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# State of Louisiana Drinking Water Protection Program

October 2006

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## The Role of the Drinking Water Protection Team in the Aftermath of Hurricanes Katrina and Rita

On August 29, 2005, Hurricane Katrina slammed ashore on the southeast coast of Louisiana devastating Orleans, Plaquemines, and St. Bernard Parishes, as well as major portions of St. Tammany Parish on the north shore of Lake Pontchartrain. Less than one month later on September 24, 2005, Hurricane Rita devastated portions of southwest Louisiana, including Cameron Parish and portions of Vermilion Parish and Calcasieu Parish.

domestic wells were damaged or destroyed. The staff made note of the location and condition of these wells when they were found. It is estimated that at most only a third of the domestic wells in these areas were located. The debris and sand covered many of them and some had already been bulldozed.

All of the damaged well information was provided to the Louisiana Department of Transportation and Development (LDOTD) so that they may contact the owners to either repair these wells or plug them. The information also provided LDOTD with locations they should concentrate their efforts toward in getting wells repaired or plugged. In the Katrina-impacted area 25 damaged wells were located. In the Rita-impacted area 43

damaged wells were located. The staff also assessed significant potential sources of contamination (SPSOCs) identified in source water assessments in the impacted areas to determine if there had been any releases or spills from these facilities. They also made note of any facilities outside of source water protection areas that were damaged and in need of further investigation. Many above ground storage tanks had either spilled or were overturned. All of the assessment information was provided to the DEQ Surveillance staff for further investigation. In the Katrina-impacted area 31 facilities were assessed. Twenty-nine of these were SPSOCs and two

*Continued on page two...*

In keeping with the objectives of the Drinking Water Protection Program, staff conducted a reconnaissance of the impacted areas to: 1) survey damage to water wells and significant potential sources of contamination (SPSOCs) identified in source water assessments, and 2) determine the effect, if any, on inundation of water wells along the north shore of Lake Pontchartrain. Significant potential sources of contamination may be gas stations, dry cleaners or any other facility that sells, stores, uses or disposes of chemicals. Chemicals, if not handled properly, have the potential to contaminate our surface water and ground water.

### Assessment of Water Wells and Significant Potential Sources of Contamination

Public water supply wells in the impacted area were found to be intact. However, a number of



Geologist Jesse Means locates an overturned above ground storage tank by global positioning system (GPS) and makes note of spilled contents in Cameron Parish.

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**On the Radar Targeted Parishes for Drinking Water Protection Programs 2007**

- Lafourche
- Terrebonne
- Lafayette
- Jefferson Davis

*See p. 2*


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**GOT NEWS? IDEAS?**

If you have any news or ideas that you would like to share with other communities in next year's issue of the newsletter, please submit them to Micaela Marchand at [Mcaela.Marchand@la.gov](mailto:Mcaela.Marchand@la.gov) or at the following mailing address:

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**CONGRATULATIONS ! THE DRINKING WATER PROTECTION TEAM SALUTES**

**Municipalities to pass Drinking Water Protection Ordinances, September 2005- August 2006:**  
Crowley, Norwood, Eunice, Addis, Opelousas, Washington, Melville

**Parishes to pass Drinking Water Protection Ordinance, September 2005-August 2006:** St. Landry Parish

**Wellhead Protection Programs Approved within September 2005- August 2006:**  
Town of Hagewood, City of Port Allen, West Baton Rouge Waterworks District #1, Varnado Rural Waterworks, Town of Franklinton, Bogue-Lusa Waterworks District, Pointe Coupee Waterworks District #1, Darlington Waterworks Association, Mt. Hermon Water District, Town of Greensburg, Town of Livonia, West Baton Rouge Waterworks District #4 Holiday Inn, West Baton Rouge Waterworks District #4 Section Rd/Winterville, West Baton Rouge Waterworks District #4 Arbroth, West Baton Rouge Waterworks District #4 Crocodile Inn, West Baton Rouge Public Utilities, West Baton Rouge Waterworks District #2, City of New Roads, Crossroads Waterworks, West Feliciana Waterworks District #2, Waterloo Water Service, Pine Grove, Tunica Water System, Town of Montpelier, West Feliciana Waterworks District #13, Old River #1, Pointe Coupee Waterworks District #2 Batchelor, Torbert-Frisco Water Service, Town of Jackson, Town of Clinton, Dennis Mills Waterworks, M&S Water Supply, Hermitage Community, Pointe Coupee Waterworks District #2 Hwy 10, Village of Norwood, East Feliciana WWKS District #7, Midway Water System, Village of Wilson, Town of Krotz Springs, Town of Melville, East Feliciana Rural-Reeves Morgan, Village of Morganza, Plaisance Water System, Jefferson Davis Water and Sewer Commission #1, Town of Washington, Town of Welsh, St. Landry Waterworks District #2 Rural, Village of Fenton, Jefferson Davis Water District #4

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## Drinking Water Protection Programs



There are four drinking water protection programs planned for this year: Jefferson Davis, Lafayette, Lafourche and Terrebonne Parish.

The Jefferson Davis Parish Drinking Water Protection Program began in August of last year but was postponed due to the hurricanes. The Drinking Water Protection Committee reconvened in March of 2006 and has been working steadily on projects such as visiting businesses near public drinking water wells to distribute information on drinking water protection. In June 2006, Tony Duplechin of the Department of Natural Resources gave a presentation on water quantity issues. Next, the committee plans to focus on drinking water protection ordinances. The current chairman is Mr. Alvin Richard of Jefferson Davis Water and Sewer Commission #1.

