



LOUISIANA DRINKING WATER PROTECTION PROGRAM



2016 newsletter

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INSIDE THIS issue

THE PERFECT STORM: THE GREAT FLOOD OF 2016.....1-2

DEQ BIDS FAREWELL TO GEOLOGIST TIFFANI BARTH 2

DRINKING WATER PROTECTION PROGRAMS 2015 - 20163

SEWAGE TREATMENT SYSTEM MAINTENANCE CLASS OFFERED TO RESIDENTS IN BAYOU LAFOURCHE AREA4

CITY OF DONALDSONVILLE WINS LOUISIANA RURAL WATER ASSOCIATION AWARD4

COMMUNITY OUTREACH ACTIVITIES 5

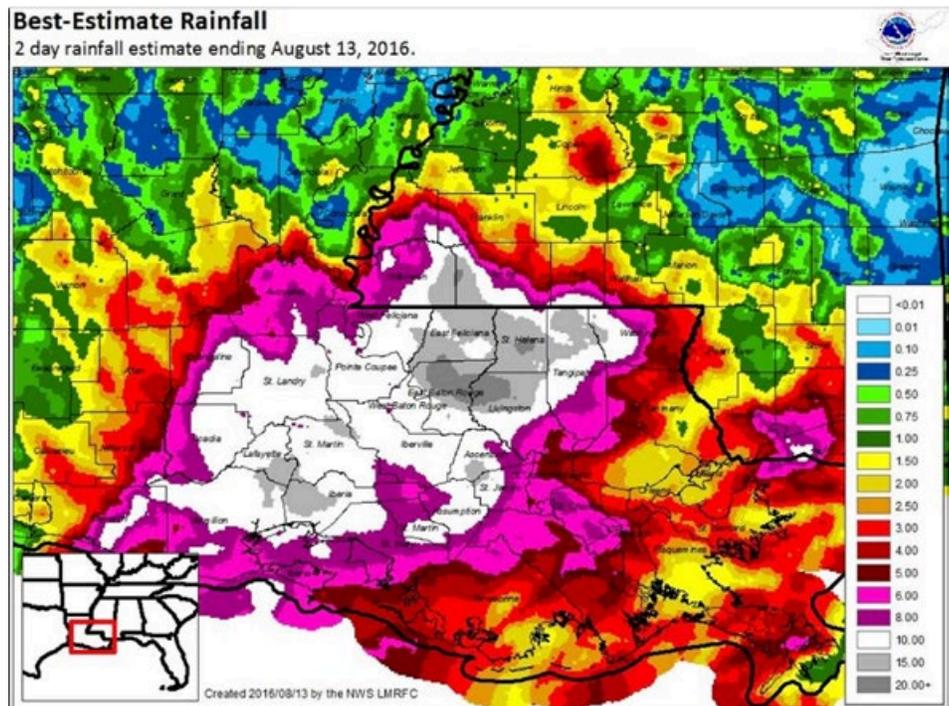
WHAT IS THE DIFFERENCE BETWEEN SOURCE WATER AND DRINKING WATER? 6

ASK THE DWPP TEAM 6

ORDINANCES 7

THE PERFECT STORM: THE GREAT FLOOD OF 2016

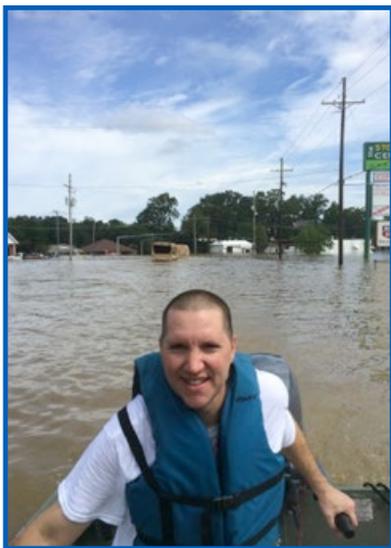
Meteorologists likened it to “an inland tropical depression.” The rainfall it produced was indeed quite similar to a slow-moving tropical cyclone. The moisture content in the atmosphere was even higher than what has been observed during some tropical cyclones. It was similar, but different. It had no wind, no name ... and no warning. Tropical moisture and a massive area of low pressure that hovered over Louisiana for three days combined to create the perfect storm. The rain began to fall early on August 11 and continued, torrential and relentless, for over 48 hours. Many locations in south Louisiana received rainfall totals in excess of two feet and the maximum total for the multi-day deluge was a staggering 31.39 inches in Watson. Nearly a dozen river gauges recorded record crests, some shattering previous records by several feet. The water rose quickly and astonishingly high in a historic, unprecedented flood – a once in a 1,000 years event.



