

What's Inside?

LDEQ staff visits EPA lab

Now is the time to join the LDEQ Environmental Leadership Program

Message from the Secretary

Brownfields Revitalization Seminar hosted in Baton Rouge

LDEQ hosts the Louisiana Clean Fuels Corridors Pathways meeting

LDEQ Drinking Water Protection Team holds community meeting in Sabine Parish Sept. 28

STEM Day at LDEQ

Workshop for the new Louisiana Student Standards for Science

Public Relations and Risk Communications class held at LDEQ Headquarters Sept. 27

LDEQ On The Move

Who's Who At LDEQ?

LDEQ staff visits EPA lab

hen the U.S. Environmental Protection Agency (EPA) established a laboratory to explore the effects of organic chemicals on aquatic life, they cast their gaze on an obscure property in the Santa Rosa Sound south of Pensacola Beach, Fla. A 17-acre, man-made island named Sabine had once been the site of a quarantine hospital that was designed to contain the spread of yellow fever. Later it became home to a variety of research institutions.

In 1970, the palm-studded island became property of the EPA, and they continued to use the site as home of a research lab. In 1995, that lab became the Gulf Ecology Division of the National Health and Environmental Effects Research Laboratory (NHEERL), one of several national laboratories and centers in EPA's reorganized Office of Research and Development (ORD). On Sept. 27, LDEQ Secretary Chuck Carr Brown and members of his executive staff visited the site to participate in a "State's Visit" event. The day began with a two-and-a-half hour meeting that combined panel discussions with presentations by EPA scientists about the work being done at NHEERL, beginning with an overview of NHEERL. Presenters used PowerPoints to explain coastal and wetlands condition assessments, the coastal general ecosystem model (CGEM), nutrient criteria development, EPA's H2O tool, an overview of the ORD and an update on Gulf restoration.

During a post-presentation discussion, Brown told the assembled EPA officials and state representatives that LDEQ has developed a program to enable water quality trading.

EPA biologist Cheryl Hainkins explains the work being done with coral at the Aquatic Research Lab at EPA's Gulf Ecology Division National Health and Environmental Effects Research Laboratory at Sabine Island in Gulf Breeze, Fla.

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Saltwater tanks house coral varieties at the EPA Lab in Gulf Breeze, Fla.

"We passed a law that allows us to do water quality trading, just as you do air quality trading," Brown said. "We are looking at expanding the program to other states. We are looking at input from everybody to make sure that we do develop a program that can be a model."

The lab's marine setting is spectacular, but equally impressive scientific work is going on inside the white-painted buildings around the island. LDEQ personnel toured labs around the Gulf Ecology Division, including the wet lab where research projects with corals and jellyfish are underway. At each stop, LDEQ personnel questioned lab personnel and sought information and contacts that could be relevant to Louisiana environmental issues.

Now is the time to join the LDEQ Environmental Leadership Program

re you committed to improving the environment, your community and the quality of life in Louisiana? Do you have some voluntary environmental programs within your business, school or community that have been successful, innovative and have decreased emissions, pollution and damage to the environment? If so, now is the time to join the Louisiana Department of Environmental Quality in the Environmental Leadership Program (ELP).

The ELP started as a voluntary cooperative effort between LDEQ and various Louisiana industries. It has expanded to include small, medium and large businesses, federal facilities, non-governmental organizations, schools and universities. Any organization committed to improving the quality of Louisiana's environment through pollution prevention, waste reduction and other environmental improvements is eligible to join the program as a participating member.

There are many benefits to membership in the ELP. The most important is that you will be contributing to the betterment of our environment. By joining the program you are recognized by your community as an organization committed to maintaining and improving the quality of Louisiana's environment. The secretary of the LDEQ will acknowledge your participation by letter and each new member will be awarded a membership certificate at the annual awards ceremony.

ELP members participate in periodic meetings, conferences, and seminars/workshops sponsored by the Environmental Leadership Program. Members can obtain information and resources on various pollution prevention opportunities and other environmental management and conservation topics. They can network with other leaders around the state who are implementing projects and share their knowledge.

Members can submit their projects to ELP, participate and be recognized in the annual Environmental Leadership Awards. The awards are for outstanding achievement in Pollution Prevention, Community Environmental Outreach, Outstanding Environmental Ordinance & Enforcement and Environmental Management Systems. Awardees in these categories are recognized annually by the LDEQ secretary at a highly publicized ceremony, included in the DiscoverDEQ newsletter and the LDEQ Annual Report.

