

South Carolina Surface Water Quantity Models Monthly Summary

Invoice Date: April 30, 2015
For Services Between: March 15, 2015 and April 18, 2015
Invoice No.: 8

Summary of Work Completed During Invoice Period

Project Management and Related Tasks

- Continued internal project coordination and management tasks, including:
 - Weekly project team meetings
 - Monthly project meeting by teleconference

Data Collection

- Continued contacting registered surface water users and some dischargers in the Broad and Edisto basins and confirming and collecting historical withdrawal and operational data.
- Began contacting permitted surface water users in the Pee Dee basin.
- Contacted NCDENR to obtain unimpaired flow dataset for the North Carolina portion of the Catawba River basin.

Data Analysis and Modeling

Saluda

- Continued development of the unimpaired flow (UIF) dataset to the confluence of the Broad River, with focus on UIFs at reservoirs. Submitted example UIFs for DNR and DHEC review. Began addressing comments received on sample UIFs.
- Updated the statewide agriculture irrigation model based on DNR review and comment.

Edisto

- Began organizing, reviewing, and analyzing DHEC data and data collected from users. Began development of model framework and UIF methodology technical memoranda.

Broad

- Began organizing, reviewing, and analyzing DHEC data and data collected from users.

PeeDee

- Updated the statewide agriculture irrigation model based on DNR review and comment. Began organizing and reviewing golf course permitted withdrawals to determine significance and need for additional data.

Catawba

- Updated the statewide agriculture irrigation model based on DNR review and comment.

Santee

- Updated the statewide agriculture irrigation model based on DNR review and comment.

Savannah

- Updated the statewide agriculture irrigation model based on DNR review and comment.

Salkehatchie

- Updated the statewide agriculture irrigation model based on DNR review and comment.

Stakeholder Involvement

- Held weekly conference calls with DNR, DHEC, and Clemson University to plan for and organize the first stakeholder meeting for the Saluda basin; developed and reviewed content for web site; reviewed content for the project introductory “webinar” video.

Summary of Upcoming Work

Over the next month, the project team will:

- Continue with data collection with the focus on contacting permitted users in the Pee Dee, Catawba, Santee, Salkehatchie, and Savannah basins and finishing data collection in the Edisto and Broad basins.
- Continue populating the baseline Saluda SWAM model with withdrawals, discharges, operating rules, and other data.
- Submit draft UIF dataset for the Saluda Basin.
- Submit the model framework and UIF technical memoranda for the Edisto Basin, and begin planning the first stakeholder meeting for the Edisto basin, which will occur in mid-June.

Issues Impacting Scope, Schedule, or Project Cost

No significant issues were identified during the previous month which might impact the overall project schedule at this time; however, delays in receiving water use data in the Saluda have extended the Saluda Basin pilot model schedule.

A review of the methodology that was used by others to develop the 1952–2006 Broad River UIF dataset indicates that it was prepared using area-weighted flows from reference gages. Since this methodology is different than what is being employed in other basins, CDM Smith has proposed preparing a UIF dataset for the entire period of flow records, rather than attempting to extend the existing 1952–2006 UIF dataset. An amendment has been submitted to DNR and DHEC for this work.

During the project kickoff meeting, and based on DNR and DHEC review of the draft Modeling Plan, several potential out-of-scope model enhancements were identified. These include:

- A “Current Situation Analysis” for quasi-real time operational support. This functionality would provide a probabilistic analysis of current conditions at any future point in time and how conditions are likely to change within 6 or 12 months based on projected use and management patterns.
- The ability to use near-term hydrologic flow forecasts (for example, 60-day streamflow forecasts from NOAA) for month-to-month operational planning.

- Use of HEC DSSVue and DSS files for results display and analysis.

CDM Smith will continue to solicit input from stakeholders and future model users, and discuss the expected level of effort with DNR and DHEC, so that decisions can be made about prioritizing and implementing these possible future enhancements as the project moves forward.