

Letter from the President, Herb Burnham



For the third consecutive year the South Carolina Legislature has failed to provide minimal funding for Phase 2 of the Comprehensive Basin Study. This is the phase that calls for studying data collected from previous droughts to determine

what can be done in terms of more timely and intelligent water management to help moderate the impact of future droughts. The Corps of Engineers earmarked \$500,000 for their share of the study cost more than three years ago, followed by the State of Georgia at \$250,000 shortly thereafter. After trips to Columbia, much conversation and a visit to the Governor's office, we were assured that South Carolina would have its \$250,000 share available this fiscal year. This summer we were told there was only going to be \$100,000 available going into the final budget debate and that the State would make up the shortfall by providing in-kind services. As of this writing, we have been advised that the \$100,000 did not survive the final cut. So, once again, we are back to zero and water has taken a backseat in Columbia.

What does it take... a crisis? Those of us living on the lakes and those who make their livings in lake related businesses experienced shocking (some devastating) financial setbacks during the drought ending in 2009, a drought in which the State lost far more than \$250,000 in sales tax revenues alone. We may be headed for another drought of record over the next year. Many weather experts are telling us these drought patterns may become the future norm. Makes you wonder if our elected representatives in Columbia ever pay attention to the weather experts... maybe they simply assume we will always have adequate supplies of water in the Southeast. They may want to ask our neighbors over in Atlanta how they are doing in that regard. Sometimes it takes a crisis to get people to begin to realize the importance of something even so fundamental to life as water or lack thereof. Georgia obviously had their crisis and an "awakening" when several years ago they spent tens of millions of dollars developing a statewide water plan. They may not have all

their problems solved as a result but they certainly have a much better idea where to focus their attention and what future steps must be taken. They are years ahead of South Carolina in that regard.

In my last letter to members I stressed the important of getting our elected SC and GA representatives in Washington, DC to establish a Savannah River Basin coalition in the House and Senate that will represent our interests in getting rid of red tape and introducing common sense changes to the laws, regulations and procedures the Corps of Engineers must now use to manage our water. Believe it or not, water in the Savannah belongs equally to the two states. This will also require significant funding because there will have to be comprehensive studies conducted and detailed plans developed and executed.

Fortunately Duke Energy is in the process of developing and testing computer based flow and quality models of all the SRB lakes as part of a new license process at the upper end of the basin. It is my understanding that Duke will make these models available to the Corps. Using the Duke models would save considerable time and money; however, my guess is that the costs would still be in the tens-of-millions range. Considering the simple funding problem described in the first two paragraphs, why would anyone expect South Carolina to contribute its share within a reasonable timeframe? That is one good reason why our Washington representatives must find a way to have some of the power generation funds remain with the two states and be dedicated to pay for studies, plans and improvements in the lakes and the way they are managed.

I don't know about you my fellow LHA members but I don't want to go through another drought knowing that nothing substantial and/or meaningful is being done to fix the real problem... red tape and bureaucracy. Water management in the Savannah River Basin is in dire need of updating and streamlining. The most

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President's Message

(Continued from page 1)

current Environmental Assessment recommending a mere 200 cubic feet per second reduction in outflow from Thurmond in the midst of an ongoing drought will have taken 13 months from the time it was drafted until flow is actually reduced... that is unacceptable. It is going to take time, money, voter pressure and, most of all, patience to get things changed at the source... Washington, DC.

Getting anything through Washington or a State Capital can be a very slow process. Meanwhile, what can you as an LHA member do? Email, write or phone our governors, representatives and senators at the State and Federal levels encouraging them to join with Representative Jeff Duncan (R-SC) who has agreed to take a leadership role in getting the Washington caucus organized. Their phone numbers, mail and email address are easily found on the internet, and are regularly updated. Tell them that it is time to fix the water management problem at its root and to allow the water management experts do what they do best. For contact information you can go to our website at www.Lakehartwellassociation.org. In the upper right corner, click on contacts. On the drop down menu, click on government contacts.

At the same time, it is important that every member continues to recruit new Lake Hartwell Association members. Our voice in Washington and at the State Capitols becomes stronger with every member added. This is going to be a long, challenging and expensive effort and member dues and donations are our only source of revenue.

Vote on New Board Members

The Lake Hartwell Association Board of Directors has asked two members to join the Board of Directors. Please vote for both candidates via e-mail to:

mail@LakeHartwellAssociation.org

Jim Lizza has been a lake resident in the Townville area for 10 years and a resident in the Anderson area for over 32 years. He has been an avid lake user all that time. Jim is a



former National Sales Manager at Vytech Industries in Anderson. He was employed there for over 25 years. In 2005, Jim formed his own company... LGU Distribution, an International Independent Sales Representative organization. Jim is married to Christine Lizza. Chris has practiced as an occupational health nurse in the Anderson area for over 35 years.



Doug Young had a keen interest in conservation since he was seven years old when a developer cut down the wood across the street from his home in New Jersey and built a 100 house development. That

interest later emerged 15 years later when the Corps of Engineers was commissioned to construct a dam across the Delaware River where the borders of New Jersey, New York and Pennsylvania come together near Tocks Island. The dam would have flooded several miles of the best canoeing river in the Northeast. The "Save the Delaware Coalition" was formed and the dam was never built.

Doug is currently active in or supports several conservation groups in South Carolina including Upstate Forever, the South Carolina Wildlife Federation, the Mountain Lakes Community Association (as a board member), the Trust for Public Land, The Nature Conservancy, and the Lake Hartwell Association. He is well known to South Carolina's elected officials as a conservation advocate. As a resident of Chickasaw Point, he is the treasurer of the Property Owners' Association, the Chickasaw Utility Company, and the Chickasaw Trails (for profit) Golf Course. Doug performs volunteer work for SCDNR and attends all of the SC Drought Response Committee meetings.

