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What's Inside?

{Insert Story Titles}

LDEQ holds fundraising events in support of the Greater Baton Rouge Food Bank

n order to help re-stock the Baton Rouge Food Bank in the aftermath of the August Flood, LDEQ held several fundraising events in the fall at the Galvez Building in Baton Rouge.

LDEQ initially got onboard with the food bank in honor of "Trevor's Wish" – an event organized by Trevor Sims, a Baton Rouge child who passed away from cancer in 2013. Trevor's Wish was to feed the hungry and LDEQ has continued the endeavor for the past three years.

In addition to the ongoing collection of non-perishable food donations in the food barrels located in the first floor lobby, LDEQ hosted a series of events to further the cause while drumming up a dose of fun and camaraderie in the process.

Events kicked off Oct. 5 with a casual dress day fundraiser, where employees could donate \$10 for 10 days of casual dress through Dec. 15. A pizza sale followed, with slices selling for \$2 each, courtesy of Domino's.

In late Oct., a hot dog eating contest, Halloween costume contest and a hot dog and nachos sale continued the festivities. Challenged to eat as many hot dogs as they could in five minutes, three contestants were brave enough to enter the competition.

Charlie Lato with Emergency Response ate seven hot dogs for the win, earning a \$35 gift package from Raising Cane's. Lato unseated Environmental Scientist Kenny Kimball, who was the reigning seven-time consecutive champion. Kimball's five-dog intake took home the second place prize of a \$20 gift card to Burgersmith. Third place went to Environmental Scientist Chris Smith, who's two hot dog consumption won an LSU memorabilia prize package.

A Halloween costume contest followed, with Gloria Robertson from Human Resources winning a \$50 gift card to Mike Anderson's Seafood for her "50 Shades of Grey" character. The second place prize of \$20 Burgersmith gift cards went to the Fiscal Section: Regan Clark, Katie Thames, Emily Cassidy, Amber Pino, Shantel Robertson, Alyssa Dugas and Sierra Trabeau who went as a team of emogis. Environmental Scientist Lacey Gotreaux took the third place LSU prize pack with her "Sugar Skull" outfit and makeup, while Environmental Project Specialist Keiley Well, costumed as a "Blue J," took fourth place.

On Nov. 3, the annual LDEQ Chili Cook-Off saw 11 volunteers getting out their chili pots to serve up homemade concoctions to a distinguished panel of six judges who were tasked to sample and rank each one. Judging the event were Robert Gauthreaux from WBRZ, Jay Grymes from WAFB, Jesse Gunkel from WVLA, Corrine Cook from The Advocate, Charlene Montelaro from the Baton Rouge Food Bank, and Charlie Lato, this year's winner of the LDEQ Hot Dog Eating Contest.

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After casting their ballots, enthusiastic eaters streamed in, donating \$3 for a single 9 ounce bowl of chili of their choice, or \$5 for five 3 ounce cups for those wishing to sample from several cooks. First place went to LDEQ Engineer Will Barlett, who's "Homebrewed Chili" took home a \$50 gift card to Ruffino's, plus a Red Stick Spice Company seasonings gift pack. Second prize of a gift certificate went to Teresa Chatelain from Fiscal for her "The Winner" chili, with third prize of an LSU gift pack going to Melanie Connor from Water Permits for her "Melanie's Mexican Chili."

Fundraising events are ongoing through December and non-perishable food donations are still welcome. As the campaign wraps up next month, donations will be tallied, culminating in a check presentation to the Greater Baton Rouge Food Bank – just in time for the holiday season.

For more information about Trevor's Wish and the Greater Baton Rouge Food Bank, please go to: http://brfoodbank.org/trevors-wish-2016/.





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Message from the Secretary

Chuck Carr Brown, Ph.D.

