



Lake Hartwell Association, Inc.

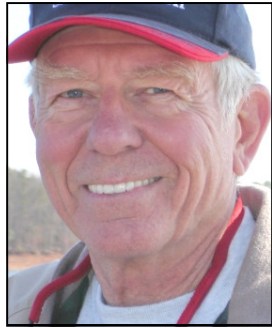
For the sake of the lake

FALL, 2010

Volume XXII, Number 4

In this issue

Letter from the President, Herb Burnham



Autumn in our area is my favorite time of the year. The warm days and cool nights are ideal for outdoor activities, and Mother Nature's "paint brush" turns our

shoreline into a wonderland of brilliant colors. The falling leaves also remind us that winter is just around the corner and we need to winterize our boats and other warm weather equipment. Autumn is also a good time to reflect on what we have accomplished over the past nine months, and what went well... and not so well. It is also a good time to access whether we are going to achieve our annual goals for 2010 and begin thinking about goals and objectives for 2011.

Make certain LHA has your correct email address!

Lake levels this spring and early summer were higher than normal, thanks to good rainfall. High evaporation levels caused by unusually hot weather in August combined with less than average rain caused levels to drop rapidly, thus, by mid-September Hartwell was at drought level-1. No doubt, power generation also had a considerable impact since the entire East Coast had record breaking heat and the demand for air conditioning soared. As you know, the Lake Hartwell Association (LHA), along with others surrounding the Savannah River Basin, has been working tirelessly with the Corps of Engineers and political representatives in both states to find and implement solutions to mitigate drastic drops in lake levels. This will



remain at the top of LHA's priority list. Meanwhile, we will continue to keep our members advised of latest lake level projections as soon as they become available. Normally, this will be done by updates to the LHA website. In some instances, where sudden and/or drastic level changes are anticipated, members will receive a direct email. Make certain LHA has your correct email address. Also, keep in mind that dock repair and shoreline work (such as riprap installation) is usually much easier when water levels are down. Several dock and marine service businesses are LHA members and are listed in every newsletter and on the LHA website.

Also, this year we have seen some very significant improvements for public use around the lake. These include several mega-ramps that can accommodate fishing

tournaments and other events that demand large numbers of boats to be launched and trailers to be parked. A number of Corps of Engineers ramps have added courtesy docks and toilets. A large fishing pier has been added just below the Hartwell Dam on the Georgia side to accommodate trout fishing... *they won't tell me when they stock.*

The PCB cleanup activity and removal of the first two dams on the 12-Mile River is well underway and a study to determine the feasibility of removal of the third (and last) dam has been funded. LHA has been a sponsor of this issue since its origin. Removal of all three dams will eventually mean that any remaining PCBs will be covered with silt from the free-flowing river and that the fish consumption warning signs can be removed... *that will indeed be a day to celebrate!!!*

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LHA's Annual Meeting
Monday, Oct. 25
7 pm
Anderson Civic Center
More info on page 12

**Lake Hartwell
Association,
Inc.**

**P. O. Box 2122
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**OFFICERS &
DIRECTORS**

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Janet Clayton,
Publications

Ruth Anne
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*Program/
Publicity*

Dan Ray,
Safety

Mike Massey,
Membership

President's Message

(Continued from page 1)

The LHA CoveKeeper program is finishing its second year with a great deal of success and enthusiasm. There is a lot of shoreline to be covered, so, anyone interested in becoming educated in the numerous issues that impact reservoirs should consider volunteering to become a CoveKeeper. The training is conducted by professional educators who are experts in the issues covered and it is free for volunteers. Check the LHA website if you are interested in volunteering to become a CoveKeeper or serving on any of the other LHA committees listed there.

Probably, most significant for "The Sake of The Lake" was the formation of the Savannah River Basin South Carolina Advisory Council for which one of our LHA Board members is co-chairman. Be sure to read the article in this issue.

**Changes in LHA
Board of Directors**

The LHA Board of Directors and all of its members would like to thank **Pam Thacker** for her dedication and service. Pam is retiring from her position as Secretary. She will be greatly missed.

Janet Clayton was recently elected to the LHA Board of Directors. She will serve as the Publications Director.