Doug's experience, after graduating from Muhlenberg College in Allentown, PA, includes 30 years in various accounting position at ITT Industries in New Jersey, Connecticut and Quebec.

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LHA Annual Meeting – **A NEW TWIST**

By Ruth Anne Maciag

LHA Annual Meeting and Forum A NEW TWIST

If you plan to stay for the complimentary lunch, please make your reservations now.

The Lake Hartwell Association Annual Meeting and Forum, Saturday, October 27 10:30 a.m., will be held at Kresge Hall at the Clemson University Outdoor Lab.

This year's presenters are Col. Hall of the Corps of Engineers, Knight Cox, Manager of the Clemson Forest, and James Sykes, fisheries biologist.

A luncheon buffet will be served after the meeting for members.

Lunch is free, but reservations are required to assist us in planning the event.

Please reply by email to membership@lakehartwellassociation.org, or call 864-224-5253 to make a reservation anytime before 5pm Thursday, October 18. If you are interested in a guided nature walk after lunch, please let us know when you make your reservation.

The address of the Outdoor Lab is: 415 Charlie White Trail, Pendleton, SC 29670. If you need further information and/or directions, please call the number above OR call the Outdoor Lab, 864-646-7502.

We look forward to seeing you on October 27th! Mother Nature should provide us with great fall colors and crisp comfortable weather!

FOR THE SAKE OF THE LAKE

If you plan to stay for the complimentary lunch, please make your reservations now. Deadline for lunch reservations has been extended to Oct. 18.



Kresge Hall at the Clemson Outdoor Lab

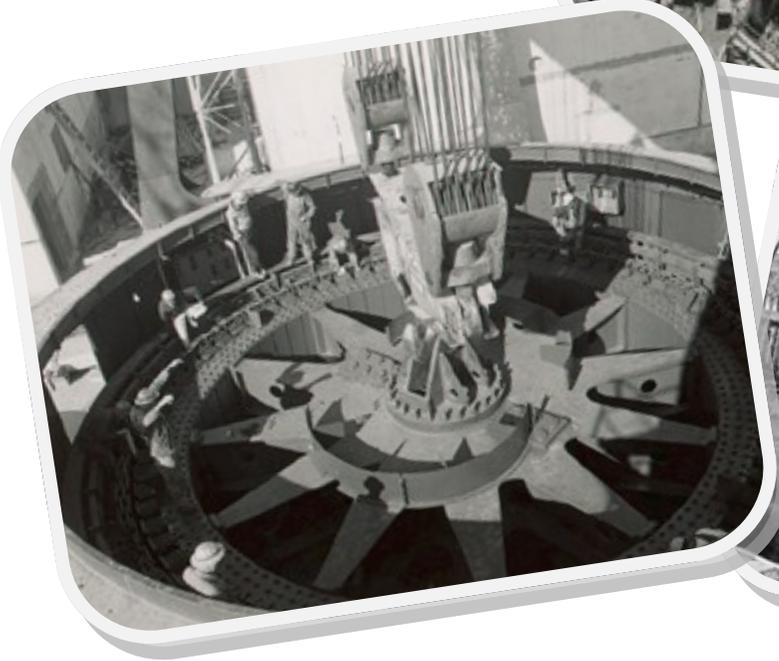
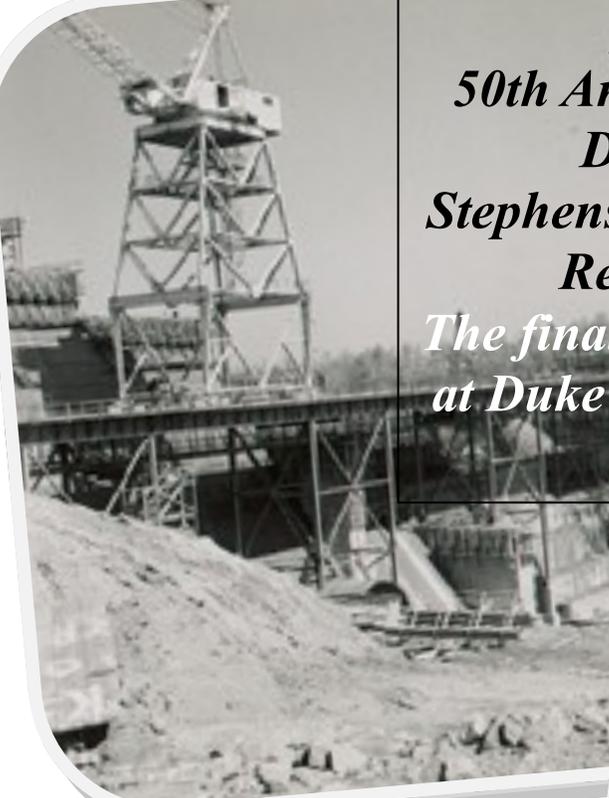


The new patio at Kresge hall



View of the lake from Kresge Hall

*In case you thought you miss it,
you still have time to see the
50th Anniversary Art Exhibit Once Upon a
Dam... A Golden Retrospective
Stephens County Venue is at the Cornerstone
Restaurant through November 4.
The final exhibition will be in Oconee County
at Duke's World of Energy from November 8
through December 1.*



First Quality Manufacturing Corporation Comes to Lake Hartwell

*By Scott Willett, Executive Director
Anderson Regional Joint Water System*



Lakeview- Intake caisson construction prior to sinking

Anderson Regional Water is a primary partner in assisting the Anderson County Economic Development Office in recruiting new businesses to the service area. As new jobs are created, more citizens move into the service area and become water customers to one of 14 member water agencies. In the

case of large industrial customers, the water supply is one of the primary factors in the relocation decision. For industrial water customers, water supply is examined from many angles: quantity available, reliability, water quality, types of service available and cost. Anderson Regional Water strives to maintain adequate water withdrawal and storage rights to meet quantity and reliability factors. The Board of Directors and management maintain policies to contain cost. Also, Anderson Regional Water works with many partners in trying to maintain the overall quality of Lake Hartwell.

