



# Louisiana's Ambient Air Monitoring Program

Jennifer S. Zimmer  
Environmental Scientist Staff DCLA  
Air Planning and Assessment Division  
Air Field Services  
LDEQ



# Clean Air Act of 1990



- Federal Law established by the Environmental Protection Agency (EPA)
- State Agencies (Louisiana Department of Environmental Quality) carry out the Act



# Clean Air Act of 1990



- Criteria Pollutants – National Ambient Air Quality Standards (NAAQS)
- Permissible Levels (Primary Standard and Secondary Standard)
- Attainment vs. Non-Attainment Areas and Classifications
- State Implementation Plan (SIP)





# **NATIONAL AMBIENT AIR QUALITY STANDARDS (NAAQS)**

## **CRITERIA**

## **POLLUTANTS**

1. Ozone
2. Particulate Matter
3. Sulfur Dioxide
4. Nitrogen Dioxide
5. Lead
6. Carbon Monoxide

❖ These standards are designed to protect public health with an adequate margin of safety.



# NATIONAL AMBIENT AIR QUALITY STANDARDS (NAAQS)



Pollutant	Primary / Secondary	Averaging Time	Level	Form	Attainment Status
Carbon Monoxide	Primary	8 - hour	9ppm	Not to be exceeded more than once per year	Attainment
		1 - hour	35 ppm		
Lead	Primary and Secondary	Rolling 3 month average	0.15 µg/m <sup>3</sup>	Not to be exceeded	Attainment
Nitrogen Dioxide	Primary	1 - hour	100 ppb	90th percentile, averaged over 3 years	Attainment
	Primary and Secondary	Annual	53 ppb	Annual Mean	
Ozone	Primary and Secondary	8 - hour	0.070 ppm	Annual fourth-highest daily maximum 8-hour concentration averaged over 3 years	Attainment
Particle Pollution PM2.5	Primary	Annual	12.0 µg/m <sup>3</sup>	Annual Mean averaged over three years	Attainment
	Secondary		15.0 µg/m <sup>3</sup>		
	Primary and Secondary	24-hour	35.0 µg/m <sup>3</sup>	98th percentile, averaged over three years	
Particle Pollution PM10	Primary and Secondary	24 - hour	150 µg/m <sup>3</sup>	Not to be exceeded more than once per year on average over three years	Attainment
Sulfur Dioxide	Primary	1 - hour	75 ppb	99th percentile of 1-hour daily maximum concentrations averaged over three years	Non-Attainment for St. Bernard Parish only
	Second	3 - hour	0.5 ppm	Not to be exceeded more than once per year	





# Air Quality Index



AQI Values	Air Quality	Protect Your Health
0-50	Good	No health impacts are expected when air quality is in this range.
51-100	Moderate	Unusually sensitive people should consider limiting prolonged outdoor exertion.
101-150	Unhealthy for Sensitive Groups	Active children and adults, and people with respiratory disease, such as asthma, should limit prolonged outdoor exertion.
151-200	Unhealthy	Active children and adults, and people with respiratory disease, such as asthma, should avoid prolonged outdoor exertion; everyone else, especially children, should limit prolonged outdoor exertion.
201-300	Very Unhealthy	Active children and adults, and people with respiratory disease, such as asthma, should avoid all outdoor exertion; everyone else, especially children, should limit outdoor exertion.