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LDEQ's Aquifer Evaluation and Protection Unit identifies water wells throughout the state

ow do you ensure that all public water wells in the state are identified and accounted for? Which wells are active and have a source water assessment? That's the job of LDEQ's Aguifer Evaluation and Protection Unit. One of their responsibilities is just that - to map and locate every public water supply well throughout all 64 parishes in Louisiana. Their duties include locating new sites, ensuring the database of active wells is kept up-to-date, and locating potential sources of contamination around all public water supply wells. In addition to tracking those sites and updating the well information, the team conducts several community outreach and educational duties where they meet with citizens face-to-face to explain how communities can actively get involved in ensuring they have safe drinking water.

And that begins with an explanation of how source water assessment works.



LDEQ Geologist Mary Gentry obtains GPS coordinates at a community water well in St. Tammany Parish.

Source water is either surface water from lakes, reservoirs or rivers or groundwater from aquifers that is obtained by water utilities through intakes or wells. Whatever the source, the water is treated for distribution as drinking water.

LDEQ's Aquifers team plays a major role in ensuring public water sources are identified, along with any potential sources of contamination in the area. Once the water enters a public water works or water supply station, the Louisiana Department of Health (LDH) takes over at that point to ensure that finished water (drinking water) is free of contamination. If sampling identifies contamination, LDH will confer with LDEQ to investigate the source.

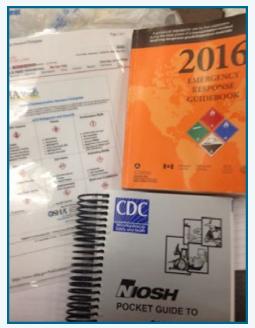
When wells are identified, GPS coordinates are obtained at each one and are added to the database, which is updated frequently. At times, the team may be accompanied by a sanitarian from LDH who will assist the team in locating and evaluating some of the hard-to-find wells. Since many water wells have been plugged and/or abandoned, the list is in constant fluctuation as the closure of wells and the opening of new ones necessitates a continual update in order to effectively track the active wells in the state.

Once a well and potential sources of contamination are identified, a source water assessment is conducted to determine the susceptibility of the well to contamination. This information can be used to assist local communities in contingency planning, implementation of best management practices, adoption of local ordinances and public education.

For more information about Aquifer Evaluation and Protection, check out: http://www.deq.louisiana.gov/portal/Default. aspx?tabid=108.



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Attendees cross-checked the latest Emergency Response Guidebook against the NIOSH Chemical Hazards guide in order to identify the proper response measures regarding a specific chemical

HAZWOPER protects employees

he protection of workers at hazardous waste sites is important and requires certification and refresher courses to be sure the workers are safe. The initial certification is a 48-hour course and the HAZWOPER (Hazardous Waste Operations and Emergency Response) certification is the required standard by the Occupational Safety and Health Administration (OSHA) in order to protect workers at hazardous sites.

The refresher course is required once a year after taking the initial 48-hour course. In November, at least 40 LDEQ employees undertook the HAZWOPER 8-hour refresher course at LDEQ Headquarters. Environmental Scientist James Pate conducted the class.

LDEQ requires the certification for any personnel who operate at a site where a hazardous waste event has occurred or is expected to occur. Such events would include a chemical spill or fire resulting from a train derailment, truck accident, facility release or release from an unknown source. Events also include preventative measures to employ due to an expected release of diesel fuel or oil, for example, in the aftermath of a diesel truck rollover.

Instruction also included a practical application on how to check a chemical, along with its given situational danger (such as a fire, heavy spill, etc.) in the Emergency Response Guidebook. The Guidebook also provided the recommended protective

actions, Immediately Dangerous to Life or Health (ILDH) recommendations, and the Permissible Exposure Limits relative to the given chemical release. The National Institute for Occupational Safety and Health (NIOSH) pocket guide to chemical hazards was then cross-checked by the attendees to give them a further breakdown of that chemical's permissible exposure limits and additional protective actions.

Safety videos were shown, along with information on safety data sheets, workplace safety rules under OSHA, proper use of personal protective equipment and how to identify hazardous materials labels.