In 2010, the area was being investigated by a new industrial customer, First Quality Tissue, SE LLC (First Quality). First Quality is a privately held manufacturing corporation specializing in paper and tissue products. Anderson County appeared to have many of the critical ingredients necessary to lure First Quality with it's up to one thousand new jobs and the installation of up to \$1.0 billion in capital investment. The availability of a site, development incentives, transportation networks, affordable energy, labor

training programs and a highly motivated potential workforce were strong factors in their decision. One of the final factors was water supply. As one of the key variables in their manufacturing process, reliability and cost of water were important factors.

During initial meetings, it was apparent that treated water, while readily available, would not be sufficient to the industrial needs of the manufacturing process. Anderson Regional Water stepped forward with a proposal to bring untreated ("raw") lake water to the site. This proposal provided the desired water quality and was able to meet acceptable cost parameters to help secure the deal. The proposal to bring raw water to the site helped fulfill both the immediate mission and a long-term goal of the water system by providing a second intake and potential water supply to the service area.

The new intake located at the end of Sloan's Ferry Road off of Dobbins Bridge Road on an extended peninsula used by the SC Department of Natural Resources as an enforcement boat launch area, has no immediate residential neighbors and is located with nearby access to relatively deep water making it a near ideal location for sitting a water supply intake. The new intake structure sought to **minimize the impact on the lake by using a relatively new approach to construction. The structure is actually constructed on land with**



Tunnel Boring Machine – Being placed in Intake

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only an access tunnel protruding into the lake bottom. This approach minimized the environmental impact of construction and eliminated the need for cofferdam construction and a permanent structure and restricted area located in the lake.

Once operational, the new facility will have the capacity to deliver between 24 and 30 million gallons of water per day to the service area. Over 43,000 feet of large diameter water transmission lines have been installed capable of delivering up to 18 million gallons to the industrial center of Anderson County. With up to 8 million gallons per day of contracted demand, the intake and transmission lines provide a continuing potential to attract future raw water industrial customers or conversely with the addition of a small treatment plant the potential to supply 80,000 - 100,000 future citizens with treated water. At full 24 million gallons per day operation, the maximum impact on lake elevation is less than 6 inches per year assuming zero inflows, zero wastewater return flows and no change in the Corps lake release rates. Actual impact should be significantly less, in most cases not measureable, as 12 - 15 million gallons of wastewater flows will be returned to a Savannah River basin below the Hartwell Dam that is receiving at least some natural inflow.

The overall project has provided Anderson County with a menu of water supply quality and costs that is an advantage in industrial recruitment not available to most other areas. Recognizing the potential impact on future economic development, Anderson County government contributed over \$900,000 to the project cost to fund upsizing of the transmission mains and installation of additional delivery points. The balance of the project costs are to be funded via a contribution in aid of construction agreement and federal grants.



Tunnel Boring Machine – Ready to bore into Lake

Corps Announces Adopt-A-Park Opportunities

By Kenneth Bedenbaugh, USACE

The U.S. Army Corps of Engineers operates 50 recreation areas on Hartwell Lake. These areas are evenly distributed around the lake and provide many recreational outlets for the visiting public including camping, picnicking, trails, fishing and recreational boating. No matter where you are on the Hartwell Project, you are never more than 5-10 miles from an access point to the many recreation opportunities available. Historical funding has allowed the Corps to maintain public recreation areas/facilities to very high standards, resulting in positive recreational experiences for millions of visitors. However, declining budgets are making it increasingly difficult to maintain historical levels of service and keep parks open. In preparation to effectively manage budget reductions and reduce potential park closures, the Corps is actively seeking service minded volunteers to adopt a park. Recommended parks available for adoption (listed below) include many of the smaller access areas located around the lake that require only a few hours a week to keep clean and in good operating condition. Volunteer efforts will help these areas remain clean and open to the public and allow limited funding to be directed to the maintenance of the Corps' more developed parks that experience higher use.

Hart County: Powderbag Creek, Duncan Branch, Cleveland, New Prospect, Carters Ferry, Crawfords Ferry, Mary Ann Branch, Rock Springs

Stephens County: Jenkins Ferry, Walker Creek, Prathers Bridge pull off

Oconee County: 123 Fishing Pier, Tabor, Mullins Ford, Choestoea

Anderson County: Glenn Ferry, Double Springs, Apple Island, Camp Creek, Martin Creek, 18 Mile, Asbury, Hattons Ford, Richland Creek

For more detail on the Adopt-A-Park program and other volunteer opportunities, please visit the following link: <http://www.sas.usace.army.mil/lakes/hartwell/volunteer.html> or contact Nancy Sumners at the Corps of Engineers' Hartwell Project Office, toll free 888-893-0678, ext. 329.

