Groundwater Availability Assessment
Technical Advisory Committee Meeting
May 17, 2018
U.S. Geological Survey
720 Gracern Road
Columbia, SC 29210

AGENDA

1. Overview of Water Planning Process – Joe Gellici (DNR)
2. Hydrogeologic Framework– Joe Gellici (DNR)
3. Groundwater Recharge Model – Alex Butler (DNR)
4. Groundwater Model – Bruce Campbell (USGS)
5. Groundwater Monitoring Network and Database – Joe Gellici (DNR)
6. Discussion

MINUTES

1:13 pm Introductions (Name and affiliation) – 14 attendees
1:16 pm Overview of Water Planning Process – Joe Gellici (DNR)
1:30 pm Hydrogeologic Framework – Joe Gellici (DNR)

- *Lance asked about the timeframe for the completion of the State Water Plan?*
  Approximately 5 years.

- *Clay asked timeframe of final report of framework?*
  June 2019.

2:00 pm Groundwater Recharge Model – Alex Butler (DHEC)

- *Adem asked about the resolution of the recharge model?*
  The climate data is ~4 km and 2000 ft for land use.

- *Clay and Alicia were curious about how the model handled wetlands?* ***The model only focuses on water that has traveled through the root zone. Standing water is considered fully saturated, therefore, no recharge.***
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- *Adem asked if there were any residence time calculations.* ***None.***

2:30 pm Groundwater Flow Model – Bruce Campbell (USGS)

- *Lance asked about the difference in calibration results between the groundwater flow model and the groundwater recharge model.* ***Alex and Bruce explained it most likely has to be the difference in time-scales. The groundwater model is on an annual time-scale while the recharge model is a daily time-scale. However, the recharge model is converted into annual values when input to the groundwater model.***

- *Clay asked, how far out will projections be?* **Year 2065**
    - *Clay recommended going out 50 years from completion of model for projections and that would push to 2070.*

- *Clay suggested 3 scenarios*
    - ***Current use***
    - ***Permitted use***
    - ***Future use***

- *Clay asked, will demands and outputs be by aquifer?* ***Rob Devlin explained that we know what is being used currently, but not able to forecast which aquifers will be used. Bruce also stated that the model outputs by aquifer, but some additional judgement will also have to be made.***

- *Clay suggested that we use the model to determine which aquifer to supplement water supply in dry areas.*

- *Alicia wanted a clearer definition of what constitutes negative impacts of overpumping.* ***Joe responded, subsidence, water quality, saltwater intrusion….it's hard to quantify though and where do we draw the line of what is susceptible and what is not.***

- *Alicia asked, are we going to keep an eye on base flow levels falling below a certain threshold?*
  Bruce responded, yes, in the upper coastal plain, that is an underlying concern of ours and being able to put a number on it has been the toughest part.

- *Clay suggested that the State should get an extensometer for land subsidence monitoring.*
  SCGS and USC are looking at using remote sensing to detect subsidence in coastal areas. They are currently looking in the Georgetown area.

- *Alicia wants to write a proposal in fall to be able to add in saltwater interface to model and run a simplified version for salt water intrusion predictions and to determine the freshwater saltwater interface. Proposal would also include large geophysical component doing resistivity mapping offshore. This would all be done after we have some previous answers.*

3:30 pm Groundwater Monitoring Network and Database – Joe Gellici (DNR)

14 Attendees

Name	Affiliation	Email
Lance Tully	Nestle Waters	Lance.Tully@waters.nestle.com
Bill Clendenin	DNR	clendeninb@dnr.sc.gov
Rob Devlin	DHEC	devlinrj@dhec.sc.gov
Alex Butler	DHEC	butlerap@dhec.sc.gov
Shannon Weld	USGS	sweld@usgs.gov
Bruce Campbell	USGS	bcampbell@usgs.gov
Joe Gellici	DNR	gellicij@dnr.sc.gov
Andrea Hughes	DHEC	hughesal@dhec.sc.gov
Michael Yip	GCWSD	michaely@gcwsd.com
Ray Gagnon	GCWSD	rayg@gcwsd.com
Joshua Williams	DNR	williamsjm@dnr.sc.gov
Alicia Wilson	USC	awilson@geol.sc.edu
Clay Duffie	MPW	clayduffie@mpwonline.com
Adem Ali (call in)	CofC	alika@cofc.edu