# Why Monitor Air Quality?

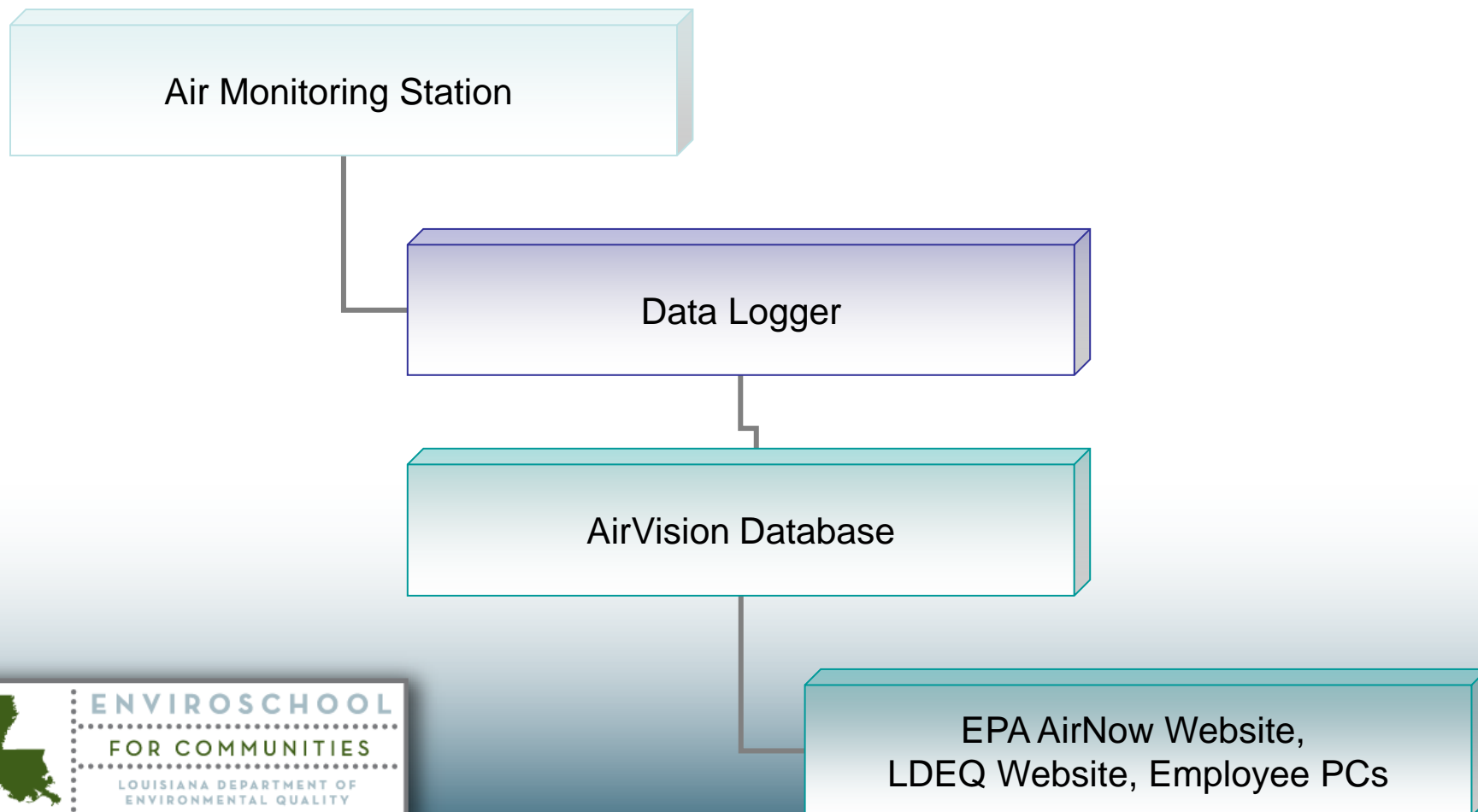


- To keep communities informed about their local air quality
- To find out where air quality needs to be improved
- To determine whether efforts to improve air quality are working
- To understand how air pollution may affect human health and the environment