For more information or to join, please go to http://deq.louisiana.gov/page/the-louisiana-environmental-leadership-program.



Message from the Secretary Chuck Carr Brown, Ph.D.

It's near the end of October, the very tail end of the hurricane season. Against the odds, we are watching a tropical system in the southern Gulf of Mexico. So we are exiting this month the same way we entered it. Tropical Storm Nate caught our attention during the first week of the month. Nate turned into a hurricane as it reached the southern portion of the state, and once again, our emergency response and regional office staff jumped right in to participate on conference calls and organize the department's resources to ensure we were fully prepared. Facilities were contacted following our pre-storm protocol and no stone was left unturned as the department stood ready to respond.

Our experience in dealing with past storms and lessons learned has emboldened our readiness capabilities – we're good at this, which is an unfortunate reality, but an important one nonetheless. I'd like to thank everyone involved in upholding that standard. Nate just grazed the state. This latest tropical system may never reach hurricane strength, and if it does, it won't be likely to reach Louisiana. But we're ready. We know we have to be.



LDEQ Secretary Dr. Chuck Carr Brown makes a point during a discussion with EPA and state personnel during a visit at the Gulf Ecology Division Lab in Gulf Breeze, Fla.

Use of alternative fuels was a hot topic at the start of this month, and several members of our executive staff, along with teams from legal, air assessment and planning, and the environmental services division participated in a round table discussion on the benefits of exploiting those fuel sources. Attendees included representatives from Louisiana Clean Fuels, Department of Transportation and Development, Department of Natural Resources and others.

We are moving forward with the Volkswagen Settlement, and our use of the settlement money will promote alternative fuels in Louisiana. We will be helping school systems purchase alternative fuels or high efficiency diesel buses. The goal of the settlement is to lower NOx emissions. There is another part of the settlement: Electrify America, a \$2 billion initiative that seeks to establish zero emission vehicle charging hubs in major cities across the country. Louisiana will not be included in the first round of Electrify America, but I have hopes for next year. This concept dovetails nicely with my goal of establishing boutique fuel kiosks where drivers can fast charge EVs, fill up with alternative fuels, grab a bite to eat or just take a break.

In closing, I am looking forward to November, which hopefully will bring some cooler weather (and the end of the 2017 Hurricane Season).

Remember that the Veteran's Day Holiday is Friday, Nov. 10. Those who have served our country in war and peace have earned our undying gratitude. You richly deserve this day, so relax and enjoy it!

Finally, I want to say again that I am honored to represent the department and proud of the work we do -- day in, day out. Thanks again for all that you do!



Brownfields Revitalization Seminar hosted in Baton Rouge

brownfield is a property, the expansion, redevelopment or reuse of which can be complicated by environmental contamination, the presence or potential presence of hazardous substance, contaminants or pollution. There could be more than 450,000 brownfields in the United States that could be cleaned up and put back into service. Making an investment in these properties helps the economy by increasing the tax base, creating jobs and improving the environment. Examples of possible brownfields sites are abandoned factories, other industrial facilities, service stations, storage facilities, dry cleaning businesses or any other facility that has dealt with hazardous substances. Properties impacted by asbestos, lead-based paint and controlled substances can be brownfields too.

Sept. 28, LDEQ, the City of Baton Rouge, Capital Region Planning Commission and Kansas State University hosted a seminar on Redevelopment Funding and Revitalization through Brownfields at the Capitol Park Welcome Center in Baton Rouge.



Duane Wilson, Brownfields coordinator for LDEQ, opens the Redevelopment Funding & Revitalization through Brownfields seminar at the Capitol Park Welcome Center.

The participants consisted of consultants, LDEQ staff, planning groups and people interested in improving underused properties. One function of the seminar was to discuss funding to support the brownfield redevelopment.

Duane Wilson, LDEQ Brownfield Program coordinator, opened the event and introduced Oral Saulters, Kansas State University's TAB (Technical Assistance to Brownfields) coordinator for Louisiana. His expertise is in site assessment, remediation, environmental policy and decision making models. Saulters discussed what a brownfield is and steps for successful redevelopment. He introduced Environmental Protection Agency's (EPA) guidance for the loan process and told the audience that this is "a key time for an EPA grant opportunity." He asked, "Are you ready to apply?" It is important for all interested parties to be involved and cooperate.

"Sometimes folks in the community do not talk to each other," Saulters said. "They need to get together. Voluntary collaboration depends on you."

Knowing the condition of the site, what's on it and how to protect from it is integral part of the puzzle. Often the "perception of contamination" renders a site unusable.