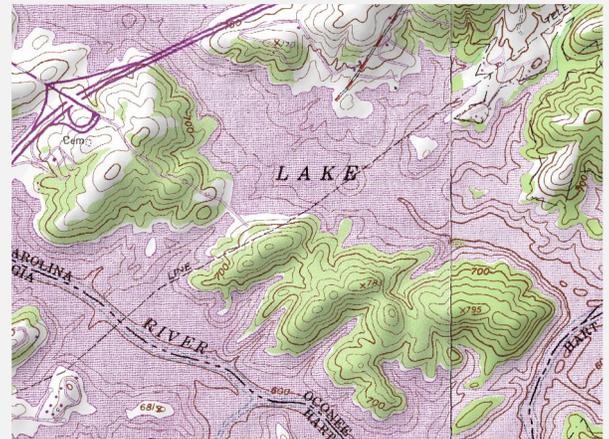
Sanctuary Pointe Project

By Doug Young

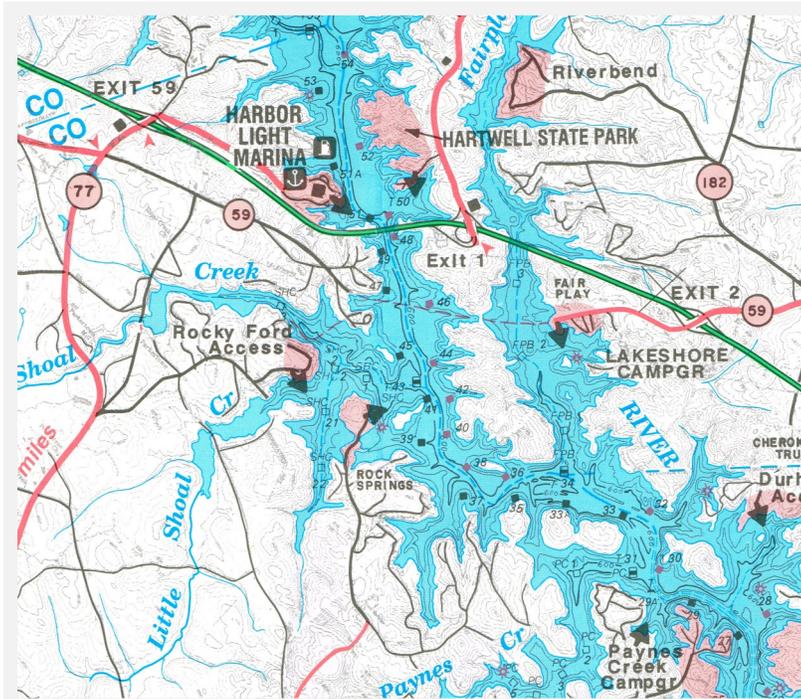
At the intersection of Interstate 85 and SC Route 11, there is a 325 acre peninsula of land owned by the Corps of Engineers and leased to the SC Department of Parks, Recreation and Tourism (SCPRT). The property has long been designated for some type of development. During 2008, SCPRT began soliciting project ideas and bids for the peninsula, as has been done several times in the past. Only one group eventually put forth a \$150 million proposal for 2 hotels, an 18 hole golf course and a full service marina with some restaurants and shops. Even though the peninsula is public land, the actual details of the plan have never been made available to the general public. The review and approval process has been ongoing for several years but no

formal project approval has actually been signed by either the Corps of Engineers or SCPRT. The Corps has, however, rejected the marina part of the plan because of the closeness of the long-established Harbor Light Marina, located in Georgia where Route 85 crosses the lake.

The benefits of the development project would be to provide a destination site in South Carolina for tourism, local employment opportunities both for the construction of the venture and for ongoing operations, additional customers for local businesses, substantial real estate tax revenue for Oconee County, and hotels where none now exist. There are also disadvantages involved with the plans. The 325 acre



property, which may be the best undeveloped land left on Lake Hartwell, is currently in the public domain but would be sub-leased to a private enterprise. The terrain is quite narrow with steep hills descending to the lake on all three sides and may not lend itself to use as a golf course. Golf courses tend to use fertilizers, pesticides and other chemicals which could get into the lake. Only one group formally submitted plans which questions the economic viability of the project. There could be significant erosion potential if the steep slopes were cleared to allow for the golf course operations. If the agreement is finally reached among SCPRT, the Corps of Engineers and the developers and approval of the plans are granted, there will have to be a series of public hearings. At that point the general public will get to review the designs for the property and evaluate if the project is suitable for the location. LHA will monitor closely the proceedings.





A Great Time Was Had By All

In spite of showers in the surrounding areas, 125 volunteers and guests enjoyed a great time at this year's Appreciation Picnic which was held at Big Oaks Recreation Area. The Lake Hartwell Association and Army Corps of Engineers

co-sponsored the event which recognized the many volunteers who participated in the Hartwell Lake Clean-up Campaign. The campaign, which is sponsored by the Corps of Engineers, began on August 15 and ended with the picnic on Saturday, September 29th, National Public Lands Day.

Kenneth Bedenbaugh, Army Corps of Engineers, reported that this year's number of volunteer hours for the Clean-Up Campaign totaled over 1250, a value of over \$27,000. The Corps also sponsors an Adopt a Park Program. According to Mr. Bedenbaugh, there were seven parks adopted this year. Volunteer hours in this program totaled 600, with a value of \$13,000. A special THANK YOU to all those children and adults who volunteered their time and efforts to helping keep the Lake clean and the parks open!

Aside from delicious hamburgers and hotdogs cooked by our Lake Hartwell Association volunteer chefs, there was a pet exhibit sponsored by the Humane Society of Greenville, free T-shirts for everyone from Rivers Alive and LOTS of raffle prizes. LHA members had collected many prizes from local businesses, non-profit organizations and restaurants which were given out to both kids and adults. Please see the list of prize donors in this issue of the newsletter.