"This instruction provides updated hands-on training on how to quickly identify hazardous materials upon arriving at the scene through recognition of hazardous signs, pictograms and placards, conduct safe monitoring, hazardous communications with emergency responders and select appropriate personal protective equipment (PPE)," LDEQ Environmental Scientist Russell Clark said. "The training also refreshes understanding of HAZMAT biological effects, OSHA regulations, regulatory limits and recommended protective actions and precautions when responding to the potential acute and chronic exposures to a wide variety of hazardous materials."

Clark also noted that the goal is to prepare and refresh LDEQ employees in the conduct of safe operations within a HAZMAT environment while protecting fellow workers, members of the public and the environment. "At the end of the class, students are challenged with several scenario-based practical exercises, which test a student's assessment of hazardous material releases or spills based on spill size, pathway and meteorological conditions while effectively utilizing tabulated chemical data in the OSHA and NIOSH emergency response guides."

A quiz and a test concluded the instruction, and laminated cards were provided to those passing the course. Certification is valid until next November, so employees will need to attend another 8-hour refresher course before expiration.



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Radiation field team training held by LDEQ's Radiological **Emergency Planning and Response group**

hen an air release occurs that could bring a potential or actual plume of radiation, LDEQ's Radiological Emergency Planning and Response (REPR) group will quickly staff field teams and emergency operations personnel as the first step in responding to the air release.

The REPR group is tasked with gathering and evaluating any air release related to three nuclear generating stations in or affecting Louisiana. These are the River Bend Station in West Feliciana Parish, the Waterford Steam Electric Station - Unit 3 in St. Charles Parish and the Grand Gulf Nuclear Station in Claiborne County, Miss.

To ensure for readiness, LDEQ participates in radiation drills at each facility on a regular basis.

To prepare for those drills, the group holds periodic classroom and field training at LDEQ Headquarters in Baton Rouge in order to provide participants a hands-on familiarity with procedures and equipment. This month, the REP 101 (Radiation Basics) and REP 102 (REP Program Basics) classes were given for new drill participants. These were followed by REP 301-303 (Field Monitoring Team Training), which included a full vehicle safety dress out, an overview of the latest technology, plus instruction on how to gather air samples as well as samples for vegetation, soil, water and milk.

The classes were open to both new and experienced environmental scientists.



LDEQ Environmental Scientist Andrew Tadros (right) dons a Tyvek suit as Environmental Scientist Supervisor Brad Schexnayder points out the suit's properties.

"This indoor and outdoor classroom training is important because we will be doing soil, water, air and vegetation samples in all River Bend and Waterford-3 drills beginning October 25," LDEQ Environmental Scientist Michael McMahon said.

And to meet those needs, the field teams received training in how to properly secure those samples – all of which come with a specific set of procedures and chain of custody rules that must be adhered to in order to assure for accuracy in data gathering. This involves adherence to many tasks, including safety measures, the proper use of equipment, meticulous record keeping and the accurate labeling and storing of samples.

As the main ground element in radiation response, field teams will be guided by a field team coordinator who will advise them on relocating to sampling sites downwind from the air plume. To plan for that, the teams will prep their vehicle to protect against cross-contamination, check radios and equipment and carefully review the sampling procedures. Upon arrival at the scene, they will don Tyvek suits and set up air sampling equipment which will begin recording data for submission up the chain of command.

The method for gathering each type of sample comes with its own specific set of instructions for doing it correctly. Field teams must follow the procedures to the letter. This includes extraction of a proper sample size, bagging and labeling the sample, placing flag markers (noting the sample number) at the site, and accurate recording of the sample's details in the sampling



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LDEQ Environmental Scientist Michael McMahon (left) assists fellow scientists Karley Vinson and Chris Simms enter sampling data into the RadResponder.

data sheets. Should a milk sample be requested or required, a team member will coordinate getting that sample from a local dairy through a sanitarian with the Louisiana Department of Health.

