SALUDA HYDROELECTRIC PROJECT RELICENSING

FERC PROJECT NO. 516

Quarterly Public Meeting

January 11, 2007

7:00 o'clock P.M.

SALUDA SHOALS PARK - ENVIRONMENTAL CENTER

Welcome and Update on Resource Conservation Groups

by, Alan Stuart, Kleinschmidt Associates

Presentations by:

Mr. Shane Boring, Kleinschmidt Associates:
Fish and Wildlife RCG; and Water Quality RCG

Mr. Bret Hoffman, Kleinschmidt Associates:
Operations RCG

Mr. Bill Green, S&ME:
Cultural Resources RCG

Mr. Dave Anderson, Kleinschmidt Associates:
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PUBLIC MEETING 7:00 P.M.

MR. STUART: I would like to welcome everybody to our evening Quarterly Public Meeting. A couple of items of note, we do video and audio tape all our meetings. Alison will be walking around with a microphone; that microphone is not live for the audience, it is live for the videographer. So, please speak up, you won't project like I am through this microphone. So if somebody is on this side of the room, please speak a little louder than normal so the people on this side of the room can hear you. And state your name and who you represent; if you are just an interested resident who lives on the Lake, that would be sufficient. There were some agendas outside on the table. What we plan to do tonight is give an update on our Resource Conservation Groups, which were formed as part of the relicensing; update on the process and the schedule for this upcoming year; and address any public comments or questions you may have as they relate to the relicensing. We have seven Resource Conservation Groups; each member who is facilitating those groups will come up and give presentations on what we have accomplished to date. Questions are permissible; if you could, just wait until they get through with their presentation and ask the questions at the end. I think that would help move things along. I am going to give the update on the Lake and Land Management. We have been very busy this year, or this past

year in 2006. These are the issues that we have addressed to date. As you see, it is quite extensive. Our Technical Working Committees have been very hard at work. It is comprised of individuals from the Department of Natural Resources, Fish and Wildlife Service, Lake Murray Association, Lake Watch, Lake Murray Homeowners Coalition. It is a very diverse group and everyone who is interested, we feel are being represented by one of these groups. Here is the issues we plan to address in 2007. Right now we are working on land re-balancing and reclassification. What that is, there are certain parcels of property that are now designated for future development; we are looking at those in terms of do they need to possibly be converted to some other use, either recreation or protected for fish and wildlife, or forest and game management. And we have established a couple of Sub-Technical Working Committees. One is going to look at natural resource values for those properties, and one is going to look at the economic values of those properties. And we are going to come together actually next week and begin that process. Special Recreation areas, this is something that was raised outside of relicensing but we promised the group of homeowners that we would look at this. Primarily this deals with the Two Bird Cove issue that some of you might be familiar with. Also, public uses of the fringe lands. There was some concern of what people could and could not do on these areas

of fringe lands around the Lake. And we also want to do some landowner and public education for those that do live around the Lake. What all this leads to is developing the Shoreline Management Plan. Our plan is to develop a draft SMP, a new SMP for Lake Murray project, Saluda project. It is tentatively scheduled to be released in the Fall of this year. What to expect of this Shoreline Management Plan? We have developed an outline and this is basically what you will see issued this Fall. It will have executive summary, an introduction to the project, the purpose and scope of the Shoreline Management Plan. What are we trying to accomplish with the items that we have included in this plan? Goals and objectives. And inventory of existing resources. There is a wealth of resources that Lake Murray provides, everything from geology, water quality, fish and wildlife, cultural resources, recreational interests. We will go through and identify those and lay out what is out there on Lake Murray. Shoreline Management Guidelines for project lands. This includes things like commercial, residential, docks, marinas, public use areas, multi-purpose areas. Determination of Shoreline Classification Management. Classification, this will identify and define what each type of classification is, what its purpose serves. Again, classification definition such as forest and game management, and Future development and recreation. New shoreline activities and evaluation process. This primarily

is dealing with managing of the buffer zone below the 360 of limited brushing; and re-vegetation of disturbed areas. If the buffer zone has been impacted from a homeowner who cuts down trees when he is not supposed to, those items will be addressed in this Shoreline Management Plan. Environmentally sensitive areas around the Lake, there is a significant number of those. There will be management strategies for those incorporated into this. We will address the soil erosion, and sedimentation; shoreline and bank stabilization recommendations will be coming out of this. The permitting process for docks and marinas. Prohibited activities. Moorings and encroachments, they are prohibited now on the Lake; that did not change. And so, you won't see anything new out of those two. Water management activities will be addressed. Discharges of water withdrawals. Best management practices in the public. This is where we hope to try to educate, develop some materials that can be handed out to new homeowners who move into the area, who want to do something with their property and address issues on their banks. Safety Program. We have a Safety RCG, and they were interested in trying to develop a document that would assist lake owners in the event that you had an emergency on the Lake where you could go if you needed to be medivac'ed out. It would identify the --- I think there is 8 locations around the Lake that you could --- if you needed medi-vac assistance you could provide that.

Enforcement of the Shoreline Management Plan. If there is a violation, there will be some action that will be taken for those violations. Permitting fee policies to implement this broad program. It is going to take monies to do it. One of the things that we are looking at is evaluating the current permitting fee policy. And then a monitoring amendment process. If there are changes that need to be made to the SMP, things that we feel are or are not working, there will be a process that identifies how that will take place. And that is basically what our Lake and Land Management TWC and RCG is doing. We do anticipate, like I said, issuing the SMP in the Fall of this year. It will be a draft, it will be available for public comment. Comments will be received. We encourage you to provide comments if there is an item or something you see that we haven't addressed, we would like to get it now as opposed to 2008 in August when we have to file the final application. We intend to hopefully file a final Shoreline Management Plan with the final application for new license for the project. With that, that's all I have. Are there questions? I know I kind of breezed through this. I think you will get a better feel when the draft SMP comes out in the Fall. Questions?

(No response)

MR. STUART: With that, I am going to introduce Shane Boring. He is with Kleinschmidt Associates. He is a wildlife biologist, he is going to go through and

discuss and inform y'all what we have done in the Fish and Wildlife Resource Conservation Group and Technical Working Committees, and also the Water Quality. Shane.

MR. SHANE BORING: For the folks that were here this morning, I apologize. This is the same presentation as before. Basically I am going to be reviewing the activities of the Fish and Wildlife Resource Conservation Group, as Alan mentioned. So far the RCG has had three meetings, it has not met since February of 2006 primarily because most of the activities of this group have been taken up within the Technical Working Committees that are sub-groups of this. And the reason for that is we have been developing and executing a study, so that has been more involved with the technical groups, the folks that have the technical expertise. There are six Fish and Wildlife Technical Working Committees: diadromous fish, rare threatened and endangered species, instream flow, terrestrial resources, freshwater mussels and benthic macroinvertebrates which just means aquatic bugs, and fish entrainment. We will start out with the Diadromous Fish Technical Working Committee; this is the membership. They are representatives from State and Federal Agencies as well as non-governmental organizations. We have had three meetings so far of this group. The diadromous fish group has been conducting several studies. The Lower Saluda and Congaree Rivers have been sampled using gillnetting during