**A Special Thanks to All
the 2010 Cleanup Picnic
Raffle Prize Donors**

- Anderson County Safe
Kids Coalition
- Anderson Keep America Beautiful
- Applebee's
- Big Water Marina
- Captain Dave's Boating World
- Carolina WaterSports
- Cateechee Golf Club
- Corbett McGee's Irish Pub
- Custom Docks
- Dock Depot
- Enigma Custom Auto
- Foothills Outfitters
- The Galley
- Gordon Marine
- The Gray House
- Hartwell Dairy Queen
- Hartwell Marina
- Hartwell Wal-Mart
- J's Marine and Camper Repair
- Ms. Lara Kaufmann
- Lake Hartwell Fishing and Marine
- Lee's Marine
- Longhorn's
- The Peoples Bank
- Pinnacle Bank in Lavonia
- Pinnacle Bank in Hartwell
- Michael Craig Designs
- Outback Steakhouse
- Red Lobster
- Siblings Restaurant
- Strickland Marine
- Sullivan's Metropolitan Grill
- Tuckers
- West Marine





Members and guests of the new SRB Advisory Council hold an intense discussion on issues and plans at the Anderson Library meeting.



uppermost in the LHA thoughts, recommendations and actions. Can we insist, however, that it be the only consideration when water issues arise? To do that would assume that no other part of the basin has needs for this water. It is simply not a very reasonable approach.

The Lake Hartwell Association has been a leader in pushing for a new organization to understand the requirements of all needs in the basin. In fact, we worked with SC State Representative, Don Bowen, to write and introduce a bill to do just that. Before a vote was ever taken in the House, however, the SC Department of Health and Environmental Control (DHEC) and the Department of Natural Resources (DNR) agreed with this need and decided to start the Savannah River Basin Advisory Council (SRBAC).

The first meeting was held in June at which By-laws and the vision statement were established for the 25 member group. They also heard the first presentations designed to inform all members of other basin issues. Mike Massey, SC Legislative Chairman for LHA and Harry Shelley, Manager of the Friends of the SRB on Lake Thurmond, were voted Co-chairmen of the SRBAC. The second meeting was held on September 22 in Anderson. In addition to the members, there were an additional 20 people from all along the basin who attended to hear about issues and to offer comments of their own. All guest comments are accepted – member or not. Only members can vote, however.

A great number of topics were addressed relating to water levels, sustainability of water, the status of the new water plan by DNR, pollution issues below Thurmond Dam, water release amounts from the dams, dissolved oxygen issues, studies planned or currently underway and many more.

David Baize, DHEC Assistant Chief for the Bureau of Water, said his and other agencies are looking for a balance throughout the basin and felt this council would provide that. It was also noted that if this group is successful in their goals, the other basins in the state would have similar councils modeled after this one. LHA is proud to have had a major role in the establishment of this new and potentially very significant group along the basin. Look for more information about the SRBAC in the future and go to the LHA website for a list of members and the vision statement.

Influential New Basin Organization Formed
Balance Along the Basin Is the Goal

Submitted By Mike Massey

A new organization formed to provide recommendations to South Carolina state and federal agencies along the Savannah River Basin (SRB) is the latest in the attempt to understand the full extent of the water issues in the basin and offer recommendations to improve it.

LHA has been a leader in the effort to obtain a deeper understanding of all issues, planning methods, management processes, allocation needs and environmental concerns along the basin. The reason is simple. If we are not aware of the issues others are dealing with in the basin, it will be almost impossible to reach agreement.

One process has been made clear from almost all organizations responsible for water use in our basin – and in fact – all basins in the state and the country. We cannot insist that each section, lake, river or municipality along the basin be considered an independent entity to the disregard of all other sections, the basin, state or our neighboring states. Hartwell Lake is certainly



Report on Georgia Regional Water Planning Council Progress

Submitted by Pat Goran, Member of the Savannah–Upper Ogeechee Water Planning Council

The Savannah–Upper Ogeechee Regional Water Planning Council is one of eleven regional councils in Georgia. Hartwell Lake and the upper Savannah River Basin fall within the Savannah–Upper Ogeechee region. One of the major duties of each regional council is to prepare a recommended Water Development and Conservation Plan (WDCP). This long-term management tool includes resource assessments, estimates of current and future water needs, and those practices necessary to meet the region's needs within the capabilities of the resources.

The WDCP will be used to support our region's and the state's economy, protect the public health and natural systems, and enhance the quality of life for all citizens. In order to do so, the WDCP must promote sustainable use and guard against a shortage of water, among other things, and must also be based upon detailed scientific analysis of the available water resources and estimated future water needs. Georgia's Environmental Protection Division (EPD) has provided our council with a computer model indicating how much surface water is available based on decades of rainfall and Savannah River flow data. Our council has also agreed upon and used long-range water and wastewater demand forecasts to identify any "gaps" that may exist between the availability of the surface water resources and the future water needs within our planning region.

