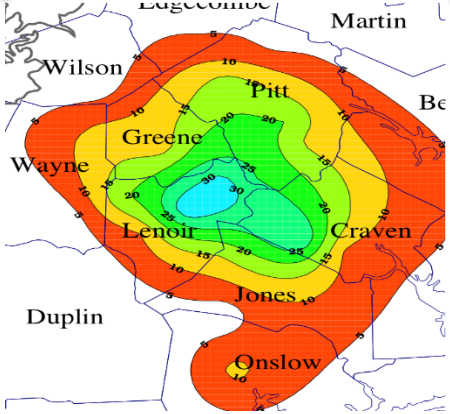
- Which really means we are "regulated" by ancient riparian rights principles (and how well the courts apply them)

“Pure” riparian rights failed long ago

Judicial doctrine of “reasonable use”



Capacity use area statute and rules



The “regulations” that replaced them have worked fairly well

(At least) when it comes to water, there is no such thing as “free market”

See 1795 N.C. Sess. Laws ch. 7 (reprinted in N.C. Laws Compilation of 1804 at 76). The law is still on the books today, G.S. 156-2 *et seq*.

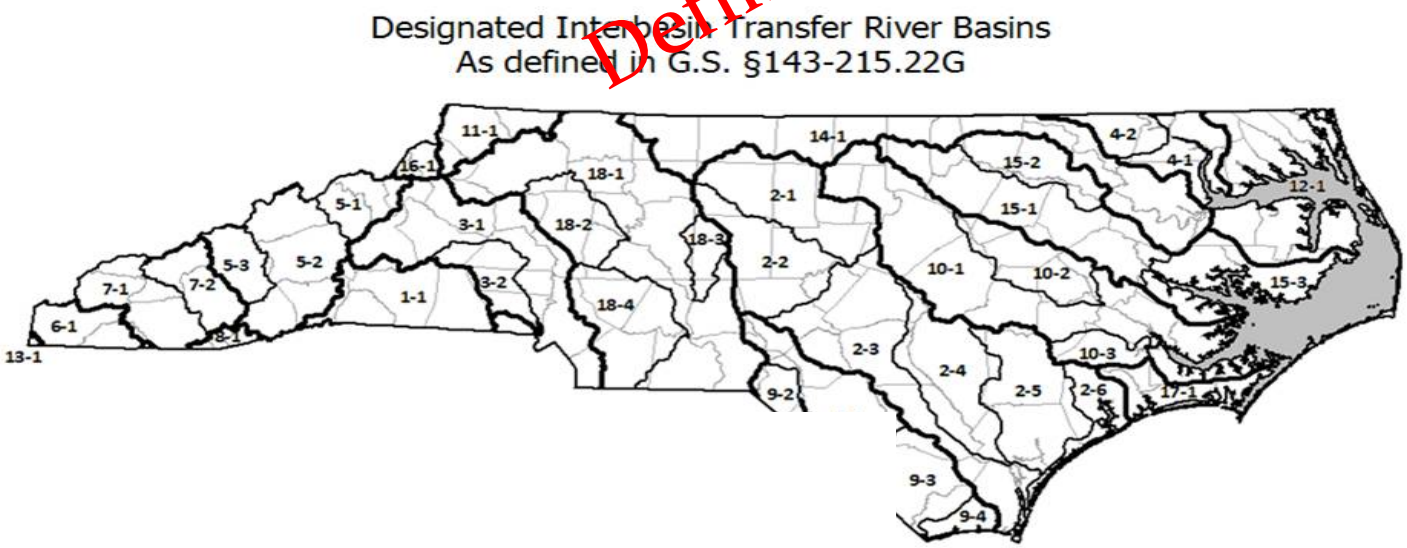
Sure, we have a regulated riparian system

And this guy has a bass boat….

