

MEETING NOTES

**SOUTH CAROLINA ELECTRIC & GAS COMPANY
SALUDA HYDRO PROJECT RELICENSING
LOW INFLOW PROTOCOL (LIP) FOCUS GROUP**

***SCE&G's Lake Murray Training Center
August 5, 2008***

Final-CSB

ATTENDEES:

Bill Argentieri, SCE&G
Bud Badr, SCDNR
Shane Boring, Kleinschmidt Associates
Gerrit Jobsis, Am. Rivers
Dick Christie, SCDNR
Tom Gitto, Midlands Striper Club
Steve Summer, SCANA Services

Alan Stuart, Kleinschmidt Associates
Steve Bell, Lake Watch
Ray Ammarell, SCE&G
Milton Quattlebaum, SCANA Services
Dave Landis, Lake Murray Association
Bill Marshall, SCDNR

ACTION ITEMS:

- Provide Steve Bell with copy of documents supporting zone-of-passage flow needs for striped bass at Millrace Rapids
Alan Stuart
- Provide meeting attendees with copy of presentation summarizing alternative LIP and comparison of alternative and original LIP results
Ray Ammarell

NEXT MEETING

**August 19, 2008
Lake Murray Training Center**

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These notes serve as a summary of the major points presented during the meeting and are not intended to be a transcript or analysis of the meeting.

Alan Stuart opened the meeting at approximately 9:30 am and thanked the group for attending the first meeting of the LIP Focus Group. Alan noted that it was obvious from previous meetings that there are a number of competing interests to be considering in establishing an effective LIP for the Saluda Project, and as such, a smaller "focus group" was deemed necessary. He noted that, due to the varying backgrounds of attendees, this initial meeting would focus on a number of presentations to familiarize the group with water management in the basin, Instream flow and lake level interests, and the LIP models and associated triggers that have been developed to date.

Dick Christie gave the opening presentation, a review of the South Carolina State water plan. He noted that the purpose of the plan was to establish a comprehensive policy for management of the state's water. It was noted that the plan, originally issued in 1998, was updated in 2004 following the drought of 1999-2003. Following a review of the general hydrology of South Carolina, Dick noted that one of the primary recommendations of the plan is establishment of regulations to govern withdrawals of surface and groundwater. Dick note that the plan also recommends a water sharing strategy that relates stream inflows and lake levels to downstream releases and other lake withdrawals in an effort to balance and mitigate the negative impacts that water shortages have on all water users. It was noted that a full version of the plan is available online at <http://www.dnr.sc.gov/water/admin/pubs/pdfs/SCWaterPlan2.pdf>.

Gerrit Jobsis then briefly discussed American Rivers' position on the LIP process. Specifically, Gerrit noted that he felt an LIP was needed to help preserve lake levels during low inflow periods, but added that any process must ensure that downstream needs, such the Congaree National Park and instream flow in the Congaree and Saluda rivers must be taken into consideration.

Steve Bell then presented Lake Watch's concerns regarding the current LIP. Specifically, Steve noted that their primary concern is that implementation of the LIP as proposed will not preserve enough water in the lake during low inflow periods, resulting in impacts to dock access, recreation, boating safety and shoreline environments. He added that, based on his group's observations, the lake is generally safe at levels at or above 354'. From an aquatic/shoreline habitat perspective, it was noted that the button bushes and other shoreline vegetation become wetted at around 356.' Steve noted that he generally did not have a problem with the instream flows being proposed, with the exception of the spring flows of 1000-1300 cfs for spring spawning/passage. Steve then asked for an explanation for why these flows are needed. It was noted that the 1300 cfs spring passage

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flow is based on a zone-of-passage study conducted by SCDNR and represents the minimum flow needed to provide adequate upstream passage at Millrace Rapids for immigrating striped bass. Steve asked if he could have copies of these supporting documents. Alan Stuart agreed to provide copies of the SCDNR Instream Flow Policy supporting document, which contains this information.

Ray Ammarell then presented a recap of the original LIP proposal that was presented at the All RCG's Meeting on May 22, 2008 (available online at <http://www.saludahydrorelicense.com/documents/SaludaHydroGuideCurveandLIP.pdf>). Dave Landis noted that he felt that the lake level trigger points were not aggressive enough on the existing LIP and that as proposed the lake would be at an unacceptable level before conservation measures are triggered. Dave added that he did not like the use of the 70 yr period of record, as in his view it does not reflect the current low flow conditions. Steve Bell requested LIP model runs for the flowing guide curve scenarios: 1) lake level of 358' feet year-round and 2) a lake level that fluctuates annually between 354-356' (winter) and 358' (summer) (see written request for additional detail).

Bud Badr, SC State Hydrologist, then shared his views on the original LIP proposal. He noted that he didn't see the two user groups (upstream and downstream) as being that far apart in terms of what they would like to see. He urged the group to remember that the state water plan requires that a number of factors be considered including: water quality (both upstream and downstream), sufficient water (both upstream and downstream) for municipal water users, and sufficient downstream flow to ensure ecosystem function in the LSR, the Congaree, and to aid in providing sufficient water to the Santee Basin to downstream issues such as saltwater intrusion below the Santee Cooper Lakes.

Ray Ammarell then presented results of an alternative LIP model that focuses on inflow as a trigger and does not consider lake levels, as well as a comparison of the results to the originally proposed LIP. Ray noted that, while the triggers are quite different from the original, the results (frequency of guide curve violation) were quite similar. Bud Badr noted that the state water plan states that minimum flows and any associated LIP should be a function of not only inflows, but also lake levels. Bud added that the two methods appear closer than anticipated. Ray enquired as to whether the group preferred one method over the other. SCNDR staff noted that the two were very close, but that they would like to have additional time to review the two proposals. Gerrit noted that he would be willing to support reductions in minimum flow during period when inflows to Lake Murray are less than corresponding minimum flow for that time of year; however, he would like to see evaporation not be subtracted from the inflow calculation since it is a Project-related impact. He added that he didn't want the river to be penalized for reservoir-related effect of evaporation. Ray noted that this seemed like a reasonable request and that he would integrate it into the next

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model runs. Several attendees requested a copy of the presentation. Ray agreed to provide the presentation via e-mail.