EPD's modeling indicates there is no projected hydrologic "gap" at Hartwell

or Thurmond since the conservation pools will not be exhausted at any time during the next 40 years. In other words, everything is considered to be "OK" as long as Hartwell remains higher than 625.00' above sea level. That does not mean there is not an economic "gap" when any of the lakes are significantly below full pool. We have seen the impact of low lake levels on the area's economy.



Recognizing the above, and noting that the work of the Savannah–Upper Ogeechee council could (and should) impact phase 2 of the Savannah River Basin Comprehensive Study that is scheduled to start soon, I have encouraged our council to consider including the following in our WDCP:

- ◆ Formally request the Corps of Engineers to manage the Savannah River Basin in a more "adaptive" manner. There seems to be no logical reason (other than power generation) for releasing, say, 4200 CFS from Thurmond dam if adequate river flows are occurring downstream of Thurmond. Generally speaking, it is in the best interest of all stakeholders up and down the Savannah to keep the lakes as full as practical for as long as practical, so that stored water is available to release in times of lower rainfall in the basin.
- ◆ Ask the Corps to reevaluate their guide curves for Thurmond and Hartwell. Perhaps the winter pool at Hartwell could be raised to 658' without the risk of significant winter/spring flooding downstream. Maybe the summer pool could be raised to 661'.
- ◆ Encourage the Corps to manage the lakes more closely to the existing guide curves. Rather than trigger level 1 occurring at 656' in the summer for Hartwell (326' for Thurmond), why not start reducing

flows at, say, 658'/328'? For that matter, why shouldn't flows be reduced as soon as either of the two lakes drops below its guide curve?

- ◆ Understanding it would literally take an Act of Congress request that "the economic well being" (or some similar phrase) of the communities that have developed around the Corps' projects be added as one of the authorized purposes of those projects.
- ◆ Recommend that South Carolina, Georgia and the Corps take an objective, hard look at the 3600 CFS minimum flow out of Thurmond that has been used for many years. If nothing else, perhaps a lower flow (like the 3100 CFS that was tried, I understand, with few, if any problems) could be adopted permanently for the cooler months when dissolved oxygen levels are less of a concern.

Our council will be submitting a draft WDCP to the Director of EPD shortly. EPD will most likely suggest changes to what we submit and there may be a "back and forth" process between EPD and our council, culminating in a set of management practices to meet our region's future needs. All WDCPs must be finalized and adopted by the state of Georgia by June 30, 2011. Once adopted, it is intended that all EPD permits and Georgia Environmental Facilities Authority (GEFA) grants and loans for water projects will be guided by the WDCP.

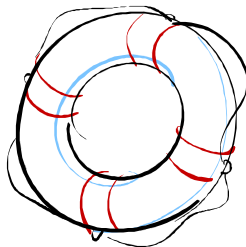
As always, you can go to Georgia's State Water Plan website (www.georgiawaterplanning.org) or the Savannah–Upper Ogeechee website (www.savannahupperogeechee.org) for updates on the status of statewide water planning. Comments can be submitted to info@savannahupperogeechee.org.



Anderson County Sheriff's Lake Patrol Emphasizes Water Safety and Crime Prevention

By Dan Ray

“Making boaters aware of the importance of safe boating practices is the major thrust of the Lake Patrol,” said Deputy Robert (Rusty) Ables, coordinator of the Lake Patrol. Patrols were active this summer during normal boating, as well as the Fourth of July and Labor Day extended weekends and the Kayak Poker Run. With a trained staff of volunteer members of the Sheriff's staff available to the patrol, boaters, as well as lakeside property owners, can feel more assured that help will be available in case of emergency needs. The unit cooperates with the Army Corps of Engineers, the South Carolina and Georgia Departments of Natural Resources, and neighboring counties in patrolling the lake.



Cooler temperatures normally mean fewer boats on the lake and increased vulnerability to thefts of lakeside homes, docks and boats. Department of Natural Resources Lake Patrols essentially stop September 1. That is when dove hunting season begins and the DNR personnel are concentrating on enforcing hunting laws. According to

Deputy Ables, residents are advised to use special care to protect items left on docks, in boats, or around lakeshore homes. The amount of attention that the Patrol can give to the lake has been severely limited by the manpower available. Lake Hartwell Association members and others having property in Anderson County who wish to see more patrolling should contact their councilmen and other government officials to stress the need for more personnel to increase crime prevention and ensure the safety of lake users. In the event of an emergency, boaters or lakeshore residents anywhere on Lake Hartwell should **CALL 911**, which will connect them with the nearest emergency response group. The information will be relayed to the appropriate groups. Identifying your location relative to the nearest boat ramp or channel marker (in addition to a street address in case of an emergency on land) will speed the response. If a Sheriff's boat is in the water, it is likely that it will reach the emergency site before a land based response can.