What's regulated and what's not in NC water…and why

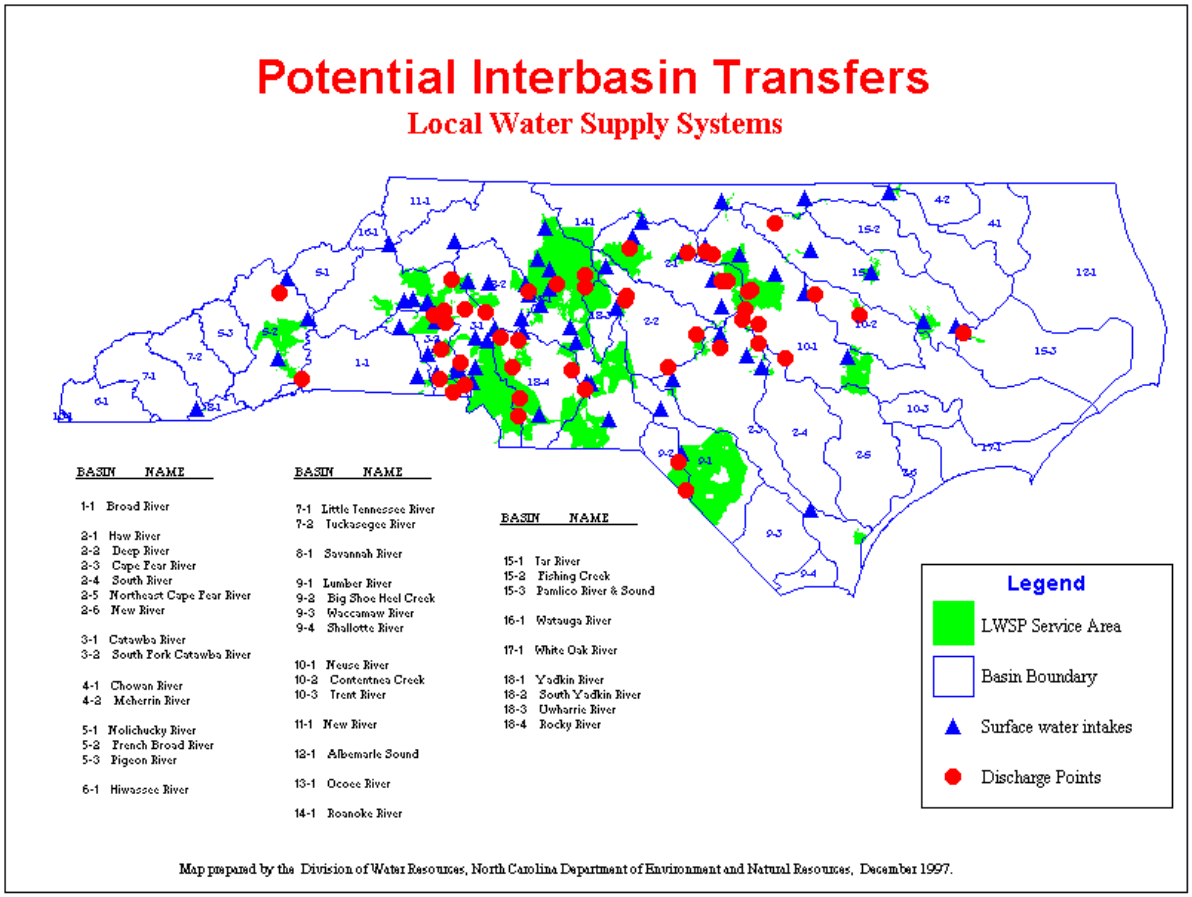
- Interbasin transfer

Definitely!

