DISCOVER DEQ
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY NEWSLETTER
Tuesday April 28, 2009 Issue Number: 2

DEQ PREPARING FOR A CHALLENGING OZONE SEASON ALL AROUND THE STATE

May 1 to Sept. 30 is considered ozone season in Louisiana and this year, the state will have 11 parishes that have been recommended for nonattainment status for the pollutant ozone. They are the five-parish Baton Rouge area of East and West Baton Rouge, Iberville, Ascension and Livingston parishes plus Caddo, Lafayette, Point Coupee, St John the Baptist, Lafourche and Jefferson parishes.

In preparation for these expanded nonattainment areas, DEQ did many things. When it became apparent, with the new more stringent ozone standard, that many areas other then Baton Rouge could be out of attainment, DEQ formed the Statewide Ozone Steering Committee. This committee was made up of a variety of interested parties such as federal, state and local governments as well as industry, community groups and environmental groups. The Ozone Steering Committee went to see local governments and regional planning commissions to discuss the impacts on health and economics as it relates to the new standard. Then they gave eight presentations on the impact of the new ozone standard for the public.

For the newly included parishes, 2009 will be an important year. Many of them are close to meeting the new standard and a year without exceedances could keep them in attainment. The Environmental Protection Agency will not make final designations until March 12, 2010.

This year, DEQ will be forecasting ozone and PM 2.5, fine particle pollution, and showing the data on the DEQ website www.deq.louisiana.gov. Ozone Action Days will be called when the Air Quality Index shows orange. Ozone Action Days will be forecast for all affected areas.

When an Ozone Action Day is called in your area there are many things an individual can do to help prevent the formation of ozone. You can drive less, walk and bike more; carpool, rideshare or ride the bus; care for your car; fuel when it's cool; conserve energy in your home; buy energy efficient items; use gasoline motors after 6 p.m.; and, spread the word about protecting our air and environment. For more information go to www.deq.louisiana.gov.

Protecting our air and environment is everyone's responsibility. Be part of the solution.

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DEQ'S BASELINE MONITORING TEAM TESTS GROUNDWATER AT WELLS ACROSS THE STATE

Since 1990, DEQ's Baseline Monitoring Program has been actively testing groundwater at wells all over Louisiana. "The program determines and monitors the quality of groundwater in wells across the state," said John Jennings, Baseline Monitoring Program Manager. "We periodically track the groundwater quality in those wells and note any changes that may be seen."

The program does not apply to surface water and private or home-based wells.

While well owners and operators need not sign up for inspection, participation in the program is voluntary. DEQ's Baseline Monitoring Team reviews a statewide well registry which is maintained by the Department of Transportation and Development. Upon contacting a well operator or owner from that registry, a visit to that respective well is arranged. During the testing phase, sampling is done for pesticides, nutrients, inorganic compounds, Volatile Organic Compounds (VOCs) and semi-VOCs.

DEQ does not have regulatory enforcement authority over contaminated groundwater in these wells, however, if contamination of groundwater is found, DEQ can consult with the Department of Health and Hospitals for corrective or enforcement action. "The Baseline Monitoring Program is the only continuously operating statewide program that monitors the quality of the state's groundwater from an ambient perspective. We do not target contaminated groundwater. If we find it, that's good; if there's none to find, that's even better," said Jennings.

Results have been quite positive thus far, as Jennings noted that many of the aquifers in Louisiana have some of the best groundwater that can be found anywhere. "You can see how important it is to keep a watchful eye on this program," he said.

Sampling an "air-lift" well that supplies a stock pond.

Funded by the Environmental Protection Agency under the Clean Water Act, over 250 wells are in the statewide system, with approximately 65-70 wells undergoing sampling each year. The wells are inspected on a 3-year rotation which begins every July.

EMERGENCY RESPONSE

When a train derailed in Plaquemine on March 7, the Department of Environmental Quality was one of many state and local emergency responders on the scene. While the derailment was the highest profile event of the weekend, it wasn't the only one.

On Friday, the emergency response after-hours team was working on a dumping incident near Gonzales from 9 p.m. -1 a.m. Then, on Saturday while much of the staff was working on the derailment, another emergency response call came in concerning a discharge of material on Airline Highway in Baton Rouge.

"March 7 was not a typical day in emergency response," said Environmental Manager with DEQ's Emergency Response Division Peter Ricca. "The events of that weekend showed that we are an experienced team.

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This is what we prepare for and the success we had that day is a demonstration of being prepared."

Shortly after the 5:30 a.m. derailment, DEQ responders were on scene to assess the situation, find out what was leaking and take air samples.

Initially, the first responders on the scene begin taking air samples using hand-held devices. Then, after assessing the scene, the responders set up fixed monitors at strategic locations that best provide information beneficial to all agencies involved in the response and local citizens. The information the responders gather is used to make decisions on possible evacuations and decisions to shelter-in-place and for the safety of first responders.