Hey Kids! The Sidekicks Water Safety Contest Ends Dec. 1st!

There's still time to enter the National Boating Safety Council's annual boating and water safety awareness contest for a chance to win a Nintendo Wii system!

This year's theme is "Wear It!"

Who can enter?:

Children from 3 to 13 years of age. Contest entries consist of contact information, parental consent, and a photo image file of the contestant wearing an **USCG-approved life jacket**. Creativity of setting and surroundings is encouraged.



Where are the entries shown? Approved entries will be posted on the Boating Safety Sidekicks Web site. To maintain online privacy, only first name and state will be identified with entries posted on the Web site.

What can you win? Nintendo Wii system with Wii Fit Plus.

When is the contest deadline
Wednesday, December 1, 2010.

How do you enter? Go to the website: www.boatingsidekicks.com and follow the simple instructions for submitting your photo.

To have your "Wear It!" photos displayed on the LHA website photo gallery, email them to:
mail@lakehartwellassociation.org

Good Luck to all Contestants!

First Quality Tissue Plant Update

Submitted by LHA Technical Committee

LHA technical committee representatives met with the First Quality Tissue environmental manager in August to discuss planned water use and processing. Representatives from both the Anderson Regional Joint Water System and Anderson County Economic Development offices were also in attendance to answer questions from LHA. First Quality is either working on or has received the environmental permits from the SC Dept. of Health and Environmental Control that are needed for construction and operation. In addition, First Quality has entered into an agreement to help clean up groundwater contamination on the site caused by previous owners.

The plant, which is located at the former Shaw Industries facility on Masters Blvd. and Hwy. 81 in Anderson, will make paper tissue and towel products. The tissue making process was explained during the meeting. A *state of the art* Thru-Air-Dried (TAD) technology will be used to make the tissue utilizing sustainable forest paper as the pulp.

Water used in the process will come out of Lake Hartwell as part of the current Anderson Regional Joint Water System permitted withdrawal allotment. Current estimates are that First Quality will use about 1 million gallons per day to start and 3 to 4 million gallons per day by 2020. The processed water is recycled many times, however, about half of the processed water used is lost to evaporation. Therefore, about 500,000 gallons a day are expected to be released below the Hartwell Dam into the Savannah River.

The processed wastewater contains fiber and will be treated at an on-site treatment plant to be constructed by First Quality. Separation, biological treatment, and then primary and secondary clarification will be used. The secondary clarification is not required for a wastewater discharge permit, but adds an extra step to remove the fiber particles. The domestic

wastewater at the facility will be sent to the Anderson Generostee Wastewater Treatment Plant.

LHA will continue to monitor the construction and operations at the plant relating to water quantity and the quality of Lake Hartwell and the watershed.



The Anderson Chamber of Commerce Water Quality Committee were very pleased with the recent presentation by members of LHA and DHEC on the new water legislation and management plans for South Carolina. From left to right are:

- * Herb Burnham, LHA President;
- * Janice McCord, Field Director for Congressman Barrett;
- * SC Representative, Don Bowen;
- * David Baize, Asst. Chief DHEC Bureau of Water;
- * Dyke Spencer, Chairman-Anderson Chamber of Commerce Water Resources Committee;
- * Rebecca Spratlin, DHEC SRB Manager;
- * Mike Massey, Co-Chairman-SRBAC Advisory Council



LHA Community & Business Partners

Please join us in thanking the Community and Business members that support LHA! Visit the LHA website for their business contact information and website links!

