

APPENDIX B-1

SALUDA HYDROELECTRIC PROJECT SAFETY AND OUTREACH PROGRAM

SOUTH CAROLINA ELECTRIC & GAS COMPANY

SAFETY AND OUTREACH PROGRAM

FINAL

**SALUDA PROJECT
(FERC PROJECT NO. 516)**

JULY 2009

Prepared by:

Kleinschmidt
Energy & Water Resource Consultants

SOUTH CAROLINA ELECTRIC & GAS COMPANY

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Appendix A: Education and Safety Resources at Lake Murray and the Lower Saluda River

LIST OF ACRONYMS

BUI	Boating under the influence
CFR	Code of Federal Regulations
CFS	cubic feet per second
CPRC	City of Columbia Parks and Recreation Commission
DCS	distributed control system
EAP	Emergency Action Plan
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
LMA	Lake Murray Association
LSR	Lower Saluda River
MW	megawatt
NGOs	Non-governmental Organizations
PWC	Personal watercraft
ROR	rate of rise
SC	South Carolina
SCDHEC	South Carolina Department of Health & Environmental Control
SCDNR	South Carolina Department of Natural Resources
SCE&G	South Carolina Electric & Gas company
SRCG	Safety Resource Conservation Group
US	United States
USACE	U.S. Army Corps of Engineers
USDA	United States Department of Agriculture
USGS	U.S. Geological Survey

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1.0 INTRODUCTION

This document describes the complex system of public outreach measures serving to support public education and safety within the boundary of the Saluda Project, including Lake Murray, the lower Saluda River (LSR), and lands within the project boundary. The document provides an assessment of known or reasonably foreseeable safety issues within the boundary. It identifies existing safety and other outreach measures in place at the project.

1.1 Intended Audience

This document was created for use by the Safety Resource Conservation Group (SRCG), which was created as part of South Carolina Electric & Gas Company's (SCE&G) multi-year, mandatory federal process intended to lead to the issuance of a new license for the company's Saluda Hydroelectric Project. Under the oversight of the Federal Energy Regulatory Commission (FERC), this process will ultimately result in a new operating license that will determine operations and guide the management of the multiple resources associated with the Project, including Lake Murray, for the next 30 to 50 years.

The process of relicensing the project involves a variety of stakeholders, including state and federal resource agencies, state and local governments, non-governmental organizations ("NGOs"), as well as individual home and boat owners. Together with SCE&G, these stakeholders have strived to address the many operational, economic, and environmental issues associated with a new operating license for the Saluda Hydro Project. In order to bring focused attention to these complex issues, SCE&G established resource conservation groups, one of which is the SRCG, which are comprised of interested stakeholders committed to working with each other and with SCE&G to identify project issues and to develop recommendations for addressing/resolving the issues. They address process issues and provide a forum for further discussion and cooperation.

The SRCG is the only resource conservation group that intends to remain in place after the relicensing process has concluded. The group will meet periodically to review issues relating to public safety at the Project. This document will assist the group by providing essential safety information. The group envisions that it will review the document annually and make appropriate amendments to keep the information contained herein current and useful.

The mission of the SRCG is, through good faith cooperation, to make Lake Murray and the lower Saluda River as safe as reasonably possible for the public. This will be accomplished by gathering or developing data relevant to Saluda Hydroelectric Project safety-related interests/issues, seeking to understand those interests/issues and that data, and considering all such interests/issues and data relevant to and significantly affecting safety on Lake Murray and the lower Saluda River.

2.0 BACKGROUND INFORMATION ON SAFETY COMMITTEES

2.1 History of the Safety Task Force and Safety Committee at the Project

Historically, the South Carolina Department of Natural Resources (SCDNR) was the only law enforcement agency on Lake Murray. In 1998, the Lexington County Sheriff's Department was awarded a grant that allowed them to establish a multi-jurisdictional task force to address crime activities on the Lake. Lexington and Richland Counties subsequently purchased and manned boats on the lake. Saluda and Newberry Counties were unable to secure resources, but joined these other agencies to create a Task Force dedicated to sharing knowledge about the resources available to promote safety and rescue services at Lake Murray.

Around 1999, the Task Force leased a property on Bee Keeper Road, where the Lexington County's and SCDNR's boats were housed and a meeting area was available. There, the Task Force held regular gatherings. SCDNR, SCE&G and Lake Murray Association (LMA) were frequent visitors to these meetings. The gatherings served as informal meetings designed to share safety and law enforcement information between organization members.

Subsequently, when the Task Force lost the lease to the property, law enforcement boats were moved to other locations, and the group was disbanded. Presently, no other forum exists to facilitate the sharing of information between various law enforcement agencies and personnel, and organizations concerned with safety on and around Lake Murray.

In recent months, efforts have been underway to reestablish some form of the Task Force, with the purpose being to continue the information sharing between agencies and organizations in a fairly casual setting. These efforts are challenged by lack of funding and meeting facilities. SCE&G was asked to serve as the host for agencies involved in safety on the lake, and provide a gathering place. SCE&G agreed to review the request in the Safety Resource Conservation Group. Those requesting a meeting location envision participants as including the four sheriff's departments, SCDNR, LMA, Coast Guard Auxiliary, and the Lake Murray Power Squadron.