The Hartwell Lake Clean-Up Campaign and the Adopt a Park Program will be going on again next summer. Why not plan ahead now and start getting a group together to participate in one of these worthwhile volunteer programs.

FOR THE SAKE OF THE LAKE





A Special Thanks to All the 2012 Cleanup Picnic Raffle Prize Donors

- Anderson County Safe Kids Coalition
- Anderson Keep America Beautiful
- Applebee's Grill & Bar of Anderson
- Big Water Marina
- Captain Dave's Boating World
- Carolina Watersports
- Cateechee Golf Club
- Chickasaw Trails Golf Course
- Corbett McGee's Irish Pub
- Dairy Queen of Hartwell
- Enigma Custom Auto & Sound
- Foothills Outfitters
- Fuddruckers Restaurant
- Galley Restaurant at Portman
- Gordon's Marine
- Harbor Light Marina
- Hartwell Marina & Boat Sales
- J's Marine & Camper Repair
- Lake Hartwell Fishing & Marine
- Lee's Marine
- Longhorn Steakhouse
- Outback Steakhouse
- Pinnacle Bank
- Red Lobster Restaurant
- Strickland Marine Center
- Sullivan's Metropolitan Grill
- The Dock Depot
- The Gray House
- The Peoples Bank
- Tucker's Restaurant
- Wal-Mart of Hartwell
- West Marine



Some Safety Suggestions For Kayakers

By Dan Ray

The United States Power Squadrons offer these helpful tips for kayakers. Every kayaker should have an essentials kit ready to go. Here is a roundup of some equipment that no paddler should be without.

LIFE VEST Your personal floatation device should be highly visible, adjust to accommodate different clothing weights, and allow free arm movement. It should be comfortable enough to wear zipped up anytime you are on the water.

SPRAY SKIRT A spray skirt seals you inside the kayak. One end fits around your waist and the other attaches to the cockpit coaming. Although not completely waterproof, a spray skirt keeps water out of the cockpit, protects your legs from the sun and keeps you warm in cold weather.

BILGE PUMP A hand operated bilge pump can help you remove water from your boat. Make sure that it has a float collar so it will not sink.

PADDLE FLOAT AND RESCUE SLING An inflatable bladder that slips over a paddle blade, a paddle float provides floatation and support when you reenter your boat from the water. A rescue sling is a piece of floating line made into a loop with double fisherman's knots. It is useful for rigging a stirrup to give you a boost as you climb back into the cockpit.

SPARE PADDLE AND LEASH

SIGNALING DEVICES You will need a variety of sound and visual signals for day and night use. Your stash should include a waterproof flashlight, a whistle, flares, strobes, smoke canisters, dye markers and signaling mirrors.

VHF RADIO AND CELL PHONE A VHF radio lets you put out a distress call to the Coast Guard and nearby boaters. A cell phone is best for staying in touch with people on shore.

Some of these suggestions are obviously aimed at kayakers on open waters much larger than Lake Hartwell but most are applicable to local kayakers.

Leaving the dock is optional, returning is mandatory.



Channel 4 Interviews LHA's Dr. Larry Dyck



Host, Tim Waller, and photo journalist, John Hendon, of NBC's Channel 4 in Greenville interview LHA's Dr. Larry Dyck in preparation for a fact finding excursion by boat to several Lake Hartwell islands. Channel 4 aired the one hour primetime special about Lake Hartwell as part of its *Chronicle* series. It was broadcast on September 24th. Larry is a member of the LHA Board of Directors and has been instrumental in founding and directing the LHA CoveKeepers team dedicated to keeping the lake clean and free of hazards.

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.



What is a Rain Barrel?

Save rain, save water, save money! Did you know that half of a typical household's water use is outside of the home? That's half your water bill!

Rain barrels, or similar rain catchment systems (cisterns), have been used throughout history in many different cultures. Rainwater collection systems offer many benefits to individuals who utilize them, ranging from lower water bills to a better quality water for plants (no chlorine, which some plants dislike). Rainwater collection systems also benefit the environment. The obvious advantages are less withdrawal of groundwater and conserved use of treated municipal water. The less obvious advantage of rainwater collection is that it helps reduce stormwater runoff, lessening the amount of runoff that may lead to flooding.



So how does a rain barrel work? It works by being placed near a roof or a downspout. The rain barrel is connected to the downspout either by shortening your gutter or connecting a pipe to divert rain from the roof into the barrel. Rain barrels and rain catchment systems can range from simple to complex. The simplest of barrels rely on gravity to deliver water, but more ambitious homeowners may choose to use pumps and flow controls to better meet their water needs. What is important to remember is that unless a proper filtration system is installed, water from rain barrels or other catchment systems is *not potable* for humans or pets.

What is very interesting about rain catchment systems is that there does not have to be a lot of rain to fill your barrels. This is good news for residents of the state in drought areas who may go weeks without seeing even a quarter of an inch of rain. Let's estimate that a typical roof is 1,200 square feet and four downspouts. If a rain barrel is attached to every downspout then only 0.3 inches of rain would be needed to fill each rain barrel. That's more than 200 gallons of irrigation water! Rain barrels come with a spigot near the bottom of the barrel so that a standard garden hose can be connected. Look for more information at www.clemson.edu/carolinaclear on how to build your own rain barrel or attend a Build Your Own workshop.



Stormwater Education

Because We All Live Downstream...



CLEMSON
PUBLIC SERVICE

Clemson University offers its programs to people of all ages, regardless of race, color, sex, religion, national origin, disability, political beliefs, sexual orientation, marital or family status and is an equal opportunity employer.