- * Anderson Regional Joint Water System -
Scott Willett
- * Big Water Marina – Jane W. Davis
- * Bill Brissey Real Estate – Bill Brissey
- * Billy Howell Ford Lincoln Mercury –
Billy Howell
- * Byers Precision Fabricators –
Roger Byers
- * Brysan Utility Contractors, Inc. –
Christopher Barber
- * C. Dan Joyner Company –
C. Dan Joyner
- * Chickasaw Point Property Owners
Association
- * Cateechee Golf Club - Pamela Camp
- * Collins Dock, Inc. –
Tammy Collins Smith
- * Robert & Connie Banks
- * Carolina WaterSports – Chad Hodges
- * Custom Dock Systems, Inc. -
Don Haynie
- * Dock Depot & Marine Supply -
Richard & Georgeanne Henshaw
- * Docks South, LLC - Bill Griggs
Eric Nilsson
- * Foxwood Hills POA - Bill Lewis, Mgr.
- * Grady's Great Outdoors – John Phillips
- * Harbor Light Marina - Larry Rich
- * Hartwell Marina & Boat Sales -
Brant Tew
- * Ingrid Lee Realtors, LLC - Ingrid Lee
- * Keller-Williams Lanier Partners -
Jerilyn Wiech
- * Kroeger Marine Construction, Inc -
Dave Kroeger
- * Lake Hartwell Sail & Power Squadron –
Bert Baxter
- * Lakeside Chiropractic, LLC –
Dr. Cindy Pradhan, DC
- * Lee's Marine LLC - Randy Lee
- * Leeward Landing Assn. of Boat Dock
Owners - Bobby Medlock
- * Marine Specialties, Inc. –
Richardson Garrett
- * Matthew Nasrallah, Attorney-at-Law
- * Mike Sanders Boat Storage -
Michael W Sanders
- * Paradise Point Inc - William Roberts
- * Paul & Susan Meng
- * Phil Jewelers – Phil Silverstein
- * Pintail Point Property Owners Assn. –
Sheree Moate
- * Portman Marina - Dave Freeman
- * Robert T. Foster & Rudolph M. Rudy
O'Neal III Public Accountants
- * Romano's Italian Restaurant –
Nouhad Yarid
- * Save Our Lakes Now – Tommy Lee
- * Superior Dock Systems -
Scott Conquest
- * Swaneys Point Association -
Danny Shook
- * The Regatta at Lake Hartwell Homeowners
Association, Inc. – Joe Argo
- * T N Construction - Thad Strickland
- * The Hartwell Sun - Robert Rider
- * Upstate Forever – Brad Wyche
- * USACE Hartwell Project - Tanya Grant
- * View Point Lot Owners Association
- * Ward S. Stone, Jr., Greenville, SC
- * William M. Callahan, DDS

LHA Membership: Welcome Aboard & Thank You!

Thank you all for your contributions to LHA's efforts to protect the precious water resources and value of our beautiful lake and watershed. Please join us in welcoming the following members who have joined since our last newsletter:

New Family Memberships

- | | |
|-------------------------|-----------------------|
| ♦ Andy Gibson, | ♦ Jimmy & Diane Nix, |
| ♦ Kirk & Danita Gordon, | ♦ Leise & Phil Tucker |

New Community & Business Members

Grady's Great Outdoors, Anderson, SC -	John Phillips
Carolina WaterSports, Anderson, SC -	Chad Hodges
Romano's Italian Restaurant, Anderson, SC -	Nouhad Yarid

Donations to LHA

Please join us in thanking LHA members who have made special donations. We are especially grateful for their generosity during these challenging economic times.

- | | |
|-----------------------------|----------------------------------|
| ♦ Robert & Valerie Clark, | ♦ Robert J. & Mary E. Lord, |
| ♦ Charles & Dot Cleveland , | ♦ William E. McCullough, |
| ♦ Eric & Deena Cunningham, | ♦ Brian & Margi Philbin, |
| ♦ James Dempsey, M.D., | ♦ Ann R. Scott, |
| ♦ John A. Hoffman, | ♦ Rick Lique & Mary Turney, |
| ♦ B. T. Kennerly, | ♦ Joan C. Whitney, |
| ♦ Dale Linvill, | ♦ Mr. & Mrs. C. Chester Williams |

Thank you for supporting LHA volunteers as they work
“For The Sake Of The Lake!”

Mega Ramps Completed in Franklin and Hart Counties, GA

By Vernon Sauer

Two sets of multiple boat launch ramps, commonly referred to as mega ramps, have been completed at two locations on Hartwell Lake in Georgia. These ramps were constructed this year with the majority of funding coming from



Buffer zone at Gum Branch

the PCB settlement on Twelve Mile River in South Carolina. The PCB settlement specified that part of the funds were to be used in Georgia to enhance fishing facilities. The State of Georgia provided supplemental funds from the "Go-Fish-Georgia"



Tugaloo Mega Ramp

program, and Franklin and Hart Counties provided additional funds. It is expected that each of these mega ramps will attract large fishing tournaments.

The Tugaloo ramps, which are located in Franklin County, GA, are on Hartwell Lake near Tugaloo State Park just north of I-85. These ramps were dedicated and opened for public use on July 13, 2010. The Hart County mega ramps are located on Hartwell Lake at Gum Branch. They were dedicated and opened for public use on July 27, 2010. At both the Tugaloo and Gum Branch sites, parking is available for more than 150 vehicles with boat trailers, with additional parking for spectators.