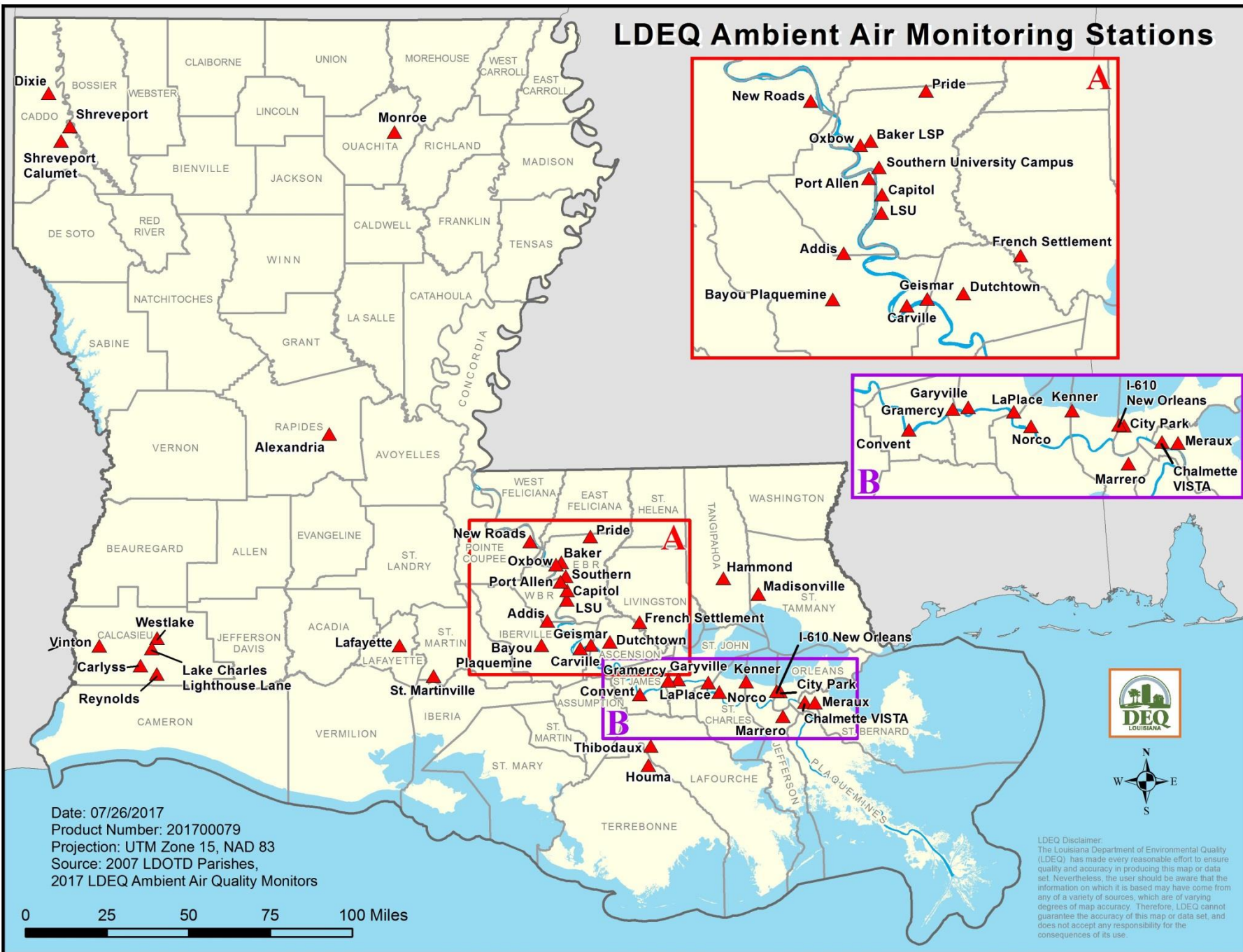


# LDEQ Air Monitoring Network





# LDEQ Ambient Air Monitoring Stations



Date: 07/26/2017  
 Product Number: 201700079  
 Projection: UTM Zone 15, NAD 83  
 Source: 2007 LDOTD Parishes,  
 2017 LDEQ Ambient Air Quality Monitors



**LDEQ Disclaimer:**  
 The Louisiana Department of Environmental Quality (LDEQ) has made every reasonable effort to ensure quality and accuracy in producing this map or data set. Nevertheless, the user should be aware that the information on which it is based may have come from any of a variety of sources, which are of varying degrees of map accuracy. Therefore, LDEQ cannot guarantee the accuracy of this map or data set, and does not accept any responsibility for the consequences of its use.

# Air Monitoring Station



Capitol Air Monitoring Site - Baton Rouge Area

# Inside Air Monitoring Station








# Access to Air Quality Data

<http://deq.louisiana.gov/subhome/air>

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY | Secretary Chuck Carr Brown, PhD.



