DISCOVER DEQ
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY NEWSLETTER

June 2023 Issue Number: 137

## What's Inside?



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# Air Quality Advisory Days – Why we issue them and the results of recent AQ advisory Days

May is the beginning of ozone season. This year it kicked off with Air Quality Advisories, Ozone Action Days, smoke and hot weather. As a result, the Louisiana Department of Environmental Quality has issued a total of 11 Air Quality Advisories. What are advisories, why are they important, how can you access them and how do they affect Louisiana?

Eleven Air Quality Advisories (seven next-day forecasts, four same-day forecasts) have been issued between May 28 and June 21. LDEQ issued five consecutive next-day Action Day forecasts. This is the longest stretch of Action Days issued over the last eight years. Perhaps the lone comparable year would be 2018, when LDEQ issued three straight next-day Action Day forecasts for two separate periods. Of the seven Action Days issued on a next-day forecasting basis, the ozone standard was exceeded four times. For the four Action Days issued on the same day, the ozone standard was exceeded two times. In all, non-attainment occurred six times when a same or next-day Action Day forecast was issued.

Smoke was likely present at ground level over the state for all 11 Action Days issued since the start of May. For the six Action Days where non-attainment was verified, five days featured likely smoke sources from Canada, Mexico, Central America or regional burning. For the remaining day (May 4), the smoke source was Mexico, Central America and regional burning.

**AIR QUALITY INDEX FOR OZONE AND PM2.5**

| Category | Value | Ozone 2008 8-HR (PPM) | 24-HR PM2.5 (µg/m3) | Suggested Precautions |
|---|---|---|---|---|
| Good | 0-50 | 0.000-0.059 | 0-15 | None |
| Moderate | 51-100 | 0.060-0.075 | 16-35 | Unusually Sensitive People Limit Prolonged Outdoor Exertion |
| Unhealthy for Sensitive Groups | 101-150 | 0.076-0.095 | 36-65 | Sensitive People & Children Limit Prolonged Outdoor Exertion |
| Unhealthy | 151-200 | 0.096-0.115 | 66-150 | Everyone Limit Prolonged Outdoor Exertion |
| Very Unhealthy | 201-300 | 0.116-0.374 | 151-200 | Sensitive People Avoid All Outdoor Exertion; Everyone Else Limit Prolonged Outdoor Exertion |
| Hazardous | 301-500 | 0.375 & up | 201 & up | Everyone, especially children and sensitive people, avoid all outdoor exertion. |

An Air Quality Advisory Day for ozone means weather conditions are favorable for the formation of higher than normal levels of ozone. When sunlight combines with volatile organic compounds (VOCs) and nitrogen oxides (NOx), it forms higher than normal levels of ozone near the ground that may cause harmful health effects. It is important for the public to be aware of the air quality because when the Air Quality Index (AQI) forecast is above 100, it is categorized as Unhealthy for Sensitive Groups or Code Orange. Increased ozone levels may cause unhealthy air quality for the general population. Active children and adults, the elderly and people with respiratory diseases, such as asthma, should avoid prolonged outdoor activities.

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The beginning of May starts ozone season because conditions are more favorable for ozone formation May through September, although we can experience an exceedance any time. People should be aware of air quality every month of the year.

It is important to know about air quality, and there are several ways to keep informed and to access it. To create these advisories, LDEQ works with a forecaster, Sonoma Technology, to look at the weather conditions and other factors to predict when ozone formation is likely or to identify other air quality issues. The factors include cloud cover, the presence of ozone precursors -- VOC and NOx along with wind speed and direction. These forecasts are listed daily on the LDEQ website and can be viewed at ***airquality.deq.louisiana.gov*** under the forecast heading. You can sign up for notifications about ozone, Fine Particulate Matter (PM2.5) and Sulfur Dioxide (SO2) on this site as well as site information and current information. Advisories are generally sent out in early to mid-afternoon, the day before the forecast advisory, however same day advisories are also issued.