Six new ramps at Gum Branch

The mega ramps at both sites will be open 7 days a week, 24 hours a day. At each site there are six parallel concrete boat

ramps with a large paved area that provides adequate room for maneuvering boat trailers and vehicles to launch the boats. Both sites have been designed to minimize runoff of contaminants into Hartwell Lake by providing a natural or rock buffer zone around the perimeter of each site. In addition, several retention ponds with natural and/or rock filters have been located at strategic places to detain runoff from paved areas to allow time for filtering. Landscaping at both locations is still in progress. Lake Hartwell Association worked with the Georgia Department of Natural Resources providing suggestions regarding the need for buffer zones and retention ponds to protect Hartwell Lake from pollutant runoff.



Tugaloo Retention Pond

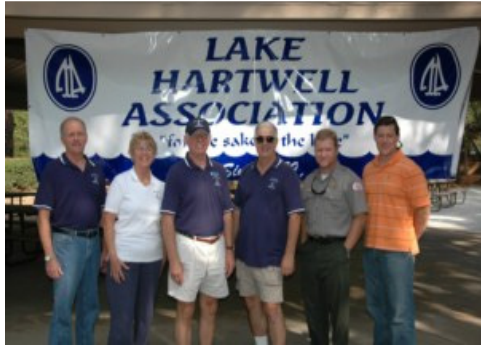
LHA Mission Statement

We will develop and establish the Lake Hartwell Association as an organization that promotes and encourages cooperation, assistance and information exchange among those concerned with Hartwell Lake and the Savannah River Basin.

We will provide a forum to collectively represent our membership on issues that pertain to the development, preservation and comprehensive management of Hartwell Lake.

We will collect and distribute information on matters affecting Hartwell Lake.

We will maintain liaisons and communications between the Lake Hartwell Association and educational, governmental, scientific and other communities.



Left to right: Pat Goran, Ruth Anne Maciag, Herb Burnham, Mike Massey, Scott DeMore and Kenneth Bedenbaugh

Annual Appreciation Picnic... A Great Success!

The Lake Hartwell Association and Army Corps of Engineers co-hosted this year's Appreciation Picnic on Saturday, Sept. 25 as a thank you to all of the volunteers who helped with the cleanup of Lake Hartwell. The annual Lake Hartwell Clean-Up Campaign began this year on August 15 and ran through Saturday, September 25, which was National Public Lands Day.

The picnic, which was held at Big Oaks Recreation Area in Hartwell, GA, hosted over 175 guests. According to Scott DeMore, the picnic coordinator and U.S. Army Corps of Engineer natural resource specialist, the cleanup program generally involves about 500 volunteers. The volunteers include small groups such as Cub Scout or Boy Scout troops as well as individuals who live on or near the lake.

Aside from enjoying a delicious lunch, cooked by some Army Corp Park Rangers and Lake Hartwell Association members, the guests took part in arts and craft activities and a free raffle. The prizes, which were donated by local businesses from around the lake, ranged from bike helmets and life jackets for children to tow ropes and gift certificates for adults. The co-MCs of the program were Kenneth Bedenbaugh, Army Corp of Engineers, and Herb Burnham, President of the Lake Hartwell Association. A great time was had by all!



Having fun painting



Guests enjoying the picnic



The chefs



Volunteers at the grill



Tee shirt give away



Welcome Banner



Kids enjoying the great day



Children painting the boats

2010 Water Management Improvements in South Carolina

Submitted By Mike Massey

The year was 400 BC when Plato, the Greek Philosopher wrote, “You could not step twice into the same river; for other waters are ever flowing on to you.”

Never has this quote had more significance than today. While there is some attempt to store water in the basin, much of it flows on down to the ocean. The question is, “Is it efficiently used?” The Lake Hartwell Association (LHA) does not think so.

The Concerns

Clean water for human consumption and environmental protection is in competition with water requirements for commercial production of goods. Both are being squeezed by residential and business growth, droughts and power generation. It will get worse. Duke Energy, in fact, has recently said the most important issue they have today is the availability of water.

Water is released from the dams for many reasons. For instance, we now know that some water is released downriver primarily to “flush” away impurities and pollutants released into the river from large industrial corporations – many of which are from the Georgia side and below the Strom Thurmond Lake Dam. We all realize that the economic value of water to a state or community is certainly a consideration – especially when jobs are considered - but what of other economic considerations? We surmise the answer depends on if you are an industrial producer using the water and creating jobs or a local business and property owner watching the water level drop, impacting your cash flow or the value of your property.

Recently, many of you have heard in a number of local meetings or read in area publications that there has been little or no progress in the SRB, or state for that matter, regarding water management. Let me assure you, however, a great amount of improvements HAVE BEEN accomplished in the last few years. Is there more work to do? Certainly, but it must be done in an orderly, well-thought out and realistic plan.