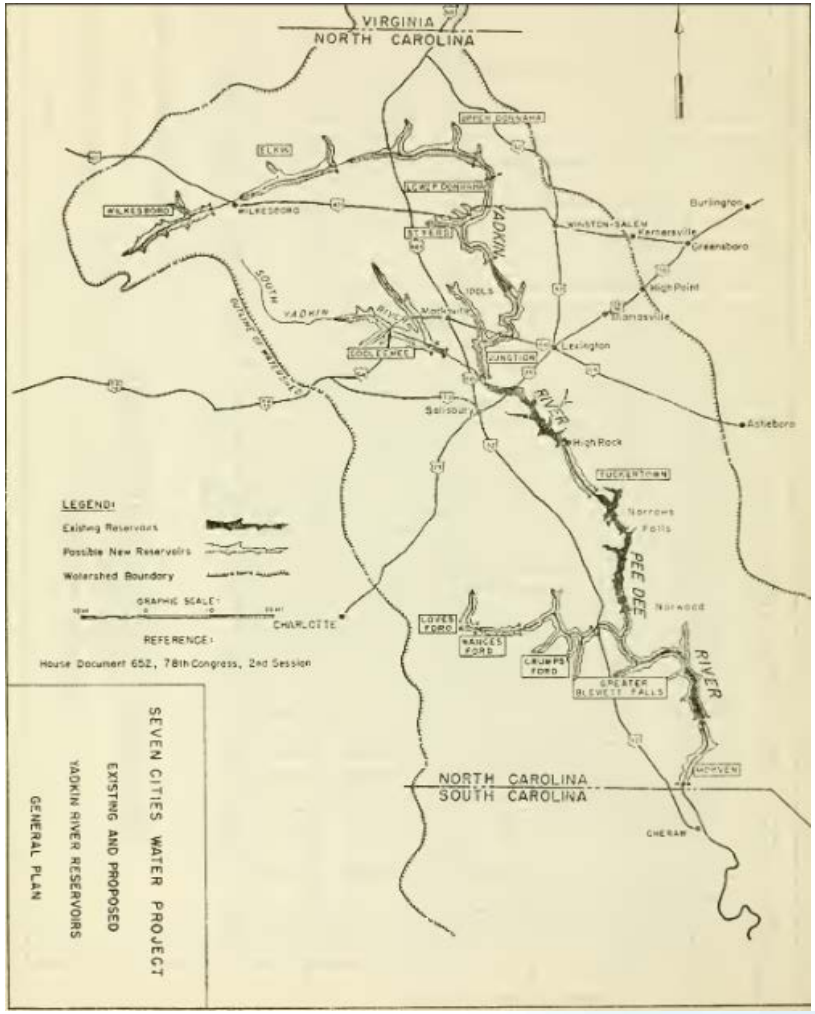


- NC is one of the (if not THE) most regulated states in the U.S. for interbasin transfers

Geography and historical development imply many IBTs in NC



The Seven Cities project: roots of our IBT approach, death of a central planning approach?



What's "planned" about NC water…and why

- "State water plan" never amounted to much
- Local water supply/watershed plans probably useful, rarely scaled right for water problems
- Good plans have usually been driven from local levels to meet fed/regional/State needs
- Some hydrologic models in place

NC Hydrologic Model status

Calendar Year	Status of River Basin Hydrologic Models
Completed models	
2011	Broad and Tar models completed
2012	Broad receives EMC approval; Cape Fear and Neuse combined model begun
2013	Catawba, Roanoke, Cape Fear and Neuse combined models completed
2014	Tar-Pamlico model completed
Schedule for remaining basins	
2018	French Broad, New, and Watauga (working contract)
2019	Lumber and Yadkin Pee Dee (If funds are available)
2020	Hiwassee and Little Tennessee (If funds are available)
	Albemarle Sound, Chowan, Onslow Bay, and Savannah

Strengths of NC water regulation

- Goal of integrating water resources/water quality/surface water/groundwater is good
- We have done it on the cheap – which works ok when it rains the "right way" and there are no major water quality problems
- Mostly pragmatic, not too dogmatic
- Lots of models for regional cooperation

Weaknesses of NC water regulation

- System evolved without concern for scarcity
  - Questionable priorities in shortages: the farm vs. the city issue
  - Uncontrolled extraction
  - Still widespread reliance on run-of-river systems

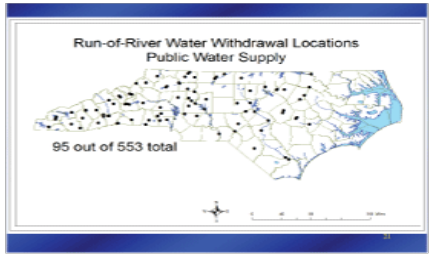
Weaknesses in NC water policy, con.

"I had my lawyers research the question, and they told us that we could suck the state of Virginia out through that hole in the ground and there was nothing anyone could do about it."

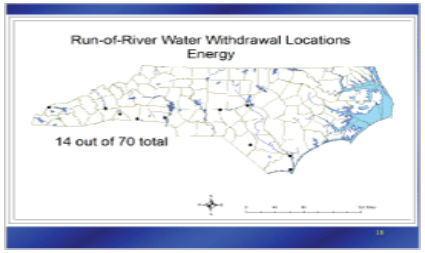
John. E. Ray III, Exec. VP, Union Camp (Savannah, Ga, July 16, 1970) (quoted in Fallows, THE WATER LORDS (1971))

