

## South Carolina Surface Water Quantity Models Monthly Summary

Invoice Date: December 29, 2014  
For Services Between: November 16, 2014 and December 13, 2014  
Invoice No.: 4

### Summary of Work Completed During Invoice Period

#### **Project Management and Related Tasks**

- Continued internal project coordination and management tasks, including:
  - Weekly project team meetings
- Incorporated additional DNR/DHEC comments on Draft Modeling Plan and submitted Final Modeling Plan.
- Submitted Draft Unimpaired Flow (UIF) Methodology Report for the Saluda Basin.
- Delivered SWAM model and project overview presentation to the SC AWWA Water Utilities Council.

#### **Data Collection**

- Continued contacting registered surface water users in the Saluda basin and confirming and collecting historical withdrawal and operational data.
- Began contacting registered surface water users in the Edisto basin and confirming and collecting historical withdrawal and operational data.

#### **Data Analysis and Modeling**

##### Saluda

- Continued SWAM model enhancement to incorporate daily time step and additional SWAM modifications identified in the Modeling Plan.
- Began developing model framework (i.e., determining location of model objects including withdrawal and discharge nodes; establishing recommended implicit vs. explicit river reaches; etc.)

##### Edisto

- *Note that project startup-activities including the kickoff meeting, modeling plan, model enhancement and other activities were included under the Edisto Basin budget. The Edisto was originally identified as the pilot basin for modeling.*

##### Broad

- Began reviewing and organizing DHEC-provided withdrawal data prior to contacting registered users.
- Contacted Duke Energy regarding existing UIF dataset and CHEOPS model covering the NC and SC Broad River Basin.

##### PeeDee

- No work completed

Catawba

- No work completed

Santee

- No work completed

Savannah

- No work completed

Salkehatchie

- No work completed

**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 Edisto, and Broad river basins to obtain historical water use and related data. Finish data collection from permitted users in the Saluda.
- Incorporate DNR comments on Draft and submit Final Unimpaired Flow Methodology Report.
- Finish testing of the daily time step.
- Continue development of the Saluda River Basin model framework (Due Jan 15<sup>th</sup>)
- Deliver a presentation on the SWAM model and project overview to the Chamber of Commerce
- Technical Environmental Committee.

**Issues Impacting Scope, Schedule, or Project Cost**

No issues were identified during the previous month which might impact schedule. 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 for 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.