



LOUISIANA DRINKING WATER PROTECTION PROGRAM



2014 newsletter

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LAKE BRUIN GETS A CLEAN BILL OF HEALTH FROM RECENT FECAL COLIFORM STUDY

Located in Tensas Parish in northeast Louisiana, Lake Bruin is an oxbow lake of the Mississippi River known for freshwater fishing, water sports and fine outdoor living in a peaceful setting highlighted by mossy cypress trees. The lake is over 3,000 acres in size and is the source of drinking water for approximately 6,600 residents served by three public water systems: the Lake Bruin Water System, the Town of Newellton Water System, and the Tensas Water District Association. A portion of the land beside the lake is owned by the state, which operates Lake Bruin State Park. The remainder is privately owned with many vacation homes and permanent residences, all of which utilize on-site sewage treatment systems. Local residents raised concerns that these systems could be negatively impacting the lake. The Louisiana Department of Environmental Quality (LDEQ) routinely collects samples from Lake Bruin at a sample location on the north side of the lake, near Newellton. Based on data from this sampling, the lake is fully supporting all water quality standards set by LDEQ. However, to specifically determine any impact of on-site sewage treatment systems, LDEQ conducted additional sampling of the lake.



Jesse Means (LDEQ) and James Hendrix (LSU Cooperative Extension Service) prepare for water sampling on Lake Bruin.



LDEQ Geologist Jesse Means prepares a field blank for a sampling event on Lake Bruin.

These samples were taken near residences, vacation homes/camps, unoccupied areas, and at various points along the centerline of the lake (see map below). Sampling was conducted prior to and following the Memorial Day holiday weekend, when vacation homes are usually occupied thus potentially increasing sewage loading into the lake. Samples were collected at 18 locations on May 15, May22, and May 28, 2014.

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Sample locations in Lake Bruin.

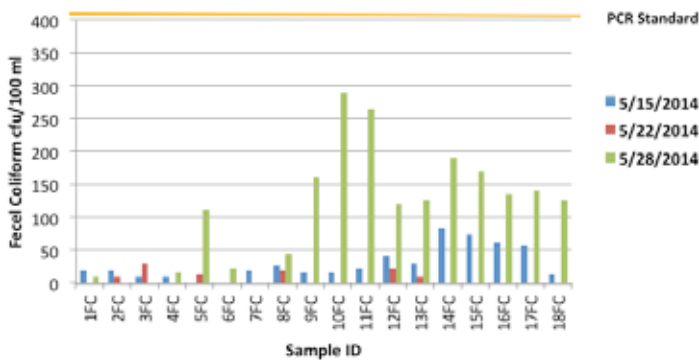
The samples were analyzed for fecal coliform and optical brighteners. Fecal coliform are bacteria that live in the intestines of warm-blooded animals and are an indicator organism for potential sewage contamination. Optical brighteners are compounds added to laundry detergents that emit light when exposed to ultraviolet light, brightening the appearance of the fabric. If sample results show high levels of fecal coliform along with high levels of optical brighteners the presence of sewage is indicated.

Sampling techniques followed LDEQ's Standard Operating Procedure for sample collection. Fecal coliform samples were analyzed by a contract laboratory using the membrane filter single step method 9222 D and results were reported as fecal coliform colonies/100 ml. Optical brightener samples were analyzed by Nicholls State University for initial optical brightener fluorescent units (OB FU), 5 minute percent reduction of OB FU and average of initial and 5 minute percent reduction. If the average OB FU is greater than 15, it is considered to be positive.

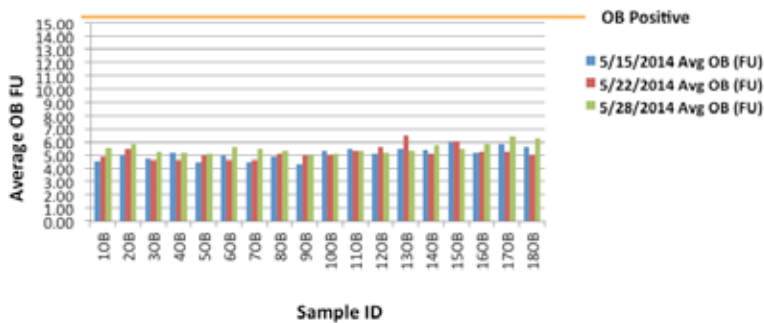
All samples collected were below LDEQ's primary contact recreation standard (swimming standard) of 400 colonies/100 ml for fecal coliform and were negative for optical brighteners. The May 28, 2014, sampling was conducted after Memorial Day during a rain event. It showed the highest fecal coliform levels, but optical brighteners were not detected. Fecal coliform levels usually increase in most water bodies during a rain event due to runoff, which could account for the elevated levels on this date.

