



# State of Mississippi

**TATE REEVES**

Governor

## **MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY**

CHRIS WELLS, EXECUTIVE DIRECTOR

### **2026 Annual Monitoring Network Plan 30-day Public Review**

The Calendar Year (CY) 2026 Annual Monitoring Network Plan is available for public review from May 16, 2025, through June 20, 2025. Any comments on this report should be submitted by emailing Michael Jordan at <https://www.mdeq.ms.gov/jordan-michael> no later than June 20, 2025.



MISSISSIPPI DEPARTMENT OF  
ENVIRONMENTAL QUALITY

OFFICE OF POLLUTION CONTROL

PO BOX 2261 • JACKSON, MISSISSIPPI 39225-2261 • TEL: (601) 961-5171 • FAX: (601) 354-6612 • [www.mdeq.ms.gov](http://www.mdeq.ms.gov)

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## MONITORING NETWORK PLAN 2026



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## 1.0 Background

Federal Regulations (40 CFR 58.10) require that State and Local Agencies operating an ambient air quality monitoring network shall review their air quality monitoring network on an annual basis. Any needed modifications to the network should be identified. A detailed monitoring network description should also be included. In addition, the plan shall be available for public comment. MDEQ's Monitoring Network Plan is available on the MDEQ website at <http://www.deq.state.ms.us>.

The Monitoring Network review that is specified in *40 CFR 58.10* contains the following elements that apply to each monitoring site:

- The Air Quality System (AQS) site identification number.
- The location, including street address and geographical coordinates.
- The sampling and analysis method(s) for each measured parameter.
- The operating schedules for each monitor.
- Any proposals to remove or move a monitoring station within a period of 18 months following plan submittal.
- The monitoring objective and spatial scale of representativeness for each monitor as defined in appendix D of part 58.
- The identification of any sites that are suitable and sites that are not suitable for comparison against the annual Particulate Matter (PM)<sub>2.5</sub> and Ozone National Ambient Air Quality Standards (NAAQS) as described in part 58.30.
- The Metropolitan Statistical Area (MSA), Core Based Statistical Area (CBSA), Consolidated Statistical Area (CSA) and other areas represented by the monitor.
- The annual monitoring network plans and/or periodic network assessments are subject to Regional approval according to part 58.14.

## 2.0 Overview

In the State of Mississippi, the Mississippi Department of Environmental Quality (MDEQ) is the only agency operating an ambient air quality network. There are no local agencies. In Mississippi, as in other State agencies, network monitors are operated for a variety of monitoring objectives. These objectives include determining if an area of the State meets the NAAQS, for public information such as the Environmental Protection Agency (EPA) AirNow data mapping web site, Air Quality Index (AQI) reporting for public information, background data collection, spatial considerations, and special projects. The AQI forecast is currently reported for the Jackson Metro area, Biloxi/Gulfport area and DeSoto County area on the MDEQ web site at <https://www.mdeq.ms.gov/air/air-quality-forecast/>. In addition, hourly Ozone (O<sub>3</sub>), Particulate Matter (PM), Nitrogen Dioxide (NO<sub>2</sub>), Sulfur Dioxide (SO<sub>2</sub>), and Carbon Monoxide (CO) data are reported to the EPA AirNow website, if applicable. Note: MDEQ initiated the EPA approved correction factor for all the Teledyne API T640/T640x particulate matter instruments in MDEQ's monitoring network. The data collection start-up date utilizing the correction factor began January 01, 2024.

All site data (except for the Pascagoula Cherokee site) are suitable for the NAAQS comparisons per appendices A, C, D, and E. See Appendix B for a list of MDEQ's Quality Documents and their approval and review dates.

40 CFR 58 has set minimum monitoring requirements for the pollutants that are to be compared with the NAAQS. These minimum requirements are based on population, the level of monitored pollutants, and

MSA as defined in the latest US Census information (See Section 8.0 for the MSA and Pollutant Maps with Census). The tables below and the discussion on the following pages summarize this information.

### 3.0 Site Discussion

Mississippi's air quality monitoring network has been reviewed based on the historic monitoring data, air quality monitoring regulations, data representation based on spatial considerations, special data needs and changes needed based on the monitoring regulations. The items used in the evaluation were the AQS database, the 40 Code of Federal Regulations (CFR) parts 53 and 58 documents, census data and maps. All monitors operated by MDEQ are State and Local Air Monitoring Stations (SLAMS) except for the Pascagoula Cherokee Monitoring Station.

