



# Surface Water Quantity Models

## Progress Meeting Agenda

July 6, 2015 – Teleconference

**Attendees:** **CDM Smith:** John Boyer, Kirk Westphal, Nina Caraway  
**SCDNR:** Joe Gellici, Andy Wachob, Scott Harder, Alex Pellet, Bill Clendenin  
**SCDHEC:** David Baize, Rob Devlin, Chuck Gorman  
**Technical Advisory Committee:** Eddie Twilley, K.C. Price, Eric Krueger, Ruth Albright, Charles Wingard, Mullen Taylor

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### 1. Saluda Model and Unimpaired Flow Dataset

- a. UIF Dataset (available for download at CDM Smith SFT Site)
  - SLD12 was inadvertently left out of the workbooks uploaded to the SFT site. It has now been provided to DNR. Any others that would like to review it should contact John Boyer.
- b. UIF Results Memorandum (distributed July 3<sup>rd</sup> via e-mail)
  - Kirk Westphal provided an overview of the UIF memorandum.
  - Scott Harder posed the following questions, with responses provided in *italics*:
    - i. Why were basins outside the Saluda not used as reference basins for ungaged streams? *Kirk Westphal noted that this was done for several reasons. The basins with the most similar characteristics are those located nearest to the ungaged basin, within the Saluda basin, and/or located downstream such that their aggregate flow includes the ungaged stream. Kirk also noted that unimpaired flows are needed from the reference basin, and since unimpaired flows are generally not yet available in basins outside of the Saluda, only Saluda basins were used. Also, the period of record for USGS gages (in other basins) with no upstream impairments is typically very short, therefore their use is limited.*
    - ii. Why were multiple basins not used as reference basins for ungaged streams? *Kirk Westphal indicated that, by definition, the ungaged basins have no data with which to determine correlation with other basins. When extending a partially-gaged basin's UIF, it can be useful to use multiple basins based on their period of record and respective correlative strength to the partially gaged basin. However, the only features with which to determine potential correlation for ungaged basins are the*

*watershed features themselves, and in this context, the reference basin with the most representative area, land use, and slope were selected. The record for the reference basins were already extended for the entire period of record (1925-2013) using multiple other basins, so in effect, the ungaged basins are benefiting from data from numerous other gages, but only one final and complete UIF set as reference.*

## **2. Draft Broad Framework and Comments**

- John Boyer noted that DNR has provided comments on the Draft Broad River Framework. The framework has also been distributed to the TAC, for comment. All comments are needed within the next two weeks.
- Bill Clendenin noted that SC Budget and Control was still reviewing the proposed amendments regarding the Broad and Catawba River UIFs.

## **3. User-based vs. Permit-based Model Set-up**

- John Boyer noted that feedback received over the past several weeks from TAC members favored the permit-based approach. The permit-based approach was used for water supply studies/models in the Catawba-Wateree and Savannah River Basins. K.C. Price indicated the Greenville Water endorsed this approach. Joe Gellici noted that DNR was also leaning in favor of the permit-based approach. Based on the discussion, the permit-based approach will be followed.

## **4. Stakeholder Involvement**

- a. First Broad Meeting, August 5<sup>th</sup>, Spartanburg
  - The first Broad River Basin Stakeholder meeting is scheduled for August 5<sup>th</sup>, from 2 to 4 pm, at the Spartanburg Public Library (Clemson to confirm).

## **5. Data Collection Update**

- a. Broad
  - i. Winnsboro – Awaiting data
  - ii. Spartanburg – Waiting on reservoir data/intake elevations
- b. Pee Dee – Still need to contact Golf Courses (after reviewing list with DHEC)
- c. Catawba – In progress
  - John Boyer noted that CDM Smith’s data collection team will also begin contacting permitted surface water withdrawers in the remaining three basins.

## **6. Upcoming Deliverables**

- a. Final Broad Framework – Week of July 13

- b. Edisto UIF Methodology – Week of July 13
- c. Saluda Calibration and Draft Baseline Model – Aug
  - CDM Smith is aiming to have a draft/calibrated model ready in early August. It was noted that the model will be draft until the UIF Dataset is considered final, and only following the second stakeholder meeting – which should allow interested parties within the basin to review the assumptions and model setup documented in the modeling report.

## **7. Other Items**

- K.C. Price asked about the timeline for providing comments on the draft UIF dataset and memorandum. John Boyer indicated that comments on the memo can be e-mailed to him ([boyerjd@cdmsmith.com](mailto:boyerjd@cdmsmith.com)). Comments are requested by July 17<sup>th</sup>, if possible. K.C. Price also indicated that the memo should include definitions for certain terms that are used.
- Eric Krueger asked about the process for addressing ongoing TAC comments and suggestions. Two comments from the orientation meeting were noted:
  - o The ability to quickly identify instream flow targets at all model nodes/objects would be beneficial. SWAM should have the targets built-in.
  - o The ability to include agricultural demands, if not already included in the model (registered ag users are already included) would be beneficial.

John Boyer suggested that a “TAC Input” agenda item could be added to the monthly call, as a way of capturing and tracking issues, comments, and suggestions from the TAC. David Baize suggested that the TAC e-mail John Boyer with their issues, comments, and suggestions, and that John could work with DNR and DHEC to appropriately address them.