Based on the sample results, it does not appear that on-site sewage treatment systems are negatively impacting the water quality in Lake Bruin. However, in order to preserve the water quality of the lake, it is imperative that property owners maintain their sewage treatment systems. A public education campaign on proper on-site sewage treatment system maintenance is highly recommended. A possible long-term consideration is the establishment of a community sewage treatment system, thus eliminating the need for property owners to maintain their own systems.

LAKE BRUIN FECAL COLIFORM SAMPLE RESULTS



LAKE BRUIN OPTICAL BRIGHTENER SAMPLE RESULTS



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COMMISSIONER OF CONSERVATION AMENDS SOUTH CADDO GROUNDWATER EMERGENCY ORDER: RESTRICTIONS SUSPENDED WHILE WATER LEVEL EVALUATIONS CONTINUE

DNR Press Release - On July 1, 2014 Louisiana Commissioner of Conservation James Welsh announced that the aggressive groundwater management actions taken in south Caddo Parish have proven effective, and aquifer monitoring in the area has shown a steady trend of water level rebound. Based on the evidence of recovery in the Carrizo-Wilcox and Upland Terrace aquifers, Welsh has amended the agency's groundwater emergency order, in place since September 2011, to relax usage restrictions in the affected areas around Keithville and through the South Shreveport-Ellerbe Road corridor.

The original order suspended groundwater use in these areas for some types of users, and imposed strict conservation requirements on all others. It was based on an evaluation of local conditions after water wells in south Caddo Parish began to run dry during an extended drought. Since that time, continual monitoring of local aquifers has shown an ongoing trend of recovery, with current groundwater measurements not only approaching pre-drought levels, but also maintaining a positive rate of improvement in the wake of an exceedingly dry summer in 2013.

Commissioner Welsh said the provisions of the emergency order were necessary to ensure water supply for essential needs in south Caddo Parish until drought conditions lessened and more normal rainfall patterns returned. He commended the people and businesses in the area for heeding the call to conserve and cooperating with the plan of action for managing groundwater use. "On the whole, the people of south Caddo responded positively to a difficult situation, realizing that the limitations on water use were to the ultimate benefit of themselves and their neighbors, to protect the resource for the future," Welsh said. He stressed that he was not lifting the order entirely, but only relaxing some of its restrictions. Residents, businesses, and industrial operators in the areas covered by the emergency order can resume normal water use for the present, but the order is still in place, pending continued evaluation of groundwater levels by the Office of Conservation, in coordination with the United States Geological Survey (USGS) and LSU-Shreveport's Red River Watershed Management Institute.

"The aquifers in the area produce quality water, but have constraints on their recharge ability and have been under stress the past few years," Welsh emphasized. "People and businesses in the area must still make sound choices in water use and water conservation. Conservation agents will continue to cite wasteful activities, such as letting lawn sprinklers send large amounts of run-off into the street. Further, we will continue to require prior notice and undertake strict assessments of requests for new wells from anyone—homeowner, real estate developer, farmer, or oil and gas operator—in the established Areas of Interest."

Gary Hanson, director of LSU-Shreveport's Red River Watershed Management Institute, which operates jointly with Caddo Parish a network of groundwater monitor wells in the south Caddo area, supports the decision to suspend the restrictions but also to keep the order in place as a precaution. "We are nearly back to the levels that we saw before the drought of 2010-2011, and that's encouraging," Hanson said. "Residents in the affected areas are now more aware than ever about the limitations of our local aquifers and that should continue to mitigate overuse going forward. Continued active monitoring, combined with smart water use on the part of each and every consumer, will keep us in a manageable situation," he added.