Another way to be sure you know what the air quality is and what is forecast is to sign up for EnviroFlash, a free notification system, maintained by LDEQ and EPA. EnviroFlash sends advisories to you by email or phone. You can sign up for this free service at ***www.deq.louisiana.gov/enviroflash***, EnviroFlash also sends emails when there are events, such as fires, that affect the air quality.

EnviroFlash
Your Environmental News Flash

You can access AirNow at ***www.AirNow.gov***, a website that has information and resources on current conditions in your area, fires and other circumstances that affect our weather and air.

Currently, Louisiana is in attainment with the National Ambient Quality Standards (NAAQS) for ozone, which has been a collaborative effort of industry, agencies and individuals. It is important to keep that designation for health, environment and economy. Knowing the air quality is important for the quality of life in Louisiana for all. All of us can make a difference. Industry helps. When LDEQ issues an Air Quality Advisory for ozone or when it appears that the AQI will reach 90 or above, industry is asked to take voluntary measures to reduce ozone precursor emissions into the atmosphere. LDEQ notifies Industry when the ozone level is predicted to be 90 or above on the Air Quality Index (AQI). Industry then takes steps to reduce the level of ozone precursors that are released into the air. Many facilities have Ozone Action Plans.

Individuals are essential too. There are some easy steps.

Days when ozone is expected to be high:

- Conserve electricity and set your air conditioner at a higher temperature.
- Choose a cleaner commute—share a ride to work or use public transportation.
- Bicycle or walk to errands when possible.
- Go into fast food restaurants instead of sitting in line
- Refuel cars and trucks after dusk
- Avoid using gas powered lawn and garden equipment
- Delay painting
- Combine errands and reduce trips.
- Limit engine idling.

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# Message from the Secretary

***Roger W. Gingles***

*Roger W. Gingles*

This has been one of the hottest Junes in the history of Louisiana. Daily high temperatures have hovered in the mid- to upper-90s most of the month. That is hard on air conditioners, cars and, especially, people. I hope you are paying attention to your hydration and not getting too hot when you work outside, whether at home or at LDEQ. It's easy to get overheated in these temperatures and humidity.

Make sure you pace yourself working outside and take frequent breaks. Drink plenty of fluids. Go inside and cool off every so often. Don't work outside alone. Make sure you check in with someone from time to time. It's a good idea to know the symptoms of heat stroke and heat exhaustion. If you feel dizzy and have a headache, seek help immediately. Let's stay safe in this dangerous weather.

Holiday safety should be on your list too. We are approaching the July 4th Holiday, and this year there will be a stretch of four off days for state employees. That's like a mini-vacation. Enjoy the celebration, go watch some fireworks, listen to a concert, eat barbecue, cook out, go swimming, see a movie, cut your grass, visit with relatives and wave those flags. Remember, we are celebrating the events that led to the creation of the United States of America, the best, freest place on Earth. Use that freedom to do anything you want, even nothing. You have the right.

Remember that you do have to come back to work after the last firecracker has popped, so give yourself enough time to get a good night's rest before you return.

The Mobile Air Monitoring Laboratory (MAML) missions are continuing. We have two MAMLs, and at least one of them conducts a routine monitoring mission each month. Recently, a MAML was in Welcome, Louisiana, grabbing background samples for later reference.

Both the MAMLs are normally based in the warehouse in Port Allen along with other equipment such as boats and trailers. Right now some concrete repair work is underway at the Port Allen facility, so when the MAMLs are not on a mission, they are being kept at the Department of Agriculture facility on Florida Boulevard. The concrete repairs at the Port Allen warehouse should take about a month.

June 20-23, the EPA held hearings on the State of Louisiana's request for primacy over Class 6 (injection) wells for carbon injection. The injection technology and the whole carbon sequestration process has sparked some controversy and public interest. So when the hearings took place down the street at the LaSalle Building, they drew a crowd. There were no issues reported from the LDEQ/Galvez Building arising from the hearing. When we have these high profile public events, the hosting agency (LDNR in this case) always tries to increase security and make sure everyone stays safe. Parking and support resources like restaurants and coffee shops may be impacted however. It can be an inconvenience for state employees, but it's a good thing – the way democracy works.