Update On EPA's Supplemental Remedial Investigation of PCBs

By Dr. Larry Dyck

Editors note: As the deadline for this article approached, EPA's report on their recent Supplemental Remedial Investigation of PCBs had not been released to the public. This article represents information provided by Craig Zeller, EPA Project Manager for the Twelve Mile/Lake Hartwell Superfund site, to Larry Dyck, an LHA Board Member.

A Supplemental Remedial Investigation (SRI) was carried out this summer. The purpose of the SRI was to investigate PCBs in new areas and under conditions that were not included in the original Remedial Investigation (RI) conducted back in the early 1990s. The original RI provided data on PCBs in channel sediments and in fish and formed the basis for the EPA remedy (clean-up)--

a monitored natural recover. The need for this supplemental remedial investigation arose as a stretch of the Twelve Mile River was opened-up following dredging of channel sediment and removal of two dams. Dam removal set up new conditions that needed to be investigated (free flowing river and residual floodplain banks). Agreement to perform the SRI also afforded the opportunity to analyze risks to wildlife such as fish eating birds and mammals and animals that burrow into contaminated floodplain sediment.

Scope of the SRI

The investigation took up several issues:

PCB-based health risk to canoe and kayak paddlers using the opened-up river, created by the removal of the two small dams;

PCB-based health risk to persons who might picnic along the banks of the river opened-up after dam removal;

An assessment of the total PCB-content in floodplains

remaining after river dredging was completed and dams were removed;

An ecological assessment of PCB risk to wildlife that feed on contaminated fish (note: wildlife risk was not included in the original Remedial Investigation);

An ecological assessment of PCB risk to wildlife that burrow into contaminated floodplain-banks that are exposed following dam removal.

Results of Human Health Risk to those recreating in the river

Paddlers (adults and children): EPA determined the PCB concentrations in sediments from throughout the newly opened river, as well as from sandbars and

beaches where paddlers might pullout their canoes or kayaks. Paddlers were estimated to be spending 33 days/year on the river and to potentially consume 100 mg of contaminated sediment each day.

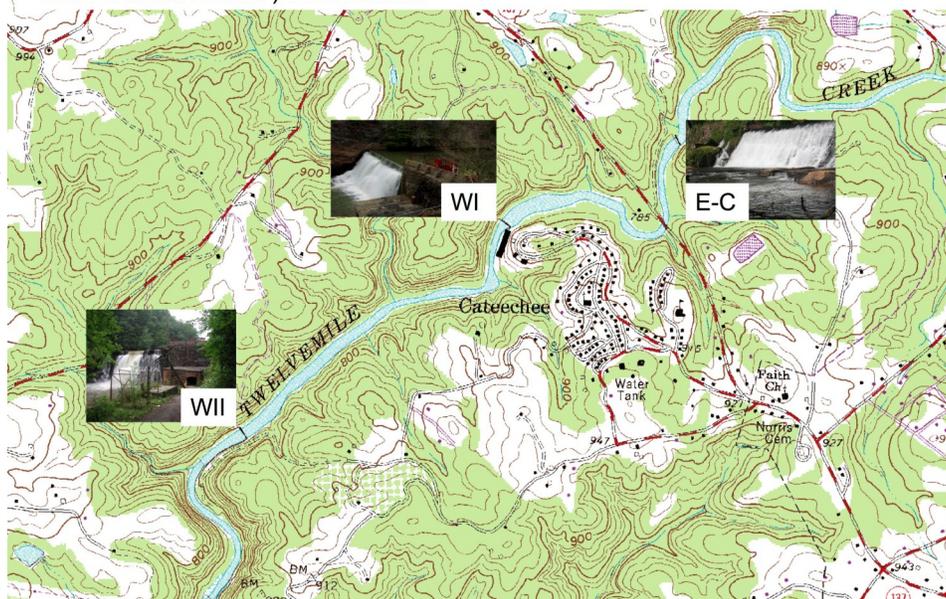
Those who picnic: this population of adults and children was estimated to have 56-day trips to the river. Like the paddlers, they too were modeled to consume 100 mg of sediment with each

visit. PCB sediment-concentrations ingested were in the range of 0.22 – 0.54 ppm (note, this value is quite low, but was expected considering sediment in the river and along bars and beaches is sandy---sand is a poor binder for PCBs).

Health risk estimates for the two recreational groups was reported at a risk-level of 1 person in 10 million to 1 person in 100 million. This is essentially a nonexistent health risk. (Red flags for human health occur when the risk is calculated at 1 person in a thousand, and precautions are invoked when risk is between 1 person in 10,000 and 1 person in a million.) **THESE RESULTS INDICATE THERE IS ESSENTIALLY NO HEALTH RISK TO HUMANS USING THE RIVER FOR RECREATION... GREAT NEWS!**

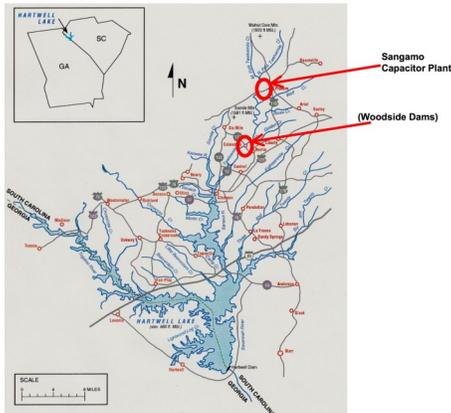
Twelve Mile River Gorge near Cateechee

WII (Woodside II) and WI (Woodside I) Dams have been removed, E-C (Easley Central Water District) Dam remains



Results on PCB concentrations in floodplains

(Background) EPA collected multiple samples along 9 transects of the floodplains that were opened-up following dredging of the river and dam removal. These floodplains had been spot-sampled in 2011 by both the Lake Hartwell Association and its environmental partners, and by Pickens County. The 2011 sampling focused on sediments with fine-grained particles that are known to retain PCBs. High PCB values of 54 ppm and 170 ppm were



obtained by the two sampling groups---these values are as high as any ever discovered in the original 1990s Remedial Investigation.