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ABOUT LDEQ AIR LAND WATER EMERGENCY RESPONSE

LDEQ > Air

## AIR

AIR

- PERMITS
- PERMITS ISSUED BY CALENDAR QUARTER
- ENFORCEMENT
- SURVEILLANCE
- MONITORING
- PROGRAMS

### Under Agreement with Justice Department and EPA, ExxonMobil to Reduce ...

Under Agreement with Justice Department and EPA, ExxonMobil to Reduce Harmful Air Pollution at Eight US Chemical Plants

#### HELPFUL LINKS

- Air Requirements Library
- Air Quality Data
- AIR NOW
- AQI FORECAST
- Air Permitting Guidance
- Emission Reduction Credit Information Resource Center
- Ambient Air Monitoring Sites



# Access to Air Quality Data

<http://airquality.deq.louisiana.gov/>



## HELPFUL LINKS

- [Air Requirements Library](#)
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- [Ambient Air Monitoring Sites](#)

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## Air Monitoring Data & AQI

Current AQI Data | Regional 8 Hour Ozone Data | Regional Hourly Ozone Data | Site Data | Notifications

Pollutant: Any | By Region: -- Select Region -- | Go | OR | By Site: -- Select Site -- | Go

### Current Monitoring Data & AQI

Site Name	AQI Value	Pollutant	Quality	Concentration	Time
Addis site	0	SO2	Good	0.2 PPB	12/4/2017 12:00 PM
Bayou Plaquemine site	23	OZONE	Good	25 PPB	12/4/2017 12:00 PM
Baton Rouge Capitol site	15	OZONE	Good	16 PPB	12/4/2017 12:00 PM
	60	PM25	Moderate	16.199 UG/M3	12/4/2017 12:00 PM
	0	SO2	Good	0.5 PPB	12/4/2017 12:00 PM
Carlyss site	24	OZONE	Good	26 PPB	12/4/2017 12:00 PM
Carville site	14	OZONE	Good	15 PPB	12/4/2017 12:00 PM
Chalmette Vista site	59	PM25	Moderate	16.024 UG/M3	12/4/2017 12:00 PM



# Access to Air Quality Data

## Ambient Air Monitoring Sites



### AIR

AIR

PERMITS

PERMITS ISSUED BY  
CALENDAR QUARTER

ENFORCEMENT

SURVEILLANCE

MONITORING

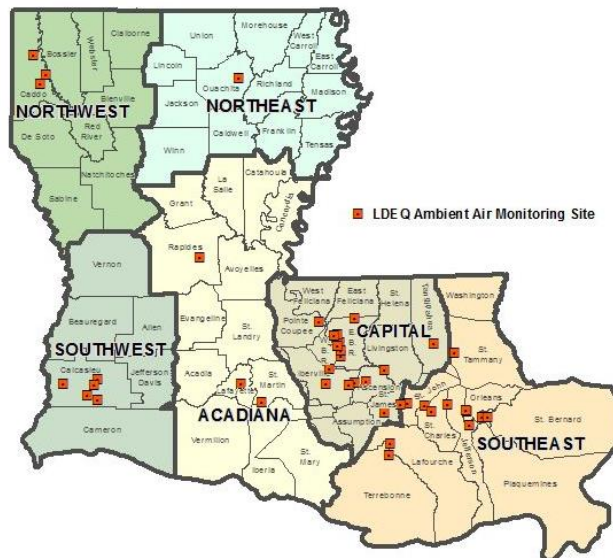
PROGRAMS

RESOURCES

FORMS

FAQ

### Air Monitoring Sites



ENVIRO SCHOOL  
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LOUISIANA DEPARTMENT OF  
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# Access to Air Quality Data

## Ambient Air Monitoring Sites



### AIR

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- RESOURCES
- FORMS
- FAQ

#### Capital



# Access to Air Quality Data

## Ambient Air Monitoring Sites



AIR

**AIR**

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- RESOURCES ▼
- FORMS ▼
- FAQ

### Capital

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Street Level Map of Site

View North of Site


View South of Site

View East of Site

View West of Site

Site information

EPA AQS Number	220220009
State	Louisiana
Parish	East Baton Rouge
City	Baton Rouge
Address	1061-A Louisville Avenue
Latitude & Longitude	Lat: 30.461981 Long: -91.179219
Date Sampling Began	August 1, 1982
MSA Represented	Baton Rouge
Comments	