2005 and 2006 for the presence of diadromous species. And for folks that are not familiar, diadromous species are a migratory species. That includes anadromous species which live out their life cycle in salt water and then migrate into fresh water to reproduce; and also, catadromous which is the reverse, they live out their life cycle in fresh water and move to salt water to reproduce. And the only one of those that we have is the American eel. Gillnetting was done for blue back herring, American shad, and hickory shad. Also, we had eel pots to test for the presence of American eels. One of the studies that we are going to have coming up in the Spring is going to be a telemetry study involving American shad. First we will review the results of the gillnetting study. I believe the squares are the locations of the eel traps and the circles are the locations of the gillnetting sites. There were, I believe, three locations in the Lower Saluda for gillnetting and also one down in the Congaree. All of the eel sampling locations were in the Lower Saluda. To quickly review the study results, in 2005 fourteen species were captured, but no shad or herring. Similar results in 2006, fifteen species; but again no diadromous species. Similar results with the eel study, more than 25,000 trap hours, we had no eel captures. There were several captures, incidental captures, outside the study period during some electra-fishing done by the Department of Natural Resources and also by Steve Summer with SCANA; but

none during the sampling period. Because there were no captures during the sampling period, basically left two possibilities; either the density of eels was so low that we weren't able to detect them, or that our sampling method was not appropriate. So, we installed these experimental eel traps which basically, if you see the black pipe here, the black pipe here goes down an attraction flow. And this particular one is at the spillway where it comes into the Lower Saluda. And there is an attraction flow provided down this pipe, and the eels basically think they are migrating upstream, and are collected in this collection box here. And this is a method that has worked throughout the country at several other projects. I think these have been in since October of last year, is when they started operating. Is that correct, Bret? Yeah. And to date we haven't caught anything, but we will see. I think those are being checked twice a week, or something like that. The American shad study is being done, the telemetry study is being done to confirm the results of the diadromous fish gillnetting. Basically will be electrofishing about fifty American shad in the vicinity of 601 Bridge on the Congaree, and implanting acoustic tags. And there is an array of receivers in the Lower Saluda, Broad and Congaree Rivers that are monitored by the Department of Natural Resources that will try to understand the migratory patterns of this species a little better. The next group is the Fish Entrainment

Technical Working Committee. Entrainment is basically when fish are taken into the turbines and can be killed or injured. The Technical Working Committee determined that it was appropriate to do a desk top study basically using data from other similar projects that have similar turbines to develop an entrainment report; that report has been drafted and is being reviewed internally by SCE&G, and will be issued to the agencies in early 2007. The next group is the Rare Threatened and Endangered Species Technical Working Committee. So far there have been three meetings, the latest one being in July. In the comments to the initial consultation document, the Fish and Wildlife Service identified 47 species rare, threatened and endangered species Federally listed occurring in the counties surrounding the project. Currently we have developed a tracking tool which will look at habitat requirements of these species compared to availability around the project and will begin to narrow that list down. This information will probably provide baseline for the Section 7 analysis, which is required to look at impacts of Federal actions under the Endangered Species Act. Just a couple of species specific studies, we have this list of 47 species that we have to evaluate; but there are several that we already know occur in the project vicinity. So, we started studies early on these. One is the Lake Murray wood stork surveys. We first detected wood storks or had reports of wood storks

around 2000/2001, I believe. And a study plan was drafted and implemented in early 2005. We have done a monthly aerial survey during the months of February through November during 2005 and 2006. There were no wood storks detected in 2005, and in 2006 there were approximately 20 that were observed foraging upstream of the reservoir. Because of the timing of these occurrences, which was in the late Summer-early Fall, we think these are most likely post-breeding migrants from coastal colonies. Essentially, once these guys are no longer bound to the nest by chick rearing and they get up and wander all over the southeast for a few months before heading back down to Florida for the winter. And as you can tell, they are not a pretty bird. A couple other species that we have surveyed are rocky shoal spider lily. There is some pretty significant populations in the confluence area basically once the Broad River meets the Lower Saluda and once you get that influence of the Broad River water. Just upstream of the Twelfth Street Bridge, or Highway 12 Bridge is where this particular photo was from. As far as the survey in the Lower Saluda, there were two plants that were located in the Lower Saluda during our survey that was done in May. That was the extent of what we found. Basically those weren't very vigorous, they weren't really colonies, they were just scattered individual plants. And typically you have something like this where you have these big clumps of them. Another study that will be undertaken is the short

nose sturgeon survey in the Lower Saluda River. Again, this is a Federally listed species. I believe, at the last update meeting we were waiting on issuance of the permit from National Marine Fishery Service to do this work. That permit has been issued and sampling is going to begin in February of this year. The Terrestrial Resources Technical Working Committee has also had three meetings. The first study this group is tasked with is the resident and migratory bird survey. And through several meetings it was determined that this could probably be addressed using existing data, talking to folks from Riverbanks Zoo and Columbia Audubon, and also some local birders. We found that there is a pretty significant amount of data out there. We were able to compile a species list which when this slide was done it was 198 species. But I think we are up to something like 210 that have been documented on Lake Murray and in the Lower Saluda corridor. And so this species list has been approved by the Agencies and will be included in the final application. Water fowl surveys were also requested by Fish and Wildlife Service and South Carolina DNR. And basically the objective of this study is to document the extent of water fowl usage on the Lake during the over-wintering months when they come down from Canada and points northward. Basically we are doing a monthly aerial survey, which is being done by Savannah River Ecology Lab. And I think we have completed three surveys so far, and documented a number

of species - mallards, scalp, ringnecks. And those results are sent out; there is an update that is sent out by e-mail after each survey; and we'll be preparing a report at the end of the year. Fresh Water Mussels and Benthic Macroinvertebrates Technical Working Committee, as I mentioned, benthic macroinvertebrates are basically aquatic bugs. One of the major studies this group is tasked with was the mussel surveys; fresh water mussels are of major conservation concern right now. Pretty imperiled in a lot of areas. This survey was conducted in July and August of this year. We surveyed 61 sites in Lake Murray, Lower Saluda River, and the Congaree River, and also several Lake Murray tributaries. 15 native species were documented. I think there are about 20 that were originally native to this area. And also, 6 of these species were Federal species of concern. The benthic macroinvertebrate study was conducted in the Fall of this year, September and November.

The objective of this was to assess the invertebrate community of the Lower Saluda River, basically document diversity, and look for certain indicator species. Included both artificial substrate and multi-habitat sampling. Multi-habitat sampling refers to basically net sampling. You go out with a kick net, which is what is seen here on the photo, and also with dip nets, and sample. And also, the artificial substrate is just a series of plates that are allowed to colonize for a certain amount of time, and then

collect it. Dan Carnagey from Carnagey Biologicals is preparing this report, and I believe we are looking for a report sometime in March. And all of these reports, once they are finalized, will be posted to the website. The final group, Fish and Wildlife Group, is the Instream Flow, Aquatic Habitat Technical Working Committee. This is one of our larger groups, and also one of our most active. There have been a number of meetings this year. Basically there was an instream flow study done in the Lower Saluda in the late '80s-early 90s; however, the group reviewed that and felt like it would be to their advantage to gather some more data and update that study, or perform an additional study. Basically an instream flow study involves collecting channel profile data where you lay transects at pre-determined locations in the River, collect information like velocity, depth, width of the channel; and develop a stream profile which then can be used to model habitat availability for different target species at varying flows. The Technical Working Committee is currently developing that list of target species, and that should be finalized within the next couple of weeks. I think the field work for the study is going to take place March to May. May timeframe. There are a couple of other studies that the instream flow group is tasked with. There was a request to evaluate the potential for self-sustaining trout fishery in the Lower Saluda River. A technical white paper evaluating this possibility was

prepared, has been reviewed by Technical Working Committee members, and we are in the process of compiling all those comments and making revisions. Also,
flood plain flow evaluation was requested. Primarily this study will look at the influence of the Saluda operations on flood plain inundation and areas downstream. Inundation of flood plain is important for re-nourishment of materials to the flood plain and for nursery habitat for fish. One of the primary areas of interest is the Congaree National Park. After several meetings with this group, I think it's been determined the direction the group is heading now is hopefully using an existing inundation model that was developed by University of South Carolina to develop some possibilities for Saluda to help enhance inundation during certain low water periods. The feasibility of that, we don't exactly know yet; but hopefully this model will help us with that. And the final request that this group is working on is the GIS based habitat assessment of Lake Murray. Basically the Fish and Wildlife Service and Department of Natural Resources have requested GIS based maps of shallow water aquatic habitat around the project. And we are working with Orbis (phonetic) GIS in Charlotte to look at some existing aerial photography, Lidar data, and also the environmentally sensitive area maps to possibly fill this request. So with that, I will take questions on fish and wildlife.

(No response)

MR. BORING: We had a bunch this morning, now there are no questions.

MS. REBECCA CONNELY: Hello, my name is Rebecca Connely. I just had a question about the gillnetting for shad, and I was just wondering were water levels set to promote migration during those nettings? Or, was existing low flows used during that time?