All that hot weather I mentioned is helping to warm the Gulf of Mexico waters to records temperatures. That means more energy for storms. It has already been an active season south of us. Stay alert. Make sure to Get A Game Plan and be ready if a storm targets Louisiana. Check out ***www.getagameplan.org*** for some great information on how to prepare for and deal with a storm. Stay safe.

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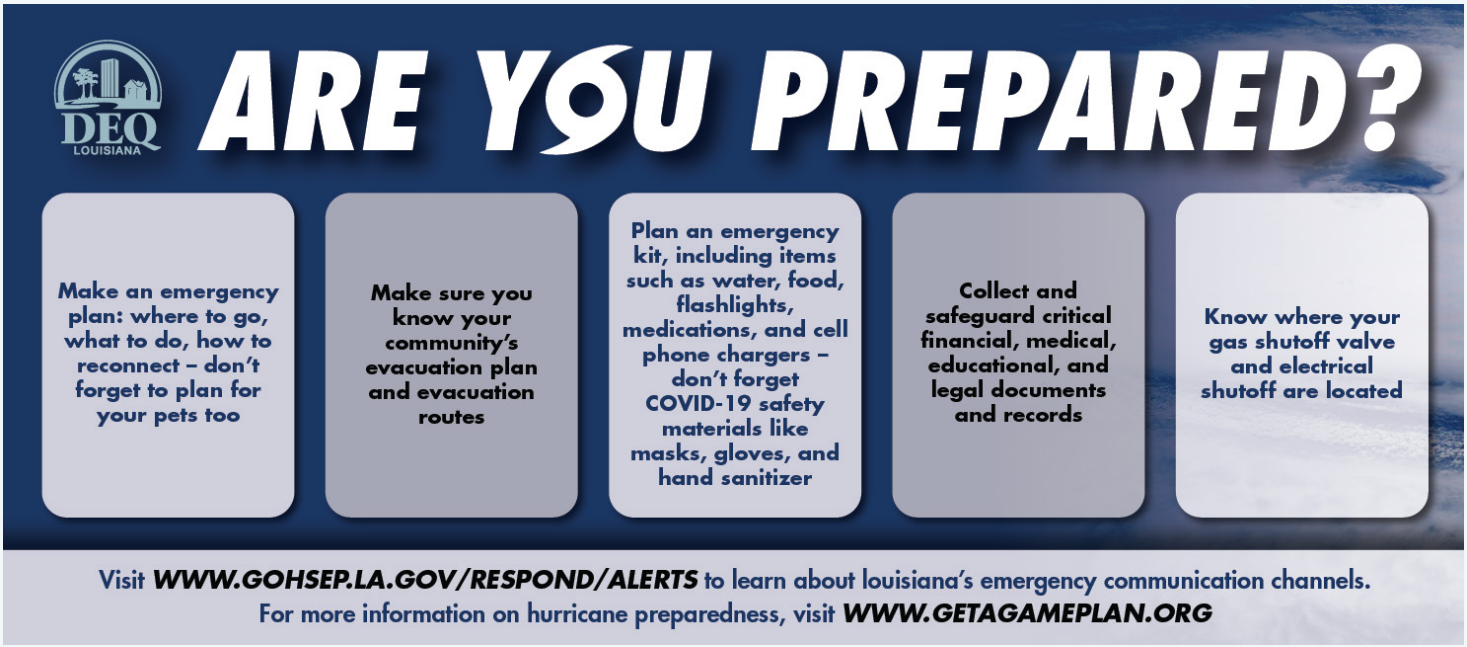


## The 2023 Hurricane Season

A large hurricane releases the energy of 10 atomic bombs every second, according to the University of Utah. Hurricanes can be deadly with their violent winds and torrential rains. Hurricanes are unique among natural disasters because they can be prepared for ahead of time. Here's what experts say about this upcoming season.