2.2 Lower Saluda River Corridor Plan Advisory Council Safety Committee

In September of 1988 the South Carolina Department of Parks, Recreation and Tourism and the South Carolina Water Resources Commission initiated a comprehensive planning effort for the lower Saluda River. The result of this effort was the development of the 1990 Lower Saluda River Corridor Plan, and subsequent update in 2000. Many of the recommendations contained within the plan relate to safety along the river. These include:

1. Improve river user safety.
2. Provide a portage trail around the Mill Race Rapids on river right.
3. Provide signage, river level gages, and information brochures to warn river users of potential river hazards.
4. Provide improvements to existing landings to include: grading, paving, trash removal, and throw-in steps.
5. Provide additional public access / boater exit above the Mill Race Rapids on river left.

Several of these recommendations have been implemented and others are in progress as the Advisory Council continues to implement the vision of the Corridor Plan. Additional information on the Lower Saluda River Corridor Plan is provided on the SCDNR website at <http://www.dnr.sc.gov/water/envaff/river/scenic/saluda.html>.

3.0 PROJECT DESCRIPTION

3.1 Project Operations

SCE&G operates the Saluda Project primarily to provide reserve generating capacity for the company's utility obligations and grid stabilization, a mode of operation that the company proposes to continue under the new license. Project generators are typically offline, *i.e.*, not operating, but can be started and synchronized to the electrical grid and can increase output immediately in response to a generator or transmission outage on SCE&G's system or in response to a call for reserve power from neighboring utilities with which the company has reserve agreements and obligations. As a result, flows below the Saluda Project Powerhouse are often reactive and not scheduled in advance. The exceptions are lake level management generation flows and scheduled recreational generation flows. All flows are used to generate whenever possible. Although there is no minimum flow requirement for the Project under the terms and conditions of the currently effective license, SCE&G has an informal agreement with the South Carolina Department of Health and Environmental Control (SCDHEC) to provide a minimum of 180 cfs at the Project to enhance downstream water quality. The average annual flow from the Saluda Dam to the lower Saluda River is approximately 2,495 cfs with a normal minimum flow of approximately 400 cfs.

A more comprehensive review of project operations is provided in the Initial Consultation Document (Kleinschmidt, 2005).

3.2 Area Description

Lake Murray and the four surrounding counties (Richland, Lexington, Saluda, and Newberry) are experiencing rapid population growth. Population figures from the U.S. Bureau of the Census (2002) indicate that in 2000, the combined population of these counties was approximately 592,000. This represents a change of about 89,000 people since 1990, or an increase of 17.7 percent. The population of these counties increased by 4.1 percent between 2000 and 2005 and is projected to increase by another 29.3 percent by the year 2030 (South Carolina Budget and Control Board, 2005). For counties abutting and/or encompassing the lower Saluda River – Richland, and Lexington – population is expected to increase by 40 percent, with Lexington County

having the fastest population growth of the area, at 52.9 percent from 2000 to 2030 (South Carolina Budget and Control Board, 2005).

3.3 Lake Murray Activities and Usage

Recreational activities occurring on Lake Murray are diverse and include power boating, sailing, personal water craft (PWC) use, swimming, diving, water skiing, boat rentals (primarily novices), hunting, camping, hiking along the shoreline, sport fishing, commercial fishing excursions, high profile fishing tournaments, sailing regattas, wind surfing, and flatwater boating (kayaking and canoeing). In addition one may encounter watercraft such as barges used in constructing and repairing docks, and may see the occasional seaplane landing on or taking off from the surface of the lake and other watercraft or activities in the future.

The lake is used primarily during the day, especially on weekends, and most heavily during the “boating season,” generally defined as Memorial Day through Labor Day. There also may be substantial use on particularly warm days in March and April. A hearty contingent of anglers uses the lake year round regardless of the weather.

The level of expertise of lake recreation participants varies as does the nature of those participants, ranging from first time users to world-class sailors and professional anglers. Users vary widely in their experience and in judgment with regard to sun/UV exposure and hydration, expertise, risk taking, physical strength, age, and sobriety.

3.4 Lower Saluda River Activities and Usage

Recreation activities downstream from the Saluda Project are somewhat different from but equally diverse as activities on Lake Murray. These include flatwater and whitewater boating with canoes and kayaks, rafting, sunning, and socializing on rock outcroppings, bank fishing, wade fishing, camping, and hiking along the riverbanks.

For most of the activities cited above, the peak usage times are generally consistent with the peak usage times on the Lake.

Similar to users on Lake Murray, individuals recreating on the lower Saluda River exhibit varying levels of experience and judgment. Stretches of water may be enjoyed by novice boaters or by professionals training for major boating events. Likewise, individuals recreating outside of boats and rafts within the bounds of the river itself range from local college students sunbathing on exposed rock outcroppings to experienced anglers. Most users live, work, or are enrolled in school in the urban Columbia area (Kleinschmidt 2007).