DEQ responders arrive with equipment and expertise. In the recent past, these responders would work out of their vehicles or use space in another agency's incident command post. However, the Plaquemine derailment offered an opportunity for the department to use some of its newest equipment. When DEQ brought in its Mobile Incident Command Center, DEQ staff had a home base.

"This is an invaluable piece of equipment," DEQ Incident Commander Daniel Lambert said at the scene. "Anyone who needs DEQ can easily find where we are stationed. It helps us keep organized and it leads to better teamwork. We have room to work and store all our materials. We're not scattered. We're not cramped. We're much more efficient."

The Incident Command Center is equipped with electric and computer outlets, it houses all the equipment used to monitor environmental impacts of an incident and provides a centralized location for DEQ emergency response to discuss sampling results, strategy and planning.

The department also used its Mobile Air Monitoring Laboratory to take real-time air samples of the derailment. The MAML is a 2006 Winnebago RV that has been equipped with technologically advanced air monitoring equipment. The MAML is capable of sampling for multiple organic compounds, can take real-time samples and has the capability of providing sampling data for air canisters.

DEQ reached deep into its staff to man the incident command center for 24 hours, plus provide support of the other incidents of the weekend. Staff included employees from the surveillance and assessment divisions as well as emergency response.

"This was a shakedown that showed teamwork and capability," Ricca said. "DEQ has always had the capability. On this weekend we showed experience. A lot of people pitched in to provide an abundance of information to emergency responders and nearby citizens."

During the two days of monitoring after the train derailment, the stationary monitors, the MAML samples and water samples showed there were no adverse environmental effects related to the event.

Train derailment in Plaquemine.

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Mobile Air Monitoring Laboratory (MAML)

MAML

When the department was conducting an air toxic sampling survey around schools at various locations throughout the state, the MAML provided an extra sampling tool.

While conducting an air quality study near a landfill, the MAML was able to provide a week's worth of air sampling results.

At a train derailment in Iberville Parish, once again the MAML was on the scene to ensure that the air downwind from the accident and near a neighborhood was safe for the residents.

DEQ has increased its air-monitoring capabilities with the high-tech mobile laboratory. The advanced air-monitoring equipment provides the department with instant data wherever the MAML is located.

There are three main purposes for the mobile lab, according to Assistant Secretary Paul Miller.

"We've seen recently how we can utilize this tool to help the citizens of Louisiana in a variety of ways," said Miller. "This administration has picked up the pace when it comes to using the MAML. We have been able to successfully have the MAML conduct air-sampling projects and to have it on scene of an emergency. It's a credit to the staff that keeps the mobile lab ready to go when needed."

The MAML cost approximately $400,000 and was paid for using federal and state funds. The 2006 Winnebago is equipped with a gas chromatograph capable of sampling for hundreds of organic compounds. The mobile lab can monitor for the criteria air pollutants ozone, particulate matter, carbon monoxide, nitrogen oxides, and sulfur dioxide. Because of the concerns about mercury in the environment, the mobile lab has a mercury analyzer capable of detecting mercury in air at very low levels. The MAML can also monitor for hydrogen sulfide.

The vehicle, a self-contained mobile laboratory capable of real-time sampling and analysis, is outfitted with monitoring equipment designed to measure numerous air pollutants and can provide the department with instantaneous, on-site data.

The MAML has been deployed throughout the state to provide valuable data directly related to a multitude of air quality issues.

LIVING WALL IS HANDS-ON TEACHING AT THE ACADEMY IN PLAQUEMINE

A group of Penn State students and their advisors spent their spring break helping middle school students from the Academy School for Math, Science and the Arts in Plaquemine build a living wall. The Academy students got hands-on experience in how to use basic material to clean and filter stormwater runoff.

The wall is a combination of micro habitats constructed under the roof edge where runoff occurs. At the bottom of the wall, the students built a one to two-foot subsur-

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face wetlands consisting of a liner, plants, rocks and sand. The roots of the plants filter the water. Since the water is in the ground it is not a breeding ground for mosquitoes. The students constructed living columns filled with crushed stone, organic and compost materials. Plants of different varieties were planted on the wall to filter water that flows over and in it. At the very top of the columns, an arid habitat was constructed and plants that do well in arid conditions were used. Once constructed, the living wall needs very little maintenance.

Bob Cameron, a doctoral candidate from Penn State's Center for Green Roof Research, led the group and directed the planting and interactions. "At Penn State, there are four buildings with green roofs (i.e. roofs planted with various plants and ground covers such as drought-tolerant sedums)," Cameron said. These living roofs absorb CO2, reduce runoff, filter runoff and retain more than 60 percent of runoff and reduce noise and internal temperature. Four more green roofs are planned.

Living Wall at the Academy School for Math, Science and the Arts in Plaquemine

The Academy students learned that using well thought out green technology can improve the environment in a natural way. The living wall is designed specifically for Louisiana conditions and heat. In other parts of the country, different plants and filters can be used. Indoor living and green walls are being used to improve indoor air quality.

