



The Lake Murray Association, Inc

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August 12, 2005

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

Attn: Mr. William R. Argentieri
"Comments on the Saluda Hydro ICD"

Dear Mr. Landreth:

The Lake Murray Association, Inc. is an incorporated non-profit organization chartered in 1994 by users of the lake to be "the voice of Lake Murray". LMA's sole focus is the preservation and protection of the lake for all users. Acceptable lake levels, safety, water quality, wildlife protection, shoreline management and education have long been the established goals of this 12 year old organization. LMA's by-laws require the Board of Directors to have members from the 4 counties that encompass the lake to insure all users are properly represented.

The Lake Murray Association, Inc. has reviewed the Initial Consultation Document and requests the following studies and considerations.

Study to Allow for Minimum Year Around Elevation of 354' On Lake Murray

The information will serve:

To determine the feasibility of 354' elevation as the *minimum year around lake level* for Lake Murray.

The information does relate to operation since:

1. Saluda Hydro would be operated at a higher minimum level year around and we assume, a new guide curve would be used.

2. SCE&G's operating capacity would not be impacted greatly as other plants now exist to produce the reserves needed.
3. SCE&G's president, Neville Lorick has publicly indicated that Lake Murray is important to the people of Columbia and has stated in an Article August 11, 2005 in the Lexington Chronicle that it is the "jewel of the midlands". More and more people will be using Lake Murray in the future for recreation.
4. It appears to those who use the lake regularly that hydrilla does not benefit from draw downs as we once believed. It appears that lowering the water exacerbates the problem when the lake comes back. DNR and LMA agreed with others that Grass Carp is a viable solution; therefore there is no need to draw down the lake for control of this weed as has been done in the past.

The lake is now primarily used for recreation. Recreation is in the goals and objectives of the permit issued by the FERC in the previous license. It is anticipated more emphasis will be put on recreation in the new license to accommodate growing population in the surrounding area.

1. The resource is used for recreation which includes boating, fishing, swimming, camping and has increased exponentially since the last license was issued in 1984.
2. Since 1984 many commercial enterprises have opened on Lake Murray including marinas, boat dealers and restaurants, plus many off site businesses that support these shoreline ventures and contribute to the economy.
3. In order to have successful and safer recreation, minimum water level is a necessity. Safety is a primary concern. It is widely accepted that the lake is safer with higher water levels presenting fewer obstacles to safe navigation.

Some studies below have been done and new modeling studies of inflows and outflows, we are sure could meet generally accepted practices.

1. We are unaware of any study SCE&G has proposed.
2. The Lake Murray Association has conducted surveys with Lake Murray homeowners and commercial businesses on the lake to determine the best and most acceptable minimum levels from a use and economic standpoint. A new study is currently being planned.
3. The Lake Murray Association presented a computer generated model designed by the late Gene Anderson to demonstrate how the minimum water level could be kept at 354' year around. SCE&G has twice held the lake level at or above 354' during the winter 1999-2000 and again in 2004-2005. They have stated no adverse impact on operations during the period as a result of higher winter levels.

The FERC issued permit to operate the Saluda Hydroelectric Project has the goal of recreation as one of the objectives of the resource. Recreation on Lake Murray includes, fishing, swimming, boating and camping. A 354' minimum level makes this safer for these activities

1. The resource is used for recreation which has increased exponentially since the last license was issued in 1984. The lake is considerably safer at a minimum of 354' with fewer shoals as hazards.
2. Since 1984 many commercial enterprises have opened on Lake Murray including marinas, boat dealers, restaurants plus many off site businesses that support these shoreline ventures and contribute to the economy. LMA surveys show lower levels are detrimental to these businesses.
3. Eighty-five percent (85%) of homeowners on the shoreline according to LMA surveys cannot use the lake below 354'. In order to have successful year around recreation for thousands of lake users, 354' minimum elevation is required to launch boats or use docks and lifts. Some coves are completely dry below the 354' elevation which makes swimming, boating and fishing recreation unavailable.
4. According to downstream users, a higher year around level seems to do a better job meeting the needs of canoeist, trout fishermen, boaters and protection of the habitat by allowing higher minimum flows and event releases.

Water Quality Studies Lake Murray

The purpose of the information is to:

Determine water quality of all areas of Lake Murray with particular attention to coves with little or no natural flushing action to insure the entire lake meets State and Federal Water Quality Standards for the purposes of protecting the uses, i.e. recreation, fishing, drinking water supply and aesthetics.

This information is related to the operation and maintenance of the Project because:

Building the dam and impounding the river was necessary for operation of the project. Because of the project, assimilation of nutrients such as phosphorus and nitrogen has been reduced. Under these conditions water quality has a tendency to become impaired.

The following excerpts, from the April 2005 Saluda Hydro Initial Consultation Document, (ICD) adequately document the need for this study.

- "From a total of twelve stations on Lake Murray (including embayment), seven stations were listed as non-supporting or only partially supporting water uses. Metal concentrations were listed as the cause for six of these stations and nutrients were listed as the cause for two stations (note: the causes for one station listed both metals and nutrients.)"
- "The stations at Rocky Creek and in the Bush River arm of Lake Murray were reported to be among the most eutrophic sites on large lakes in South Carolina, and both these locations were designated as non-supporting for aquatic life uses."
- "Fecal coli-forms were identified as the cause for impacting recreation at six locations in 1995 and 8 locations in 1998."

- "Fecal coli-forms levels are reported by SCDHEC to be acceptable in Lake Murray but fecal coli-form in inflowing streams are (sic) often above the South Carolina water quality criteria. This is typical of many large reservoirs. *Unfortunately, most of the sampling stations within large lakes like Lake Murray are not in sensitive areas where fecal coli-form might occasionally exceed the water quality criteria.* It is especially important to consider those locations near inflow points where you might expect periodic episodes of high inflows. This concern can be addressed by adding monitoring points closer to the inflow regions (perhaps specifically for fecal coli-form) and by educating the public and using warning signs near these inflow points. Special studies can be used to identify these areas and the extent of the concern for each inflow region."