Rainfall of such magnitude paralyzed the region, flooding towns and interstates, stranding motorists, and forcing tens of thousands to leave their homes with nothing. 26 parishes were designated as federal disaster areas and 13 people lost their lives. Preliminary estimates suggest at least 100,000 homes were damaged, some submerged to their roof tops. Neighborhoods that had never flooded before were inundated, rendering previous knowledge about which areas tend to go underwater and which stay dry useless. Some

Continued on page 2

LOUISIANA DRINKING WATER PROTECTION PROGRAM



Jesse Means, geologist in the Aquifer Evaluation & Protection Unit assisting with search and rescue efforts in Baton Rouge.

30,000 people were rescued not only by National Guard and official search and rescue teams, but also by volunteers equipped with boats. Among them were several LDEQ personnel, including drinking water protection team member Jesse Means. They deployed six boats from the LDEQ Capital Regional Office and three boats from the Acadiana Regional Office (based in Lafayette). Together they conducted search and rescue efforts in Baton Rouge, Denham Springs, Central, Watson, and Baker, rescuing 204 people trapped in their homes or stranded on roads as the water rose. LDEQ Secretary Chuck Carr Brown stated "Our mission is to protect human health and the environment. When an emergency need arises, LDEQ is ready to respond. I'm proud of the prompt action agency responders took when the call came to assist in water rescues. We will continue to give our best effort as we move into the recovery phase."

The unnamed storm dumped nearly three times the amount of rainfall on Louisiana that Hurricane Katrina did in 2005. There was no levee failure and no storm surge. The rain alone caused rivers and their tributaries to flood their banks leaving behind catastrophic flooding. The road to recovery is lined with water-logged drywall and household possessions and the long, arduous task of rebuilding has begun. But equally as prolific as the rain and the debris has been the outpouring of citizens helping one another, showing the world what courage and sense of community look like in the face of devastation. That is the spirit of Louisiana.

DEQ BIDS FAREWELL TO GEOLOGIST TIFFANI BARTH

Tiffani Barth, geologist in DEQ's Aquifer Evaluation and Protection Unit, was given a heartwarming send-off on July 22 -- her last day at DEQ -- by friends and fellow employees.

After graduating with a degree in geology from Louisiana State University in 1999, Barth worked in the private sector on environmental consulting and groundwater remediation activities. She began at DEQ in 2003 as a geologist in the Aquifer Evaluation and Protection Unit.

During her tenure with the Aquifer Unit and DEQ's Drinking Water Protection Team, Barth helped establish local drinking water protection programs throughout the state. She also conducted routine sampling of water wells for the Aquifer Sampling and Assessment Program (ASSET). On the civic side, Barth serves on the Board of Adjustments for the city of Central and the Board for the Baton Rouge Earth Day Festival, of which she is past president.

"Tiffani was an excellent addition to the Aquifer Unit team. Because of previous work experience, she was able to hit the ground running. She will be sorely missed," John Jennings, geologist supervisor said.

Barth is departing DEQ to spend more time with her husband, Brad, and their three adopted children, ages 9, 11 and 16. She also plans to devote more attention to tending to their farm in Central, Louisiana.

The staff at DEQ will miss Tiffani as we wish her well in her future endeavors.



Tiffani stands next to a photo collage depicting events from her past 13 years with DEQ.