The amended groundwater emergency order, specific to water use from the Carrizo-Wilcox and Upland Terrace aquifers within the Keithville and South Shreveport-Ellerbe Road Areas of Interest, maintains the two restrictions as Welsh described above:

- All persons in the Areas of Interest shall continue to implement judicious use of ground water withdrawn from Carrizo-Wilcox and Upland Terrace aquifer system water wells by practicing sound water conservation measures.
- No person shall install a new water well in the Keithville or Ellerbe Road Areas of Interest to produce water from the Carrizo-Wilcox or Upland Terrace aquifers for any purpose without advance written approval of the agency except for replacement wells as defined in Order No. ENV 2011-GW014.

Violations of these restrictions are enforceable by law and may include the imposition of civil penalties.

Additional information is available online at the Office of Conservation's South Caddo website, <http://dnr.la.gov/southcaddo>, which features maps, graphics, charts, and other explanatory material about local aquifers, water use in Caddo Parish, and sound water conservation practices.

DID YOU *know?*

A leaky faucet that drips at the rate of one drip per second can waste 3,200 gallons of water per year.

Source: EPA

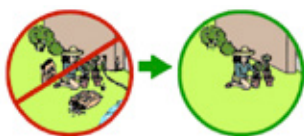
LOUISIANA DRINKING WATER PROTECTION PROGRAM

NONPOINT SOURCE POLLUTION AWARENESS:
WHAT'S WRONG WITH THIS PICTURE?

The people below are taking care of their home and car, but they are doing many things that can damage the environment, especially our water. How many problems can you identify?



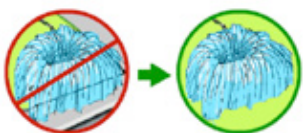
(Source: U.S. EPA)



The Woman is Using Fertilizers and Pesticides for Gardening Improperly.

Fertilizers contain large amounts of nutrients such as nitrogen and phosphorus that can wash into lakes and streams and may cause algal blooms. These blooms deplete the oxygen in the water causing fish

kills. Pesticides and herbicides also contain toxic materials that are harmful to humans, fish, and plants. When it rains, these toxic materials can run off into storm drains, roadside ditches, and nearby waterways. Use fertilizers and pesticides properly. Ask to have your soil tested to determine the right amount and type of fertilizers you need. Never apply fertilizers before it is supposed to rain. Use organic fertilizers such as manure, mulch, or compost. Use native plants in your landscape requiring less water and fewer pesticides.



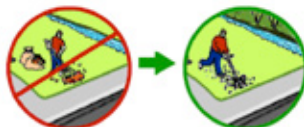
The Sprinkler is Watering the Sidewalk.

Place sprinklers so that the water goes only on the lawn instead of watering the street or sidewalk. Water the lawn or garden during the coolest part of the day, such as early in the morning, to reduce evaporation and increase the amount of water that sinks into the soil and reaches the plant's roots. Do not water on windy days, because water will be blown away and wasted.



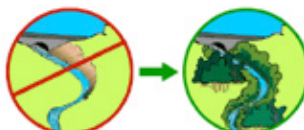
The Man is Throwing Litter into the Street.

Street litter, such as plastic bags, cups, and candy wrappers, often gets swept away with rain water into storm drains and ends up floating in our waterways or washing up on our beaches. A great deal of street litter is made up of plastic, which takes hundreds of years to break down and become harmless to the environment. Aquatic animals can mistake plastics for food and can become entangled. Recycle as much of your trash as possible, and put all other litter in garbage cans. Never throw trash in the street or down the storm drain. If you see trash on the ground, pick it up and toss it in the nearest trash can.



The Man is Raking Grass Clippings and Leaves into Plastic Bags.

Leave mowed grass clippings on the lawn as a source of nutrients for the grass, and to reduce erosion. You can also compost grass clippings and fallen leaves and later use the compost to fertilize the soil. The more that goes into your compost pile, the less goes into already overcrowded landfills.



The Stream Banks Are Being Eroded Because of Improper Stabilization.

Proper stabilization techniques can prevent stream bank erosion and addition of dirt to rivers. Sometimes plants and trees are disturbed or moved during construction. When this happens, the soil that was underneath can be easily washed into nearby lakes and streams by rain or wind. Soil from eroding land that washed into streams makes the water look muddy and can smother aquatic life, clog fish gills, and cut off light that underwater plants need to grow.

Help your community plant trees or leave native grasses and shrubs along a stream bank to reduce erosion. Plants prevent erosion by keeping soil where it belongs - on the land, and out of the water.