The National Oceanic and Atmospheric Administration (NOAA) predicts a near-normal 2023 Atlantic hurricane season. NOAA expects five to nine hurricanes, including one to four major hurricanes, with 70% confidence. One of the factors that plays into this regular season is the high potential for an El Niño event. El Niño triggers trade winds to weaken and Pacific Ocean waters to warm on the West Coast. The extended Pacific Jet Stream causes fewer hurricanes to develop in the Atlantic Ocean while more develop in the Pacific Ocean. Tropical storms have begun to form relatively early in the season, starting in June.

NOAA is upgrading its equipment this summer to better predict and model hurricanes and other atmospheric storms. The organization is adopting a new, complex forecasting model as well as extending prediction time from five to seven days ahead. The novel Hurricane Analysis and Forecast System (HAFS) will be operational in late June with an estimated 10% to 15% improvement in track modeling. Furthermore, the Probabilistic Storm Surge model was upgraded in May with new advances in surge and wave forecasting for the contiguous United States, Puerto Rico and the U.S. Virgin Islands. Look for even more improved technology from NOAA soon, such as new drones, better flood inundation mapping and an updated buoy array.

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# Chapter of La. American Fisheries Society meets at LDEQ

The Louisiana Chapter of the American Fisheries Society (AFS) met at the Louisiana Department of Environmental Quality (LDEQ) for its 43rd annual Louisiana meeting May 25-26.

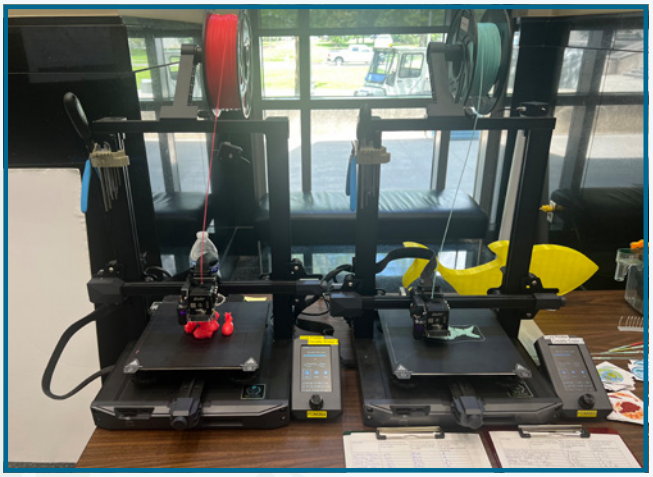
AFS creates recommendations for regulatory agencies and legislature to aid the conservation, improvement and management of America's aquatic resources and freshwater and marine ecosystems. AFS includes more than 8,000 members across the United States who are committed to conserving and improving fisheries resources and advancing fisheries science.

The theme of the meeting was "Alternate Species Management: Fish Passage, Monitoring, and Connectivity." The participants of the conference included LDEQ and Louisiana Department of Wildlife and Fisheries (LDWF) employees, the United States Fish and Wildlife Service (US FWS), the United States Geographical Survey (USGS), Louisiana State University, Nicholls State University, Loyola University, Louisiana Tech University and the Louisiana Universities Marine Consortium (LUMCON).

*Attendees lesson to presentation at the 43rd annual meeting of the Louisiana Chapter of the American Fisheries Society.*

"AFS is an organization dedicated to conservation of fishery resources and aquatic ecosystems and that mission not only aligns with LDEQ's goal of comprehensive environmental protection for the safety and welfare of our people, but also serves to protect a resource in Louisiana that is vital to our economy," LDEQ environmental scientist Karen Latuso said. Latuso was elected as the Secretary-Treasurer at this year's La. AFS meeting.

The annual meeting drew a crowd with 146 registrants. Twenty-two presentations and nine posters were submitted with relation to the theme of the conference.