And the REPR group must be prepared to adapt and adjust to the latest technology and tools of the trade – one of which is the RadResponder Network.

RadResponder is a product of collaboration among Federal Emergency Management Agency, Department of Energy/National Nuclear Security Administration, and the Environmental Protection Agency. The RadResponder Network can be accessed through a variety of handheld computerized devices such as tablets, smart phones and laptops. The application is specifically designed for submitting data up the chain of command in an accurate and expeditious fashion. RadResponder not only streamlines the data transfer process, it eliminates many of the communication problems that have presented a challenge in past drills.

At the sampling site, the field team member will key in the sampling number, distance, sampling duration, air sample flow rate, sample counts, location, time and other parameters into RadResponder – all of which can be instantly viewed by the next level in the chain of command for further review. This technology puts the field team coordinator and dose and accident assessment coordinators on the same page. That allows them to review the data and confer with senior emergency operations liaison and other responding partners as they work together to prepare an effective emergency response plan.

So, as new environmental scientists rotate in and begin participating in the drills alongside veteran employees, it's important to keep everyone informed of the procedures and how each role plays an integral part in the radiation response process.

Ongoing training is the key to success and it imparts the necessary skills needed to react should a real-time event occur.

Environmental Scientist Don Weinell completes his journey along the Oregon Trail

eremoniously dipping the rear wheel of his bicycle into the Missouri River in Independence, Missouri, on May 19, 2012, LDEQ Environmental Scientist Don Weinell set off on a five-year plan to follow the path of the historic Oregon Trail. And so began the first leg of his 2,475 mile journey.

Weinell's decision to undertake the trip was driven in part, by the memory of Bob Gillette, a former DEQ inspector who spoke of accomplishing many adventures after retirement. Sadly, Bob passed away soon after retiring, never getting the chance to realize those opportunities.

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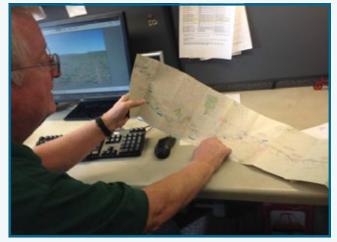
Weinell marks the start of his trip with a dip of his bike's rear wheel into the Missouri River in 2012. (Photo courtesy of Don Weinell)



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Referencing the National Park Service's Oregon Trail map, Don goes over the route he took..

Gillette's passing prompted Weinell to get started on an adventure – and to do so without delay.

A history buff, he decided to retrace the steps of the settlers as they headed west in the 1800s along the Oregon Trail. Outfitting a bicycle, he planned a road trip and documented it all through a road diary and photographs on "crazyguyonabike.com," a blog where his followers could monitor his progress. Dividing it into five legs over five years during vacation time, he plotted his course by mapping out a route based on the National Park Service's Oregon Trail map. Disassembling his bike and shipping it via FedEx to his hotel in advance at each leg (and doing the same at the end of each leg) saved him a lot of time and effort. In addition, rather than relying strictly on air travel to get to and from the start and finish points, Weinell's use of trains and buses gave him a more "ground-level" sightseeing experience.

So, after a few shakedown rides in Louisiana to test his equipment, Weinell set off from Independence in May 2012, close to the spot where the pioneers began their quest in the 1840s. Pedaling during the day and camping out at parks during the evenings, he arrived in Kearney, Nebraska, two weeks later. Leg one was behind him and his bike was officially "broken in."

The second leg in 2013 took up from where he left off in Kearney to Casper, Wyoming, with a flat tire (the only flat encountered throughout the entire trip) occurring in Scottsbluff, Nebraska. Leg three in 2014 took him from Casper to Pocatello, Idaho, with the fourth bringing him all the way to Baker City, Oregon in 2015. This year, he finished the final trek from Baker City through northern Oregon, with only a slight diversion for a few miles west of the town of Echo, as that part of the trail ran through the former site of a Navy bombing range (off-limits to the public). There, Weinell rode close to the trail, just south of the range's boundary.