MR. BORING: There were not specific flows released to attract migrating fish. However, the flows that were in the River during that time would have been more than sufficient to trigger migration.

MS. CONNELY: Okay, I just wondered. I know when the River ran like 4000 during the Dam release for the new Dam that flows attracted a lot of shad up the Saluda. So I didn't know if that was included or not.

MR. BORING: Right. Well, it would depend on whether they are thread finn, given shad, or American shad. American shad are the only ones that are diadromous, which would --- there is only one species of shad involved in this particular study. The others are resident fish.

MS. CONNELY: Okay. Thank you.

MR. BORING: Well, if there are no questions, we will move on to the Water Quality Technical Working Committee. There is a single Technical Working Committee for this group. The RCGs had three meetings thus

far; again, the last time we met was in February. Same scenarios with the Fish and Wildlife group. Primary activities have been going on in the Technical Working Committee level because we have been working on developing studies and implementing those. As I said, there is a single Technical Working Committee for this group. There have been a number of meetings, I think we usually meet about every other month. One of the primary things being worked on by this group is the W-2 water quality model for the reservoir. And it is being used to address the effects of project operations on summer habitat for striped bass, in particular operation of Unit 5; and also this model helps us look at phosphorus and other inputs into the reservoir and how that impacts dissolved oxygen. It is being developed by Jim Ruane, who is with Reservoir Environmental Incorporated in Chattanooga. And the final report for this will be issued on January 31st of this year, and it will be available on the website. Downstream impacts of cold water releases. This is a study that we started this past year. As many of you know, there is a cold water release from the Lake Murray Dam that enables the trout fishery in the Lower Saluda. In the confluence area where the Broad and Lower Saluda come together there is a marked difference in temperature between the left and right bank. And the objective of this study is to document how far downstream and also the mixing characteristics of those temperature differences. There are

paired temperature sensors at 7 locations in the Lower Saluda and Congaree Rivers. And as you can see, they go all the way down to the downstream extent of the Congaree National Park. And also, there are two control points above this, one at the Columbia Rowing Club dock on the Broad River, and one at the USGS gage below the Dam. Another study that this group is working on is the turbine venting testing. And unit testing was completed in the Fall of 2006. The objective of this study is to determine the aeration potential, the ability of this upgraded equipment to add dissolved oxygen to the water when it goes through the turbines at different gate settings and at different combinations. The report for that should be forthcoming in the Spring of this year. We had some very favorable results from our testing in the Fall. And with that, I will take any questions on water quality.

MS. JOY DOWNS: I am Joy Downs, Lake Murray Association. Tell me what you are doing with water quality that would have an effect on humans. I notice everything has to do with fish, phosphorus, and dissolved oxygen. What about fecal coliform (phonetic) and so forth, are you doing those type studies?

MR. BORING: Yeah, that's what I was going to say. Mostly DHEC regulates that. And we haven't received any study requests for anything like that. And as far as I know, or I don't know of any of the --- I am not certain as

to whether any of the streams that come into Lake Murray are classified on 303D list for fecal coliform or not.

MS. DOWNS: So, where are your tests being done primarily?

MR. BORING: Which tests are you referring to?

MS. DOWNS: The ones that you are doing with phosphorus and dissolved oxygen.

MR. BORING: Those are based on --- which points are those based on in terms of the modeling?

MR. STUART: They are based on existing data that has been collected from DHEC, by DHEC; USGS I believe also, SCANA services. Correct me if I am wrong.

MS. DOWNS: So you are in the large water bodies rather than coves. Is that correct?

MR. STUART: We are in the entire Lake. The model covers the entire Lake.

MS. DOWNS: Does that include testing in the coves? Where is the testing actually performed?

MR. STUART: At various --- it's all over the Lake. It's all the DHEC stations, USGS stations, and the SCANA station. Tom, could you provide information where you've got some?

MR. TOM BERRY: As far as your fuel --- we have 12 sites on the Lake. They range from in the towers all the way to the bridges --- they cross the River on Highway

391, that's on the main River. And then at Little Saluda we have some in the areas of --- in coves at Hollow Creek, Turner's (phonetic) Cove, Captain (phonetic) Creek and Bear Creek.

MS. DOWNS: Okay. And DHEC's are all in the main water, right? The big part of the water?

MR. STUART: The majority of them are.

MS. DOWNS: So, it is only SCE&G's that we are seeing that's in the coves. Is that right?

MR. BORING: Well, also we are hoping that Lake Murray Association's work will be able to contribute to this as well. And I actually was telling folks this morning that I had initially put a slide in talking about the cove water quality; then I took it back out because I was kind of hoping to give them some time to get a little more data together. What we saw at the last meeting was kind of --- you know, this is our initial sampling.

MS. DOWNS: We have seven months, but we are going to do it again in another seven months, you know.

MR. BORING: Yeah, that will be great.

MS. DOWNS: Okay. Well, what my concern was is whether or not we were testing water quality as to the effect it might have on humans as well as fish. Which, I thought might be different. I know we are always concerned to dissolved oxygen, the phosphorus with the fish.

MR. BORING: Right. Those are issues that

have been raised thus far in the relicensing. Human health impacts are not something that really have been brought to light at this point in the relicensing. And also, again, that is something that is regulated by DHEC.

MS. DOWNS: Well, there are several things done on the 303D list that have not had TMDLs done. And that's the reason I am asking if any of those will fit in?

MR. STUART: (inaudible) that explanation is supposed to be included in the application renewal.

MS. REBECCA CONNELY: My name is Rebecca Connely. I guess --- background, I am part of large landowner on Lake Murray. And I have a question on silt buildup in the Lake, because I know over the years me, personally, I think about my father who has been there for fifty years, that our cove is definitely increased in silt and buildup; and with the Lake being drawn down you could really tell it with all the runoff and how the channels drop down about two feet as that happens. Is anything being done about that? And I can say of our cove in particular there is very little erosion because it's all forest land. So, I didn't know if that was being addressed.

MR. BORING: Do you want to address that one?

MR. STUART: If we would draw down that's improved (inaudible). And it has actually improved water quality. I see your cove is probably within the upper end of

the Lake?

MS. CONNELY: I am off of Bear Creek, middle to the North side.

MR. STUART: Jim Ruane's model, he analyzed the --- I think it was two draw downs, one in 1990 and one in '96. One was for aquatic relief control, and the other was for maintenance on the Towers. And that is one of the things we are looking at as part of the water quality and Lake level management groups is the positive benefits of draw down on water quality in the Lake. And basically what that does, it removes that sediment and silt that has built up again, perhaps. And it redistributes that in deeper parts of the Lake. That's one of the things, I know one of the big interests from the homeowner groups is to make that say the Lake levels. But at the same time if it did internally affect the water quality without having a draw down. So, those are being considered.

MS. CONNELY: And it is my opinion having forested lake land that I am for draw downs because I do see the benefits for it from our perspective.

MR. ANDY MILLER: I am Andy Miller with DHEC. I was just wondering if you had set a time or a date for when you might present the results of the turbine venting, the latest? Is that going to be presented or --- in this forum?

MR. STUART: Scheduled a meeting in March,

the terms of the settlement agreement that is entered into between SCE&G and those Coast Conservation requires to have a meeting, a meeting before March 30th. So we are in the process of planning that meeting. So we will certainly contact you guys and set that up.

MR. MILLER: So you don't expect a discussion in the Water Quality Technical Committee, or anything prior to that?

MR. STUART: We don't have one currently scheduled, no. But if there is needs we certainly can convene our Water Quality group to address it.

MR. MILLER: Okay.

MR. BORING: Other Water Quality questions?

MR. MALCOLM LEAPHART: Malcolm Leaphart, Trout Unlimited. As a follow up to Andy's question, the hub baffles have been more recently installed. Will the way that those things work also be covered in the report?

MR. BORING: That is what we are referring to.

MR. STUART: And I can give you a brief update on some units aerate much better than others. That is what our initial findings are; and part of what the issue is with the ones that don't vent as well, is there is some seal issues, units aren't sealed so they don't get as high a negative pressures. So they just basically won't pull the air into the turbine intake. But we are looking at

evaluating some other options that may significantly improve that. And there are some proposals upon SCE&G that they are considering.