LOUISIANA DRINKING WATER PROTECTION PROGRAM

DRINKING WATER PROTECTION PROGRAMS 2015 - 2016

Madison Parish. Madison Parish has four active public community water systems (two are purchasing systems), all using groundwater as their drinking water source. Due to the rural nature of the parish and small number of water systems, no drinking water protection committee was formed. The drinking water protection team met and worked with the water systems, updated source water assessments, and visited 16 owners and operators of significant potential sources of contamination (SPSOC) to educate them on best management practices.

St. Martin Parish. St. Martin Parish has 18 active public community water systems. Most systems use groundwater as their drinking water source. One is purchasing surface water. A community meeting to introduce the program to the public and solicit volunteers for a parish-wide drinking water protection committee was held September 10, 2015. Twelve people volunteered to serve on the committee and assist LDEQ with drinking water protection activities. Several water system operators requested a drinking water taste test during the community meeting to add an element of fun and friendly competition. The blind taste test was organized by Susan Robbins, Louisiana Rural Water Association Source Water Protection Specialist. Six water systems submitted samples and three attendees who were not water system operators were chosen for the panel of judges. Each water sample was scored on appearance, odor, flavor, and aftertaste. The scores were tallied and the winner, St. Martin Parish Water District #4 – Catahoula, was presented with a certificate.



LDEQ Geologist Mary Gentry presents a certificate to St. Martin Parish WWD #4 – Catahoula, winner of the drinking water taste test. Representing the water district are Ricky Melancon (middle) and Byron Fuselier (right).

Source water assessments were updated, and 37 owners and operators of SPSOC were visited by committee members to educate them on best management practices. A groundwater protection ordinance to prevent new SPSOC from locating within 1000 feet of public supply wells was adopted by the City of Breaux Bridge and the Town of Henderson. Guest speakers were invited to committee meetings to give presentations on backflow prevention and salt dome geology and cavern operations. The committee also hosted a fish fry and screening of the documentary *Liquid Assets: The Story of Our Water Infrastructure*. The documentary highlights communities from across the United States, providing an understanding of hidden water infrastructure assets, demonstrating watershed protection approaches, and illustrating twenty-first century solutions.



Union Parish Drinking Water Protection Committee orientation meeting on March 3, 2016.

Union Parish. Union Parish has 22 active public community water systems, all using groundwater as their drinking water source. A community meeting to introduce the program to the public and solicit volunteers for a parish-wide drinking water protection committee was held February 4. A committee of 15 local citizens and officials met and worked with LDEQ on drinking water protection activities. These activities included visits to 36 owners and operators of SPSOC to educate them on best management practices, updates to source water assessments, and guest speaker presentations on cross connection control, chemical safety for water systems, and homeland security resources.

LOUISIANA DRINKING WATER PROTECTION PROGRAM

SEWAGE TREATMENT SYSTEM MAINTENANCE CLASS OFFERED
TO RESIDENTS IN BAYOU LAFOURCHE AREA

As part of the ongoing effort to protect Bayou Lafourche from receiving improperly treated sewage, a sewage treatment system maintenance class was offered at no cost to homeowners in the Bayou Lafourche area. This endeavor specifically targeted areas identified as "hot spots" negatively impacting water quality in the bayou from Donaldsonville to Larose. Targeted areas were based on the Bayou Lafourche fecal coliform sources study conducted by NSU from 2007 to 2012.

Funding for the class was provided by the EPA Training and Technical Assistance for On-Site/Decentralized Wastewater Systems to Improve Water Quality Training Program, through the Louisiana Rural Water Association (LRWA). LDEQ DWP staff assisted with printing and distributing class announcements, preparing presentations, and working registration. The class was coordinated by LDEQ, LRWA, the Louisiana Department of Health (LDH), Nicholls State University (NSU) and the Barataria-Terrebonne National Estuary Program (BTNEP) to educate local citizens on how to maintain their home sewage treatment systems.

Four 90-minute classes were held at Gouaux Hall on the NSU campus in Thibodaux on November 3 and 5. Seventy-six residents attended. In addition, several 20-minute hands-on demonstration sessions were held at a residence near Thibodaux on November 4 and were attended by 24 residents. The demonstrations provided a more detailed, hands-on understanding of how sewage systems function and their relationship to the environment. LDH offers a certification program for homeowners to maintain the mechanical treatment plant at their primary residence. To receive certification the homeowner must attend a maintenance class and achieve a passing grade of 70 percent every five years. Approximately 40 participants took the certification exam.