4.0 GOVERNANCE OF PROJECT USE BY THE PUBLIC

A combination of federal, state, and local governments and SCE&G manage and regulate public use of project lands and waters.

SCE&G is the owner of project lands, including the land under the lake. Public use is governed by federal agencies such as the United States Army Corps of Engineers (USACE), Federal Emergency Management Agency (FEMA), and FERC. There is State agency review and approval of permit applications, local governmental zoning and planning regulations, and SCE&G's shoreline management policies and programs. By virtue of its status as licensee under a license granted by the FERC, SCE&G has some level of responsibility for safety, particularly in regards to the safety of the project works and the direct impacts of project operations. In fulfilling this responsibility, SCE&G provides warning signs, lights, and sirens to alert the public to potential dangers and to the initiation of operations at certain levels. SCE&G public safety plan is filed with and has been accepted by FERC. The plan details sign placement, dimensions, and verbiage.

When it licenses the use of public waters for the generation of electricity by the means of hydropower, the FERC sets the conditions under which a licensee such as SCE&G may use the waters both for power generation and other purposes identified in section 10 the Federal Power Act.¹ Prominent among those other purposes is recreation on project lands and waters. SCE&G has met this recreation obligation by operating and maintaining public access points, including boat launch sites, and safety-related signage, and by granting, with the approval of the FERC, permits for the construction and operation of private and commercial marinas, as well as private docks.

Regulation of the manner in which boats are operated on Lake Murray comes under province of other statues. The South Carolina Boating and Safety Act of 1999² is the primary source of legal authority for regulating the operation of watercraft on the lake and surrounding waters. This Act details laws regarding equipment and operation of watercraft. In support of this Act, the SCDNR interprets the intentions of the legislature and promulgates regulations to put into place policies and processes to follow and implement the statute. These regulations incorporate by reference the Federal Inland Navigation Rules Act, the Federal Boat Safety Act of 1971, and the International Navigation Rules Act of 1977.

¹ 16 U.S.C. § 803 (2002).

² S.C. Code § 50-21-10.

Counties and municipalities are essentially preempted from enacting any ordinances or local law that is not identical to state law for regulating use of watercraft.³ However they may pass local laws or ordinances to regulate or restrict launching or beaching of watercraft,⁴ or to regulate exhaust noise.

By statute⁵ SCDNR is the state agency with the statewide authority for the enforcement of laws on South Carolina waterways, including lakes and rivers. However, concurrent legal authority is vested in Sheriff's department of each county. As a practical matter, the primary enforcement of laws on Lake Murray is conducted by a joint marine task force comprised of deputies from the four counties. As the work of this task force has evolved, the only Sheriff's department to staff its marine effort twenty-four hours a day, seven days a week, is the Lexington County Sheriff's Department. The greatest portion of the shoreline of Lake Murray is in Lexington County, and the physical facility for the lake patrol is located on Bundrick Island, also in that county.

³ S.C. Code § 50-21-30.

⁴ See *Barnhill v. City of North Myrtle Beach*, 333 S.C. 482, 511 S.E.2d 361 (1999).

⁵ S.C. Code § 50-21-80.

5.0 EXISTING SAFETY MEASURES ON LAKE MURRAY AND THE LOWER SALUDA RIVER

This section addresses measures relating to safety, such as signs, lights, sirens, barriers, or other devices or systems to alert the public to potential dangers within the project boundary.

5.1 SCE&G's Warning and Safety Programs

Hydroelectric licensees are bound by federal regulations to undertake general management activities, provide specific safety measures such as placement and maintenance of signs, lights, sirens, buoys, barriers, fences, or other safety devices that may reasonably be necessary or desirable to alert the public to fluctuations in flow from the project and related river and lake level changes, or otherwise to allow the public to exercise informed judgment so as to maintain their personal safety in the use of project lands and waters (18 CFR § 12.42 (2007)).

FERC monitors public safety at hydroelectric projects via its Public Safety Program and a Dam Safety Program, both of which are designed on a project-by-project basis to accommodate the unique conditions of each project. Safety measures installed on SCE&G's Recreation Sites must be approved by FERC prior to installation. The FERC conducts annual inspections of project structures and equipment and requires independent safety inspections on project structures, annual spillway gate tests, and the maintenance of an Emergency Action Plan for managing the project and alerting emergency response agencies in the unlikely event of a failure. SCE&G performs regular project inspections and monitors various types of instruments at the dam. A backup dam at the Saluda Project is designed to prevent massive downstream flooding in the unlikely event of a seismically induced primary dam failure.

5.1.1 Warning Systems

SCE&G has installed a warning system consisting of ten large sirens downstream of the dam in potential inundation areas. The sirens are designed to sound in the unlikely event of a dam failure, thereby alerting people in areas that could be flooded. A brochure containing evacuation routes and emergency preparedness information is mailed to businesses and residents in these areas periodically. The information is also posted on SCE&G's website at

<http://www.sceg.com/en/my-community/lake-murray/lake-management/>. These sirens are tested monthly as detailed in the Emergency Action Plan.

