

River Basin Modeling for the Colorado River

SOUTH TEXAS PROJECT NUCLEAR OPERATING COMPANY

PROJECT SUMMARY

The Colorado River is one of the major water sources for central Texas and an important resource for continued growth. Contention and continued difficulty between water users makes the water permitting process more complex. Riverside Technology, inc. documented the South Texas Project Nuclear Operating Company's current water rights to support an application for additional water rights and water contract litigation.

LOCATION
Texas, U.S.A.

PERIOD
2003 – 2005

PROJECT DETAILS

The South Texas Project Nuclear Operating Company (STPNOC) diverts water from the Colorado River in Texas to provide cooling water for its power generation. STPNOC has constructed two out of the original four planned nuclear reactors, and it has plans to obtain permits and construct the remaining two reactors. A dependable, clean water supply is critical to the operation of the power plant. Historically, this supply has originated in, and been diverted from, the Colorado River just upstream of Matagorda Bay. Riverside Technology, inc. (Riverside) was retained through two law firms, Booth, Ahrens and Werkenthin P.C. (BAW) and Graves, Dougherty, Hearon and Moody (GDHM) to support a permit for additional water supply and to support contract litigation associated with backup water.



An engineer checks the status of diversions from the Colorado River. Because of water quality issues, timing and total diversion are carefully monitored and controlled.

In both projects, Riverside was required to provide engineering analysis of STPNOC's water rights, preparing documents for use in water permits and for support of litigation. Riverside prepared technical analyses of the State of Texas's Water Availability Model (WAM), meeting with state officials to help correct the representation of STPNOC's diversions.

Riverside prepared documentation to support the permitting process, documenting the availability of water at STPNOC's facility, and verifying the environmental constraints were able to be satisfied. At all points during the process, Riverside prepared for the eventual need to support the permit litigation process.

GDHM retained Riverside on a parallel effort, a contract dispute between STPNOC and its supplier of back-up storage water, the Lower Colorado River Authority (LCRA). Riverside reviewed and documented the operation of the Lower Colorado River, including the operation of the highland lakes, and their impact on STPNOC operations. Riverside produced an expert witness report and provided expert witness testimony to support the litigation. Riverside reviewed STPNOC's operations and the ways that its future use of its water rights could be jeopardized by additional water rights applications initiated by the Lower Colorado River Authority (LCRA).

RELATED PROJECTS

Colorado River Decision Support System

Rio Grande Decision Support System Feasibility Study

Upper Snake River Basin Forecast System

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