*Members of AFS show off the capabilities of 3-D Printer*

The student award winners:

## Abstract

**First Place:** "Vertical movement of reef fish in response to hypoxic conditions in the northern Gulf of Mexico": Jade Carter and Michael Dance.

**Second Place:** "Comparison of the littoral and pelagic aquatic faunal communities at Isle de Jean Charles, a degraded natural estuarine ridge in Terrebonne Basin, Louisiana": Christopher Bonvillain, Solomon David and Elizabeth Meyers.

**Third Place:** "Ecology and life history of two Alligator Gar metapopulations": Audrey Baetz, Dinah Cador, Solomon David, KristieRae Ellis, Anthea Frederickson, Alex Lackmann, Derek Sallman and Katherine Wright.

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**Poster**

**First Place:** "Update on the invasion status of Amphipnous cuchia in Bayou St. John, New Orleans": Miranda Buckheit, Olivia Guerra, Frank Jordan, Jaden Kinney, Kimberlee Mix and Susan Thomassie.

**Second Place:** "Comparison of the littoral and pelagic aquatic faunal communities at Isle de Jean Charles, a degraded natural estuarine ridge in Terrebonne Basin, Louisiana": Christopher Bonvillain, Solomon David and Elizabeth Meyers.

**Third Place:** "Ecology and life history of two Alligator Gar metapopulations": Audrey Baetz, Dinah Cador, Solomon David, KristieRae Ellis, Anthea Frederickson, Alex Lackmann, Derek Sallman and Katherine Wright.

**Oral**

**First Place:** "Coastal carp: exploring invasive carp movement in southern Louisiana": Rob Bourgeois, Michael Dance, Robby Maxwell and Christian Walker.

**Second Place:** "Utility of eye lenses to investigate habitat use, trophic ecology, and life history of Spotted Gar Lepisosteus oculatus and Alligator Gar Atractosteus spatula": Dinah Cador and Solomon David.

**Third Place:** "Comparison of feeding regimes for culturing juvenile Spotted Gar": Tim Clay, Solomon David, Allyse Ferrara, Quenton Fontenot and Haleigh Sever.

The La. Chapter of AFS was excited to use LDEQ's headquarters for the conference, and they should be meeting back in Baton Rouge in 2025. Next year's La. AFS meeting will be at the National Park Services' Wetlands Acadian Cultural Center in Thibodaux. If you would like to learn more about the American Fisheries Society, visit the website ***https://fisheries.org***.

## Jason Meyers, administrator for air quality assessment is fourth LDEQ podcast guest


The Louisiana Department of Environmental Quality (LDEQ) Communications Section has ventured into a new project, starting an official LDEQ podcast. Each month, the podcast, "LDEQ On Air," features one guest answering questions about his or her role at LDEQ. The goal of the podcast is to inform the public about how issues are handled at LDEQ, how LDEQ is organized, the people behind the processes at LDEQ and answers to questions about agency issues.

The fourth episode features LDEQ Air Planning and Assessment Administrator Jason Meyers as he discusses Air Quality Advisory Days, MAML missions and current initiatives within the air assessments division.

A new podcast will be released every third Thursday of the month. An easy way to remember that is that it's the day after the "Ask the Governor" radio show. LDEQ Communications won't be accepting live questions but will accept email submissions with suggestions.

To listen, visit the LDEQ webpage at ***www.deq.louisiana.gov/podcast***. LDEQ On Air is also available on Apple Podcasts, Spotify and Google Podcasts. If you have any questions or would like to submit question suggestions, please email the LDEQ Communications Section at ***SECTCOMMUNICATIONS@la.gov***.

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# Canadian wildfire smoke stretches across North America

Hundreds of wildfires have spread through Canada since the beginning of May. Millions of acres of forests and land have burned, and mass evacuation has been prescribed for many citizens of the country.