SCE&G also maintains an alert system on the LSR to warn river users of sudden changes in water level. Sirens and strobe lights are located at the U.S. Geological Survey (USGS) gauge platform below the Saluda powerhouse, between the USGS gauge platform and Metts Landing, at Metts Landing, upstream of Riverbanks Zoo and two locations downstream of the Zoo (Shandon Rapids and confluence with the Broad River). Along with stand alone strobe lights at the spillway discharge and Saluda Shoals Park, the sirens located at the USGS gauge platform, between the USGS platform and Metts Landing, and at Metts Landing are activated automatically by the plant DCS equipment when Saluda Hydro starts to generate 5 MW or 800 CFS. The sirens sound for three minutes once activated. Subsequent siren activation is made automatically after a six minute delay from the initial activation. All strobe lights activate and remain on for 16 minutes concurrently with the initial siren activation. These sirens can be activated manually from a push button inside the Saluda powerhouse.

At the Zoo location, a float switch upstream activates the sirens. The sirens activate with a 1-inch rate of rise (ROR). The ROR is measured every 10 seconds and averaged with five readings over a one-minute interval. The sirens sound for three minutes once activated. There is a hold-off period of 60 minutes at the Zoo location sirens and an override if the water level rises six inches during that 60-minute hold-off period; the sirens will activate again and then reset for the next 60-minute hold-off period. The siren upstream of the Zoo is activated immediately from the float switch. The two sirens downstream of the Zoo have a three-minute delay from the initial activation of the float switch. A strobe light activates and remains on for 16 minutes concurrently with the siren activation at each site. Sirens are active 24 hours per day, and were tested to calibrate the volume to cover an area 1500 feet upstream and downstream of the upstream Zoo siren, from the Zoo to the confluence of the Broad downstream of the Zoo, and from the Saluda powerhouse to 500 feet downstream of Metts Landing.

Prominent warning signs posted near the strobe lights and sirens warn people that the activation of the sirens and/or strobe light signals potentially dangerous conditions caused by a rising water level.

SCE&G has proposed locations for new sirens, strobe lights and warning signs along the LSR in areas where public use of the river may be common. The installation and location of the new equipment is being coordinated with the SRCG.



5.1.2 Emergency Action Plan

In accordance with requirements of the FERC, SCE&G developed and maintains an Emergency Action Plan (EAP). The purpose of an EAP is to predict the results of a dam failure and provide a plan for responding to a potential dam failure event. Associated with the EAP planning and analysis process, discharges, depth of flow, and travel time are part of the dam break analyses. The EAP contains a notification flowchart showing a priority of who is to be notified, and by whom. It also identifies who is responsible for carrying out duties outlined in the Plan. Responsibilities of the licensee include contacting the emergency and local agencies, who then have the duty of warning and evacuating affected areas.

5.1.3 Public Safety Plan

Buoys, signs, and restrictions to access at project structures and facilities are detailed in the Public Safety Plan, which is on file with FERC. Public safety measures include warning signs and/or buoys near hazardous areas of the project, and restraining devices such as fences around the powerhouse and downstream project area. The Plan contains descriptions and locations of these devices.

5.2 Other SCE&G Safety Initiatives

SCE&G supports a variety of programs to promote the safe access to appropriate project lands and waters. The following are examples:

- SCE&G supports swiftwater rescue training by providing Columbia Fire and Rescue and American Whitewater with flows for training events.
- SCE&G provides up-to-date information on designated evacuation routes and associated shelters that are in place for use in case of dam failure. Evacuation routes are available on-line at SCE&G's website.
- SCE&G has partnered with the US Coast Guard Auxiliary and SCDNR to develop a safe boating checklist.
- SCE&G and SCDNR monitor recreation sites regularly in support of public safety and quality recreation.
- As previously described, SCE&G maintains an alert system on the LSR to warn river users of changing water levels.
- SCE&G coordinates and cooperates with the River Alliance to facilitate compatibility with the Three Rivers Greenway Project.
- SCE&G manages an electronic ring-down call system (operational on April 14, 2008) that is activated by the SCE&G System Dispatchers upon initiation of significant generation at Saluda. Upon activation, a message is sent to registered individuals via e-mail and telephone, alerting them to the initiation of generation. Registration for this ring-down service can be made at SCE&G's website <http://www.sceg.com/en/my-community/lower-saluda-river/>. This system was developed in response to SRCG member requests for notification of initiation of Saluda Hydrogeneration.
- SCE&G provides current and planned generation information on the company website. That website address is <http://www.sceg.com/en/my-community/lower-saluda-river/>.
- The Lower Saluda River Advisory Counsel and American Whitewater, with assistance from SCE&G, established a series of color-coded river level markers positioned along the LSR for use by boaters, anglers and other recreators. The markers help users gauge potential levels of danger associated with rising water levels. The color coding was designed by American Whitewater. Information on the codes is provided at all public access points on the lower Saluda River. The

water level markers on the Saluda River equate to the following flows: Blue – Less than 2600 cfs; Yellow – 2600 to 8800 cfs; Red – Greater than 8800 cfs.

5.3 Other Warning and Safety Programs

Safety programs and measures for areas on and along the water, within and beyond the project boundaries also are provided by a variety of local, state, and federal agencies and organizations. These organizations and the programs they offer depend upon interagency coordination and support as well as support from the corporate community, including SCE&G.

