



Lower Saluda Scenic River Advisory Council

c/o South Carolina Department of Natural Resources
1000 Assembly Street, Suite 354, Columbia, SC 29201 ~ 803/734-9096

August 12, 2005

Mr. James M. Landreth, Vice President
Fossil and Hydro Operations
South Carolina Electric and Gas Company
111 Research Drive
Columbia, South Carolina 29203

Attn: William R. Argentieri

**Subject: Comments on First Stage (Initial) Consultation Document
Saluda Hydroelectric Project, FERC Project No. 516**

Dear Mr. Landreth:

The Lower Saluda Scenic River Advisory Council (LSSRAC) has reviewed the *Initial Consultation Document* prepared by South Carolina Electric and Gas Company (SCE&G) for the proposed relicensing of the Saluda Hydroelectric Project, FERC No. 516, and we offer the following comments and recommendations. These views represent a consensus among 14 individuals who represent diverse interests in the lower Saluda River including residential, industrial, and public landowners on the river; recreational fishing groups; local and national paddlesport groups; local outfitters; state and local recreation/natural resource management agencies; land trusts; and several conservation organizations. Members of the LSSRAC participated in the October 2004 scoping workshops and the Joint Agency/Public Meetings in June 16, 2005 at Saluda Shoals Park. SCE&G staff also met with members of the LSSRAC on May 24, 2005 to discuss Saluda Project relicensing issues of interest to us. We appreciate the positive efforts being taken by SCE&G to start this relicensing process in a cooperative manner, being open and available to the public for constructive communication on issues concerning the Saluda Hydro Project.

The Lower Saluda Scenic River Advisory Council was established in 1991 according to the South Carolina Scenic Rivers Act to represent river-bordering landowners, river users, and community interests for the purpose of assisting the South Carolina Department of Natural Resources (SCDNR) in management of the Lower Saluda State Scenic River. In 1991, the State Legislature designated the lower Saluda as a State Scenic River and the SCDNR formed the Advisory Council. The broad purpose of the South Carolina Scenic Rivers Act is to protect unique and outstanding river resources throughout the State. However, specific goals and actions for management of the Lower Saluda Scenic River are guided by two management plans:

- The Lower Saluda River Corridor Plan – published in 1990 by the South Carolina Water Resources Commission (now part of the South Carolina Department of Natural Resources) and Department of Parks, Recreation, and Tourism; adopted as the management plan for the Lower Saluda State Scenic River in 1991.
- Lower Saluda Scenic River Corridor Plan Update – published in 2000 as an update and addition to the 1990 corridor plan.

These Lower Saluda River planning documents are available on the SCDNR website: <http://www.dnr.state.sc.us/etc/conservation.html>

Both of these Saluda River plans have been submitted to the FERC by the SCDNR as a “comprehensive plan for improving, developing, and conserving the waterway” (as described in the Federal Power Act, 16 USC Section 803) and, as such, should be used by the FERC and SCE&G to define conditions for the operation and management of Project 516. Both the 1990 Corridor Plan and 2000 Plan Update are community-based plans created by local citizens representing a wide-range of interests and expertise related to this river. The plans address natural and cultural resource protection, law enforcement, recreational access and facilities, user safety, litter, and tourism. A 60-member task force (representing 50 state and local organizations) created the 1990 plan and the 2000 plan was created from a planning workshop involving over 100 local leaders and citizens.

Desired Outcomes for Relicensing the Saluda Hydro Project

The Lower Saluda Scenic River Advisory Council, exercising its role in the management of the State Scenic River, has defined a set of desired outcomes that we would like to see result from the FERC relicensing process for the Saluda Hydro Project. Listed below, our desired outcomes represent the primary management objectives that we have for the Saluda Hydro Project and its associated resources.

- Water quality conditions in the lower Saluda River and waters released from Saluda Hydro to the river will meet State standards and support existing uses in the river.
- Instream flows from Lake Murray Dam to the lower Saluda and Congaree Rivers will protect and support aquatic life, water quality, migratory fish, navigation, recreational boating and fishing, and other instream uses.
- SCE&G lands in the lower Saluda River corridor will be dedicated to conservation purposes for the protection of wildlife habitats, environmentally sensitive areas, and rare/sensitive species.
- Migratory fish in the Saluda and Congaree Rivers will be protected and supported with instream flows.
- Rare, threatened, and endangered species, critical habitats, and floodplain vegetation communities associated with the Saluda and Congaree Rivers will be protected and supported with instream flows.
- River safety warning systems and communication procedures will be improved to protect river users from hazards associated with hydropower flow releases.
- Recreational uses will be enhanced with additional access facilities, predictable flow releases, and land conservation.