The Car is Leaking Oil and Antifreeze into the Street.

Oil and antifreeze that leak out of cars are washed into storm drains and our waterways when it rains. Check your cars for drips and leaks and make necessary repairs.



The Man is Pouring Motor Oil down the Storm Drain.

Motor oil or antifreeze can contaminate water and damage or kill underwater plants and animals. Never pour used motor oil or antifreeze down a storm drain, onto the soil, or into a waterway. Put used oil or antifreeze in a sturdy container and take it to a local service station or other approved center. Stencil "DUMP NO WASTE, DRAINS TO LAKE" (or river, or bayou) so others will know that allowing liquids other than storm water to get into the drain leads to pollution of

waterways. Information about the LDEQ Nonpoint Source Pollution Unit Storm Drain Marking Program can be found at <http://nonpoint.deq.louisiana.gov/>.

LOUISIANA DRINKING WATER PROTECTION PROGRAM

COMMUNITY OUTREACH ACTIVITIES



Tiffani Cravens, LDEQ Geologist, teaches Ascension Parish residents how to protect their drinking water at a community meeting in Gonzales, LA.

Mary Gentry and Tiffani Cravens, LDEQ Geologists, demonstrate at Ocean Commotion how water wells can become contaminated. Over 3,000 students and teachers attend this annual event at LSU.



Jesse Means and Tiffani Cravens, LDEQ Geologists, meet with East Columbia Water System personnel to discuss the Drinking Water Protection Program.



LOUISIANA DRINKING WATER PROTECTION PROGRAM

DRINKING WATER PROTECTION PROGRAMS 2013 - 2014

Ascension. Work began in Ascension Parish in September 2013. Ascension parish, divided by the Mississippi River, has 30 active public community water systems. The systems located on the West Bank use surface water from the Mississippi River as their drinking water source. The systems located on the East Bank use groundwater as their source. Community meetings were held on October 24, 2013 on the East Bank and November 7, 2013 on the West Bank to inform the public about their source of drinking water and what they can do to help protect it. Visits to 101 owners and operators of businesses identified as potential sources of contamination were conducted to educate them on best management practices. In addition, LDEQ awarded \$30,000 from the Beneficial Environmental Project (BEP) fund for Ascension Parish to hold a Household Hazardous Waste Collection Day. The collection day took place on May 10, 2014, in the City of Gonzales. Three hundred thirty three vehicles passed through the line of drop-off stations that accepted tires, scrap metal, batteries, electronic devices, paint and more. Parish residents dropped off 20.48 tons of household hazardous materials during the event, keeping the waste out of the environment.

Caldwell. Work in Caldwell Parish began in August 2013. Caldwell parish has 11 active public community water systems, all of which use groundwater as their water source. A community meeting to introduce the program and seek volunteers to form a drinking water protection committee was held on November 14, 2013. A committee of 12 local citizens and officials met and worked with LDEQ on drinking water protection activities. These activities included visits to 19 owners and operators of businesses identified as significant potential sources of contamination to educate them on best management practices and development of a used oil recyclers list to distribute throughout the parish. In addition, copies of a model spill prevention and control plan were provided to a local fuel distributor, the local Louisiana Farm Bureau office, and the local USDA office for distribution within the community.



Russell Turnage, operator, accepts the LRWA Source Water Protection System of the Year award for the Village of Urania. (Photo courtesy of LRWA)

VILLAGE OF URANIA WINS LOUISIANA RURAL WATER ASSOCIATION AWARD

The Village of Urania water system was the winner of the LRWA 2014 Source Water Protection System of the Year Award. The award was presented on July 9, 2014, at the LRWA's 29th annual training and technical conference in Lake Charles. The LRWA is a nonprofit organization established to aid small water and wastewater systems through training and on-site technical assistance. The LRWA awards program recognizes the outstanding efforts of rural water and wastewater systems and their personnel. Congratulations to the Village of Urania on this achievement in protecting our environment and water resources!