The following is a sampling of those efforts; a more complete listing is provided in Appendix A.

- The U.S. Coast Guard Auxiliary, which is under the jurisdiction of the U.S. Coast Guard based in Charleston, SC, maintains a base on Lake Murray to assist with boating safety and emergencies until the Charleston unit arrives. It also maintains a weather link to the U.S. Weather Bureau and an unofficial reporting station to the lake. The Auxiliary focuses on educational activities to promote boating safety on Lake Murray.
- The National Weather Service issues small craft advisories for Lake Murray. Advisories are released through a variety of public communications outlets, such as local television and radio stations.
- The City of Columbia Parks and Recreation Commission (CPRC) provide whitewater kayaking courses, including a focus on how to prevent emergencies. Courses are available for the general public, and are coordinated with city park rangers along the riverfront area. CPRC also provides American Canoe Association certified instructors for children's boating classes. Additional information is provided at the city's website: www.columbiasc.net.
- The Lake Murray Power Squadron offers courses on safe boating, engine care, ocean navigation, and weather. The Squadron also participates in public outreach and education efforts and assists in maintaining the emergency center on Lake Murray, reference lights and day markers.
- The SCDNR places navigation buoys and shoal markers on Lake Murray, and works with SCE&G and others in identifying hazards on the lake at normal or

nearly full pond levels. A shoal is generally defined as a place where water is shallow. On Lake Murray, shoals are generally considered shallow areas where sand bars or mud flats exist. Where they are known, these locations are typically marked by the DNR with approved navigational aids. Some may also be identified on commercially available fishing maps (e.g., Fishing Hot Spots' map of Lake Murray).

- Boaters who identify unmarked shoals are encouraged to report the locations to the DNR, who will investigate the site and will make a determination as to whether or not it merits posting with a navigational aid. SCE&G proposes to assist the DNR in publicizing this fact by posting it on the SCE&G website and providing a form, developed with the DNR, for boaters to complete and submit to the DNR. The form will guide boaters in identifying helpful information such as the location and type of obstruction (e.g., shoal), and direction on how to submit this information to the DNR (e.g., fax, telephone, mail).
- The Columbia Fire Department is currently working on the Three Rivers Greenway Plan, which, among other things, will provide emergency access points on the lower Saluda River. The Plan includes significant public access along the lower Saluda River, including emergency call boxes, which provide immediate access to a 911 operator.

6.0 EXISTING EDUCATION AND OUTREACH PROGRAMS

Hydroelectric licensees are required by federal regulations to make reasonable efforts to inform the public of the availability of project lands and waters for recreational purposes (18 CFR § 8.1). SCE&G takes this duty seriously, providing informational signage at all of its public access sites, and a substantial amount of information on its website. SCE&G also recognizes that providing the general public with more and better information about the location and proper use the project's lands and waters can promote responsible resource use, help prevent activity conflicts, help prevent accidents, and lessen overcrowding. Therefore, SCE&G participates in many educational programs to help inform the public on these topics. Outreach activities typically focus on resources related to the Project and are designed to inform and educate the public regarding the locations of recreation sites, lake levels, generation schedule, lake drawdown events, and safe and responsible use of recreation and environmental resources.

This section discusses the types of activities that SCE&G engages in for these purposes. This section is intended to provide a summary of the education and outreach activities SCE&G participates in and supports. SCE&G's commitment to public education and outreach is long term and dynamic; the company continually responds to worthy new ideas and requests, supplementing and supporting the activities described here.

6.1 SCE&G's Public Outreach and Education Activities

SCE&G's website is located at <http://www.sceg.com/en/my-community/>, where the viewer may choose either Lake Murray or lower Saluda River. The website is regularly maintained and provides information regarding the Saluda Project, ongoing public activities, educational material, and links to SCE&G's parent corporation, SCANA Corporation. The website describes ongoing activities around the lake and provides information regarding upcoming events. This includes information for shoreline residents regarding shoreline management and permitting requirements, permit application processes and directions; lake levels, current and planned generation schedules (excluding reserve calls); registration for notification of when Saluda Hydro starts to generate; and identification of SCE&G's public access sites available for recreation. The website provides numerous contact numbers for individuals interested in additional information about the topics presented.

The Reservoir Information System (803-217-8399) also provides a source of information about lake levels and the planned generation schedule (excluding reserve calls). This system is operational 24 hours a day.

SCE&G also educates the public by advertising in local magazines, newspapers, and through the distribution of information to commercial establishments around the lake.

SCE&G holds periodic information meetings with local contractors and realtors to ensure they are aware of notification and permit requirements prior to starting any construction work and makes presentations to local organizations on an as-requested basis. SCE&G also participates in many *ad hoc* meetings to discuss notification and permit requirements for various homeowner and boat owner groups, boards of realtors, and home builders associations, just to name a few.

Through its Speakers' Bureau, which is described on its website, SCE&G provides informative presentations on a variety of energy-related topics to civic and social groups. Subjects range from energy costs and conservation to hurricane preparedness. Upon request, SCE&G strives to create presentations to meet the needs of any requesting party. Anyone seeking to schedule a presentation should call (800) 562-9308.