Properly maintained and operated sewage systems:

- Save homeowners money
- Help protect public health
- Return clean water to the environment
- Help protect wildlife and waterfowl habitat
- Help protect recreational waters

CITY OF DONALDSONVILLE WINS LOUISIANA RURAL WATER ASSOCIATION AWARD



Lionel Franklin (Right), Wastewater System Foreman, accepts the LRWA Source Water Protection System of the Year award from LRWA Executive Director Patrick Credeur (Left) on behalf of the City of Donaldsonville. (Photo courtesy of LRWA)

The City of Donaldsonville Water System received highest honors this year at Louisiana Rural Water Association's Annual Awards Banquet when they were named the Source Water Protection System of the Year. The awards were presented on July 20 at LRWA's 31st Annual Training and Technical Conference in Lake Charles.

LRWA is a nonprofit organization established to aid small water and wastewater systems through training and on-site technical assistance. The LRWA Awards Program was established to recognize the outstanding efforts of rural water and wastewater systems and their personnel. Of all the systems across the state, the City of Donaldsonville was selected as this year's winner for their dedication to providing safe drinking water and helping to maintain a cleaner environment through their efforts in the water industry in the State of Louisiana.

Lionel Franklin, foreman of the Wastewater System Department for the City of Donaldsonville, provided invaluable assistance with an investigation into the source of sewage in a culvert that drains to Bayou Lafourche. This culvert, which is located within

Continued on page 5

LOUISIANA DRINKING WATER PROTECTION PROGRAM

Donaldsonville’s sewage service area, was identified as part of LDEQ’s ongoing work to mitigate sewage in the bayou. In an effort to identify the source of sewage in the culvert, LDEQ performed a site investigation, sampled upstream of its drainage and asked the City of Donaldsonville to locate any possible nearby sewage leaks. Lionel identified nearby sewerage lines and storm drainage and arranged for a contractor to conduct a video camera survey. He stayed on-site alongside LDEQ during much of the camera work, assisting with his knowledge of the wastewater system. He met with LDEQ several times during the planning stages and kept in contact to further the project along. His willingness to assist and see this phase of the investigation through was exemplary. LDEQ is confident Lionel can be called upon for future endeavors that may fall within his scope of operations.

Lionel has worked for the City of Donaldsonville for nine years and has been the foreman of the Wastewater System Department for eight and a half of those years. He has a level four certification in both treatment and collections and directs and performs the operation and maintenance of the wastewater treatment system. Congratulations to Lionel Franklin and the City of Donaldsonville on this achievement in protecting our environment and water resources!

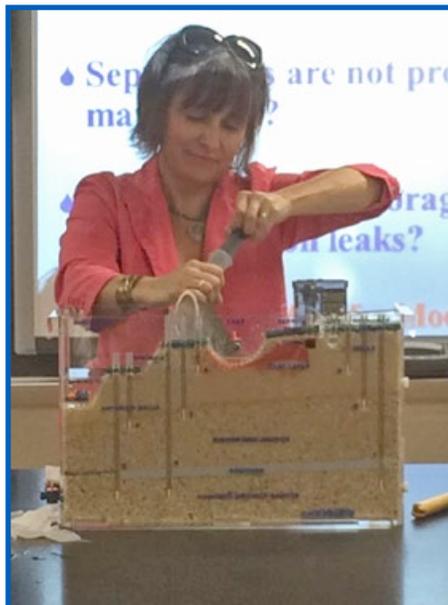
COMMUNITY OUTREACH ACTIVITIES



Henderson-Nina Water System hosts a fish fry for a St. Martin Parish Drinking Water Protection Committee meeting. (Pictured left to right: Bruce Guidry (Cecilia Water Corp.), Ray Robin, and Timmy Courville (Henderson-Nina Water System).



Jesse Means, LDEQ Geologist, explains the Drinking Water Protection Program at the Union Parish community meeting in Farmerville.



