

Life on the Lakes

Information About Lakes Hamilton & Catherine

Perry Wildflower Meadow Overlook at Garvan Gardens to Offer Expansive Views of Lake Hamilton

By Marla Crider, Garvan Gardens

Lake Hamilton boating enthusiasts may see a few changes taking place this spring and summer along the western shore of Garvan Woodland Gardens' 210-acre peninsula. Plans are underway to create a more gracious and inviting place to overlook the wildflower meadow that incorporates sweeping views of Lake Hamilton, including Electric Island, and Mt. Riante in the distance.

According to the Gardens' resident landscape architect, Bob Byers, the idea of the overlook is to provide a western destination in the main garden. The project will include a flagstone terrace that is approximately 1,500 square feet and brings visitors 30 feet out into a one-acre planting of wildflowers, featuring more than 20 different varieties with new ones added in the spring.

Another goal of the project is to provide a spot to rest and enjoy the views, as well as provide shelter for visitors when needed. A canopy, 30 feet in diameter, will provide shade and protection from the elements and be fashioned of wood and steel, reminiscent of existing buildings in the Gardens.

Prolific Garvan Woodland Gardens volunteers and benefactors Stuart and Diana Perry, who reside on Lake Hamilton, are funding the project that will also carry their name – the Perry Wildflower Meadow Overlook. The Perrys are so actively involved in helping create the newest garden venue that it isn't unusual to find them pulling weeds and preparing the land for the next phase of development.

Long-term plans include restrooms, an event terrace, and basic catering facilities for accommodating small-scale weddings, receptions, and other types of events. The Gardens currently host approximately 200 weddings per year, most of them in the wood-and-glass Anthony Chapel.

"I can easily envision a small ceremony at the overlook with a brilliant, orange sunset reflecting in the lake that will provide a very memorable backdrop," said the Gardens' wedding supervisor, Suzie Burch. "There's no doubt that it will be a popular venue."

Surrounded by 4.5 miles of Lake Hamilton shoreline, Garvan Woodland Gardens, a department of the University of Arkansas' Fay Jones School of Architecture, provides docking facilities on the northeast side of the peninsula for those who would like to visit the Gardens by boat. Folks can either walk the trail to the main garden or call the Pratt Welcome Center and dispatch a golf cart to pick them up.

For more information, contact the Gardens at (501) 262-9300, (800) 366-4664 or visit the Web site at www.garvangardens.org.



Lakes to Refill - March 6th

The spring refill of lakes Hamilton and Catherine will begin Saturday, March 6. The lakes will rise about 6 inches per day until they are back to the normal summertime levels on Sunday, March 14.

Lakes Hamilton and Catherine are annually drawn down in the winter to facilitate shoreline maintenance and inspection and to help control nuisance aquatic vegetation. Our federal license requires that the lakes be refilled by March 15th each year to prepare for the fish spawning season and the summertime recreation season.



www.entergy.com/hydro

February, 2010

Introducing the New Permit Booklet

Our guidelines have been updated and so has our permit application. Many of you might be familiar with our old application – a blue or black pocket folder that contained the guidelines and application in it. Well it looks a lot different today! To help increase understanding of our guidelines and specifications, we have developed a new application booklet that includes more information, drawings and photographs. It is a 32-page booklet with the applications inserted as tear-out sheets in the middle. Both the facility and bank stabilization applications are included, as are two sets of neighbor consent forms.

Updates include: illustrations of shielded light fixtures and cut-in dock design; information like the new “No Fee” to permit riprap in front of existing seawalls; an article on understanding your shoreline boundaries; and more graphics.

Another recent change that many homeowners might not be aware of is the loosening of the restriction on the size of swim docks attached to boat docks. They were once limited to 10 feet wide, but, can now be requested to be larger than that as long as the footprint of the dock still meets the guidelines for your particular location.

As before, you can find the application online at www.entergy.com/hydro or request to have one sent to you in the mail by emailing or calling us with your mailing address.



Heavy Rain and High Water

Start preparing; it looks like it is going to be another wet spring. If you remember during last spring's heavy rains, several docks and other large objects floated free from the shoreline. Some even passed through open spillway gates at Remmel Dam.

Unlike Lake Ouachita, lakes Catherine and Hamilton were not designed for flood control, meaning they can take on only a limited amount of water before having to release it downstream. They were built in the '20s and '30s specifically for hydroelectric purposes.