The following sections describe the purposes, and any changes related to each site in the ambient air monitoring network in the State of Mississippi based on our review of existing monitoring efforts.

### 4.0 Metropolitan Statistical Area (MSA)-NON MSA

#### Memphis MSA:

1. **Hernando** (DeSoto Co. 28.033.0002) – MDEQ operates an O<sub>3</sub> monitor, and a continuous Federal Equivalent Method (FEM) PM<sub>2.5</sub> monitor at this site that is designated as a transport monitor and therefore is a required monitor. MDEQ has a Regional Monitoring Agreement (RMA) with Shelby County, TN Health Department, and Arkansas Department of Energy and Environment Division of Environmental Quality to meet Appendix D requirements section 2, e. A copy of this agreement is attached (See Section 11.0) and is on file at EPA Region 4. MDEQ has no plans to change the current monitoring efforts at this site.
  - **Site Approval Status:** Site and monitors meet all design criteria for the monitoring network. See Appendix A for a summary of MDEQ's siting criteria information.
  - **Sampling train:** The probe tubing is Fluorinated Ethylene Propylene (FEP), and the probe fittings are Perfluoroalkoxy (PFA). The stainless-steel fitting at the funnel has been drilled and the FEP tubing pushed through the fitting and extends into the funnel. See Appendix A for a summary of MDEQ's O<sub>3</sub> Residence Time.

#### Jackson MSA:

1. **Jackson NCore** (Hinds Co. 28.049.0020) – The NCore site contains a full complement of monitors, including meteorological. The monitoring parameters currently include O<sub>3</sub>, SO<sub>2</sub>, CO, Nitric Oxides as NO<sub>y</sub>, manual Federal Reference Method (FRM) PM<sub>2.5</sub>, continuous FEM PM<sub>2.5</sub>, continuous FEM PM<sub>10</sub>, FEM PM<sub>10-2.5</sub>, speciated PM<sub>2.5</sub>, wind speed, wind direction, ambient temperature, and relative humidity. The FEM PM<sub>2.5</sub> continuous monitor operates as the primary PM<sub>2.5</sub> monitor while the FRM PM<sub>2.5</sub> will operate 1/3-day. MDEQ has no plans to change the current monitoring efforts at this site.
  - **Site Approval Status:** Site and monitors meet all design criteria for the monitoring network. See Appendix A for a summary of MDEQ's Jackson NCore siting criteria information.

- **Sampling train:** The probe tubing is FEP, and the probe fittings are PFA. The stainless-steel fitting at the funnel has been drilled and the FEP tubing pushed through the fitting and extends into the funnel. See Appendix A for a summary of MDEQ's O<sub>3</sub>, SO<sub>2</sub>, CO Residence Time.
2. **Jackson Metro MSA** (Hinds Co. 28.049.0021) – MDEQ operates an Ozone monitor, and a continuous FEM PM<sub>2.5</sub> monitor at this site. MDEQ has no plans to change the current monitoring efforts at this site.
- **Site Approval Status:** Site and monitors meet all design criteria for the monitoring network. See Appendix A for a summary of MDEQ's Hinds Co. siting criteria information.
  - **Sampling train:** The probe tubing is FEP, and the probe fittings are PFA. The stainless-steel fitting at the funnel has been drilled and the FEP tubing pushed through the fitting and extends into the funnel. See Appendix A for a summary of MDEQ's O<sub>3</sub> Residence Time.

### **Hattiesburg MSA:**

1. **Hattiesburg** (Forrest Co. 28.035.0004) – MDEQ operates a continuous FEM PM<sub>2.5</sub> monitor at this site. In addition, a collocated FRM PM<sub>2.5</sub> monitor will continue to operate on a 1/6-day schedule to meet MDEQ's collocated requirements. MDEQ has no plans to change the current monitoring efforts at this site.
- **Site Approval Status:** Site and monitors meet all design criteria for the monitoring network. See Appendix A for a summary of MDEQ's Hattiesburg siting criteria information.