SCE&G participates in many community activities and groups. For example, SCE&G supports the Dam Swim for Drew, an annual event held in memory of 11-year old Joseph Drew Smith, who was killed as a result of an alcohol related boating accident while he was fishing on Lake Murray. The event promotes water and boating safety and to finance an indoor swimming facility in Lexington in memory of Drew Smith. The Dam Swim for Drew is a two-mile open water swim. The Boating Safety Act of 1999, known as Drew's Law, was passed through the combined efforts of Drew's parents, the General Assembly, SCDNR, and concerned citizens. It increased penalties for boating under the influence (BUI); allows testing of blood alcohol content with probable cause and added a section for reckless operation.

With agencies and local sponsors, SCE&G maintains a shoreline conservation demonstration project that illustrates conservation alternatives for shoreline stabilization at its #3 boat launch. The demonstration project, profiled on SCE&G's website, supports the use of natural elements as much as possible.

As part of a cooperative effort between SCE&G, SCDNR, and several other lake interest groups host an annual Lake Murray Shoreline Habitat Enhancement Project. Started in 1997, this project is designed to improve the aesthetics of the Lake's shoreline, help control erosion, re-establish shoreline vegetation, enhance fish and wildlife habitat, and protect water quality. As part of the project, tree seedlings are provided to lakeside residents free of charge. Seedlings are generally distributed in bundles of 10 and 15 trees, and include native species such as cypress, river birch, willows, and button bushes. Planting instructions are provided.

With respect to aquatic plant management, SCE&G posts signs at all public boat launches, warning boaters of the potential hazards of inadvertently introducing invasive aquatic species would be detrimental to the health of Lake Murray. In addition, SCE&G monitors and manages hydrilla and water primrose in the lake, and posts this information on its website.

SCE&G is a proud partner in education in communities throughout South Carolina. Through various initiatives, educational resources and financial contributions, SCE&G strives to benefit students, teachers and communities overall. Examples of this include SCE&G's involvement in Junior Achievement, through volunteerism and program support, and its sponsorship of Homework Centers - supervised places where students can go after school to work on their assignments. Other examples of the ways SCE&G fosters education in communities throughout South Carolina at are described at an educational Web site: www.energeticminds.com.

SCE&G leases roughly 180 acres of non-Project property to the Riverbanks Zoo and Botanical Garden for a nominal fee. Today, Riverbanks Zoo is one of the top-ranked zoos in the nation and is home to more than 2,000 magnificent and fascinating animals and one of the nation's most beautiful and inspiring botanical gardens. SCE&G also periodically has provided a cash donation and continues to support various zoo projects. Since 2005, a special digital camera setup provided to Riverbanks Zoo & Garden courtesy of SCE&G offers a live video feed of selected animals within their zoo

habitat. The video feed – tabbed SCE&G ZooView Webcam– is available from 7 a.m. to 7 p.m. EST daily through a link on EnergeticMinds.com. The ZooView has become one of the most visited web-based wildlife viewing sites in the world and has been ranked internationally among the most unique and compelling webcams by EarthCom.com.

6.2 Other Public Outreach and Education Programs

Many agencies, universities, and organizations support public education and outreach activities to foster good decision-making in resource utilization and management. SCE&G has compiled a list of some of the agencies and organizations that provide outreach and educational materials and services, and in some cases, grant monies. *This list is far from complete.* Many other sources exist, including in neighboring states and across the country that may provide useful information and/or educational materials. It is impracticable to try and list them all, and sources are continually changing. However, the information below should be sufficient to get one started in learning more about management of our natural resources.

Topic areas addressed by these organizations include a broad range of subjects such as: boating safety for adults and children; community development and best management practices; landscaping and agricultural best management practices; watershed and wetland management and protection; lesson plans and materials for the classroom; fishing; nonpoint source pollution and water quality management. Persons interested in additional information from these sources are encouraged to contact agencies and browse their websites. The information and resources provided by these agencies and organizations are frequently free and obtainable from their websites. Information available is also continually evolving – sources should be consulted frequently in order to remain current.

American Red Cross
City of Columbia Parks and Rec. Commission
Environmental Protection Agency
Lake Murray Power Squadron
National Safe Boating Council
National Water Safety Congress
North American Lake Management Society
Rec. Boating and Fishing Foundation
Safe Boating Campaign
SC Cooperative Extension Service

SC Department Natural Resources
SC Department of Parks, Rec. and Tourism
US ACOE National Water Safety Program
US Coast Guard Auxiliary
US Coast Guard Office of Boating Safety
US Fish and Wildlife Service
US Weather Bureau
USDA Forest Service
USDA Natural Resources Conservation Service

7.0 PROPOSED SAFETY AND OUTREACH PROGRAMS

7.1 Annual Safety Meeting

The SRCG will continue to meet periodically after relicensing to review issues relating to public safety at the Project. This document will assist the group by providing essential safety-related information. The group will review the document annually and will amend it as appropriate to keep the information contained herein relatively current and consistent with the mission of the SRCG. The timing of the meeting will be determined by the SRCG. SCE&G will maintain membership in the group and will provide a meeting location and administrative and/or clerical support as necessary. Meetings will be used to review public safety issues at the project and as a forum to share information between organizations.