These desired outcomes, presented above, are rooted in the goals of the Lower Saluda River Corridor Plan of 1990 and the Plan Update of 2000 and form the basis of our comments on the Initial Consultation Document and guide our recommendations for additional information and studies needed to resolve management issues associated with the Saluda Hydro Project.

Specific Comments on the Initial Consultation Document

The following comments are provided to address the information presented in the Initial Consultation Document (ICD). The numbers, which begin the following paragraphs, reference specific sections of the ICD.

7.1 (Project Modification for Consideration) – We think it is important to acknowledge that public resources are being used and impacted by the hydro project; therefore, it is necessary to examine Project modifications that might enhance or restore those public resources, which include fish and wildlife resources, water resources, and associated public uses of those resources including recreational uses.

7.4.3 (Warning Systems) – We have sought to improve user safety on the Saluda River below the dam by partnering with other organizations including SCE&G to implement many of the User Safety recommendations of the 1990 Lower Saluda River Corridor Plan; however, the safety warning systems and related information needs for river users will only continue to increase. We think the river-safety information needs of the public will warrant a greater, more consistent level of attention than has been provided in the past by the power company.

9.2.3 (Water Quality) – Regarding water quality in the river, the Lower Saluda River Corridor Plan and the Corridor Plan Update (both referenced above) specify management goals and recommendations that we have advocated over many years, in numerous situations for the protection and enhancement of water resources in the lower Saluda River.

In addition to the water quality problems caused by the Saluda Hydro Project (primarily DO), the river is heavily impacted by polluted runoff from the tributary streams, which drain a watershed that is 25% urban and 20% agricultural land. The river and its tributaries are currently permitted to receive over 7-million gallons per day of treated wastewater; and nearby developing communities continue to look to the lower Saluda as a destination for more wastewater disposal.

9.2.2.1 (Water Quality Reports) – Regarding SCDHEC Saluda River Basin Water Quality Reports, a third report in this series has been published: the October 2004 DHEC Watershed Water Quality Assessment for the Saluda River Basin, Technical Report No. 004-04.

9.2.3.1 (Water Quality, past studies) – The low dissolved oxygen (DO) problems in the Saluda River caused by the summer-fall, hypolimnetic discharges from Lake Murray were well documented eight to ten years prior to the DHEC reports cited in the ICD. The DO problems are presented the July 1988 study report titled “Oxygen Dynamics in the Lower Saluda River” by H.N. McKellar, Jr. and Mary K. Stecker, from the Department of Environmental Health Sciences, University of South Carolina. DHEC helped to fund this study along with Trout

Unlimited and the S.C. Wildlife and Marine Resources Department.

Recently, DHEC has published another report that documents continuing DO problems (excursions) resulting in conditions that only partially support aquatic life in the lower Saluda (see the October 2004 DHEC Watershed Water Quality Assessment for the Saluda River Basin, Technical Report No. 004-04).

9.2.3.2 (Dissolved Oxygen Enhancement) – We appreciate the cooperation SCE&G has exhibited in recent years in seriously addressing the low DO problems in waters released from the Saluda Hydro to the lower Saluda River. We are pleased to know that SCE&G has implemented and will continue to review operational protocols to maintain appropriate DO levels in the river.

10.2 (Aquatic Resources, Saluda River) – The Lower Saluda River Corridor Plan and the Corridor Plan Update provide general management goals and recommendations that we have advocated for the protection and enhancement of aquatic resources in the lower Saluda River.

The ICD indicates that there is very little known about the mussels of the lower Saluda; therefore we think that additional inventory of these resources may be needed.

10.3.2.6 (Fish Advisory) – DHEC has issued a 2005 fish consumption advisory in affect for the lower Saluda for largemouth bass and bowfin.

10.3.2.6 (Fisheries Management) – The Lower Saluda River Corridor Plan of 1990 provides general management goals and recommendations that we have advocated for the protection and enhancement of fishery resources in the lower Saluda River.

11.0 (Botanical Resources) – Considerable effort and attention has been directed to Lake Murray shoreline management and the classification of environmentally sensitive areas on the lake. However, the ICD indicates that there is very little information on the natural/sensitive areas or ecologically significant resources along the lower Saluda River; therefore, we think that additional inventory, assessment, and conservation planning for these resources is needed.