Changes Have Started

In 2003, the LHA Board of Directors recognized that need and established goals and a program to improve water management, including water level strategies and allocation in the basin that our beautiful lake is a part of. We also recognized that the issue was much bigger than just Hartwell Lake or even the SRB. We felt it was also a State of South Carolina responsibility and changes needed to be made there.

The next few years saw LHA struggling to increase its voice with the state and federal legislators. We developed a long-term plan and worked with legislators and groups in other basins for concurrence and implementation. It was our belief that a two-pronged approach was necessary:

1. To work with all the local and SRB organizations to understand who used the water in the basin and for what purpose. There was no process in the state to require large users to apply for water use or to report how much they used, and;
2. To work with local, state and federal legislators to improve how the state manages water. Development of a state water “plan” was mandated by the legislature but there is no such mandate to have the recommendations implemented. Is this truly a “plan”?



Ken Rentiers, DNR Deputy Director, Land, Water and Conservation; David G. Baize, DHEC Asst. Bureau Chief, Bureau of Water; Joe Gellici, DNR Chief Hydrologist; and Brian Baker, GA EPD Enforcement and Compliance all discuss water planning improvements.

One fact was clear. The SRB must be treated as a complete community. While some local changes can be made to improve individual sections of the basin such as Hartwell Lake (and LHA is constantly hard at work to do that) it is impossible to obtain state and federal long-term changes without a clear, scientific understanding of the whole basin including who is using the water and how much.

Cooperation with other stakeholders in the basin (and states) is equally important. Changes to any one section of the basin will affect other sections. These changes are also variable depending on the situation in the basin at any specific time of year. That situation is also being addressed through the establishment of a new South Carolina organization called the Savannah River Basin Advisory Council (SRBAC). Read more about this organization in the newsletter article titled ***“Influential New Basin Organization Formed”***.

(Continued on page 12)

2010 Water Management Improvements in South Carolina

(Continued from page 11)

2010 A Milestone for Water Management Improvements

So, is water management improving? LHA says yes. It definitely is thanks to the efforts of a number of organizations such as LHA and legislators such as State Representative Don Bowen of Anderson as well as others who have worked to introduce and support legislation to improve the situation.

This year has been a landmark year for changes related to how South Carolina will manage its water. Following is a brief list of the major 2010 upgrades to water basin planning and management in South Carolina. Members of the Lake Hartwell Association have and are involved with many aspects of each of the following:

1. Water permitting is now a law. Any large corporation wishing to use water from any river in the state must apply for a permit to do so. It may be granted based on new requirements for water availability, minimum flow and long term use.
2. Water Use Reporting is now a law. Large corporations must all regularly report the water used to establish safeguards for future water needs.
3. Protection for downstream users. The two rules above as well as other environmental reviews will eventually allow proper management of water levels in our lakes and rivers.
4. A revised South Carolina water plan is being developed by the Department of Natural Resources (DNR). The new water plan is expected to result in a comprehensive process to include a way to describe and implement all water recommendations in a single process for the future good of the State.
5. The South Carolina Savannah River Basin Advisory Council (SRBAC) has been established. All surrounding states had such councils comprised of basin stakeholders to review and recommend revisions to State and Federal process in the whole basin. Benefits are already being recognized by state agencies from this group.
6. Computer models of the basin are being revised with new data and innovative variables to be in studies underway to establish water standards and updated drought management methods.
7. New SRB studies include: minimum water flow limits along the basin, drought allocation levels, dissolved oxygen impacts, salt water intrusion corrections, maximum daily load pollutant release allowances and many others.

8. The implementation of the SC SRBAC, which can now coordinate its efforts with the GA SRBAC, has improved the communication between the states of South Carolina and Georgia. A Consumptive Use Study based on good science is underway and is one of the benefits.



YOU ARE INVITED

LAKE HARTWELL ASSOCIATION

2010 Annual Membership Meeting and Fall Information Forum

7:00 pm on Monday, October 25, 2010
Civic Center of Anderson,
3027 MLK Blvd., Anderson, SC

“Planning For The Future”

Keynote Speakers

Colonel Jeff Hall, US Army Corps of
Engineers, Savannah District Commander

David Baize, SC Department of Health &
Environmental Control,
Bureau of Water, Asst. Bureau Chief

Doors Open at 6:30 pm –
Light Refreshments
Open to the Public –
Bring your family, friends and neighbors!

LHA Contact: 864-224-5253

“For the Sake of the Lake”

Can Major Floods Still Occur On The Savannah River?