"The timing of the final leg was based on crossing the John Day River," he said. "Since there is no bridge there, I consulted the U.S. Geological Survey's on-line gauge station to track the river flow. I had to time my crossing when the water level would be at its lowest." Historically, this occurs during the first two weeks of September. This year, on Sept. 5, the flow rate was 24 cubic feet per second - a drastic change from the typical springtime rate of 6,000 to 8,000 cubic feet per second. With that, he waded with his bike across the formidable tributary of the Columbia River and continued on.

Reaching the trail's end at Oregon City on Sept. 13, 2016, Weinell marked its completion with a dip of bike's front wheel into the Willamette River. He achieved his goal - accomplishing a feat that would surely make Bob Gillette proud.

Taking time to see the trail's historical sites while meeting supportive locals along the way, added to the richness of the experience. With each leg taking about two weeks to complete, he noted that the last



South Pass, Wyoming, where the Oregon Trail crosses the Continental Divide. (Photo courtesy of Don Weinell)

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two in Oregon were the toughest. "Oregon was the most difficult, as the trail is bisected by rivers that flow north toward the Columbia River. It featured many 600 to 800 foot drops and climbs along the way."

Fueled by a sense of adventure and a desire to step back into history, the experience proved to be a catharsis of sorts; one of endurance, excitement and enlightenment. In the end, he successfully traveled along the path of almost a half million emigrants as they headed west – surely witnessing many of the very same vistas and topography that remain largely intact today.

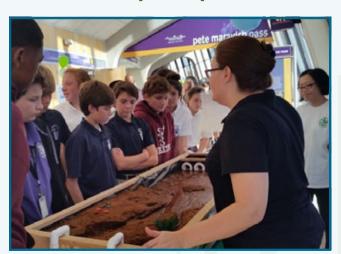
And cycling was the way to truly experience the journey, as he noted in his travel blog: "I don't think anyone can get a full understanding of the Oregon Trail experience by following the route in a car. Modern roads follow the trail closely, and you could easily drive it in a week, but an appreciation of the distance would be lost."



The dipping of his bike's front tire into the Willamette River in Oregon marked end of the trail in 2016. (Photo courtesy of Don Weinell)

For a more detailed chronology of Weinell's trip, look for his self-penned book, "Bicycling the Oregon Trail" (published by Caxton Press, Caldwell, Idaho) available in print next spring.

LDEQ participates in annual Ocean Commotion event at LSU



LDEQ environmental scientist Karen Latuso (front) and LDEQ environmental scientist Marissa Jimenez demonstrate Walnut Bayou, an interactive display of river formation, at Ocean Commotion. Ocean Commotion is held every year and late October at the Pete Maravich Assembly Center at LSU.

ith Louisiana situated on the Gulf Coast, with the presence of the Mississippi River, it's important to provide students in grades kindergarten through eighth the opportunity to learn about the state's unique coastline and waterways.

Ocean Commotion is an event that does just that – it gives students the chance to learn about the aquatic animals, plants, minerals and environmental functions of Louisiana's unique coastline.

Hosted by the Louisiana Sea Grant College Program, Ocean Commotion is an annual showcase held at the LSU Pete Maravich Assembly Center. Each year, the event brings about 2,500 area students, teachers and chaperones to the campus where they can visit with more than 60 exhibitors and learn about various aspects of the state's ecological, oceanographic and geographic functions. The exhibits are provided by LSU researchers and public and private organizations.

Each year, LDEQ staff members present an interactive river simulation model known as "Walnut Bayou." The model lets students

see how rivers are formed, how pollution affects water quality and how erosion can alter water flow. Students can physically get their hands wet through a hands-on glimpse into how water interacts with sediment.