The Lafayette Parish Drinking Water Protection Program kicked off with a community meeting on June 29 in Lafayette. The meeting addressed the sources of drinking water in Lafayette Parish, the goals of the program and how residents can participate in protecting their drinking water. Presentations were also made to the Lafayette Parish Sheriff's Office TRIAD (the Right Information and Direction) and S.A.L.T. Council (Seniors and Law Enforcement Together). Fifteen persons volunteered to serve on the committee. The first meeting was held on August 3rd in Scott. Mr. Bruce Davidson was elected as the chairman of the committee and Mr. Don Broussard of Lafayette Utilities System was elected as the resource and media chairman. The second meeting is planned for September 7. On the agenda is a training session for distributing drinking water information to local businesses located near drinking water wells.

DEQ Drinking Water Team members have been laying groundwork in Lafourche and Terrebonne Parishes for Drinking Water Protection Programs soon to begin. The source of drinking water in Lafourche and Terrebonne Parishes is surface water sources: Bayou Lafourche and the Intracoastal Canal. Community meetings will be held in Thibodaux at Nicholls State University in 101 Gouaux Hall on September 21, in Cutoff at the LaRose Civic Center Versailles Room on September 26, and in Houma at the Main Branch Library on October 5. All meetings will be held at 6:30 pm. All interested citizens are invited to attend. After the meeting, attendees will have the opportunity to volunteer to serve on the Parish Drinking Water Protection Committee.

Please contact the Drinking Water Team at 225-219-3510 for more information or to get involved in any of our Drinking Water Protection Programs.

## Hurricanes Katrina and Rita continued...

...continued from page one.

were overturned above ground storage tanks located outside of source water protection areas. Two of these facilities required further investigation. In the Rita-impacted area 207 facilities were assessed. One hundred ninety eight were SPSOCs and nine were above ground storage tanks and oil and gas tank batteries located outside of source water protection areas. Fourteen facilities required further investigation.

### Post-Katrina Ground Water Sampling Activities

Staff also participated in a cooperative sampling program with the Louisiana Geological Survey and the U.S. Geological Survey following Hurricane Katrina. The objective of this sampling program was to determine the effect, if any, of inundation of water wells along the north shore of Lake Pontchartrain. Wells that were overtopped by storm surge were sampled for the following parameters:

Water Quality  
Dissolved Metals  
Nutrients



Geologist John Jennings samples a well in St. Tammany Parish. He uses a YSI field meter to check the pH, conductivity, salinity and temperature of the water.

Volatile Organic Compounds (VOCs)  
Bacteriologicals

Selection of the wells was based on access and availability (those that could be physically reached and could be operated by the owner). Fourteen wells were sampled in September and October of 2005. There were no VOCs detected in any of the wells that were sampled. Unpurged results from one well showed elevated aluminum, calcium, potassium, magnesium, and selenium, but the

purged resample showed normal levels or were non-detect. Preliminary data show the majority of wells with a detection of one or more of the following bacteria: fecal coliform, total coliform, Escherichia coli, or enterococcus.

The follow up plan was to mail the sample results to the well owners, where practicable.

Submitted by Mary Gentry

## Individual Sewage Treatment Systems

An individual sewage treatment system treats sewage that originates from the same property on which that system is located. They aren't connected to any municipal or centralized sewage system, and commonly serve individual homes, camps, businesses, etc. There are a few basic types of individual sewage treatment systems. One type is a conventional septic system which is a septic tank followed by a drain field. Another type is a mechanical plant which uses aerobic bacterial action sustained by mechanical means to treat sewage. Other types include oxidation ponds, which use bacteria that need photosynthesis to break down sewage, and septic tank systems, which are a combination of conventional septic systems and mechanical plants.

These systems work well when maintained properly. However, malfunctioning or failed systems can be a major source of pollution and can contaminate sources of drinking water. In fact, 1% of the nation's aquifers have been contaminated by pollution attributed to individual sewage treatment systems. Also, DEQ

### Effects On Drinking Water

**Sewage System malfunction can affect drinking water through:**

- Contamination by bacteria, nutrients, metals, trace quantities of toxic materials, pharmaceuticals, detergents, oils and grease.
- Increased cost for treatment.



Antibiotics



Arsenic

counted approximately 35,000 individual sewage treatment systems around public water wells/intakes. In Louisiana, it is estimated that 1,323,600 people are served by individual sewage treatment systems, and that half of these are malfunctioning.

There are several ways in which these systems malfunction. It can be due to poor placement of septic leach fields or badly

constructed percolation systems, but improper maintenance is the main issue. Noticeable signs of sewage system failure are:

- Backups of toilets and slow drains
- Discharge in ditches,
- Sewage odors.

The following are some general maintenance requirements for

individual sewage treatment systems:

- Septic tanks must be inspected every six years. Pump out sludge periodically.
- Mechanical plants must be inspected for electrical and mechanical functioning, effluent and odor. Pump out sludge and be sure to maintain the power supply.
- Oxidation ponds must be kept in a sunny place for proper functioning.

Other tips include:

DO:

- Use trash cans to dispose of things that may cause maintenance problems.
- Conserve water.
- Use substitutes for hazardous products.

DO NOT:

- Flush dangerous substances.
- Drive or park on your system.
- Connect storm drains or gutters to your system.

Submitted by Jesse Means

## Photos from the Year



Louisiana Rural Water Source Water Protection Specialist Bill Chaumont and Lafayette Parish Drinking Water Protection Committee member Steven Thibodeaux converse at a committee meeting.

Drinking Water Protection Team member Micaela Marchand meets with representatives Dirk Barrios and Jared Allemand from Lafourche Waterworks District #1 to discuss the upcoming Lafourche Parish Drinking Water Program.



The Lafayette Parish Drinking Water Protection Committee holds its first meeting on August 3, 2006 in Scott, LA.