11.1.2 (Upland Habitat, Saluda River) – Again, the ICD indicates that there is little information on the habitats, botanical species, and environmental sensitive areas (ESA) of the lower Saluda River corridor; therefore, we think that additional inventory, assessment, and conservation planning for these resources is needed on the river.

12.1 (Wildlife Resources, T&E Species) – Bald eagles are seen in the lower Saluda River corridor and an eagle's nest is located on a river island in the confluence with the Broad River adjacent to the area where the rocky shoals spider lily exists.

Table E-9 and E-13 (Species lists) – There are many more botanical species present in the lower Saluda River corridor than those represented in Table E-9. Other birds that are often seen/heard along the lower Saluda include: barred owl, belted kingfisher, Mississippi kite. The SCDNR has produced reports for the lower Saluda River, one report compiled in 1984 by the former Water Resources Commission, that presents information (lists provided by Rudy Manke) for flora and

fauna species.

14.1 (Recreational Resources) – The discussion of regional recreation resources mentions various trails in the region and should include the Three Rivers Greenway and its various components which include trails (some are currently in place and some are proposed) in Cayce, West Columbia, and Columbia along the Congaree, Broad, and lower Saluda Rivers.

14.2.2. (Recreation, Saluda River) – While the ICD reports information produced by the SCDNR about recreational fishing on the river, we perceive that the level of fishing and the level of boating that occurs on the river is steadily increasing. We are aware of increased use of the river by wading anglers as well as those that fish from the bank and from boats. We are also aware of increasing use of the river by recreational boaters, those who canoe and kayak. However, there is little or no information to quantify these uses and trends.

Significant planning information about recreational issues of the river is provided in the Lower Saluda River Corridor Plan and the Corridor Plan Update. The Plan Update in particular is focused on recreational access issues of the river and explores the feasibility of creating a trail on the north bank of the river connecting Saluda Shoals Park with Gardendale Landing and Riverbanks Zoo. SCE&G is working with the Irmo-Chapin Recreation Commission and the LSSRAC to pursue implementation of the trail concepts presented in the Plan Update; and we very much appreciate the interest and cooperative assistance of SCE&G staff in these efforts.

15.0 (Land Use and Aesthetics) – We found very limited information in the ICD regarding land use and aesthetics associated with the lower Saluda River corridor. The lower Saluda is a State Scenic River and considerable information is available to describe the river and its surrounding lands. In addition, the ICD should note that SCE&G donated a Scenic River easement to the State of South Carolina in 1997; the easement conserves a 100-foot-wide strip along approximately six miles of riverbank.

G-3 (Project Map) – Up-to-date maps are needed with more descriptive information about the types of lands that are part of the Saluda Hydro Project. The two maps of the river corridor (G3) appear to be out of date. The maps indicate certain lands to be owned by SCE&G, which are actually no longer owned by the company (e.g. the Police Club property off Candi Lane). The maps do not show all areas where Scenic River easements were donated by SCE&G to the State of South Carolina in 1997, and the easements are not described in the ICD. The maps show other, larger easements areas, which are also not defined in the ICD. The PBL (Project Boundary Line) appears on these maps but the ICD seems to provide no definition of the PBL and no explanation regarding the management or ownership of lands associated with this boundary. Additional explanation is needed about project lands to allow citizens to understand the purposes that the project lands serve and how they are managed.

Recommendations for Studies to Address Information Needs

The following list of studies is recommended to provide the information that we anticipate will be needed to address the important management issues associated with the Saluda Hydro Project and to make well-informed decisions that will serve the public's interest. We understand that some of the studies recommend here may already be in process, either by SCE&G or other entities. We also recognize that existing relevant information and studies are available from various sources and may fill some of the information needs we have identified.

We will certainly offer our assistance in the relicensing process as it moves forward to identify existing information sources and to provide input to the scoping, design, and implementation of studies.

Hydrologic / Hydraulic Operations Model

We recommend development of a computer simulation model that incorporates the operating characteristics of the Saluda Hydro Project. The model should be capable of simulating the Project's operations using specific hydraulic relationships based on inflows from all drainages to Lake Murray ending downstream in the Congaree River floodplain. The model should also include water flows in the Broad River above its confluence with the Saluda to accurately model combined flow conditions at the confluence and in the Congaree River. The model should be capable of analyzing the effects on the downstream flows and lake levels under proposed project operational alternatives. The model should provide a tool for all interests to evaluate various operational scenarios simulating changes in flows, lake levels, and other operational constraints. The resulting data should be readily analyzed and made available to assist stakeholders in evaluating the impact of the scenarios on specific water quantity interests.