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DEQ On The Move



LDEQ employee volunteers open cans of paint for recycling at the East Baton Rouge Parish Household Hazardous Waste Collection Day in late October.

LDEQ employees volunteer to help with **Household Hazardous Material Collection Days** around the state

On Oct. 29, 22 LDEQ volunteers worked the paint swap at the EBR Parish HHMCD. They processed the paint, stirred it and created 108 five-gallon buckets of useable paint. The HHMCD serviced 768 cars.

On Nov. 5, Eight LDEQ volunteers headed to St. Landry Parish for the HHMCD there. They helped process 137 cars and created 32 five-gallon buckets of paint.



Audubon Elementary holds its Audubon Elementary 4th Annual Science Extravaganza for its students, and LDEQ participated. Linda Brown Hardy talks to students at the LDEQ booth to give them more information about environmental subjects.

Audubon Elementary School celebrated Science Fair Day on October 28 on a beautiful sunny day! The school is located at 10730 Goodwood Blvd., Baton Rouge. Approximately 150-200 Pre-K through 5th grade students browsed through approximately 10 booths represented by various state agencies, schools, other entities," LDEQ environmental scientist Linda Hardy said. "Demonstrations included Non-Point Source Pollution (DEQ), life cycle of fish (WLF), a drone and other robotics (Tara High School), Smokers' Lungs (Southern University), and more. Students were excited about experiencing science first-hand and were intrigued by the different types of exhibits.

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DEQ On The Move



LDEQ Secretary Dr. Chuck Carr Brown makes a point as he answers a student's question during a panel presentation at Monique Edward's class at Southern University Nov. 1. The panel members were Brown, DOTD Secretary Dr. Shawn Wilson (not pictured), environmental attorney Ashley Philen of Simien & Simien law firm, DNR Executive Counsel Blake Canfield and associate attorney Shelley Harrison with Kean Miller law firm.



LDEQ Environmental Scientist, Linda Brown Hardy, discusses resources and environmental protection ideas with science teachers at the Louisiana Science Teacher Association Annual Conference held at the Baton Rouge River Center in Late October.



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Who's Who At DEQ?



Justin Hallmark - Environmental Scientist, Emergency Response - Northeast Regional Office

Hallmark grew up in Boaz, Ala. He graduated from Jacksonville State University in the spring of 2016 with a bachelor of science degree in organismal biology and a minor in chemistry. While in college, he played baseball for four years, and his team won the NAIA world series in 2013.

He recently married Aja Hallmark, who is a registered nurse at St. Francis Medical Center in Monroe.

Shanna Mason – Geologist in Nonpoint Source and Aquifer Protection

Mason was raised in Austin, Texas, before moving to Lafayette. She graduated from the University of Louisiana at Lafayette with a Bachelor of Arts in political science with a minor in geology and an Master of Science in geology. Her thesis research focused on characterizing the natural fracture system of the Eagle Ford Shale.

She joins DEQ as part of the Aquifer Evaluation and Protection Unit. Previously, Shanna worked in finance and at the U.S. Senate.

Mason is a member of the Southwest Louisiana Geophysical Society, American Institute of Professional Geologists, Association of Women Geoscientists, and the Lafayette Geological society.





Louisiana Department Of Environmental Quality's Third Quarter Summaries

Third Quarter 2016 Enforcement Actions:

http://www.deq.louisiana.gov/portal/DIVISIONS/Enforcement/EnforcementActions.aspx

Third Quarter 2016 Settlement Agreements:

http://www.deq.louisiana.gov/portal/DIVISIONS/Enforcement/SettlementAgreements.aspx

Third Quarter 2016 Air Permits:

http://www.deq.louisiana.gov/portal/tabid/2922/Default.aspx

Third Quarter 2016 Water Permits:

http://www.deq.louisiana.gov/portal/tabid/2899/Default.aspx

Third Quarter 2016 Solid and Hazardous Waste Permits:

http://www.deq.louisiana.gov/portal/divisions/wastepermits.aspx