MR. BORING: Other questions?

(No response)

MR. BORING: Do we want to take a break, or ---

MR. STUART: We did have a break scheduled. If we could, I would like to get Bret Hoffman, I think you will have more questions maybe for his presentation on the operation group. And if after he gets done, maybe we can take about a ten or fifteen minute break. We seem to be ahead of schedule compared to what it was this morning with the lack of questions. So, with that I am going to introduce Bret Hoffman. He is an engineer with our Company, Kleinschmidt Associates, and he is going to talk about what is going on in the Operations Group.

MR. BRET HOFFMAN: Again, my name is Bret Hoffman, I am with Kleinschmidt Associates. And I am working with the Operations Resource Conservation Group. The function of this group is to take input from other RCGs and input them into a hydrologic model and balance the requests from all these groups with the limited resources of the Saluda project. We are not going to have a whole lot of our own criteria for this model; almost all of them come from requests from other Resource Conservation Groups. The

function of this group as taken straight from our Mission Statement was to oversee a creation of a hydrologic model. We formed a Technical Working Committee for this specific function to create the model and to calibrate it. We calibrate it by establishing a baseline of current operation, and if we can accurately model that then we know that what we have created is going to work for our future purposes. We are going to use that model to evaluate existing constraints within the systems that will continue, and as well be inputs from other RCGs. We will use it to balance those with that. A lot of you have probably seen some of the presentations given from Operations Group, or there was a Hydrology 101 presentation. There is a handful of them that we have done. In a nutshell, the model we have chosen is a program called HEC-res Sim. The Army Corp of Engineers has developed this `over decades specifically for this type of a function. It is extremely flexible and you can say, "I want this flow," or, "this amount of water," "I want it this period of time for this number of days," and you can do that in a lot of different locations with different periods of time, different days, and it can balance all of these things with the resource of the project. This is a standard for the relicensing efforts. I have seen where it was used to model the entire Savannah River system. The HEC-ras is sort of a sister component of this, and it is a river analysis tool that takes a geometry

of the Lower Saluda to evaluate what different flows do with stages. Physical parameters of the model, first you have the watershed, which is basically the basin that contributes precipitation to Lake Murray and the Lower Saluda River. There is a Lake storage curve that basically tells you how much water is available at different Lake levels. And then as I mentioned the River geometry is part of the HEC-ras model. Hydrology, for those of you don't know, that's basically the study of precipitation and how it is contributed to a system through a watershed or a runoff basin. We know our storage capabilities in Lake Murray, and we know our outflows very well because there is a gage station very close to the tailrace of the Lake. Some of the inflows are gaged, but there is a large area of the watershed that is basically ungaged, and that makes things a little bit difficult to model. Here is a map of the watershed; again, those of you who have seen any of these presentations have probably seen this; a 2520 square mile, it extends well into North Carolina. And this whole area basically, if it rains in this area it has the possibility of coming to Lake Murray and the Saluda project. We established a baseline; we took the current operations as SCE&G runs the project now and looked at 16 years of data, and we were able to accurately model based on outflows and stages how the project was operating. We attempted to use inflows in upstream information across the watershed, it

didn't work very well. We just don't have enough information about the water that comes into the project. It is not gaged very well. So, what we did was did a mass balance method where you look at what's coming out, and you look at what your water levels in the Lake are, and then you can calculate what you have coming in. And with that method we were very successful, and it calibrated the model. So, basically have the model complete; there are some efforts being considered to try to extend that period of time beyond 16 years. The Technical Working Committee is going to take a look at that and see if it is possible or not. We certainly would love that to be an option, but it has its potential logistic issues. Again, the simulation we did was very accurate; the biggest problem was 16 years of records all we had versus some of the storage information goes back to say 1930. But we are not sure if we will be able to use that because of the accuracy of that information. The next step for the Operations RCG, other than determining whether or not we can use additional data, which if we can certainly, again, we will. But otherwise, we are on hold until we receive inputs from other RCGs. All the constraints, again, they come from Recreation, Water Quality, different RCGs that request stage and/or flow at a given location. Those are the only inputs we are taking. These groups will have to come to us and say, "We want this level of water, or this kind of flows, and we want it here, they want it these

times, or these times of the year." That's the only kind of information we can put into the model. And then what we do is we run the model simulation after we have all the requests. We can't run it until we have all of them. A single request could throw the entire thing out of balance. The constraints we anticipate in a nutshell are pond levels, which many of you are aware of. You know, what the winter pool might be like. Minimum flow releases, certainly those will be some inputs in the model. And then some recreation or other special releases. Impacts on the current operation, obviously SCE&G tries to manage the pond levels for winter and summer pools; so we will have to see how those things impact that, and then what it does to their potential energy generation, as well. The results of the model will tell us the frequency and magnitude of violating each constraint. If an individual wants a certain amount of water and they want it for a certain amount of time, if there is not enough water for everybody to go around, then you don't get everything. And that is essentially what happens in these types of processes. Most of the time there is not enough water for everybody. And it is an iterative process of run the model, they see what happens with everybody's requests; and when they turn it back around, they send it back to the Resource Conservation Groups, individual stakeholders, or Technical Working Committees, and they take a look at it and say, "Well, we can't live

with this, but we can live with this. So, can you run this instead?" And we draw back in and run the model again until everybody comes up with a compromise, which is effectively what we are looking for here. I think that's it for me. If anyone has any questions?

MR. DONALD ENG: I am Don Eng, and I represent myself. And my question is, is anybody monitoring the losses of the River banks below the Dam? Particularly here in the park and at Corley Island, and some of the steeper banks on the lower end of the River. As you release like you are today, you can just look at the fringes and see how much mud is coming from those banks. And you are broadening the River in certain spots.

MR. HOFFMAN: I am not sure if there are any erosion studies, Alan. There are not? Would you like to comment on that, please?

MR. STUART: Don, the Agencies, no one has specifically requested any type of erosion studies. I do know a lot of the, quote, "muddy water" you see after a rain or something like that is coming from --- there is a source there, Twelve Mile Creek, provides a lot of sediment input into the Lower Saluda River. But to date, we have not done any kind of geolmorphological studies. I believe in the --- and Shane, correct me if I am wrong.

MR. BORING: [no microphone] As part of the (inaudible) have a geomorphologist look at that area around

right behind Mr. Hayden's house over at the Oh Brother rapids area, because of that erosion there. And if we do an IFIN study and the channel is not stable, and the information we get from that, obviously the validity would be questionable. So we need to determine whether or not it is stable. So that area, there will be geomorpholitical analysis for that area.

MR. STUART: Also, I believe Bill's group with the Cultural Resources has done some investigations and identified some potential areas of erosion. He will talk about it a little bit more, but I know one of them is right there near Sandy Beach area, I think.

MR. ENG: Has anybody looked into a maximum flow as well as a minimum flow on the River? You know, I notice that you keep the Lake up, and then in the Spring when the Lake fills you go all the way up to 15 or 18,000 cubic feet per second and you are out of the banks of the River, and in fact you cover a couple of the smaller islands in the River. So, I just wondered if you couldn't use a little more storage and regulate the maximum flow?

MR. STUART: Minimum flows, I know, are going to be addressed as part of the Instream Flow. Maximum flows, I mean the project, the maximum flow is 18,000. You know, we are looking at potential modifications to storm level. You know, the project is operated for reserve capacity. It doesn't peak every day, it may operate two

hours one day and not operate for two weeks, three weeks, two months. It just depends on when SCE&G has an outage. So, again, it is not operated as a peaking facility. It does not go up to 18,000 for two hours in the morning and then two hours in the afternoon. But those things are being considered as part of operations in the Operations Group.

MR. MALCOLM LEAPHART: Malcolm Leaphart, Trout Unlimited. Alan, in the aquatic habitat group, it has been discussed several times whether or not we would have a dual flow analysis study to see the impacts on the high flows on the fisheries. And my last understanding was as to DNR folks where they though that would be, and they thought that would be included in the IFIM.

MR. STUART: That is correct, we will be doing a dual flow analysis at that time.