Instream Flow Study (aquatic life support and navigation)

We recommend a study of how project operations affect stream flows and what flow regimen(s) would best protect and support the health of aquatic life and natural communities in the river. Flow regimens should be assessed for all downstream segments of the Saluda River and upper segments of the Congaree River. Flow regimens and season variations of flow should be identified that fully support all life stages of aquatic biota including spawning, juvenile and adult habitat requirements, and flows for upstream and downstream fish migrations.

In addition, we recommend downstream navigation studies to be conducted to determine flows needed to support boat passage (canoe, kayak, and small motor boat) on the lower Saluda and into the Congaree River.

Recreation Flow Study

In addition to determining minimum flow needs for navigation/boat passage (for canoes, kayaks, and small motor boats); we recommend a study to determine the flow range and duration that provides acceptable and optimal recreation experiences for anglers and boaters (particularly for canoeing and kayaking) of various experience levels on the lower Saluda River. To assist in evaluating potential alternative target flows this study should solicit input from parties with an interest in the affect of flow on instream recreational experiences.

Recreation Flow and Safety Communication Study

We recommend a study to review recreation and safety communication needs to the public as they pertain to the operation of the Saluda Hydro Project. The study should review current practices in providing river flow and lake level information and safety warnings, solicit public input from recreational users, define the communication needs based on public input, and make recommendations to meet those communication interests. The study should address alternatives for developing an information system that will: 1) better inform the public in a timely manner of flow release schedules; and 2) improve the safety-warning system to inform river users of changes in river flows and potentially hazardous conditions. This study should also address alternative operational protocols for gradual release (ramping) of flows leading to peak hydro releases for the purpose of protecting downstream users from rapidly rising water

Reservoir Level Study

We recommend a study to evaluate potential seasonal target elevations for Lake Murray along with maximum and minimum elevations based on historical operation. The study should solicit input from parties with an interest in lake levels and provide data to assist in evaluating potential alternative target elevations for Lake Murray in order to assist in the balancing of all related interests, including lakeside homeowners, municipal water users, environmental interests, power production capabilities, and downstream river users.

Low Inflow Protocol Study

We recommend a study to develop a low inflow protocol that will provide trigger points and procedures for how the Saluda Hydro Project will be operated by SCE&G during periods of low inflow (i.e. periods when there is not enough water flowing into the project reservoir to meet the normal needs for power generation, recreation flows, minimum flows, any on-reservoir water withdrawals and designated lake levels). The protocol should be developed on the basis that all parties with interests in water quantity will share the impact of low inflow. This includes consideration of impacts to natural resources. The study should also evaluate the potential of using forecasting approaches to determine the probabilities of shortfalls in water availability before they occur.

Water Quality Study

We recommend a study to identify the current status of water quality for the Saluda Hydro Project and to identify and evaluate alternative operating, engineering, or policy scenarios to improve water quality in the lower Saluda River and Lake Murray.

Lower Saluda River: As mentioned above in our comments on the ICD, we are pleased to know that SCE&G has implemented and will continue to review operational protocols to maintain appropriate DO levels in the river and we encourage ongoing study with agency review to refine operational protocols that will enhance DO in hydro releases to the lower Saluda River to meet state standards and protect and support existing river uses. We also suggest that other sources of water quality impairment to the river should be understood and distinguished from the effects of operations at the dam and that minimum flows should be defined to sustain water quality standards in the river regardless of the source of water quality degradation. Therefore, we recommend a water quality study to: 1) characterize the water quality of the hydro release and the downstream temperature and dissolved oxygen concentrations (and transport of other water quality constituents) under a variety of project operations and flows; 2) establish the extent of

project influence on the downstream water quality; 3) characterize water quality conditions under extreme low flow scenarios to document non-hydro sources of water quality impairment and to identify critical minimum flows for the assimilation of pollutants in the river; and 4) provide recommendations for long-term, continuous monitoring of downstream water quality.

Lake Murray: The ICD indicates that phosphorus is a critical pollutant affecting water quality conditions in Lake Murray particularly the low DO in the hypolimnion, which impairs aquatic life support within the lake and in the lower Saluda River. To address this problem we suggest that the water quality study involve the completion of a TMDL to define limits for phosphorus loading to Lake Murray; and the TMDL should define phosphorus-loading limits for all major tributaries that drain into the lake.