Canada is on its way to having the most destructive wildfire season in its history this year. The Canadian wildfire season typically lasts from May to October. The season started earlier than usual and has led to catastrophe across Canada and North America. Drought and extreme temperatures seems to be the cause of the natural disaster.

Dry and warm seasons are plaguing Canada and allowing wildfires to prosper. Hot weather breeds storms and lightning. Lightning-started wildfires represent 45% of all wildfires, according to the Canadian government. Lightning wildfires also represent 81% of total area burned, which makes them incredibly destructive and dangerous.

Extreme weather conditions in Canada have made the wildfires more intense and rampant. This makes the wildfires hard to quell. The United States has offered to help Canada by supplying them with hundreds of firefighters and equipment.

The wildfires aren't just a Canadian problem. Wildfire smoke spread across much of the northern United States and the East Coast, and the United States experienced its worst air pollution in recent history. Residents of New York City were exposed to pollution levels higher than five times the American standard for air quality. The city had the worst air quality in the world on June 6 because of the wildfire smoke.

Many American cities have experienced code red and code purple alerts over the past month. Code red alerts on the air quality index represent an "unhealthy" air quality value of 151-200. More than 100 million Americans were under a code red alert in June. Code purple alerts represent a "very unhealthy" air quality value of 201-300. Washington, D.C., declared a code purple alert on June 8.

Baton Rouge is far from Canada, but even Louisiana experienced a slight but noticeable decrease in air quality in early June. Some area residents said they could smell a hint of wildfire smoke outside early in the morning.

Be wary of when and where you travel this summer while Canadian wildfires are actively burning. You can check for updates on air quality alerts and the location of fires and smoke on the AirNow Fire and Smoke Map at ***https://fire.airnow.gov***.

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# Who's Who At LDEQ?

**Marissa Jimenez – Environmental Scientist Manager, Outreach and Small Business Assistance Program, Office of the Secretary**

Jimenez, a native of San Juan, Philippines, graduated with a Bachelor of Science in microbiology from Louisiana State University. Jimenez joined LDEQ in 2011 as an environmental staff scientist in the Small Business/Small Community Assistance Program.

In her spare time, Jimenez enjoys reading and spending time with her husband, two daughters and two dogs.

**Thomas Menuet – Environmental Chemical Specialist III, Air Planning and Assessment Division, Office of Environmental Assessment**

Menuet, a native of Napoleonville, graduated with a Bachelor of Science in chemical engineering from Louisiana State University in 1993. He is a chemical engineer with 20 years experience across the three core sectors in environmental engineering – regulatory, consulting and industrial. He previously worked for LDEQ in Office of Environmental Services in the Air Permits Division from 2001 to 2010. He recently returned to LDEQ to continue his work as an environmental chemical specialist.

In his spare time, Menuet enjoys cooking, exercising, fishing and watching sports and movies.

**Hien Tran – Environmental Chemical Specialist III**

Tran, a native of Dong Nai, Vietnam, came to the United States when he was 10 years old. He graduated with a Bachelor of Science in chemical engineering from Louisiana State University. Tran started at LDEQ in 2010 and has worked as an environmental chemical specialist in the Air Field Services – Air Monitoring and Air Data Analysis group.

In his spare time, Tran enjoys playing beach volleyball and participating in volleyball leagues at various facilities around Baton Rouge. He also enjoys salt water fishing on the Louisiana gulf coast.

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## Louisiana Department Of Environmental Quality's First Quarter Summaries

**First Quarter 2023 Enforcement Actions:**
http://deq.louisiana.gov/page/enforcement-actions

**First Quarter 2023 Settlement Agreements:**
http://deq.louisiana.gov/page/enforcement-division

**First Quarter 2023 Air Permits:**
http://deq.louisiana.gov/page/permits-issued-by-calendar-quarter

**First Quarter 2023 Water Permits:**
http://deq.louisiana.gov/page/lpdes

**First Quarter 2023 Solid and Hazardous Waste Permits:**
http://deq.louisiana.gov/page/waste-permits