### **Gulfport-Biloxi-Pascagoula MSA:**

1. **Gulfport** (Harrison Co. 28.047.0008) – MDEQ operates an O<sub>3</sub> monitor, and a continuous FEM PM<sub>2.5</sub> monitor at this site. MDEQ has no plans to change the current monitoring efforts at this site.
- **Site Approval Status:** MDEQ installed a new monitoring shelter that was placed next to the old monitoring shelter. MDEQ received verbal (01/03/2024) and email approval (01/04/2024), from EPA to reconfigure this site. The existing (old building) was shut down on 03/12/2024. The newly reconfigured Gulfport site began collecting data on 03/13/2024. Below is a summary of this reconfiguration:
    1. Relocated the T640 PM and ozone instruments from the current (old) monitoring building to the new one.
    2. Moved the sample probes approximately 25 feet south from the current building to the new sampling probe location.
    3. Set the O<sub>3</sub> probe height on the new building at approximately 4.20 meters from the ground.
    4. Established the T640 sample head height on the new building at approximately 4.05 meters from the ground.
    5. Placed each probe on top of the new building, maintaining the same configuration as the old building.
    6. The old Gulfport building GPS coordinates: Latitude 30.390127 degrees – Longitude -89.049714 degrees.
    7. The reconfiguration/new building GPS coordinates: Latitude 30.390083 degrees - Longitude -89.049709 degrees.

8. The distance (new building) to the nearest tree is 44 meters to the west/southwest. The nearest road (Hancock AVE) is 45 meters east, and the nearest structure is 32 meters northeast (with a height of approximately 5.5 meters). This reconfiguration complies with all siting criteria and monitor operation standards defined in 40 CFR Part 58, Appendices A, C, D, and E.

Site and monitors meet all design criteria for the monitoring network. See Appendix A for a summary of MDEQ's Gulfport siting criteria information.

- **Sampling train:** The probe tubing is FEP, and the probe fittings are PFA. The stainless-steel fitting at the funnel has been drilled and the FEP tubing pushed through the fitting and extends into the funnel. See Appendix A for a summary of MDEQ's O3 Residence Time.
2. **Waveland** (Hancock Co. 28.045.0003) – MDEQ operates an O3 monitor, and a continuous FEM PM2.5 monitor at this site. MDEQ has no plans to change the current monitoring efforts at this site.
    - **Site Approval Status:** MDEQ removed the current (old monitoring building) and then installed a new replacement monitoring shelter. MDEQ received verbal (01/03/2024) and email approval (01/04/2024), from EPA to reconfigure this site. The existing (old building) was shut down on 02/19/2024, and the newly reconfigured Waveland site began collecting data on 02/23/2024. Below is a summary of this reconfiguration:
      1. Relocated the T640 PM and ozone instruments from the current monitoring building to the new one.
      2. Placed each probe on top of the new building, maintaining the same configuration as the removed building.
      3. Set the O3 probe height on the new building at approximately 5.0 meters from the ground.
      4. Established the T640 sample head height on the new building at approximately 4.75 meters from the ground.
      5. The reconfiguration/new building GPS coordinates: Latitude 30.30092 degrees - Longitude -89.39596 degrees. This is the same as the old monitoring building.
      6. This reconfiguration complies with all siting criteria and monitor operation standards defined in 40 CFR Part 58, Appendices A, C, D, and E. See Appendix A for a summary of MDEQ's Waveland siting criteria information. See Appendix A for a summary of MDEQ's Waveland siting criteria information.
      7. Site and monitors meet all design criteria for the monitoring network. See Appendix A for a summary of MDEQ's Waveland siting criteria information.
    - **Sampling train:** The probe tubing is FEP, and the probe fittings are PFA. The stainless-steel fitting at the funnel has been drilled and the FEP tubing pushed through the fitting and extends into the funnel. See Appendix A for a summary of MDEQ's O3 Residence Time.
  3. **Pascagoula** (Jackson Co. 28.059.0006)- MDEQ operates an O3, SO2, nitrogen oxide (NOx) monitor, and a continuous FEM PM2.5 monitor at this site. The NOx monitor is designated as an RA-40 site. The SO2 monitor is designated as a population weighted exposure index (PWEI) site. MDEQ has no plans to change the current monitoring efforts at this site.
    - **Site Approval Status:** Site and monitors meet all design criteria for the monitoring network. See Appendix A for a summary of MDEQ's Pascagoula siting criteria information.

- **Sampling train:** The probe tubing is FEP, and the probe fittings are PFA. The stainless-steel fitting at the funnel has been drilled and the FEP tubing pushed through the fitting and extends into the funnel. See Appendix A for a summary of MDEQ's O<sub>3</sub>, SO<sub>2</sub> and NO<sub>x</sub> Residence Time.