MR. SAM GUSTAFSEN: My name is Sam Gustafsen, a landowner. You mentioned 16 years is the timeframe for your model development. And whether cycles are longer than 16 years, I am wondering if you picked up some pretty large inflows like 1989 with Hugo, and how that worked with your model development. I have done a pretty fair amount of model development and sometimes the edges, the highs or the lows, models don't do very well with that. So, I am wondering about your criteria for evaluating if the model is calibrated well along with large inflows?

MR. HOFFMAN: We know we have low inflows,

we have certainly had some significant droughts within the past 16 years. And we have based on the history of the project and the rates of flow measured at Columbia Station since I think 1925 actually, Columbia goes back to. So, we have a good feel for what an average year and a wet year are for the project. I don't know that --- I would like to see that we had more wet years on the record that we have, but this is a decision that the Technical Working Committee is basically deciding, we are either going to take the model as we have it with this 16 years of data, and calibrate the operation extremely accurately, or we are going to have to go and take a longer period of record and the model will not be as accurate. And that's a balancing act that has been tasked to the Technical Working Committee. And that group, just to let you know, there is a couple of hydrology experts in there. Dr. Bud Bader is the DNR State Hydrologist. We have an in-house, we actually have two in-house hydrologists who are working with that. So, we are leaving that to that group to determine the best course for letting the model be determined.

UNIDENTIFIED: (inaudible - no microphone)

MR. HOFFMAN: Yeah, the year was '88 that --- I think it was October '88 that the gage below Lake Murray Dam went into operation.

MR. GUSTAFSEN: And you mentioned various constraints; and one of them is the upper level, that's

violating that constraint would be evaluated in your model evaluation?

MR. HOFFMAN: Certainly. SCE&G under their current license can operate the Lake between a low end of 345 and high lender of 360. However, they don't like to go over 358; and that way they have some storage for some flood events. I think in late 2004 there was a hurricane event that we had set over the basin, and they ran pretty hard and still the Lake came up a couple of feet in a week or two. I think they were trying to maintain it from going up too fast. So, they do look at some upper levels. In their eyes, going too high is a failure to manage the pond, and there are some safety issues associated with that.

MR. GUSTAFSEN: And that is exactly what I am concerned about. I lived on the Lake during that event and noticed the Lake rising like you said, two feet in a very short period of time.

MR. HOFFMAN: That is, heavy inflow years is something that I have been in discussions with the Technical Working Group about; and we intend to make sure that if we don't feel like we have captured some heavy inflow years within the past sixteen years, there is some options we are looking at to possibly take a heavy inflow year; it won't have daily data, but we can have periods of data that may be monthly or even annually for some years during the '40s or '60s where they had some significant flooding events. And we

can take those into consideration. That is something that we are trying to figure out how to work that into the model. And what we would do is we would sort of tack that on and pretend that that was in 1987. And then everything else starts in 1988. So, that would give a handle on what our upper limits are. But, that is certainly one of our concerns and we will not overlook that.

MR. GUSTAFSEN: Thank you.

MR. ROBERT HAYDEN: I am Bob Hayden, and I am a resident at River's Edge on the Lower Saluda. And this may be a related question, but is any consideration being given to the weeds that are growing in the River.

MR. HOFFMAN: Aquatic vegetation.

MR. HAYDEN: The adrilia and that sort of thing that is coming down from the Lake.

MR. HOFFMAN: I would have to defer to another Resource Conservation Group on that.

MR. STUART: I know SCE&G has contracted --- or, Cindy Smith, and she typically does aquatic weed plant surveys in the River. I am not aquatic plant expert, but I know it's very difficult to control weed growth in a River because it's a flowing system and not like a lake where certain chemicals you could put on aquatic plants in lakes because you are in a static situation with a lake. I know in the Lake it is being addressed as part of an aquatic plant management plan; it is being developed with the Department

of Natural Resources and the South Carolina Wateree Resource Commission groups. They are the ones that are in charge of the State's waters with respect to aquatic plant management. I don't know if that answers your question, but that's the best answer I have got right now that I can give you. I know it's being --- the aquatic plants are being monitored to determine their movements and growth patterns. Steve?

MR. STEVE SUMMERS: Steve Summers, SCANA Services. We have not done a survey in the River in the last couple years. We held off to see if the Agencies had any requests for that, and we haven't gotten that request. The surveys that we have done have not shown any hydrilla. We have resilient elodea which looks a lot like hydrilla, but we have no evidence of the hydrilla actually making it through the turbines and growing in the River. The aquatic weeds fluctuate some from year to year; if we get real high flow events, it appears to break a lot of the elodea loose. Different nutrient loading and sediment loading can also impact those plants.

MR. HOFFMAN: Any other questions?

(No response)

MR. HOFFMAN: All right. At that point, we will turn it over --- Did you want to take a break? We will take a break before we turn it over to Bill Green. And if everybody can be back by quarter after, we would appreciate it.

(Off the record - break)

MR. BILL GREEN: Good evening. I am Bill Green, with S&ME. I am going to talk about Cultural Resource Investigations that have been going on for about the last year and a half to two years and the Laws, Regulations and Guidelines that we have to go by for our investigations: include the National Environmental Policy Act, the National Historic Preservation Act, which is the main one that is driving the Cultural Resource Investigations, the Federal Energy Regulatory Commission Guidelines for Environmental Assessments, and Historic Properties Management Plans, Secretary of Interior Standards and Guidelines for Archeology and Historic Preservation, and the SHPO Guidelines for Archeological Investigations and Survey of Historic Properties. There are four basic steps that we are going to do as part of this project. The first step was a reconnaissance survey to identify areas that had a high potential for containing significant archeological sites, and also areas that had historic structures within the area of potential effects, that is any area that has a potential to be impacted by the project. That study was completed in November of 2005. The next stage was an intensive survey of the high probability areas. That work is currently in progress. We anticipated it being done tomorrow, but it will probably be done maybe Tuesday. A draft report of those investigations will be completed by March. Next, we'll do

the historic properties management plan. We plan to start that next month, and estimated completion is by June of 2007. And then there is the actual mitigation of adverse effects; and that is SCE&G and FERC will take into account any effects that the project has on significant cultural resources; things like erosion. And that is to be determined in consultation with the SHPO, FERC and other consulting parties. During the Stage I reconnaissance survey, the one that was completed in 2005, we found 42 previously recorded archeological sites, or relocated them. Found 40 new archeological sites. There were 7 previously recorded structures that were listed or eligible for inclusion in the National Register, including the Dam itself. And we recorded 8 new structures; one of which was eligible for the National Register and that was the Epting Camp Ground. Stage II investigations, we are charged to look at 735 acres on 139 islands in Lake Murray; most of those islands are relatively small, less than an acre in size and some of them aren't even islands when the water level is high. There is also 89 miles of shoreline in 177 areas along Lake Murray shoreline. 1.5 miles of riverbank along the Lower Saluda River, and 2 islands in the Lower Saluda River including Corley Island. And just to take a little side note to address the gentleman's question earlier, we have a geomorphologist from the University of Georgia looked at some erosion from below the Dam. And he looked at aerial

photographs from the 1930s to the present and also looked at the way the River is flowing. And his conclusion was that below the Park here there really is no project induced erosion, but above the Park to the Dam there is some project induced erosion. The results of the Stage II survey as of the end of December, we found 174 newly recorded archeological sites. We revisited 37 sites from our original Stage I survey. Pre-contact or pre-European contact sites range from the Paleoindian Period to Mississippian Periods, which is roughly 11,500 years ago to about 500 years ago. We found historic sites dating from the 18th century to the early 20th century, including farms, farmsteads, cemeteries, roads, quarries, and other types of resources. On the left there are some arrowheads and spear points that we found in different sites in the project area. And on the right you see different types of raw materials that were used for making those stone tools, including chert,

rhyolite, jasper, quartz and quartzite. Some of the materials are not found locally, such as jasper, and must have been transported through trade or people moving around fairly long distances. Here is some historic resources, there is a cemetery on the left; and on the right is a horseshoe and some historic ceramics. One of the most interesting sites we found is 38LX531. This site is located along the Lower Saluda River on a high bluff. It is about 12 acres in size, and has excellent preservation. There are

deeply buried artifacts as deep as 3 meters below, or 12 feet below the ground surface. We found hearths, fire pits, etcetera. Where you see those rocks in the lower righthand picture, that's an old hearth dating to about 4,000 to 5,000 years old. There are occupations at the site ranging from approximately 800 years ago to roughly 11,500 years ago. The site has produced the oldest credible radiocarbon date in South Carolina to date, which is 10,140 years old. And it could be one of the most interesting and important sites in the Southeastern U.S.