Under the terms of the current license, SCE&G is required to manage the lake to meet Water Quality Standards and maximize the recreational aspects of the lake, i.e., boating, fishing, swimming and camping. Substantially increased water testing would be required to insure the water meets these standards.

(Note: Italic emphasis above is The Lake Murray Association's)

Because recreation is stated as a goal in the license, water impairment becomes an issue for the resource and LMA's goals and objectives for this resource are to find the source of the impairment and better manage it.

An important problem in the resource is water impairment in many areas of Lake Murray, i.e., phosphorus, fecal coli-form, dissolved oxygen and PH. The Lake Murray Association's goal is to improve the quality of the water in Lake Murray. The objective of the study is to determine Best Management Practices to guarantee that the quality of the water in all areas of Lake Murray meets or exceeds the water quality standards. The resource is used for drinking water for the cities of Columbia, Newberry and West Columbia. As previously mentioned, it is used for swimming, fishing and boating. All of these uses are benefited by high water quality. Additionally numerous lakeshore residences take drinking water directly from the lake with varying degrees of treatment. It is imperative the water quality meet standards to prevent a health hazard.

Study methodology suggested is a representative testing of all areas and to conduct TMDL's on the impaired areas.

We are not aware of SCE&G's proposed studies

Current Technology is capable of ascertaining the information needed and is being used in some areas of the lake by the Department of Health and Environmental Control. However as pointed out in the ICD there is the need for more test sites and more appropriate test sites, i.e. the coves.

After the impairments are certified to be out of standard, a study needs to be done to determine what causes the impairment and actions taken to alleviate the problem such as shoreline buffers, notification and financial partnering with chicken farmers, cattle farmers, educating the users etc. The licensee needs to look to DNR, and DHEC to help solve the problems. With funding from SCE&G and/or other agencies The Lake Murray Association is in a position to assist with EPA's and DHEC required TMDL's

TMDL methodology is a generally accepted practice

The Department of Health and Environmental control has had testing sites on Lake Murray for many years. The tests that are done appear to give accurate readings as to the various impairments of the water, i.e. phosphorus, fecal coli-form, DO, PH. These sites are read on a regular schedule and are certified by professional labs. When impairments are revealed the EPA requires that a TMDL study be done to determine what Best Management Practices should be implemented. These methods are suggested in the Clean Water Act that DHEC operates under. The problem with these tests is that there are not enough sites (none in coves) to accurately assess all areas of Lake Murray.

The FERC permit to SCE&G for operation of the Saluda Hydroelectric Project has among the objectives to be accomplished in the resource, goals of recreation and protection of fish habitats downstream.

1. Good water quality enables these goals to be met. Recreation on Lake Murray includes, but is not limited to fishing, swimming, boating and camping.
2. SCE&G has an obligation to see that an acceptable environment for recreation, wildlife and fish exists on Lake Murray. Lack of impaired water should be an objective for the resource. It is believed that phosphorus has an adverse affect on dissolved oxygen which effects the fish particularly downstream.
3. The cities of Columbia, Newberry, and West Columbia draw their drinking water from Lake Murray. The most important objective in this regard is to maintain the highest possible level of water quality for the safety of those who use it.
4. Some homeowners on Lake Murray draw their drinking water directly from the resource and filter it privately. The reason for good water quality is obvious here.

Study Public Access
Lake Murray

The purpose of this study would be to:

To determine if existing sites are designed and equipped for maximum use.

This relates to the operation because:

The river was dammed for the project and now has become a very important recreation resource . It must therefore provide readily available access for all public users.

A provision is in the license permit to allow for recreation. It is expected that the goals and objectives for recreation will be expanded in this license; therefore there is a need for more public access.

1. The resource is used for recreation which includes boating, fishing, swimming, camping and has increased exponentially since the last license was issued in 1984.

2. Existing sites should be distributed to provide the most favorable access to users. If the study shows more or larger public access sites are needed, it should be determined where they should be located and in what size.

The studies recommended would be an inventory and an accepted means to count the population's use of Lake Murray.

We are unaware that SCE&G has proposed a study. We recommend a survey and inventory of launch sites around Lake Murray.

The studies will further the goals of recreation on Lake Murray according to the permit and will effect SCE&G because they would need to furnish and maintain any public access sites on their properties.

Adequate facilities for each of the four perimeter counties, must meet the anticipated population growth of central South Carolina in the next 30 years and should be to be determined now.

Shoreline Studies


We support the SCDNR position regarding protection of the shoreline. We would like to see the ESA's and buffers mapped and discourage development of approximately 59 miles of shoreline that is in the "to be developed" part of the project. We are not opposed to buffers per se, we oppose uncontrolled and encouraged use of all of the buffer area by the general public. Lake property owners with a buffer area between their home/land and lake which must be traversed for access to private property such as docks, boat lifts, etc. should have reasonable expectations of control on public use of the buffer zone. The home and landowner has restrictions which must be met regarding use of the buffer as should the public if they are allowed to use it. Unfortunately the opportunity to inform the public of their responsibility may not occur. For this reason the LMA requests that SCE&G ask FERC to moved the language from the license that would allow unlimited and uncontrolled use of the buffer areas by the public.

Downstream Releases

LMA has heard nothing from Trout Unlimited's or Whitewater Rafters' needs that would be detrimental to those who use Lake Murray. The only request we have is that Release Events not occur during droughts and late summer.

Thank you very much for your attention to our requests.

Lee Barber



President