**Pascagoula Cherokee** (Jackson Co. 28.059.0007) MDEQ is in the process of establishing a Special Purpose Monitoring (SPM) station in the Cherokee Community of Pascagoula, MS. MDEQ has a tentative startup date of July 01, 2025. This SPM air monitoring station will be operated for one year near the Cherokee community, which is situated in close proximity to the Bayou Casotte Industrial Complex. The pollutants of concern identified by EPA and the Agency for Toxic Substances and Disease Registry (ATSDR) for the Cherokee Community include particulate matter smaller than 10 microns in diameter (PM<sub>10</sub>), PM<sub>10</sub> metals, volatile organic compounds (VOC), and total reduced sulfur (TRS) compounds. PM<sub>2.5</sub>, PM<sub>10</sub> and TRS compounds will be monitored continuously, while PM<sub>10</sub> metals and VOCs will be sampled on a 1 in 6-day schedule. Additionally, near fence line SPODs that trigger sample canisters are proposed for the project to capture any high concentration VOC plumes that may occur outside of a regularly scheduled sample day near the Bayou Casotte Industrial Complex. Note: the collection duration of each random SPOD sample [up to twenty-five (25) in total] will last for no more than one (1) hour after the initial detection of an established total VOC concentration.

This proposed multi-pollutant air quality monitoring project will obtain quality air monitoring data necessary to identify the presence of any air quality problem associated with the pollutants of greatest concern in the Cherokee community. The main concern for the Cherokee community is the potential for cumulative risk associated with the proximity to an industrial complex housing multiple types of industrial sources.

The benefit of identifying whether an air quality problem exists in this Environmental Justice (EJ) community will be to (1) put citizens' minds at ease should no air quality problem be found or (2) give MDEQ and other agencies the necessary data to identify ways to mitigate any air quality problem and/or reduce any unacceptable risk to the community.

- **Site Approval Status:** Site and monitors meet all design criteria for the monitoring network. See Appendix A for a summary of MDEQ's Pascagoula Cherokee siting criteria information.
- **Sampling train:** The probe tubing is FEP, and the probe fittings are PFA. The stainless-steel fitting at the funnel has been drilled and the FEP tubing pushed through the fitting and extends into the funnel. See Appendix A for a summary of MDEQ's TRS Residence Time.

## Non- MSA Sites:

1. **Meridian** (Lauderdale Co. 28.075.0003) – An O<sub>3</sub> monitor is operated at this site. MDEQ has no plans to change the current monitoring efforts at this site.
  - **Site Approval Status:** Site and monitors meet all design criteria for the monitoring network. See Appendix A for a summary of MDEQ's Meridian siting criteria information.
  - **Sampling train:** The probe tubing is FEP, and the probe fittings are PFA. The stainless-steel fitting at the funnel has been drilled and the FEP tubing pushed through the fitting and extends into the funnel. See Appendix A for a summary of MDEQ's O<sub>3</sub> Residence Time.



2. **Tupelo** (Lee Co. 28.081.0005) – An O<sub>3</sub> monitor is operated at this site. MDEQ has no plans to change the current monitoring efforts at this site.
  - **Site Approval Status:** Site and monitors meet all design criteria for the monitoring network. See Appendix A for a summary of MDEQ’s siting criteria information.
  - **Sampling train:** The probe tubing is FEP, and the probe fittings are PFA. The stainless-steel fitting at the funnel has been drilled and the FEP tubing pushed through the fitting and extends into the funnel. See Appendix A for a summary of MDEQ’s O<sub>3</sub> Residence Time.
3. **Cleveland** (Bolivar Co. 28.011.0002) – MDEQ operates an O<sub>3</sub> monitor, and a continuous FEM PM<sub>2.5</sub> monitor (Background) at this site. MDEQ has no plans to change the current monitoring efforts at this site.
  - **Site Approval Status:** Site and monitors meet all design criteria for the monitoring network. See Appendix A for a summary of MDEQ’s Cleveland siting criteria information.
  - **Sampling train:** The probe tubing is FEP, and the probe fittings are PFA. The stainless-steel fitting at the funnel has been drilled and the FEP tubing pushed through the fitting and extends into the funnel. See Appendix A for a summary of MDEQ’s O<sub>3</sub> Residence Time.