Tiffani Barth and Jesse Means, LDEQ geologists, conduct aquifer model and permeability demonstrations at St. Martinville High School.

LOUISIANA DRINKING WATER PROTECTION PROGRAM

WHAT IS THE DIFFERENCE BETWEEN SOURCE WATER AND DRINKING WATER?

This question arises frequently because the terminology is sometimes used interchangeably. While related, source water and drinking water are two different things and are regulated by different state agencies.

Source Water (or “raw water”) is either surface water from rivers, lakes or reservoirs or groundwater from aquifers that is accessed by water utilities via intakes (surface) or wells (groundwater) to treat for distribution as drinking water.

Drinking Water (or “finished water”) is water that is treated by and conveyed from a public water system to residences and businesses.

Louisiana’s Drinking Water Protection Program is a source water protection program. It protects the drinking water by protecting the source. Source water is regulated by the Louisiana Department of Environmental Quality (LDEQ) while drinking water is regulated by the Louisiana Department of Health (LDH). LDH conducts routine sampling of all public water systems at various points along the distribution system as well as at the intakes or wells. If their sample results suggest potential contamination in the source water (at the intake or well) LDH will notify LDEQ to investigate the source. If you have concerns about your drinking water you should contact LDH at 225-342-7499.

LDEQ (Raw Water)

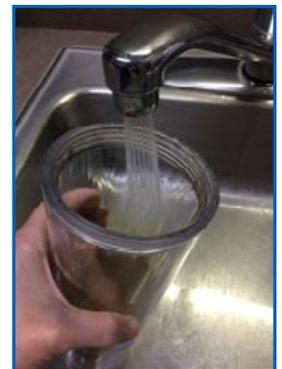
LDH (Finished Water)



Source Water (surface or ground)



Public Water Supply



Homes and Businesses

ASK THE DWPP TEAM

Question: Why is chlorine added to drinking water?

Answer: The use of chlorine in drinking water is one of the most significant advances in public health protection from waterborne diseases. Chlorine is a disinfectant which provides continuous protection against microbial contamination. While many ground water sources (water from wells) do not require disinfection, contaminants could potentially be picked up anywhere along the distribution system. The federal Safe Drinking Water Act regulations require a minimum chlorine residual to be present in the water at the furthest point of the distribution system, assuring that the entire distribution system is protected.

Question: What is in the water that causes pink stains?

Answer: Pink stains can develop on the flat surfaces of showers, sinks, toilets, drinking cups, or pet water bowls where water is left standing long enough for the chlorine disinfectant residual to dissipate. The pink color is a biofilm produced by *Serratia Marcescens*, a harmless bacterium present in the air that thrives in moist/humid environments with phosphate nutrients such as soap scum, shampoo residue, urine, feces, and food residues. It is not a problem with the water quality. Once established it is difficult to eradicate the organism entirely. The most effective way of removing the pink stain and controlling re-growth is regular cleaning with bleach-based cleaning products, especially in areas where soap products accumulate. Using abrasive cleaning products actually tends to encourage re-growth because they cause a rough surface to develop where the bacteria can take hold. Drying wet surfaces after use will also help prevent the bacteria from growing.



LOUISIANA DRINKING WATER PROTECTION PROGRAM

**THE DRINKING WATER PROTECTION TEAM SALUTES MUNICIPALITIES
AND PARISH GOVERNMENTS WHO HAVE ADOPTED A
GROUND WATER PROTECTION ORDINANCE (AS OF 9/30/2016):**

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

Allen Parish
Town of Elizabeth
City of Oakdale

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 Parish
Village of Rodessa
Town of Vivian
Village of Ida

Caldwell Parish
Town of Columbia

Catahoula Parish
Village of Harrisonburg
Town of Jonesville

Concordia Parish
Town of Clayton
Concordia Parish Police Jury
City of Vidalia

East Feliciana Parish
Village of Norwood
Town of Wilson

Evangeline Parish
Village of Pine Prairie

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 Lecompte
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

St. Martin Parish
Town of Henderson
City of Breaux Bridge

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

Tensas Parish
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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LOUISIANA DRINKING WATER PROTECTION PROGRAM



2016 *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>.

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

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