8.0 LITERATURE CITED

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- Kleinschmidt Associates (Kleinschmidt). 2007. Spring Addendum to the Recreation Assessment Study Report. Prepared for South Carolina Electric and Gas. August, 2007.
- South Carolina Budget and Control Board, Office of Research and Statistics. 2005. South Carolina Statistical Abstract 2005: Domestic Destination Visitation to South Carolina Non-Coastal Areas by Region (2004). [Online] URL: <http://www.ors2.state.sc.us/abstract/chapter15/recreation2b.asp>. Accessed August 30, 2007.

APPENDIX A

EDUCATION AND SAFETY RESOURCES

AT

LAKE MURRAY

AND

THE LOWER SALUDA RIVER

EDUCATION AND SAFETY RESOURCES AT LAKE MURRAY AND THE LOWER SALUDA RIVER

PROVIDER	PUBLIC EDUCATION, INFORMATION & ADVISORIES	ENFORCEMENT	RESCUE	EQUIPMENT	GEOGRAPHIC AREA COVERED	NUMBER OF PERSONNEL	CONTACT NAME	CONTACT NUMBER	Web Address
FEDERAL GOVERNMENT									
National Weather Service	<ul style="list-style-type: none"> • Issues small craft advisories for the Lake • Boater education on website • Provide river and lake levels on-line • Encourage radio use on boats in articles and on-line 	None	None	Extensive Radar	Lake Murray		Al Moore	805-822-8135	http://www.nws.noaa.gov/er/cae/
U. S. Coast Guard Auxiliary District 7 (Also referred to as Lake Murray Coast Guard)	<ul style="list-style-type: none"> • Boating safety; Education (Safety & Skills) • Vessel safety checks 	None	Water rescue	<ul style="list-style-type: none"> • 8 equipped boats that meet USCG requirements; • Helicopter in Charleston • Additional boats (if available) 	Lake Murray	52 members	Richard Minor	803-462-2196	http://nws.cgaux.org/index.html
US Coast Guard	<ul style="list-style-type: none"> • Vessel safety checks • Boater education (safety) • Assorted publications & other outreach material 	Law enforcement							http://www.uscgboating.org/
STATE GOVERNMENT									

EDUCATION AND SAFETY RESOURCES AT LAKE MURRAY AND THE LOWER SALUDA RIVER

PROVIDER	PUBLIC EDUCATION, INFORMATION & ADVISORIES	ENFORCEMENT	RESCUE	EQUIPMENT	GEOGRAPHIC AREA COVERED	NUMBER OF PERSONNEL	CONTACT NAME	CONTACT NUMBER	Web Address
Lower Saluda River Advisory Council	<ul style="list-style-type: none"> Advisory role for SCDNR regarding management of the State Scenic River Education 	None	None	None	Lower Saluda River		Bill Marshall Tommy Boozer	803-734-9096 803-217-9007	http://Dnr.sa.gov/water/enaff/river/scenic/Saluda.html
South Carolina Wildlife Federation	<ul style="list-style-type: none"> Waste management & planning during hurricanes 	None	None	None	Lake Murray and LSR	7 members on emergency response for hurricanes & 8 members on nuclear response team	Carolyn McLaughlin	803-896-4254	http://www.scwf.org/
South Carolina Department of Natural Resources	<ul style="list-style-type: none"> Hunter, angler, boater & wildlife education Buoy placement Vessel safety checks 	Law enforcement		14 boats in and around four-county area	Lake Murray and LSR	10 offices in region. 2-4 officers each county on lake at any given time.	Lt. Jim Wagers	1-800-277-4306	http://www.dnr.sc.gov/
LOCAL GOVERNMENT									
City of Columbia Parks and Recreation Department	<ul style="list-style-type: none"> Whitewater Kayak Program Education Boating Safety Information 	Park Ranger Staff Patrol	None	None	Lower Saluda River and Three Rivers Greenway	Whitewater Kayak Program ~ 10 volunteer coaches; Park Ranger Staff – 18.	Karen Kustafic	803-545-3117	http://www.columbiasc.net/?pageid=96
Columbia Fire and Rescue		None	Swift water rescue in the lower Saluda River	<ul style="list-style-type: none"> 3 zodiacs 1 rapid deployment craft 2 ocean kayaks 4 Carlson boards 1 tetra 	Columbia City Limits & within Richland County; outside Richland County when called (limited to LSR?)	36 – 40 6 4-man "companies" (Rescue squads) 16 men/shift	Alan Axson	803-545-3731	http://www.columbiasc.net/index.php?pageid=64