When heavy rains come, lake levels can rise very quickly and Entergy Arkansas, Inc. has no choice but to pass water downstream through the spillway gates to prevent the lake from overtopping the dam. When the spillway gates are open, there can be a very strong current near the dams. Also, heavy rains can cause water levels to rise in the backs of coves and in main tributaries.

To prepare for heavy flows, be sure to anchor your dock to the shoreline with a strong cable or it might just float away! Also, make sure your floating dock or your boat in a fixed dock is able to rise and fall with the lake.

When Entergy Arkansas gets a forecast for potentially flood-producing rains, we may drop the lake by one or two feet just before the storm hits as a precaution. Even this small drawdown can sometimes buy us just a little more time and help us keep the lake from rising to disruptive levels.

Historic lake levels as measured at the dam have exceeded 404 feet above sea level on Lake Hamilton and 317 on Lake Catherine. Fortunately, we have not seen the water this high in some years. If some of the rainfall that was forecasted in 2009 had actually occurred, we very well could have. You never know what the future holds. Keep an eye on the forecast, and be sure that all your facilities are secure and well-anchored.



Remmel Dam

Dock Lighting Reminder

To improve boating safety, we recently revised our permitting guideline for dock lighting. It states:

“Only low-watt yellow-colored lighting that does not create a hazard to boaters is allowed on any type of “facilities” (this includes boardwalks, decks, piers, swim docks and boat docks). All lights are to be pointed downward and shielded to prevent visibility of the bulb within 50’ of the lake side of the facility. Motion activated lighting is preferred. Two-inch diameter blue reflectors placed at 10-foot intervals along the docks sides are recommended. Red, green or white lights shall not be used as they could be confused as navigational lights.”



'Twas the Night Before Christmas...

Most folks were cuddled up around the tree on Christmas Eve drinking hot chocolate and eating cookies, while some Entergy Arkansas, Inc. personnel were at work managing rising lake levels. The heavy rains that fell December 23 and 24 required hydro operation employees to put on their waterproof Santa hats and man our Emergency Response Center when the area watershed received an average of 6-inches of rainfall.

Hydro operations' Emergency Action Plan calls for activation of our Response Team when flows exceed 15,000 cubic feet per second (cfs) from Rempel Dam to maintain lake levels. Before the event was over late on Christmas Eve night, flows had peaked from Rempel Dam at approximately 68,000 cfs. This was the eighth activation of the Team during a very, very wet 2009.



To assist in providing early warning of impending high flows into the lakes, Entergy Arkansas installed a system of stream level gages in the mid 1990s. Over time, this system has been continually upgraded with the latest technology. We use this information, along with other resources, to help us better manage the lake levels. Besides the National Weather Service, our best indicators of an imminent high-water event are the gages on the Big Mazarn. This creek is one of the main inflows to Lake Hamilton, outside of the Ouachita River itself. Our monitoring system allows us to watch the trend of lake level changes to help us determine if the lake is really rising or falling, as opposed to just a wave.

This same lake level and gage data is available to the public as well. It is posted to a website on the Internet where you can access it by clicking on a link on our web page at www.entergy.com/hydro, or, by visiting the site directly at <http://contrail.onerain.com/login.php>. Once you are at OneRain's website, use the word "entergy" as your user name and "guest" as your password to login. This will open up a page where you can click on "Maps" to see an interactive map of lakes Hamilton and Catherine and their surrounding area. Here you can click on one of the pin icons to see data for that site or click on "Sites" to simply see the list of gage locations. Stream level data is updated every 30 minutes or more often if a stream level is changing fast. Lake level data recorded at the dams is updated every 5 minutes.

If you are interested, there is also quite a bit of historical data on the OneRain website. For instance, you can click on December 24 and see how the creeks and lakes reacted to the heavy rains we received this past Christmas Eve. We hope you find this site useful. Feel free to send any comments you might have to Ted Smethers at tsmethe@entergy.com.

CFS, What's That?

We frequently communicate the rate of water flow through our dams during generation and through our spillways during high water events. We use the units of cubic feet per second (cfs) to measure the amount of flow. This is the movement of a volume of fluid per second.

A cubic foot can be visualized as about the size of a milk crate. It equals about 7.5 gallons of water or any other fluid. So if we say the flow rate is 10,000 cfs, that's 75,000 gallons of water passing through the dam each second. This sounds like a lot but it is still a small flow rate because the Ouachita River is a relatively large river.