The rest of the event consisted of information about state and local brownfields resources, federal resources, funding opportunities for economic development, success stories and strategies for grant writing. The key steps in ensuring successful brownfields initiatives are:

- · Develop community vision and program goals for the initiative
- Identify brownfields sites
- · Collect data (such as site attributes) to assess marketability of the sites
- Determine reuse goals for the sites
- Prioritize the sites for marketability, program and re-use goals
- Apply for funding to assess, cleanup and redevelop priority sites

Continued on page 5



There are some online tools provided by TAB. One is the Brownfield Inventory Tool (BIT) that is a free, web-based, comprehensive site inventory and brownfields management tool. You can access this tool at *http://tab-bit.org*.

Funding for these brownfields projects is a bunch of 'strange pieces' that fit together so it is important that all interested parties communicate and cooperate. "There is no big source of funding," Saulters said. "It is a matter of putting all of the pieces together."

LDEQ hosts the Louisiana Clean Fuels Corridors Pathways meeting



State officials are driving Louisiana toward an alternative fuels future. In early October, LDEQ hosted a meeting, facilitated by Kevin Bryan of Keystone Policy Center, about having Louisiana designated as an alternative fuels corridor.

The initial purpose of the meeting was to get information together to answer the Federal Highway Administration's request for submittal to have the state designated an Alternative Fuels Corridor. This designation would include already developed infrastructure and the development of infrastructure to support commerce that uses alternative fuels. Using an alternative fuel vehicle will be easier for the consumer if they have ready fuel supplies while traveling and driving.

(L to R seated) Ann Vail, executive director of Louisiana Clean Fuels; Vivian Aucoin, LDEQ environmental scientist manager; Dr. Chuck Carr Brown, LDEQ secretary; and Denise Bennett, LDEQ deputy secretary; spoke at the meeting.

LDEQ Secretary Dr. Chuck Carr Brown spoke to the group. Vivian Aucoin, LDEQ environmental scientist manager, also addressed the meeting as did Ann Vail, executive director of Louisiana Clean Fuels and Michael Scarpino of the U.S. Department of Transportation.

One goal of the first of two meetings is to outline the process by which the LDEQ will develop a proposal to the Federal Highway Administration for funding of alternative fuel vehicle infrastructure in key corridors and to understand what details are needed for the proposal. To do this the participants tried to identify the challenges, craft a vision of the current state of alternative fuels, vehicles and demand in Louisiana. Outlining the current infrastructure and what is needed, the barriers and how to overcome them is important.

To gain and understanding of the current state of alternative fuels, supply and demand for current fuel and vehicles is key. Knowing how people travel is a factor as well as is the importance of public education about alternative fuels. To illustrate some of the issues, speakers used maps of the major corridors in Louisiana such as Interstate 10.

"If you build it, they will come" was a theme of the meeting. If Louisiana has designated Alternative Fuel Corridors, submitting a request for Congestion Mitigation and Air Quality (CMAQ) funds would get priority. The use of alternative fuels reduces emissions that create pollution. For Louisiana's General Service administration to purchase alternative fuel vehicles there has to be infrastructure to sell alternative fuels.

Participants in the meeting were from state planning commissions, fuel providers, state representative and others.



LDEQ Drinking Water Protection Team holds community meeting in Sabine Parish Sept. 28

o you know where your drinking water comes from? Do you know how to protect it? These questions and many others were answered at a drinking water protection community meeting Sept. 28 in the town of Many in Sabine Parish.

Presented by LDEQ's source water protection team in conjunction with the Louisiana Rural Water Association, Jesse Means and Mary Gentry, geologists with LDEQ, hosted the discussion. The topics included differences between source water and groundwater, what an aquifer is and the basics of how water wells function.

Susan Robbins, a source water protection specialist with the Louisiana Rural Water Association, provided assistance. Local water operators, Sabine Parish police jurors, representatives from the Louisiana Department of Health and local citizens attended the event.

The Drinking Water Protection Team reaches out to local cities and towns in search of a venue in which to provide their presentation to the public. The meetings are held in three parishes in the state each year. Water treatment operators in the parish are typically in attendance, as they can learn more about protective measures while earning continuing education credits.



LDEQ geologist Jesse Means gives a presentation on aquifer locations and drinking water protection measures at a community meeting at Many City Hall in Sabine Parish.

Meeting preparations, however, involve legwork in support of the outreach function, ongoing communication at several levels and statewide travel. The team is tasked with locating and plotting all the water wells in the state and meeting face-to-face with water treatment operators and utilities in towns, cities and municipalities.