And that's it. Are there any questions?

MR. MALCOLM LEAPHART: Malcolm Leaphart, Trout Unlimited. My antenna sort of went up when you made a statement that you did not think there was --- or, an expert and did not think there was erosion below Saluda Shoals Park.

MR. GREEN: That's correct.

MR. LEAPHART: I am sure there is some boundaries on that. I mean, how do you quantify? I guess, you know, you threw out terms like "significant maybe", or "major", or --- I mean, I know, I am sitting here mentally counting them off in my head, areas where I know there has been some.

MR. GREEN: Well, every river has its erosion. And erosion is a natural process in any river. There just doesn't seem to be any project induced erosion

below the Park. We have looked at a series of aerial photographs, and also the shape of the River; it's wide above the Park, but once you get below the Park it narrows down to what you would expect of a natural channel.

MR. LEAPHART: You know, I mean there has definitely been some erosion in various places, but how much? Its probably now significant for the purposes that you have, I would think.

MR. BOB HAYDEN: Is twenty-five feet of bank considered normal in the past four years?

MR. GREEN: I'm sorry?

MR. HAYDEN: I said is --- I am Bob Hayden again. Twenty-five feet of riverbank that has been eroded away in the past four years since the construction of the Dam, is that considered significant or not?

MR. GREEN: I don't know where you are talking about; I am also not a geomorphologist, I am an archeologist. I am just telling you what our geomorphologist has reported to me, and from what I have seen out there, too. I have surveyed along the Lower Saluda River and didn't see any significant erosion below the Park.

MR. HAYDEN: Been looking in the wrong place.

MS. REBECCA CONNELY: Rebecca Connely. One quick question, and this is just my knowledge in my area of the Lake. I guess unique rocks to the area, I know of an

area and just like why you do not list where your historical sites are. Quartz crystal clear, quartz crystals, I have seen them nowhere else in this format on Lake Murray. Are areas like that being documented in preserved, also?

MR. GREEN: Hopefully, they are. I mean, we surveyed --- we did a preliminary survey of the entire shoreline. And that was the study we completed in November of 2005. And then we went back and targeted areas that did not have a significant amount of erosion and that were likely to contain significant sites based on the land form type. We didn't hit every single area of the Lake, but hopefully we got most areas that would have a significant site.

MS. CONNELY: Who would I contact to put a site out and say, "Hey, here is a potential site"?

MR. GREEN: You can call me, I can give you my number after this meeting.

MS. CONNELY: I know your number, I'll give you a call. Thanks.

MR. GREEN: Okay. Thank you.

MR. STUART: With that, I am going to introduce Dave Anderson. He is a Human Dimension Specialist with Kleinschmidt Associates. Basically he can tell you why people like to recreate short of the obvious, they just enjoy it. So, I am going to turn it over to him.

MR. DAVE ANDERSON: Thank you. I am the

facilitator of two RCGs, Recreation RCG will be the first one I talk about. Basically what you see here is our Mission Statement. And I think the gist of this in the first sentence, "The mission is to ensure adequate and environmentally balances public recreational access and opportunities related to the Saluda Project." We have had six meetings since relicensing started. Five of these meetings have occurred in 2006, each of these meetings was attended by about an average of seventeen, more or less. Besides concentrating on some documents that we have already prepared, or are in the process of preparing, we have also had some education sessions, some presentations on recreation sites and recreation issues from Tommy Boozer from SCE&G. The statewide comprehensive outdoor recreation plan from Tony Bebber, who is with South Carolina Parks, Recreation and Tourism. A presentation on a concept of caring capacity which pretty much means that it is the environmental and social limits that a given area can withstand without having negative impacts. That was given by Marty Phillips, who is also with Kleinschmidt. And we also had a presentation on the Lower Saluda River Corridor Plan by Bill Marshall, who is with SCDNR. Over these six meetings we have also agreed on a work plan, which outlines kind of what we are doing; and also, on something I call standard process. What this is is it's just kind of guiding us as we start making our decisions on recreation facilities

at the project. Basically Step I is determined desired future condition. And we have done that through the Mission Statement, we have also developed a vision statement for the project. That basically is your views on what this project should look like over the term of the new license which SCE&G is requesting for 50 years. Once we did that, we moved into Step II, which is about where we are at now, establishing baseline conditions, what's out there now, what activities take place, how much is it used, how many people are using it. And then we are moving into Step III this spring. We are going to determine what is needed and when based on what's occurring out there now and population projections for the area, as well as recreation activity participation trends from the Statewide Comprehensive Outdoor Recreation Plan data. We will figure out and make a schedule for facility upgrades, new facilities, who is going to be responsible for those facilities, which is part of Step IV. Certainly SCE&G does not choose to be in the recreation business, so if we can enter into some agreements like with the Irmo-Chapin Recreation Commission to run some new parks, we will certainly look at those options. Some of our work products include our work plan, which basically outlines what we are dealing with and how we are going to deal with it. It contains a list of identified issues that have been brought forth from stakeholders, the responsibilities of the RCG, tasks and products associated

with meeting those responsibilities. The schedule we need to follow to meet our deadline of August 2008 to file the new license application. And also, some possible mitigation measures that have been brought forth and comments to the ICD. And these include the possibility of a new State Park on the Lexington side of the reservoir, consideration of the Lower Saluda corridor plan, and some additional facilities on the River, a few others. Some other work products like I mentioned earlier, we have a vision statement, which basically --- you know, what do you want the project to look like over the foreseeable future, what I call some solution principles which are kind of some rules we are trying to follow; some of these would be that new facilities should not impact existing commercial operations, there should be a sufficient buffer between any recreation sites and associated adjoining homeowners. We are also using something that I call a standard process form, which is basically a list of questions that we are answering. And once we get done answering these fifty or so questions, it provides us with kind of a tracking tool of how we got to where we are, and also will be the basis for what the recreation plan is formed from. Our ultimate goal is to have a recreation plan to be submitted with the relicense application in August 2008. And we will begin to start working on that in this year. We also have a issues matrix, which is basically a spread sheet that stakeholders are using to track the issues

in this RCG. For those of you that came the last Quarterly Public Meeting updates, these are the same issues. I think we had solidified these by the time of the last update meeting. Basically we want to ensure that recreational facilities and opportunities are protected or enhanced, conservation of existing lands, downstream flows for recreation purposes, impacts of Lake level on recreational use at the Lake, protection of the fishery on the Lower Saluda River. These are the issues in a nutshell. And if you want to see them in more detail, all of these documents, except for the recreation plan and stuff we are working on, are on the website. To deal with the issues, RCG formed three Technical Working Committees. First of which is the Recreation Management TWC. And this is the one that is dealing with future facilities, and existing and future sites, any recreation policies that we might think need to be in effect. This group was fairly active in 2006 until we got a study plan finalized, and then we kind of died off while the study was taking place. We met six times; we agreed on a recreation assessment study plan and also a boating density study. And I will explain those in a little bit more detail in a minute. In 2007, this TWC is going to start reviewing the results from these studies and make recommendations to the Recreation RCG. We also have a downstream flows Technical Working Committee. This is a group that is going to propose recreational flows for the