EDUCATION AND SAFETY RESOURCES AT LAKE MURRAY AND THE LOWER SALUDA RIVER

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Lexington County Emergency Medical Service	<ul style="list-style-type: none"> CPR classes 	None	Emergency stabilization/transport	<ul style="list-style-type: none"> Ambulances Helicopter Boats available when needed 	Lake Murray		Joel Huggins Margaret Gregory	803-791-2191	http://www.lex-co.com/departments/PublicSafety/EMS/EMTOrParamedic/Lexington%20County%20EMS%20EMT%20or%20Paramedic.html
Lexington County Sheriff's Department	None	Law enforcement	Water rescue and medical transport on Lake Murray and the upper Saluda River	Several boats	Lexington, Saluda and Newberry counties with jurisdiction in those counties plus Richland County		Norm Nicholson	803-518-1821	http://www.lex-co.com/sheriff/
Newberry County Sheriff's Office		Law enforcement							http://www.newberrycounty.net/sheriff/
Providence Hospital	<ul style="list-style-type: none"> CPR classes 	None	None	None	Midlands	>1900	803-256-5495		http://www.providencehospitals.com/stluke.asp
Richland County Sheriff's Office	<ul style="list-style-type: none"> New boater safety program 	Law enforcement	Yes	<ul style="list-style-type: none"> New radar for lake use Boats 	North side of Lake Murray	>550 officers	Lt. Santiago	803-576-3118	http://www.rcsd.net/

EDUCATION AND SAFETY RESOURCES AT LAKE MURRAY AND THE LOWER SALUDA RIVER

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Richland Hospital	<ul style="list-style-type: none"> CPR classes Safety education (sunsmart, children's safety, teen talk) 	None	None	<ul style="list-style-type: none"> Ambulances Helicopter 	Midlands				http://www.palmettohealth.org
Saluda County Sheriff's Office	None	Law enforcement	None	1 police boat for Lake Murray	Saluda County		Sandra Pagent	1-800-922-5026	http://www.saludacounty.sc.gov/emergency.htm
West Columbia Rescue (Also referred to as West Columbia Fire Dept.)	None	None	Emergency stabilization/transport	1 fire boat 1 police boat	Primarily Lower Saluda River	10 during days 7 at night	Phillip Reddick, Senior Fireman	803-739-6225	None – refer to city website: http://cityofwestcolumbia.com
PRIVATE AND VOLUNTEER ORGANIZATIONS									
American Whitewater	Boater education (safety)	None	None	None	LSR		Charlene Coleman	803-254-3147	http://www.americanwhitewater.org/
American Rivers	None	None	None	None	Lake Murray and LSR	3 staff 500 members in region	Gerrit Jobsis	803-771-7114	http://www.americanrivers.org/site/PageServer

EDUCATION AND SAFETY RESOURCES AT LAKE MURRAY AND THE LOWER SALUDA RIVER

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Coastal Conservation League	None	None	None	None	Lake Murray and LSR		Gerrit Jobsis Jim Cumberland	803-771-7114	http://coastalconservationalleague.org/NETCOMMUNITY/Page.aspx?pid=183&srcid=183
Lake Murray Association	Boater education (safety)	None	None	8 windsocks for helicopter EMS transport	Lake Murray	None	Joy Downs Kenneth Fox Bill Mathias	803-781-8411 803-604-1409 803-957-5829	http://www.lakemurrayassociation.com/
Lake Murray Power Squadron	<ul style="list-style-type: none"> • Boater education (safety) • CPR training; • Vessel inspection checks • Maintenance of day markers and reference lights; • Cooperative charting with NOAA 	None	None	Members offer boats for events such as "Dam Swim for Drew"	Lake Murray	No employees but has 370+ members	Jerry Wise David Price	no number 803-345-1847	http://lmpsonline.org/

EDUCATION AND SAFETY RESOURCES AT LAKE MURRAY AND THE LOWER SALUDA RIVER

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Lake Murray Watch	<ul style="list-style-type: none"> Safety Education 	None Lake watch members report unsafe activities, hazards, etc.	None	None	Lake Murray and LSR	No employees 16 volunteers	Steve Bell	803-730-8121	http://www.lakemurraywatch.com/home.html
Lake Murray Home Owners Association	None	None	None	None	Lake Murray	None	Steve Bell	803-730-8121	http://www.lakemurrayhomerns.com
SCE&G	<ul style="list-style-type: none"> Public (Education Safety, shoreline management) Pamphlets, newsletters and other outreach materials Hosts public meetings 	None	None	None	Lake Murray LSR		Tommy Boozer	(803) 217-9007	http://www.sceg.com/en/public-safety .
Sea Tow	<ul style="list-style-type: none"> Boater education (safety) School visits (discuss lifejacket use, bow riding) 	None	For Fee	3 boats for fee	Lake Murray	5	Captain John Allenburg	803-957-0664	http://www.seatow.com/lakemurray/index.asp

EDUCATION AND SAFETY RESOURCES AT LAKE MURRAY AND THE LOWER SALUDA RIVER

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Trout Unlimited, Saluda River Chapter	<ul style="list-style-type: none"> Education & outreach for chapter members (water levels & flow on lower Saluda River, boater safety) 	None	None	None	LSR	N/A	Malcolm Leaphart Mike Waddell	803-781-4752 803-978-7524	http://www.saludatu.org/default.cfm

NO FOR F R NCE IN M R G I C