Through the comprehensive endeavor, the team provides the public as much information as possible about identifying potential water quality problems and how to drastically reduce potential sources of water contamination (such as oil, gas, chemicals and litter that can have a negative effect on drinking water). By building a grassroots movement and getting the word out, the team hopes to create a wave of interest, where more citizens become aware of where drinking water comes from, how it impacts our lives and how we can all play a proactive role in protecting it.

While the goal is to inform both the public and water utility workers about water protection measures, removing the skepticism or mistrust that many feel whenever the state government appears is also a big part of these presentations. Some citizens view any visit by the government as a mechanism for adding new regulations or imposing harsher laws upon the community, but that's not the case here. These presentations are strictly educational in nature and designed to inform the public about what they can do to protect their drinking water, save money on their water bill and be more environmentally conscious in their activities. But that initial skepticism is a hurdle the water protection team continues to address.

"We have found that some people are reluctant to listen to us, as they may have a negative opinion about government, but our role here is to inform the public on what they can do to ensure their drinking water is safe," Means said.

Supporting the presentation was a model showing how surface water and groundwater interact and how groundwater flows beneath the surface of the earth. The model provides an excellent visual and interactive tool to help citizens understand how the process works. The model depicts a cross-section of land where an aquifer flows below the surface. *Continued on page 7*





This model depicts how ground water flows and interacts with surface water, and how contaminants can migrate to water wells.

When LDEQ personnel poured a colored dye into the top (simulating contaminants poured on the ground), viewers saw how that water interacts with lakes, groundwater and water wells. The dyed or "contaminated" water is ultimately filtered down through the sedimentary layers, where it can potentially reach an aquifer. If that happens, the result could create a detrimental impact on drinking water.

The team's presentation included tips on conserving water, what potential sources of contamination are and how they can affect drinking water, best management practices and promoting local engagement in getting communities informed and actively involved in the process. "We all use water every day, and one cannot live without water for very long, so it's vital in our lives."

For more information, visit LDEQ's source water protection page at: *http://deq.louisiana.gov/page/aquifer-sampling-and-assessment-program*. Information on the Louisiana Rural Water Association: *https://lrwa.org*.

STEM Day at LDEQ

n Oct. 10, teachers from Scotlandville Magnet High School visited LDEQ for Science Technology Engineering and Math (STEM) Professional Development Day. Teachers learned about LDEQ activities from Secretary Chuck Carr Brown and Press Secretary Greg Langley before participating in an Engineering panel featuring engineering staff from across multiple offices and divisions. The panel participants discussed their educational backgrounds, career paths, current jobs and recommendations to students considering work in the field of engineering. Teachers then toured the MAML (Mobile Air Monitoring Laboratory) and were able to see air monitoring equipment and learn about the MAML's uses. Staff members told the teachers about the different demonstration tools available for non-point source pollution and aquifer protection outreach.



Tomeka Prioleau, LDEQ Business Analytic Scientist, facilitates a discussion between teachers and staff.



Teachers from Scotlandville Magnet High School toured of LDEQs MAML.



Workshop for the new Louisiana Student Standards for Science

here has been a substantial shift in the teaching methods, K-12, for science classes that will engage the students in the scientific process rather than having them listen to lectures and memorize facts. Learning science requires both knowledge and practice, and the new 3-D learning is based on phenomenon. Three dimensional learning is the integration of the science and engineering practices, disciplinary code ideas and crosscutting concepts in science instruction. The scope of this method should prepare students to transition to post-secondary education and the workplace. The standards call for students to apply content knowledge, investigate, evaluate and reason scientifically and connect ideas across disciplines. This type of learning requires resources outside the classroom.

To identify the resources to enhance this learning method, a workshop was held for non-formal educators, including state agencies to unveil the process and see how outside resources can be available to the teachers and students. Four LDEQ staff members participated in the workshop. Categorizing the kind of support that LDEQ can give to this hands-on method of learning was a priority. One example would be assisting with an understanding of how air quality affects the average person. Working with video, interactive electronics, hands-on equipment demonstration and tours, the students would be better able to figure out better ways to do things and solve problems.

Participants included teachers, state agencies, city and parish representatives, nonprofits and other interested parties and resources. They include the Department of Education, U.S. Fish and Wildlife Service, Coastal Protection Louisiana Sea Grant,



Brian Gautreau, Wildlife and Fisheries, explains the new science standards.