By *Vernon Sauer*

The three major reservoirs on the Savannah River (Hartwell, Russell, and Thurmond) were all constructed under various federal flood control acts as follows:

<u>Reservoir</u>	<u>Flood Control Act</u>	<u>Construction Period</u>	<u>First Filled</u>
Thurmond	1938	1946-54	1951-52
Hartwell	1950	1955-62	1962
Russell	1966	1974-85	1983-84

The original and primary purpose of each of these reservoirs is flood control. Additional purposes at the time of construction for Thurmond and Hartwell included hydroelectric power generation and navigation. Whereas, for Russell recreation and hydroelectric power generation were included. Today the purposes of these reservoirs also include water supply, water quality control, and recreation. Navigation is no longer considered a primary purpose.

This article addresses the questions of large floods and flood control on the Savannah River downstream from Thurmond Reservoir. For example, can a large, damaging flood occur in areas downstream of the reservoirs, such as at the cities of Augusta, North Augusta, Savannah, and other intervening areas? Do the three reservoirs have enough flood control storage under normal operating conditions to alleviate or even prevent such floods? Does the winter drawdown, or rule curve, help to alleviate major floods?

To answer these questions we must first look at the history of floods in the Savannah River Basin. Surprisingly, there is a very long history of floods at or near Augusta dating back to 1796. Information regarding major floods is available for 1796, 1840, 1852, 1864, and 1865. Then beginning in 1876, the record of annual flood peaks (stage and discharge) has been recorded by the U. S. Geological Survey

on a continuous basis through 2010. This is the longest record of floods known for any river in the United States. During the period of 1796 to 1951 (when Thurmond Reservoir first began to fill) there were 12 major floods with peak discharges greater than 200,000 cubic feet per second (CFS) at

Augusta. During this same period five of these floods had peak discharges greater than 300,000 CFS, with the greatest

of these being 360,000 CFS for the flood of 1796.

Beginning in 1951, when storage first began in Thurmond Lake, and continuing through today with flood protection provided by all three reservoirs, the largest peak discharge at Augusta occurred in 1964 when a peak flow of 87,100 CFS occurred. During the period since 1951 there have been only 5 peaks greater than 50,000 CFS. This would indicate that the reservoirs are doing a good job of preventing major floods at Augusta. However, during this period there have been no major rainfall events such as those that occurred prior to reservoir construction. For instance, during the 1929 flood the peak discharge was 350,000 CFS and the basin had 5 to 15 inches of rain over a 3-day period. Then 2 days later, there was an additional 2 to 10 inches throughout the basin. This is just one of several examples of major floods and extreme rainfall that occurred prior to reservoir construction and which have not been experienced since the reservoirs were built.

In the late 1980's there was concern and interest on the part of a number of people to answer some of the questions regarding possible floods in Augusta. This concern led to a flood magnitude and frequency study made jointly by the U. S. Geological Survey and the U. S. Army Corps of Engineers. The results were published in 1990 as a Water-Resources Investigations Report Number 90-4024. This study used very

detailed rainfall-runoff modeling and flood routing procedures to estimate peak discharges at Augusta for major rainfall events. Using the modeled data, flood magnitude and frequency were defined at Augusta for both regulated and unregulated conditions. The results of this study show that a 100-year flood at Augusta, under current regulated conditions, would be 180,000 CFS, as compared to the unregulated 100-year flood of 316,000 CFS. Even though this is a significant reduction, even 180,000 CFS could cause significant damage, especially in populated areas such as Augusta.

To provide additional protection against major floods, both Hartwell Lake and Thurmond Lake have a 6-month period from mid-October through mid-April each year when the lake level is gradually lowered from full pool to 4 feet below full pool, and then gradually returned to full pool. This period through the fall, winter, and spring months is generally the time when heavy rainfall is most likely to occur. Lowering the lakes during these months provides additional flood protection in the areas downstream from Thurmond Lake. The 1990 flood-frequency study took this into consideration for purposes of computing the regulated 100-year flood.



In summary, the flood frequency study of 1990 shows that the reservoirs

provide a significant degree of protection from major floods downstream from Thurmond Lake. The winter drawdown, or rule curve, provides additional protection by increasing the available storage. However, even with this protection, the 100-year flood of 180,000 CFS at Augusta is still a very large flood that can increase river levels above normal low water levels by 15 to 20 feet, with very high stream currents. So even though major floods have been reduced, they have not been eliminated.

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Annual Meeting
Oct. 25, 7 pm
Anderson Civic Center

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Web Site: <http://www.lakehartwellassociation.org>

LAKE HARTWELL ASSOCIATION

P.O. Box 2122, Anderson, SC 29621

Fall
2010

Membership Application

Membership Information: Check all that apply

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