Run-of-river reliance in NC

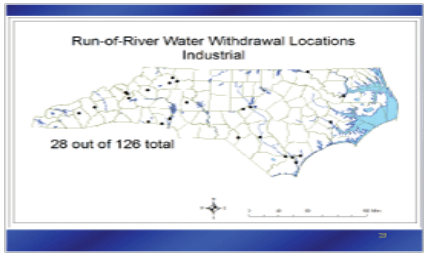
Public water supply



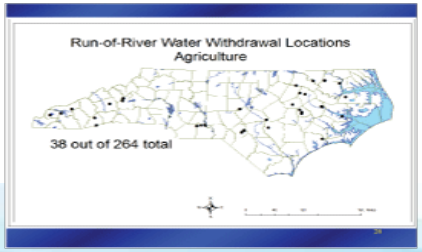
Energy



Industry



Agriculture



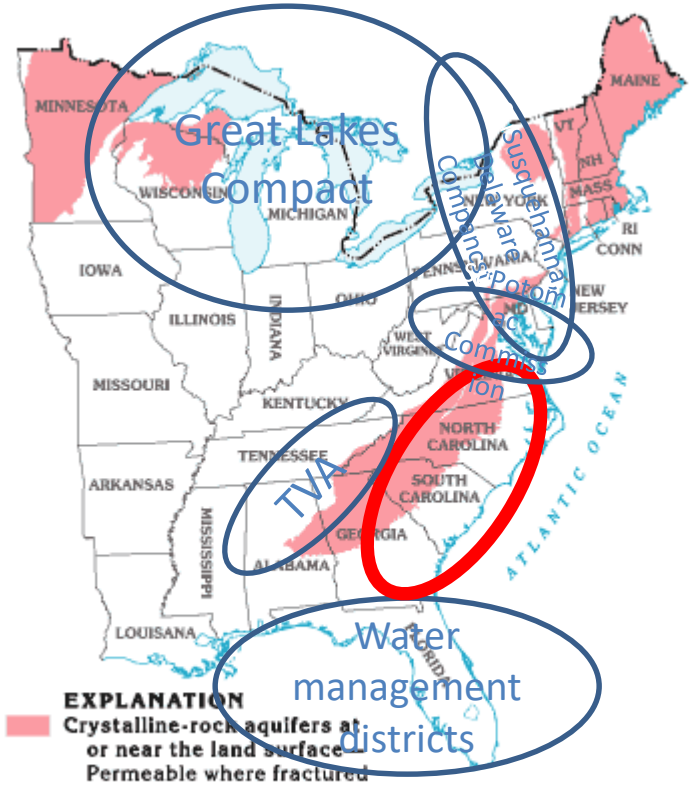
Source N.C. Division of Water Resources report to Environmental Review Commission, November 2012

Weaknesses of NC water regulation, con.

- Modeling still somewhat crude and incomplete
- Regional and interstate water cooperation still has a long way to grow

Eastern US regions and water

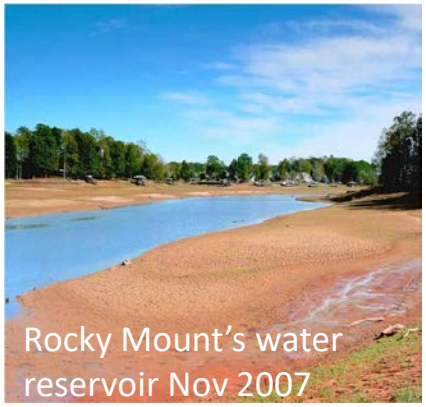
Institutional context: SEUSA is behind in regional water management



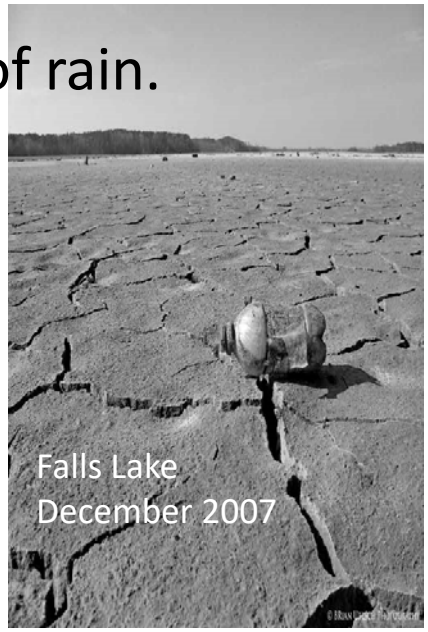
Source: *http://sr6capp.er.usgs.gov/aquiferBasics/crystal.html*

The resilience problem:

- In 2007 every place in NC got at least 35” of rain.
- How our water systems fared