River, the Lower Saluda River, and determine the effects of project operations on recreational use of the Lower Saluda River. This TWC met three times in 2006. We agreed on a downstream recreation flow assessment study plan, which is currently being conducted. Once that study is complete, this TWC will get together and review the results from that, and make these flow recommendations which obviously will go as input into the Operations Model to see if they are feasible. We also have a Lake levels TWC. This is the group that will determine an appropriate Lake level for recreational activities and examine the effects of various Lake levels on recreation. This group has not met yet, we have been waiting on the development of the reservoir operations model. Now that that model is complete, this group will probably get together in the near future, and discuss the Lake level questions on that standard process form and some information that SCE&G has provided in response to those questions. Some preliminary levels identified by the RCG in relation to Lake levels right now are 356, 355 and 354. Each of those three will be analyzed independently by the Operations Model starting at the 356 level, which is some stakeholders prefer the Lake level. Talk a little bit about the studies we have been conducting. Recreation assessment study is nearing completing, field work has been done. For those of you that use SCE&G owned public recreation sites, you might have seen our people out there during this past

summer with T-shirts on. They had a little field crews, they were out there counting the people that were using these sites; and also, fielding a questionnaire based on user needs and preferences for those sites. The first part of the study, inventoried all of the SCE&G sites, including American with Disabilities Act compliance. And also, determined the patterns of use at each site. Based on population projections and the regional participation trends from the SCORP data, we will determine future recreational use for the term of the new license, and any existing needs and preferences including perceptions of crowding. A site may not be crowded physically but if people think it is crowded, then it's crowded. And we will also objectively identify any future needs that we feel will be needed at the project. Those will merely be recommendations to the TWC, which will then take those recommendations as well as their existing needs, and will move forward from there towards the recreation plan. Just to give you an idea of the sites that we looked at during this study, went all the way up to Higgins Bridge on the Upper Saluda River; fifteen sites on the Lake, all the way down to Dam site and Park Site; and then we went down to the River, fielded surveys at Saluda Shoals Park, Metz Landing and Gardendale; and also down at the Riverbanks Zoo area at the Millrace rapids, and the confluence area. Those aren't formal sites, but they are certainly used by the public to access the River there, and

do what they do. The Second Study, I will talk a little bit about. This RCG is a boating density study. Basically what we did here or are doing here, the study is ongoing at the moment, we use the geographic information system to calculate the usable surface area of Lake Murray. We had some existing photographs, aerial photographs, that were taken in 2001, and we're counting the number of boats that were on the Lake at that time. We are escalating those numbers based on population projections to be reflective of current boating use of Lake Murray. And we will also project those out into the future using those same population projections. Then we will use commonly used standards developed by the Bureau of Outdoor
Recreation and the Army Corps of Engineers, which will determine whether Lake Murray is currently at, below or at a desirable level of boating density. And that pretty much means the number of boats per acre, whether it is at or below, above the standard; will determine at least from a scientific point of view whether boating densities are too high or too low. Here is the segments that we're using to look at boating densities. So, number of boats will be counted for each of these segments to determine if boating densities are higher in one area of the Lake or the others, basically why we broke the Lake up like this. On the Lower Saluda River, we are conducting a downstream flow study. Basically we are going to use results from the Recreation

Assessment to examine patterns, volumes, and type of use that occur on the River. We are going to take about, I think, three field trips at certain flow levels down the River as a focus group; come up with some preferred flows for different activities and make those flow requests to the RCG and to the Operations model. There is a couple other components to this study that deal more with safety, and I will talk about those when I talk about the Safety RCG. During the coming year we are going to be very busy, both as an RCG and several TWCs. Once the results from these studies are finalized, it's going to be a lot of looking at maps and things of that nature, and trying to figure out how we move forward into the future with the goal of having a draft recreation plan by the end of 2007. Any questions related to recreation?

MR. LEAPHART: Malcolm Leaphart, Trout Unlimited. Help me out on the completion date on the studies.

MR. ANDERSON: The Recreation Assessment, the TWC will probably be a draft probably in about a month, maybe less than a month depending on some internal review times.

MR. LEAPHART: Okay. I guess the question and concern I have is, we have seen a number of landings close on the Lake, you know, like Snelgrove's, Turner's on the South side, and each time those things close, those

commercial sites, and it's going to throw more folks back over in the SCE&G site. So, will we be watching for these closures over the next year or two? I know at some point you have to draw a line, but you have got to factor ---

MR. ANDERSON: It is something we can take into account, but when you look thirty years down the road it's kind of hard to predict what's going to happen on the commercial side. You know, if all of a sudden running a marina became a multi-billion dollar business, you are going to see a lot more marinas open up on the water, or at least try to open up on the water.

MR. LEAPHART: We may see a new realm, because you know, most of these were family owned type things. And as the folks are getting older, they tend to want to close them up and sell it, and move on. So, it's just a concern I had that somehow we need to factor that in.

MR. ANDERSON: It is certainly something to bring up in one of the TWC meetings.

MS. JOY DOWNS: I am Joy Downs, Lake Murray Association. Can you clarify when you talked about the 354, 355, and 356 levels going into the model if those were minimum levels? I didn't hear you say that. I'm sorry.

MR. ANDERSON: Sure. Yeah, those are ---

MS. DOWNS: I thought it sounded like it.

MR. ANDERSON: --- minimum Lake levels requested by some of the stakeholders to be analyzed as far

as recreational use on the Lake.

MS. DOWNS: Thank you. Just wanted that on the record.

MR. CHUCK WIMBERLY: Chuck Wimberly, Lake Murray Association. I was curious as to what assumptions were made to generate your population projections for the next fifty years?

MR. ANDERSON: Those come directly from the Bureau of Census. So we just take their numbers and use our current use numbers, and project those out. Most studies show that recreational use is directly associated with number of people around an area.

MR. WIMBERLY: The reason I am asking the question is, maybe my assumption is wrong, I haven't looked at the Census Bureau numbers, is that the baby boomers are starting to retire; there is going to be a large --- in my estimation, because there already has been in South Carolina, and always has a large influx of retirees from the Northeast with plenty of money, and will be able to afford lakeshore property, as they have already afforded coastal property along the South Carolina coast; and I was just curious if any ---

MR. ANDERSON: I would have to think that they take all that into account. Like I said, they --- you know, it's stuff you can go on their website and download projections, you know, up to the year 2050, I think is as

far as they are going now. Any other questions on recreation?

(No response)

MR. ANDERSON: All right. We will move into our last RCG, which is the Safety RCG. Basically this group has been tasked with making Lake Murray and the Lower Saluda River as safe as reasonably possible for the public. This group has been a little more active than the Recreation group. We've had seven meetings since relicensing started; six of these have occurred in 2006. I think one of the more well attended RCG groups, attended by about 23 people on average each time. Besides working on some of the same products from Lake Recreation RCG. We have also seen some presentations on State boating laws, presentations on the rising water sirens on the Lower Saluda River and how those operate. And also a presentation on the Three Rivers Greenway, which is certainly something that is going to affect activities and what takes place at least in the confluence area for the foreseeable future. And that was given by Mike Dawson of River Alliance. We have also agreed on a work plan and information needed to accomplish the group tasks. Much like the Recreation RCG - probably because I am heading up both of them - the work plan contains a list of identified issues, the responsibilities of the RCG to deal with those issues, a number of tasks and work products that will help us meet our responsibility, and

also a schedule for completion. We are currently working on a safety program. And I will talk a little bit more about that in a second. We will be working on a safety plan, and this group also has an issues matrix like all the RCGs in order to track for progress that's being made on some of the issues. Issues that this group is dealing with include river level fluctuations and their effect on safety, lake levels and lake level fluctuations, boat traffic and congestion in the cove areas, placement of maintenance of shoal markers; and also some recently brought up ones, power lines impeding sail boat navigation. And in our last RCG meeting we came to a conclusion that might not be as big an issue; and one of our group members is looking further into that, talking to some of the sailboat clubs. Water quality and its effect on safety, amphibious aircraft was brought up and also systematic collection of accident data, which so far we are finding out is not collected as well as we would like it to be. This RCG has formed two Technical Working Committees, and is also using the Downstream Flows Technical Working Committee to accomplish some of its tasks. We have a Hazardous Areas TWC, which has been tasked with identifying unmarked hazards and proposing potential solutions for unmarked hazards on Lake Murray. This TWC has not met yet. It also has been waiting on the Operations model, and also on a minimum Lake level to be determined before we start looking at this shoal and shoal marker