(EPA Data and tentative conclusions) EPA estimated from their data that in total about 800 lbs of PCBs occur in the 5-6 acres of floodplain evaluated. PCB concentrations varied among samples, most were in the 1-5 ppm range, a small percentage in the 10-15 ppm range and the highest concentration detected was 54 ppm. Interestingly, the highest PCB concentration was a variety of PCB that was not utilized by the Sangamo electrical plant, the company that is responsible for polluting the Twelve Mile and Lake Hartwell Superfund site. **THESE DATA WILL NEED TO BE EVALUATED RIGOROUSLY IN ORDER TO DETERMINE WHAT ACTION-RECOMMENDATIONS ARE REQUIRED.**

Assessment of PCB risks to wildlife

(Fish Eating Animals) EPA's Office of Research and Development is undertaking modeling studies. The studies use two animal species; a mammal (mink) and a bird (the kingfisher), both eat fish as their primary food source. The model will use PCB concentrations found in fish located in the Twelve Mile River arm of Lake Hartwell. Using local fish contamination levels the model will incorporate impacts to wildlife discovered from another

contaminated system, a waterway downstream of a major PCB manufacturing plant in Anniston, Alabama. WE AWAIT THE RESULTS OF THESE MODELING STUDIES.

(Burrowing Animals) This is a new wrinkle in the evaluation of wildlife. Now, with the removal of the dams, PCB-contaminated floodplains are left as uplands and will become home to new groups of animals. These are burrowing animals such as earthworms, moles, voles, mice and shrews. EPA will undertake a modeling evaluation of burrowing animals using the shrew as the primary subject and then follow the movement of contamination from the shrew to the predatory red-tailed hawk. The evaluation will use PCB-concentration data from the transect studies and rely on results obtained from studies of the Kalamazoo River where a dam was removed downstream of PCB-using industry. **WE AWAIT THE RESULTS OF THESE STUDIES.**

Final Comments

Much remains to be learned from the details of the Supplemental Remedial Investigation. We look forward to reviewing the document.

The Lake Hartwell Association is pleased that we have attracted the attention of EPA to continue its investigation of PCBs in our lake and one of its tributaries. It is through the vigilance of local people who belong to organizations like LHA that questions about contamination are raised and protection of our natural resources is advocated.

GOT EMAIL?

Please remember to update your email address to make sure you're getting the latest LHA news, meeting notices and action alerts!



Not sure we have your current id? Send an email to membership@lakehartwellassociation.org

LHA respects the privacy of its members and does not share contact information, including email addresses, with anyone.

LHA Membership: Welcome Aboard & Thank You!

We are grateful to all of our new and renewing members! Your ongoing support is a source of encouragement to the LHA Board and other volunteers working to protect the beauty and value of Lake Hartwell.



Please join us in welcoming the following members who have joined LHA since the last newsletter.

New Family Memberships

- | | | |
|--------------------|--------------------|-----------------------------|
| • Jack Anderson | • Larry Grissom | • Theodore J. Mish |
| • Michael Beckham | • John Hinds | • Brenda Owen |
| • Shirley Brannon | • Bonnie Holaday | • Nan & Avis Shubert |
| • William Campbell | • Angie Hunter | • Russ Smiley |
| • Chuck Carson | • Patricia Jensen | • Ron & Mary Lue Taylor |
| • David Chastain | • Terry Jones | • Larry & Gretchen Torrence |
| • Jackie Cox | • Stephen Langford | • Terry Williams |
| • Chase Deits | • James Lizza | • Joe Zega |
| • James Dennis | • Jack Lyle | |

New Community/Business Memberships

- Anderson County Sheriff's Office – Sheriff John Skipper
 - BuyLakeHartwell.com, LLC – Don Cleveland
 - Greg & Barb Collins
 - IPS Supply, Inc. - Lynn McLay

Special Donations

We also wish to thank the following LHA members whose generous special donations give additional encouragement, and much needed support, to the LHA volunteers.

- | | |
|------------------------|---------------------------|
| • Dorothy S. Williams | • Robert Jordan |
| • Carlton Mell | • Greg C. & Paige Ashmore |
| • Mark Ashmore | • Cory P. Schilling |
| • Jack & Cindy Plating | • James Rogers |
| • Marilyn Martin | • Terry Williams |

Welcome aboard & thank you all for your ongoing support
 “For The Sake Of The Lake”

**LHA
COMMUNITY
&
BUSINESS
PARTNERS**

*Please join us in
thanking the
Community and
Business members
that generously
support LHA!
Their business
contact information
and website links are
available on the LHA
website!*