Capital Sampling Site

Station Types and Parameters Monitored

Pollutant Measured	Station Type	Sampling Method	Operating Schedule
PM 2.5	SLAMS/NCORE	Sequential FRM	24 hours every day
PM 2.5	SLAMS	Sequential FRM (Co-located)	24 hours every 12th day
PM 2.5	SLAMS/NCORE	Continuous BAM	Continuous
PM10	SLAMS	Continuous BAM	Continuous
PM 2.5	STN/NCORE	Chemical Spectation	24 hours every 3rd day
SO2 Trace Level	SLAMS/NCORE	U.V. Fluorescence	Continuous
Ozone	SLAMS/NCORE	U.V. Absorption	Continuous
CO Trace Level	PAMS/NCORE	Nondispersive Infrared	Continuous
NOx	SLAMS/NCORE	Chemiluminescence	Continuous





# Access to Air Quality Data

## Air Quality Forecast



LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY  
Secretary Chuck Carr Brown, PhD.

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### Ozone and PM2.5 Air Quality Index (AQI) Forecast

#### Current Air Data

Issued: 02:30 PM, FRI DEC 01 2017

	Friday	Saturday	Sunday
<b>Baton Rouge</b>			
Ozone	42-Good	46-Good	44-Good
PM25	68-Moderate	61-Moderate	66-Moderate
<b>Alexandria</b>			
Ozone	34-Good	35-Good	33-Good
PM25	50-Moderate	50-Moderate	50-Moderate
<b>Lake Charles</b>			
Ozone	39-Good	42-Good	40-Good
PM25	68-Moderate	57-Moderate	50-Moderate
<b>Lafayette</b>			
Ozone	44-Good	46-Good	45-Good
PM25	59-Moderate	57-Moderate	59-Moderate



# Data Analysis Group



- The data are analyzed and validated by the Data Analysis Group.
- Once validated the data sets are sent to the EPA database called AQS or Air Quality System.
- These data sets populate what you will see on the EPA's national air quality page AirNow at:
- [www.airnow.gov](http://www.airnow.gov)
- Many other agencies then use these data sets for multiple applications.



# Access to Air Quality Data @ EPA www.airnow.gov

A screenshot of the AirNow website interface. At the top left is the "AirNow" logo. To its right is a search bar with "Search..." and a "GO!" button. Below the search bar is a "Local Air Quality Conditions" section with a "Zip Code" input field, a "Go" button, a "State" dropdown menu set to "Alabama", another "Go" button, and a "My Current Location" link. The main content area is divided into several sections. On the left, there are tabs for "Current AQI", "Forecast", "AQI Loop", and "More Maps". The "Current AQI" tab is active, showing a map of the United States with a color-coded AQI overlay. The map is titled "Current AQI (Combined PM and O<sub>3</sub>)" and "Monday, December 04, 2017 1:00 PM EST". The map shows various colors representing different AQI levels, with yellow and orange being prominent. Below the map are links for "Alaska", "Hawaii", "Mexico", and "Puerto Rico". A "Generated: 2017-12-04 18:36:19Z" timestamp is visible at the bottom right of the map. To the right of the map, there is a "Fires: Current Conditions" section with a "Click to see map" link. Below that is a "U.S. Embassies and Consulates" section with a link to "Data from air quality monitors at select U.S. embassies and consulates around the world". The "Announcements" section features a date "11/06/2017" and text about the "Rescheduled Dates for the National Air Quality Conference", with a "Registration Now Open!" link and a "more announcements" link. The "Air Quality Basics" section has a dropdown arrow and links for "Air Quality Index", "Ozone", "Particle Pollution", "Smoke from fires", and "What You Can Do". Below that is a "Health" section with a "Learning Center" link. At the bottom of the page, there is a row of colored buttons representing AQI levels: "Good" (green), "Moderate" (yellow), "USG" (orange), "Unhealthy" (red), "Very Unhealthy" (dark red), and "Hazardous" (purple) with an "Action Day" icon. Below these buttons is the text "Highest 5:" and a link "About the Highest 5". At the very bottom, there are tabs for "Current AQI", "Today's Forecasts", and "Tomorrow's Forecasts".

# Questions?



**Jennifer S. Zimmer**

**Environmental Scientist Staff DCLA**

Air Data Analysis Section

Office of Environmental Assessment/Air Field Services

Louisiana Department of Environmental Quality

[jennifer.zimmer@la.gov](mailto:jennifer.zimmer@la.gov)

Phone: (225) 925-6368

Cell: (225) 907-7339

Fax: (225) 325-8241