CONTINGENCY PLANS RECEIVED/WELLHEAD PROGRAMS APPROVED

OCTOBER 2013 - SEPTEMBER 2014

City of Gonzales	East Columbia Water System	Village of Grayson
People's Water Service Company of Donaldsonville	Hebert Water System	Town of Clarks
Tensas Water Distribution Association	Holum Water System	Town of Tullos
Columbia Heights Water District	Vixen East Water System	Village of Urania
Town of Columbia	Vixen West Water System	Town of Olla
Cotton Plant Water System	Wards 4 & 5 Water System (Caldwell Parish)	Lewisburg-Bellevue Water System

LOUISIANA DRINKING WATER PROTECTION PROGRAM

THE DRINKING WATER PROTECTION TEAM SALUTES MUNICIPALITIES AND PARISH GOVERNMENTS WHO HAVE ADOPTED A GROUND WATER PROTECTION ORDINANCE:

Acadia Parish

Acadia Parish Police Jury
Town of Church Point
City of Crowley
Town of Iota
City of Rayne

Avoyelles Parish

Avoyelles Parish Police Jury
City of Marksville
Town of Mansura
Town of Moreauville
Town of Simmesport

Beauregard Parish

City of DeRidder
Town of Merryville

Bossier Parish

Town of Haughton
Town of Plain Dealing
Bossier Parish Police Jury

Calcasieu Parish

City of Westlake
City of DeQuincy
Town of Vinton

Caddo

Village of Rodessa
Town of Vivian
Village of Ida

Caldwell

Town of Columbia

Catahoula

Village of Harrisonburg
Town of Jonesville

Concordia

Town of Clayton
Concordia Parish Police Jury
City of Vidalia

East Feliciana Parish

Village of Norwood
Town of Wilson

Grant Parish

Town of Pollock

Iberia Parish

Village of Loreauville

Iberville Parish

Town of Maringouin
Village of Rosedale
Town of White Castle

Jefferson Davis Parish

Jeff. Davis Parish Police Jury
Town of Welsh
Town of Lake Arthur
City of Jennings

Lafayette Parish

City of Youngsville
Town of Duson
City of Carencro

LaSalle Parish

Town of Jena
Town of Olla

Lincoln Parish

City of Grambling
Lincoln Parish Police Jury

Livingston Parish

City of Denham Springs
Village of Killian
Village of Albany
Town of Livingston
City of Walker

Morehouse Parish

City of Bastrop
Village of Bonita

Natchitoches Parish

Village of Goldonna

Ouachita Parish

City of West Monroe

Rapides Parish

Town of Leconte
Village of Cheneyville
Village of McNary
Town of Glenmora
Town of Woodworth

Richland Parish

Town of Mangham
Town of Rayville

St. Landry Parish

City of Eunice
Town of Melville
City of Opelousas
St. Landry Parish Council
Town of Washington

Tangipahoa

Village of Tickfaw
City of Ponchatoula
Town of Amite
Town of Kentwood
Village of Tangipahoa

Tensas

Town of St. Joseph

Vermilion Parish

City of Abbeville
Town of Delcambre
Town of Erath
Town of Gueydan
Town of Kaplan
Town of Maurice
Vermilion Parish Police Jury

Vernon Parish

Village of Anacoco
Town of Hornbeck
Vernon Parish Police Jury
City of Leesville
Town of Rosepine
Village of Simpson

Washington Parish

Town of Angie

Webster Parish

Webster Parish Police Jury
City of Minden
Town of Sibley
Town of Cullen
City of Springhill

West Baton Rouge Parish

Town of Addis

West Feliciana Parish

Town of St. Francisville



Aquifer Evaluation and Protection Unit
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Baton Rouge, LA 70821-4301

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LOUISIANA DRINKING WATER PROTECTION PROGRAM



2014 *newsletter*

The Drinking Water Protection Team is a part of the Aquifer Evaluation and Protection Unit within the Business Community Outreach and Incentives Division. This Division is under the Office of the Secretary at the Louisiana Department of Environmental Quality. Drinking Water Protection Team members educate the public about the importance of protecting drinking water sources. The team plays a vital role in working with Louisiana communities to establish local drinking water protection programs. The team is available to give presentations on water protection issues to your school or organization. Please call 225-219-3510 for more information.

This newsletter and all previous issues are available online at: <http://www.deq.louisiana.gov/aepsnews>. Please visit this site regularly for future newsletter delivery options.

WE LOOK FORWARD TO HELPING YOU PROTECT YOUR COMMUNITY'S DRINKING WATER!

VISIT US AT WWW.DEQ.LOUISIANA.GOV/AEPS