The following flow values have been observed or estimated to occur through Carpenter and Rempel Dams. These provide some relative flows to help you understand the magnitude of the flows that we communicate throughout the year.



Carpenter Dam

- 3,600 cfs = Full Generation/Normal flow release at Rempel
- 9,600 cfs = Full Generation/Normal flow release at Carpenter
- 5,700 cfs = Flow through one Rempel gate wide open at normal lake level
- 17,000 cfs = Flow through one Carpenter gate wide open at normal lake level
- 15,000 cfs = Trigger to activate Emergency Response Team
- 30,000 cfs = Bank full on Ouachita River below Rempel Dam & trigger for NWS to communicate Flood Warnings downstream of Rempel via NOAA Weather Radio
- 67,900 cfs = 2009 record peak flow on December 24th
- 80,000 cfs = 2008 record peak flow on September 4th (Hurricane Gustav)
- 193,000 cfs = Calculated peak flow of May 1990 flood

For more information on where you can go to access the flow rates at the dams see the article titled 'Twas the Night before Christmas, above.

Life on the Lakes Quick Bits

Did you know...

(the Permitting Edition)

- Permits for new private facilities are good for only one year and, if not installed, you will need to either file for an extension or request a new permit;
- Restacking stones or patching holes in the mortar of a seawall does not require a permit, but any work that requires resetting a footer or any digging in the lake bed does;
- Moving a dock from one location to another (excluding relocating for drawdown conditions) requires a permit to be approved before any relocation occurs;
- Heavy machinery, like bull dozers, are not allowed in the lake bed for construction projects;
- Dredging or removing silt from the lake bed requires a permit and it can take up to four months for it to be reviewed, so you need to plan ahead;
- Adding riprap in front of an existing seawall does not require a permit fee, but a permit must still be requested and filed with our office;
- Floating docks located in areas of high flow need additional stabilization and may require concrete "dead men" and "stiff arms" for anchorage;
- New buoys are no longer permitted in residential areas;
- Floating docks require seven feet of water depth at the dock to be permitted at that location;



We often get questions about permits and shoreline issues, and so we have established a new FAQ area on our website. Check out our new listing of FAQs online at www.energy.com/hydro. We will be working to update this list on a periodic basis with timely material so check back and check back often.



Cash for Trash Bash - March 6 -

The non-profit organization Trash Bash Council, Inc., in conjunction with Hot Springs/Garland County Beautification Commission, is in the process of organizing the 4th annual "Cash for Trash Bash" event to do some spring cleaning of the exposed lakebed and shoreline.

This innovative program links a great environmental initiative and an opportunity to raise funds for your organization. Registered groups can earn up to \$200 from Trash Bash Council, Inc. for collecting trash from the lakes. Groups can also solicit additional sponsors to earn even more cash for their cause. In addition, organization members will earn volunteer hours for obtaining college scholarships. The funding for this event came, in part, from an environmental grant program sponsored by Entergy Arkansas, Inc. and other local organizations.



To register or become a sponsor, call (501) 623-7871. Donations to Trash Bash Council, Inc. may be tax deductible. To learn more about ways you can help make our area beautiful, call Adam Roberts at (501) 623-7871 or visit www.hsgcbc.com.

Do You Know Where your Permit is?

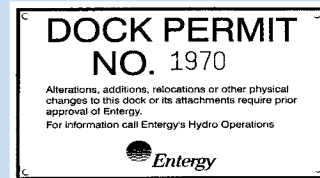


NOTICE: Everyone with a facility on the lake, be it a boardwalk or boat dock and everything in between, should have a facility permit in their name. Please note that just because there is a dock permit tag on the facility - it does not mean it is a properly permitted dock. To be a permitted dock it must be listed in the current property owner's name in Entergy Arkansas, Inc. records.

Each year we are working towards the goal of ensuring that every facility on the lake is correctly permitted. We do this by comparisons of our records with the county assessor data, and, through an agreement with the local Realtors and title companies to ensure that dock permits are transferred at point of sale. Essentially, whenever a lake property that has a facility is listed for sale; the dock permit is part of the disclosure to be provided to the buyer. So don't get caught on your closing date without a copy of a valid permit in the seller's name.

Ideally potential buyers should have the opportunity to review the permit prior to closing to ensure that it matches the facility installed. If it doesn't match, it creates problems for both the buyer and the seller. The best way to avoid any trouble with the sale of your home is to be sure that you have a copy of your permit on hand and that it correctly reflects the facilities installed on your site.