"Let's get waste out of our vocabulary," said Cameron. "Look at it as unused resources – in nature, everything is used."

For more information on the Iberville Parish Academy of Math, Science and the Arts go to http://www.ipsb.net/IPSB-sites/MSA-West/MSA/Home-temp.html.

For more information on Penn State and green roofs, go to http://horticulture.psu.edu/cms/greenroofcenter/.

ISLAND GOLF COURSE USES SOLAR POWER

The folks at the Island Country Club in Plaquemine know some things about going green, and it's not just the lush putting surfaces their customers have become accustomed to that they're talking about.

The Island is home to Louisiana's largest solar energy project. Gulf South Solar of Baton Rouge, which sells and services solar energy systems, installed 160 Sharp solar panels on the south-facing roof of The Island's cart barn. Glen Clouatre, general manager of The Island, said the goal is for the solar energy system to produce 54,000 kilowatt hours per year.

"We were looking for innovative ways to cut costs and to save energy without causing any disruption of customer service to our members and guests," Clouatre said. "We changed all the incandescent bulbs in the clubhouse to compact fluorescent lamps. We installed

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solar panels to provide cost-efficient, environmentally friendly power to use throughout the facility. In addition, we installed timers on all non-essential outdoor lighting."

The solar system went live in late October and already The Island is seeing the benefits. In January, the kilowatt hour usage was down 31 percent. For the period of November through January, there was a 42 percent decline in comparison to the year before.

Because of The Island's commercial standing, the company faces a demand charge from the power company if it uses 40 kilowatts or more of power at any given time of the day. The Island's power usage during the peak times of the day without the solar panels would lead to paying this higher charge.

The solar energy system will help The Island fall well short of the demand charge. As an added benefit, the system is helping The Island reduce its carbon footprint. Since late October, the CO2 emission offset is more than 18,724 pounds.

In another environmentally friendly and cost-efficient move, The Island will soon have a solar-powered geothermal heating and cooling system. The open-loop system will take water from a nearby well and use it to heat and cool the facilities. The water is then routed back to the large irrigation pond which borders hole No. 18 at The Island. An additional 14 solar panels will be used to power the system.

"Our goal is to cut the heating and cooling costs by 50 to 60 percent," Clouatre said. "We'll be using less electricity and our carbon offsets will be even greater."

Solar panels at The Island Country Club in Plaquemine.

WATER CAMPAIGN

The department is preparing to begin its first ever statewide educational outreach campaign. The campaign, which is funded by our federal partners at EPA, is to educate the citizens of the state on surface water issues which are related to the EPA and DEQ non-point water divisions.

On May 18, billboards and radio ads will begin running throughout the state. The billboards will be placed at major thoroughfares, such as the bottom of the high rise in New Orleans and at the I-20 Red River bridge that connects Shreveport and Bossier. Also, look for billboards at West Monroe-Monroe, Alexandria, Lake Charles and Baton Rouge. A second wave of PSAs will begin on May 31 when DEQ and EPA unveil a TV commercial featuring a state-of-the-art, 3D animated crawfish who gives information on how to protect his (and our) waterways.

Using a comprehensive, multicultural approach, the "**Be The Solution**" campaign targets citizens throughout the state who may contribute to water pollution and may not know it. This statewide campaign is an effort to create a social mindset that residents in Louisiana should take pride in their state and, for this campaign, especially the waters of the state. The campaign implements proven strategies such as media advocacy, paid media, special events, partnerships and community outreach. By reaching out to the public using these

techniques we plan to raise the level of awareness so that people understand that their activities influence the state's waterways.

The short-term goal of the public outreach program is to educate the public through proven means of communication on the effects people have on the state's waters. The long-term goal is increase the community's involvement in watershed protection activities through awareness and education while changing attitudes. We want people to know they can **Be The Solution.**

The long-term objectives are: increase awareness about impaired water bodies in the state; increase awareness about our personal roles living in a watershed and the cumulative effect our day-to-day activities have on water quality; and encourage behaviors that will keep pollutants out of local streams and the ocean.

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY'S FOURTH QUARTER SUMMARIES

4th Quarter 2008 Enforcement Actions:
http://www.deq.louisiana.gov/portal/tabid/225/Default.aspx

4th Quarter 2008 Settlement Agreements:
http://www.deq.louisiana.gov/portal/tabid/2838/Default.aspx

4th Quarter 2008 Air Permits:
http://www.deq.louisiana.gov/portal/tabid/2922/Default.aspx

4th Quarter 2008 Water Permits:
http://www.deq.louisiana.gov/portal/tabid/2899/Default.aspx

4th Quarter 2008 Solid And Hazardous Waste Permits:
http://www.deq.louisiana.gov/portal/tabid/2586/Default.aspx