

Moehring, Margo

From: Montague, Clay L <montague@ufl.edu>
Sent: Thursday, January 12, 2017 5:15 PM
To: qwhite@ju.edu
Cc: Moehring, Margo; Rick Frey; ashbynix@gmail.com
Subject: Interstate Cooperation as a subject of the Water Committee

Dear Quint,

Owing to my double perspective from both Florida and Georgia, I believe interstate cooperation cannot be overstated as an important subject to be addressed by the Water Committee of the Northeast Florida Regional Council. Thank you very much for emphasizing interstate cooperation both in your planning for this committee as well as in the meeting yesterday.

Over the last decade, I have become keenly aware of the need for interstate cooperation in water policy from my work with environmental groups in southeastern Georgia. Having spent nearly all of my career in Florida, I have noticed what appears to me to be a dismaying amount of suspicion, perhaps both ways.

To be very frank, I think certain specific interstate sentiments must be openly acknowledged and carefully addressed in order to achieve interstate cooperation in water policy. Having a Florida policy organization recognizing these sentiments and actually using them effectively to advance policy could be especially helpful in achieving interstate cooperation.

Even though the actual interstate area of interest may be limited to the St Marys River watershed, as you know, any water issues between Georgia and Florida quickly reach Tallahassee and Atlanta (and some go to Washington, DC, one even to the US Supreme Court).

So with high hopes for effective interstate cooperation, I believe the following four main areas have considerable relevance, with broad political reach in both states:

1. The optimum amount and pattern of water delivery to estuaries for maximizing human interests.
2. The impact of groundwater withdrawals in the broader vicinity of the withdrawal (including surface water effects).
3. The impact of land uses on the "flashiness" of coastal plain rivers, such as silviculture and urbanization.
4. The communication blunder of visualizing St Marys River water as a source to meet Florida's development needs.

The first issue -- optimum water delivery to estuaries -- is far more than an interesting scientific pursuit. I believe it is of crucial importance for policy. Argument about estuarine needs is at the heart of the ACF basin lawsuit now on the docket of the US Supreme Court (Docket No. 220142; <https://www.supremecourt.gov/Search.aspx?FileName=/docketfiles/22o142.htm>). I think the impact of decades of interstate acrimony generated by the ACF issue cannot be overstated. It will surely magnify the importance of any interstate water issue between Georgia and Florida, including within the St Marys River watershed. Moreover, in my opinion as an estuarine systems scientist, current scientific understanding of fresh water needs for specific functions of estuaries is insufficient to resolve the issue in the ACF basin, nor probably in any estuary. One idea that was floated in the 1990s by Steve Leitman (a Tallahassee river basin management consultant) was to gather the evidence sufficient to issue a water use permit to an estuary. I believe the information needed goes well beyond the requirements for establishing minimum flows and levels. Instead it will be necessary to identify both an optimum amount and an

optimum pattern of water delivery to estuaries for maximizing overall human interests, including but not limited to diversity and production of fish and wildlife (which could conflict with such things such as river navigation and flood zone development planning).

The second issue -- regional impact of groundwater withdrawal -- is why I raised the effect on groundwater of closing the Gilman Paper mill. Because the impact of this mill on groundwater is locally well known, fear of impact for any groundwater withdrawal in the region may become an interstate issue. Some may imagine a tipping point beyond which a groundwater withdrawal in Nassau, Baker, or Duval Counties will impact future groundwater availability or quality in Camden and Charlton Counties, and vice versa. A careful explanation to the public about the actual extent and cumulative impact of groundwater withdrawals seems essential. It may be that the St Johns River Water Management District can work with groundwater management counterparts in Georgia to address what may simply be a science and engineering communication issue.

The third matter -- impact of land use on river "flashiness" -- relates to a specific claim leveled at silvicultural practices in southeastern Georgia a decade ago, but still circulating within environmental groups in the region. Some of the reasoning for this claim is highlighted in my PS below. The same could also apply to urbanization and large scale residential development. To address this issue, I think runoff models could explore the hypothesized increase in rate of flooding and drawdown under various land use practices. Bringing such results to the attention of the public could be valuable education necessary for policy implementation.

Finally, I also mentioned the fear and concern of many people in southeastern Georgia when the St Johns River Water Management District produced a water supply report that seemed to include the possibility, however remote, of taking a large amount of water out of the St Marys River. I view this as a communications blunder. With sufficient interstate cooperation, it might have been possible to decide not to include the St Marys River even as a remotely possible target of solving Florida's water needs. Since it was in fact included for some reason, all involved in water policy and planning may need to make an extra communication effort to point out that such an idea was not practical and could not without the cooperation of at least a majority of citizens of the Georgia portion of the St Marys River watershed. Allow everyone to conclude that the unfortunate scenario of using St Marys River in this manner will not be allowed. In any case, if interstate cooperation is to be taken seriously by a Northeast Florida Regional Council, I think this fresh memory in Georgia must be successfully addressed head on.

I hope you will believe that I do not share these negative sentiments. They have been shocking for me to hear from the other side of the border after I spent so many years in Florida. Perhaps I notice them for that reason, but I think their open acknowledgment by a Florida policy organization provides an exceptional opportunity to mend interstate cooperation. Northeastern Florida and southeastern Georgia may begin a productive water policy relationship that will migrate westward along our border!

Thanks for the opportunity to attend the Water Committee meeting. I look forward to its important work.

Yours truly,

Clay

PS. The concern is that land use practices such as silvicultural row planting and large planned developments increase runoff and decrease ground and wetland water storage, which cause river levels to become dangerously dynamic in coastal plain rivers, such as the Satilla, St Marys, and Nassau Rivers. It is easy to imagine that increasing the rate of runoff causes more intensive flash flooding. Perhaps less apparent is that for the same reason, the drawdown to low water during drought should also occur sooner, last longer, and result in lower stages. If the water runs off quickly and on down the river, less will have soaked in and be stored in shallow groundwater and wetlands. With less storage, seepage cannot support base flow as well during drought. Our coastal plain rivers have been "flashy" like this for the entire period of record, so it has been argued that silvicultural practices have had nothing to do with it. Nevertheless, modern best management practices for silviculture do try to address groundwater storage, though not all forestry companies

follow them (I'm told by representatives of large companies that the smaller companies are less likely to follow the BMPs). Nevertheless, many within the environmental community of southeastern Georgia think silviculture contributes both to flash flooding and to serious drawdown during drought.

Clay L. Montague, PhD
Associate Professor Emeritus
Howard T. Odum Center for Wetlands
Department of Environmental Engineering Sciences
University of Florida
Gainesville, Florida

Mailing Address: 245 Deerwood Creek Estates, Waverly, GA 31565-2301
Telephone: (912) 265-5435 (land line)