If you have any questions, need to have your permit corrected or need a copy of your current permit - you can call 501-844-2148 ext. 3 and leave a detailed message with your lake address.



The Battle of the Debris!

When the lakes refill this spring, we can plan on seeing a natural increase in the amount of floating debris in the lakes. This occurs from a combination of two things. First, heavier rainfall during the springtime washes trees, limbs, leaves, and litter into the lakes. Second, the debris that rested on the exposed shoreline during the drawdown will dry out and float as the lake level rises.

This will create floating obstacles in the water and eyesores on the lake that may be present until late spring. The debris tends to travel in large “mats” that move wherever the winds and currents take them. The coves on the lake tend to be the biggest victims because debris floats in and doesn’t go away. Rest assured it will eventually sink, disperse or float downstream.



We have emphasized this year that putting yard debris in the lake and on dry lake bed is not permitted. Hopefully, this will lead to an improvement in the amount of floating debris compared to past years.

As a measure of goodwill, lakefront property owners who are unable to remove large logs can contact Entergy Arkansas, Inc. for assistance. To receive assistance, a log must be over 10 inches in diameter and longer than 25 feet. Also, the log must be located at a boat ramp or where it can be reached with equipment from shoreline that is accessible by Entergy Arkansas. To contact Entergy Arkansas for debris assistance, call (501) 844-2148.

Hydro Support Office Hours

To improve plant security and the safety of everyone on-site, including our customers, only persons with appointments will be allowed to enter the Lake Catherine Plant site. We will be open for appointments Monday through Thursday 8 a.m. – 4 p.m. The office will be closed to visitors and deliveries on Fridays. We have an information kiosk and a drop box at our security gate for pickup and delivery of permit information.

If a meeting is necessary, an appointment can be arranged by calling the Hydro Support office at (501) 844-2148.

Dying to Reproduce?

In previous years, around the end of April we have received numerous calls about dead fish floating in various parts the lake. Last year, someone saw a group of 18 dead fish floating in a cove on the southeast end of Lake Hamilton, and there were similar reports in other areas. We report these types of calls to the Arkansas Game & Fish Commission’s fisheries biologists to investigate. The dead fish usually turn out to be “Spotted Suckers” according to the local biologists. These fish have sometimes been confused with striped bass because they both have rows of spots on their sides.

The biologists say it is common in the area lakes for suckers to perish due to natural causes during the spring spawning season. Biologists also observed dead sucker fish in the Saline, Caddo, & Ouachita Rivers last year. Some of the fish had wounds that were probably associated with spawning stress in conjunction with lower water flow. Record high temperatures last April may have also contributed to the prevalence of the die-offs. According to the Arkansas Game & Fish Commission biologists, this is a “natural phenomenon” and should not be cause for concern. The Game & Fish website is www.agfc.com.

Spotted Sucker



Striped Bass



Want the Latest Lake News?

Go to www.entergy.com/hydro and subscribe to our Email service. We use this service to share important information concerning lake related information such as: safety related issues, permitting information, drawdown and refill schedules, generation plans, emergency weather related drawdowns, policy changes and other time sensitive information.



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Help Us With Our Mailing List

Please contact Entergy Arkansas, at
 844-2148 or send an e-mail to
kbogar1@entergy.com
 with any corrections.

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What Requires a Permit?

All shoreline facilities, structures and ground-disturbing activities on Entergy Arkansas, Inc. Project 271 lands or water require a permit from Entergy Arkansas prior to installation or placement. Some of the most common types of facilities, structures and activities that require a permit include:

- Boat docks
- Piers
- Landings
- PWC ramps
- Decks
- Walkways
- Boardwalks
- Bridges
- Boat Ramps
- Steps
- Seawalls
- Riprap
- Fill/dredge
- Excavation
- Roads
- Waterlines
- Buoys
- Utility facilities
- Water withdrawal
- Heat/Air exchange piping
- Inflatable platforms/trampolines
- Boat lifts (when outside the slip)



To learn more about Entergy Arkansas' shoreline facility permit program and the requirements and specification for private facilities on Entergy Arkansas' property, visit our web site at www.entergy.com/hydro or contact us at (501) 844-2148.

Do you know of lakefront property owners who are not receiving this publication?

Send their names and addresses to:

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