- Ada Lee Birnie
- Aesthetic & Restorative Dentistry - James M. Groeber, DDS PA (864) 224-7812
- American Services, Inc. of Greenville, SC - Henry Harrison (864) 292-7450
- Anderson Area Chamber of Commerce - Lee Luff (864) 226-3454
- Anderson County Sheriff's Office – Sheriff John Skipper (864) 260-4400 *
- Anderson Regional Joint Water System - Scott Willett (864) 231-5987
- Andrew Adams, DDS (864) 226-6278
- Big Water Marina - Jane Davis (864) 226-3339
- Bill Brissey Real Estate - Bill Brissey (864) 226-7380
- Brysan Utility Contractors, Inc. - Christopher Barber (770) 985-4606
- BuyLakeHartwell.com, LLC – Don Cleveland (864) 940-5444 *
- Byers Precision Fabricators - Roger Byers (828) 693-4088
- C. Dan Joyner Company - C. Dan Joyner (864) 242-6650
- Carola Dauchert Real Estate LLC - Carola Dauchert (864) 226-5473
- Carolina WaterSports - Chad Hodges (864) 332-0090
- Chickasaw Point Property Owners Association - Doug Young (864) 972-3680
- Clearwater Shores Community - Gary Bruce (864) 304-3656
- Coldwell Banker Fort Realty - Fort Oglesby (888) 409-5054
- Collins Dock, Inc. - Tammy Collins Smith (864) 225-2881
- Connie & Robert Banks
- Custom Dock Systems - Don Haynie (864) 225-2393
- Currahee Club – Andrew Ward (706) 827-1700
- Dispute Resolution & Mediation Services - Herb Burnham (864-287-1568)
- Docks South, LLC - Bill Griggs (770) 377-3625
- Eric Nilsson
- Floatair Boatlifts, Greenville, SC - R. J. Foster (864) 467-1806
- Grady's Great Outdoors - John Phillips (864) 226-5283
- Greg & Barb Collins *
- Hart County Chamber of Commerce - Kiera Partlow (706) 376-8590
- Hartwell Lake News - Angie Wilson (864) 934-3952
- Hartwell Marina & Boat Sales - Brant Tew (706) 376-5441
- IPS Supply, Inc. - Lynn McLay (864) 226-1588 *
- J&S Shoreline - Angie Johnson (706) 377-4891
- JC Sports - Jeff Crouch (864) 882-4212
- Jerilyn Wiech - Keller-Williams Lanier Partners (706) 244-8211
- Kroeger Marine Construction, Inc - Dave Kroeger (864) 882-7671
- Lake Hartwell Sail & Power Squadron - Bert Baxter (864) 601-1660
- Lakeside Chiropractic, LLC - Dr. Cindy Pradhan, DC (864) 224-7660
- Matthew Nasrallah, Attorney-at-Law (877) 266-3694
- McCullough Properties – W. E. McCullough (864) 882-4682
- Mike & Sherry Hayes
- Mike Sanders Boat Storage - Michael W Sanders (864) 231-0010
- Motivational Sports Products - Terry Swain (864) 972-0690
- New Harbor Light Marina - Larry Rich (706) 356-4119
- Old Stone Tractor Company – Ben Griffen (864) 225-4639
- Palmetto Lakeside Services - Lee Thompson (864) 933-0707
- Palmetto State Transportation Co. Inc. – Bob Dumit (800) 269-0175
- Paradise Point Inc - William Roberts (404) 261-5003
- Paul & Susan Meng
- Phil Jewelers - Phil Silverstein (864) 226-7635
- Pintail Point Property Owners Assn. - Sheree Moats (864) 622-2265
- PIP Printing - Ovid Culler (864) 225-1471
- Portman Marina - Dave Freeman (864) 287-3211
- Southern Industrial Hygiene & Safety, LLC – Margaret Philbin (770) 375-1327
- State Farm Insurance – Terence Roberts (864) 231-9312
- Strickland Marine Center - Dave Strickland (864) 225-0145
- Swaney's Point Association - Danny Shook (828) 242-1612
- T N Construction - Thad Strickland (864) 574-2113
- Teal Communications, Inc. – David Teal (770) 935-1177
- The Hartwell Sun - Robert Rider (706) 376-8025
- Tom Miller Keller-Williams Lanier Partners (678) 469-9917
- Tugaloo Property Owners, Lavonia, GA - R. Grimm
- USA Corps of Engineers – Tanya Grant (888) 893-0678
- Upstate Forever - Brad Wyche (864) 250-0500
- View Point Lot Owners Association
- Ward S. Stone, Jr. (864) 329-9266
- Watermark Realty – Pat Rowland (706) 356-2121
- William Callahan, DDS (864) 647-9000
- Water Education & Environmental Center – Charlie Gibson (864) 646-7729

Thanks for YOUR Support!

*New members



LAKE HARTWELL ASSOCIATION, Inc.
P. O. Box 2122
Anderson, SC 29622

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

LAKE HARTWELL ASSOCIATION

P.O. Box 2122, Anderson, SC 29622



Membership Application

Fall
2012

You may mail this Membership Application form with your check to LHA at the above address, or visit the LHA website (see above) to make a secure credit card payment!



Membership Information: Check all that apply

- New Renewal Address change Amount Paid \$ _____ Date _____
- Family \$35 Community, Association or Business \$100
- Gift Membership Additional Donation \$ _____

Name _____

Spouse's Name *(If Family Membership)* _____

Mailing Address _____

City _____ State _____ ZIP _____

Phone (H) _____ (W) _____ (Cell) _____

E-Mail _____

Occupation(s): Yours _____ Spouse's _____
(If retired, check here and give former occupations above)

Lake Address _____ County _____
 (*or Gift Recipient's address) _____

Pay by Check: Make checks payable to **Lake Hartwell Association, Inc.**
 Send to address above.

Give Something Back To The Lake.

Please select committees on which you would be willing to serve.

- Legislative
- Program
- Financial
- Lake Cleanup
- Safety
- Technical
- Membership
- Publications
- Covekeepers
- Other