issue; because when you have shoal areas at 354, those same shoals may be covered up with sufficient water at 356, and the problem is to another area of the Lake. So once the minimum Lake level has been determined, this group is going to get together and decide how to deal with that issue. We have a recently formed Safety Program TWC. It has been tasked with completing a draft of the safety program. This is basically going to be a document that is going to outline safety activities that occur at the project. There is a number of groups that are involved with safe boating education, river safety. This is just going to pull all that information together, outline some public outreach efforts that SCE&G is currently undertaking, or can undertake in the future in relation to safety. It will outline the warning devices on the River, including what's now rising water sirens. We are also looking at strobe lights, some different other types of devices, and any other applicable safety related information. It is all going to be pulled together into a single document. That group will probably be meeting for the first time, like I said it just formed this past week, probably in the next month or so once a couple of documents get pulled together. We have been working on a communications plan also within these two groups, which outlines most effective ways for SCE&G to communicate with the public on Lake conditions and River conditions. And, when the person that was working on that document sent it to

me to review, I was like, "Man, this is really similar to the Safety Program," so we are going to merge those two documents into one and move forward from there. Like I mentioned earlier, this Safety RCG is also using the Downstream Flows TWC to address some safety issues on the River. The objectives and goals that relate to safety in the downstream flow study relate to the rising water level on the Lower Saluda River. One of our objectives here is to identify and characterize these water level changes. And what we are doing is sticking out some little devices called a level logger, which will be able to measure, I believe, in 1" increments once a minute to determine how up or down the River went. So, say they turn on the project, the River starts coming up; it will tell you how long it took to get to whatever level, whatever flow. These devices are being installed next week, I believe. And we are going to take that data and use that information to identify potential locations of additional warning devices on the River, as well as from stakeholder input. And also possibly identify location of emergency ingress or egress points on the River. So when the River starts coming up, people will have adequate opportunities to get off once they have been warned. The approximate locations that we are putting these devices relate to some of the higher use areas of the River, including up at Sand Island down to Corley Island, at the Gardendale put in, Oh Brother Rapids, Ocean Boulevard, and

then through Millrace Rapids down through the Zoo to the confluence area. These won't be the only points that we'll be able to determine this rate of change; we will be able to come up with some sort of egression model that will also model the rate of change inbetween these points. But that is about where they are going in. Our goal for the coming year is to complete a draft of the Safety Program and Safety Plan; and also, to make recommendations on safety related issues related to flows on the Lower Saluda River and also to resolve the issue of shoal markers once possible future Lake levels are --- minimum Lake levels are determined. And with that, I will take any questions related to safety. All right, we have got one.

MR. ELLIS HARMON: I want to ask about recreation.

MR. ANDERSON: Sure.

MR. HARMON: I'm Ellis Harmon, land owner. I understand that they were going to put a recreation site on this side of Lexington, the Town. Have you got any idea where that is going?

MR. ANDERSON: There are a number of tracts that SCE&G has set aside for future recreation access. I believe those maps are available on the website.

MR. STUART: They are, all the future sites are available.

MR. ANDERSON: Yeah, all the future sites

are on the website, so you can pull that up; and I might have a map on me if you want to take a look at them after this.

MR. HARMON: Does that include the Blue Bird Cove?

MR. ANDERSON: Blue Bird Cove? I'm not familiar with that.

MR. HARMON: Formerly the Harmon Cove.

MR. ANDERSON: Oh, Two Bird Cove. Two Bird?

MR. HARMON: Yes.

MR. ANDERSON: That will be covered under the Lake and Land Management. As Alan mentioned, they are going to address these what FERC has called Special Recreation Areas. It's more of a Lake Management issue, it is not really a recreational access. We are not going to -- - well, I don't think we can, there is no plans for access to that area except by boat. And SCE&G doesn't have any authority to really regulate activities that take place on the water. That is more of a law enforcement issue.

MR. HARMON: Thank you.

MR. ANDERSON: Anything else? Yes, sir.

MR. GUSTAFSEN: You have mentioned the website several times. What is the identification of the website?

MR. ANDERSON: www.saludahydrorelicense.com. And we used to have some pens and pads of paper that had it

on it. If not, I am sitting right there in front of you, I will make sure you spelled it right. But I think you can probably go to any search engine and put in "saludarelicensing" and it should be the first link that pops up. I know, there is a gentleman out there that has had a website out there for the couple of years that seems to sometimes jump ahead of this one.

UNIDENTIFIED: You can link to us from the saludariver website also.

MR. ANDERSON: Okay. And I am sure Lake Murray Association probably has a link to it. And I think, Alan, you could probably pull it up. Yeah, I think we have an internet access here, we can show you what it looks like and kind of explain the navigation issues. Are there any other questions related to safety or recreation?

(No response)

MR. ANDERSON: All right. With that, I am going to turn it back over to Alan to wrap this up, and he can kind of guide people through the website.

MR. STUART: This has all the information that we are generating through this relicensing process. It contains all the Meeting Minutes. It's what we found and what most people we have surveyed say, it is very user friendly. It is broken out by Resource Groups, the ones that we have discussed tonight. You can find all the Minutes from the Technical Working Committee Meetings, the Resource

Group Meetings, presentations. It is a tremendous amount of information, that's all I can tell you. Some of you probably don't even want to look at. But if you have night you can't sleep, this will be a perfect solution for that. That's part of this process, it is an open public process, and we try to inform everyone. And everyone has found this to be very helpful in keeping up with what's going on, especially if you have a special interest like fish or water quality, or something like that. It also has a calendar that identifies our Technical Working Committee Meeting dates, or Resource Group dates. If you would like to attend, these meetings are open. If you are not a member of the group, or the Technical Working Committee, you certainly can attend as an observer. All you have to do is contact us, there is a contact point there. And I think it goes to Bill Argentieri, but we also get it at Kleinschmidt. Alison, I think, gets it, as well. If you are interested in attending, just send us an e-mail and we will hook you up, we will get you access through the guard shack. We typically meet over at the Lake Murray Training Center or at the Carolina Research Park. And at Lake Murray Training Center there is a guard who posts there and we'll have to get you access so you can get through there. But, you certainly are welcome. We have a Lake and Land Management Technical Working Committee coming up this Thursday, I believe. And we have three people who are planning to attend as observers.

So, people are utilizing that avenue to keep involved. And a lot of these studies that we are talking about that are in progress or completed, we do post the study plans, the final study plans, that the Technical Working Committee agreed to, as well as the study results, or study reports, themselves. So, you can find out a lot of things that are going on on Lake Murray or the Lower Saluda River. It is very helpful. Are there any questions on the website before I drop it back down? Did you get the correct website? Just to close, we have a few milestones that we are looking at that is coming in 2007. We will be continuing studies. We do have a number of studies on the Lower Saluda River. I want to go ahead and inform you that these will require flow releases from the Lake. We calculated the volumes, we estimated the volumes that these studies will require. We don't think you will see much of an impact to the reservoir. Most of the studies will utilize about 6" or less of the storage in Lake Murray. So, we staggered them out. We have one that Dave referred to starting next week. That is the recreational flow. And then we have also got another one schedule in May, which is the instream flow study that Shane talked about. And we also have the focus group flow demonstration study that Dave talked about; and we anticipate that one happening in a June timeframe. So, we have tried to stagger these out, so we didn't put them all at one time. And we hope that the rains will continue to keep the Lake moderated and we can

make everybody happy as best we can. But these studies are required. We have to file the final application next August. And we do need this information to put in that application. So these studies are required, and the August 2008 deadline is a Federal requirement. We cannot change that date. So bear with us while we go through these Lower River studies. SCE&G postponed them last year while they were trying to refill the reservoir, so we have to get them done this year. With that, that is pretty much it for our presentation. Is there any comments or questions you have about the process, or any of the RCG groups after you have had a little time to digest? I know it is a lot of information, probably information overload tonight. But if you do have questions, please use the website and contact us, and we will try to provide you an answer to your question. And, feel free to do so. With that, we will adjourn the meeting. We will have another Public Meeting coming up in April. We have not decided what we will talk about at that time, but we will send out an agenda probably.

PUBLIC MEETING ADJOURNED.