Rare, Threatened, and Endangered (RTE) Species and Habitat Survey

We recommend a study that assesses the current condition of RT&E plant and wildlife species and their habitats, how Saluda Hydro Project operation affects those species, and how project operations can be modified to protect, restore or enhance those populations. The study should provide information to assist in developing any potential protection, mitigation, and enhancement (PM&E) measures.

Diadromous Fish Study

We recommend a study to evaluate options for diadromous fish restoration to the Saluda Hydro Project waters. Anadromous target species for studies include: American shad, hickory shad, blueback herring, striped bass, shortnose sturgeon, and Atlantic sturgeon. Restoration of the catadromous American eel should be considered throughout its historical range in the drainage. Alternatives should be developed to enhance diadromous fish populations by establishing access to historic spawning grounds and nursery areas, safe downstream passage, and improving stream flow and water quality.

Macrobenthic Survey Study

We recommend a macrobenthic survey study to provide information about benthic macroinvertebrate (aquatic insects and other bottom-dwelling organisms) communities and evaluate any potential project-related effects on these resources. This study should also establish the downstream extent of potential project impacts on macrobenthic organisms.

Mussel Survey

We recommend a mussel survey study to identify the species and distribution of mussels in the Saluda River within the project boundary, the zone of project influence, and in selected tributaries. The study should also evaluate potential project-related effects on these resources.

Floodplain Vegetation Assessment

We recommend a study to provide information on the location and distribution, vegetative species composition and structure, classification, and relative condition of the existing floodplain communities within the zone of operational influence along the river reaches of the lower Saluda and Congaree Rivers; and this study should certainly encompass the ecologically significant floodplain area of Congaree National Park. The objectives of this botanical study are to: 1) identify and delineate the floodplain areas within the zone of operational influence of the river

reaches; 2) classify and characterize the vegetative species composition and structure of the floodplain areas within the zone of operational influence of the river reaches; 3) qualify and quantify the relationship between floodplain vegetation and existing hydroperiods; 4) assess the effects of current and proposed hydropower operations (e.g., river fluctuations and stage changes) and impact on the designated floodplain areas; and 5) provide information to assist in developing any potential protection, mitigation, and enhancement (PM&E) measures.

Recreation Use and Needs Study

We recommend a study to characterize the types and amounts of existing and estimated future recreation use within the project area, and the ability of the project to support existing and future increases in use. The study should address the following: 1) provide data and analysis sufficient to estimate the carrying capacity of Lake Murray and the lower Saluda River to support present and future demand for public boating and fishing; 2) assess the quantity and quality of existing and proposed recreation facilities available at and adjacent to the project and their ability to support existing and estimated future needs; and 3) prioritize the types of, and locations for additional facilities or enhancement to facilities that may be needed.

Available Lands for Recreation and Protection of Environmental Resources

We recommend that an inventory of land ownership around the project boundary be conducted to determine the feasibility of aggregating desirable parcels for parks, open space, other recreation, habitat preservation, and viewshed protection. Such an inventory could also provide valuable information about the current and proposed rate of development, thereby determining the urgency of assembling valuable parcels for the public benefit.

Cultural Resources Survey and Management Plan

We recommend a survey to identify significant archaeological and historic sites that are affected by operation of the Saluda Hydro Project. We also recommend development of a plan to address the management of historic properties affected by the project.

Conclusion

The amount of information we have recommended here is substantial but we think that the related issues are important given the significance of the land, water, and wildlife resources of the lower Saluda River and Lake Murray; and the public's interests in those resources. The public demands on the resources will only increase and the related management issues will become increasingly complex. More, good quality information will help SCE&G and partnering agencies make better, lasting decisions for the new license term. We, therefore, encourage SCE&G to partner with the resource management agencies and stakeholders to seek out and produce the best, most objective, science-based information possible to address the issues of public concern regarding the Saluda Hydro Project.

Thank you for this opportunity to provide our comments and recommendations to address the ICD and information needs for the relicensing of the Saluda Hydro Project. If you have questions or need additional information please contact me, Bill Marshall, at 803/734-9096 or by email at

marshallb@dnr.sc.gov. We would like to remain involved in the relicensing process so please add me to your mailing lists to receive future notifications and information.

Sincerely,

Bill Marshall

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The members of the Lower Saluda Scenic River Advisory Council listed below are providing these comments and recommendations

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