Department of Wildlife and Fisheries, The Green Project, LSU Ag Center, Keep Louisiana Beautiful and many others.

LDEQ will be working with the Department of Education to enhance the learning process and provide resources and ideas to schools and teachers.

Public Relations and Risk Communications class held at LDEQ Headquarters Sept. 27

ore than 30 LDEQ employees attended a class on public relations and risk communications at LDEQ Headquarters Sept. 27. Open to all employees, this particular class focused on public relations from an air quality standpoint.

Hosted by CenSARA, the Central States Air Resource Association, the class provided some insight into risk communications and how employees can effectively respond to the public and media during an environmental crisis or issue.

Since many environmental events involve one of great concern, it's important to effectively manage the response from a communications standpoint as well as physically addressing the issue on the ground. That's where risk communications comes in. "Risk communications is a science-based approach for communicating effectively in high concern, low trust, sensitive or controversial situations," explained instructor Mac McCrory, Ed.D.

Continued on page 9





Dr. Mac McCrory speaks to the attendees on risk communications.

The class touched on the variety of factors that go into an effective communication approach, such as understanding trust and establishing credibility, knowing the risk perceptions, acknowledging mental noise and the array of non-verbal communications that can have an impact on the message.

The class ended with a role playing exercise where the attendees separated into small groups that were tasked with preparing questions and answers to a problem, then presenting those to the class.



LDEQ On The Move



Training included the use of guides and "manikins," which were used to simulate an unresponsive person.

LDEQ staff undergo first aid, CPR and AED training

During September, three classes held at LDEQ headquarters provided instruction on first aid, cardiopulmonary resuscitation (CPR) and use of the AED, or Automated External Defibrillator. Offered periodically at LDEQ, the American Heart Association course provides hands-on instruction in administering CPR and first aid to adults, children and infants. Certification is valid for a year.



A LDEQ group that included Secretary Chuck Carr Brown, members of the LDEQ executive staff and administrators went down to the river Oct. 13. Joseph McClatchy of CPRA and Clint Willson, the director of LSU's Center for River Studies, spoke to the group about the large scale model of the Mississippi River at the LSU Center for River Studies on the Water Campus in Baton Rouge. The group toured the not-yet-open 10,000-square-foot physical model which occupies the River Modeling Center. It is one of the largest and most accurate moving physical river models in the world.



Who's Who At DEQ?



Sherita Holden - Criminal Investigator 3 -- Northwest Regional Office, Office of the Secretary

Holden was born and raised in Shreveport. She served her country for 10 years in the U.S. Army and received an Honorable Discharge in 2009. Holden continued her service to her community as a Shreveport Police officer from 2009-2017, where she spent her last six years with SPD as a homicide/violent Crimes investigator.

Holden is currently a Criminal Investigator 3 in the Northwestern Regional Office in Shreveport. She received a bachelor's degree in mass communication with a public relations concentration from Louisiana State University Shreveport and is expected to graduate with a bachelor's degree in sociology from LSUS in the fall of 2017.

Jeff J. Dauzat – Administrator, Emergency and Radiological Services Division, Office of Environmental Compliance

Dauzat received a Bachelor of Science in Wildlife Biology from Louisiana Tech University in 1988 and a Master of Science in Industrial Hygiene from Tulane University in 1999. Employed with LDEQ since 1989, Dauzat has served in many roles at LDEQ, including Water Surveillance Inspector, Water Permits Writer, Water/Air Surveillance Inspector, Environmental Supervisor and Water Staff Environmental Scientist in the Southeast Regional Office in New Orleans. His most recent position was as Water Senior Environmental Scientist for Surveillance.





Kristin East - Environmental Scientist, Permit Support, Office of Environmental Services

East is from Lake Charles, and graduated from LSU with a bachelor's degree in Coastal and Environmental Sciences. Before coming to LDEQ, she worked at the Louisiana Department of Children and Family Services as a Disability Determination Analyst.



Louisiana Department Of Environmental Quality's Third Quarter Summaries

Third Quarter 2017 Enforcement Actions: http://deq.louisiana.gov/page/enforcement-actions

Third Quarter 2017 Settlement Agreements: http://deq.louisiana.gov/page/enforcement-division

Third Quarter 2017 Air Permits: http://deq.louisiana.gov/page/permits-issued-by-calendar-quarter

Third Quarter 2017 Water Permits: http://deq.louisiana.gov/page/lpdes

Third Quarter 2017 Solid and Hazardous Waste Permits: http://deq.louisiana.gov/page/waste-permits