Rocky Mount’s water reservoir Nov 2007


Lake Michie, Durham County October 2007

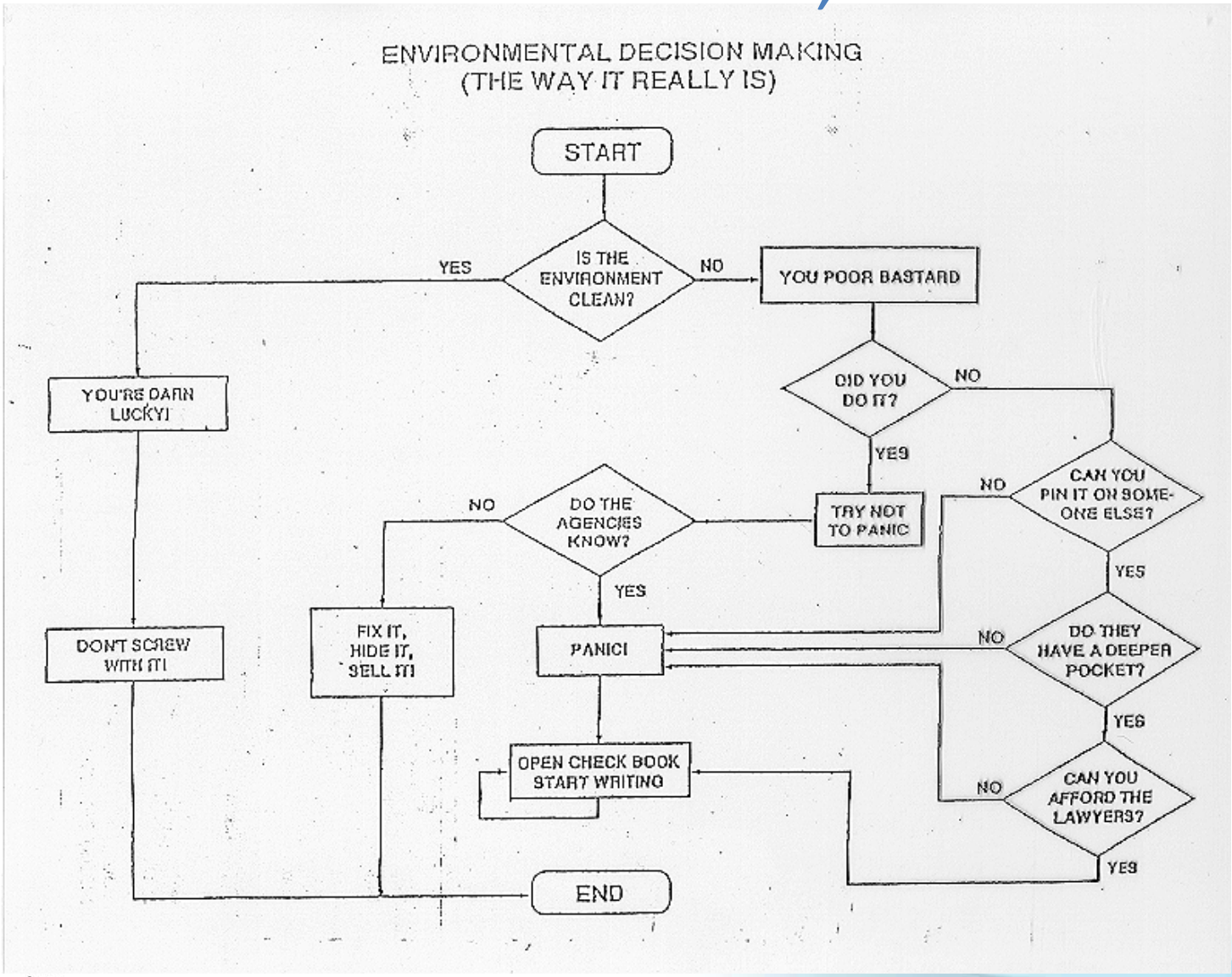

Falls Lake December 2007

- Question: how is it that we get more precipitation in 2007 than most of the USA gets in an average year, yet we are plunged into extreme drought?

Opportunities for NC water resources

- The rare nonpartisan environmental problem
- Business interests and basic human needs might transcend other policy divisions
- Water prices have risen, but still very low
- Rising recognition of water as a key environmental and economic asset

A Dept. of Commerce View of Environmental Assets, c. 1997



Threats to better NC water resources

- Complacency among major water users..."we got ours, keep your hands off"
- Poor citizen and cultural understanding of threats to water
- Slow variables…nutrient overenrichment, emerging contaminants, deferred maintenance…

What is the right scale to tackle these long-term water concerns?

- NC's traditional approach
  - Leave it up to individual water systems to solve
  - Small, weak state agency monitoring with required reports from local systems and a powerful but politically difficult ability to single out areas for more regulation ("Capacity use areas")
  - Enjoy but don't try hard to steer federal efforts
- Water allocation study (2008, 2010) recs
  - Continue primacy of local systems
  - But put more resources and power behind river-basin scaled planning organizations, at least where scarcity is expected in the next 50-75 years

Conclusion

The Charlotte/brownfields model:

Get the right folks around the table and give them some real resources to work with…but who are those folks?