## 5.0 NCore Site Tables

AQS ID	MSA	Site Name	County	City	Latitude	Longitude	Street Address		Elevation (meters)	Site start date	Location Setting
28-049-0020	Jackson	Jackson NCore	Hinds	Jackson	32.32906	-90.18267	232 E Woodrow Wilson		93	7/01/2013	Urban and city center
Parameter		Monitoring Objective	Measurement Scale		Designation	Type		Method		Schedule	Comment
CO		Pop. Exp.	Neighborhood		NCore	Continuous Monitor		Non-Dispersive IR		Jan-Dec	
NO <sub>y</sub>		Pop. Exp.	Neighborhood /Urban		NCore	Continuous Monitor		Chemiluminescence		Jan-Dec	
O <sub>3</sub>		Pop. Exp.	Neighborhood /Urban		NCore	Continuous Monitor		UV Photometry		Jan-Dec	
SO <sub>2</sub>		Pop. Exp.	Neighborhood		NCore	Continuous Monitor		UV fluorescence		Jan-Dec	
FRM PM <sub>2.5</sub>		Pop. Exp	Neighborhood		NCore	Manual Reference Monitor (3 Day)		Gravimetric Analysis		Jan-Dec	
FEM PM <sub>2.5</sub>		Pop. Exp	Neighborhood		NCore	Continuous Monitor		Broadband Spectroscopy		Jan-Dec	T640x
PM <sub>2.5</sub> Speciation		Pop. Exp	Neighborhood		NCore	Manual Monitor (3 Day)		Multiple Methods		Jan-Dec	
PM coarse		Pop. Exp	Neighborhood		NCore	Continuous Monitor		Difference by Broadband Spectroscopy		Jan-Dec	T640x
Meteorological		--	--		NCore	--		Wind speed, direction, ambient temperature, humidity		Jan-Dec	
Radiation		Pop. Exp	Urban		Rad Net	Continuous / Manual Monitor				Jan-Dec	Non NCore

## 6.0 Network Tables

### NETWORK DESIGN TABLES MISSISSIPPI

#### PM10

Location	County	MSA	AQS ID	Monitoring Objective	Measurement Scale	MSA Min Required	Collocated	Type	Method	Schedule	Comment
Jackson NCore	Hinds	Jackson	28-049-0020	Pop. Exp.	Urban	1	No	Continuous	639	Jan-Dec	T640x
Pascagoula Cherokee	Jackson	Pascagoula	28-059-0007	Pop. Exp.	Neighborhood	0	No	Continuous	639	One Year from Startup	T640x

#### PM2.5

Location	County	MSA	AQS ID	Monitoring Objective	Measurement Scale	MSA Min Required	Collocated	Type	Method	Schedule
Hernando	DeSoto	Memphis	28-033-0002	Transport	Urban	1	No	Continuous	636 T640	Jan-Dec
Hattiesburg	Forrest	Hattiesburg	28-035-0004	Pop. Exp.	Neighborhood	1	Yes	Manual (1/6 day) collocated Continuous	145 SEQ 636 T640	Jan-Dec Jan-Dec
Waveland	Hancock	Gulf/Biloxi	28-045-0003	Pop. Exp.	Neighborhood	0	No	Continuous	636 T640	Jan-Dec
Gulfport	Harrison	Gulf/Biloxi	28-047-0008	Pop. Exp.	Neighborhood	1	No	Continuous	636 T640	Jan-Dec
Pascagoula	Jackson	Pascagoula	28-059-0006	Pop. Exp.	Neighborhood	0	No	Continuous	636 T640	Jan-Dec
Pascagoula Cherokee	Jackson	Pascagoula	28-059-0007	Pop. Exp.	Neighborhood	0	No	Continuous	636 T640x	One year from startup
Jackson NCore	Hinds	Jackson	28-049-0020	Pop. Exp.	Neighborhood	1	No	PM10-2.5 (primary)  Manual (3 Day) Continuous	638 T640x 640 T640x 145 SEQ	Jan-Dec Jan-Dec Jan-Dec
Jackson	Hinds	Jackson	28-049-0021	Pop. Exp.	Neighborhood	1	No	Continuous	636 T640	Jan-Dec
Cleveland	Bolivar	N/A	28-011-0002	Background	Neighborhood	1	No	Continuous	636 T640	Jan-Dec

**Comments:** All manual monitors are FRM and classified as SLAMS. The continuous FEM monitors will be primary.

#### SO2 and TRS

Location	County	MSA	AQS ID	Monitoring Objective	Measurement Scale	MSA Min Required	Type	Method	Schedule
Jackson NCore	Hinds	Jackson	28-049-0020	Pop. Exp.	Neighborhood	1	Continuous	600	Jan-Dec
Pascagoula	Jackson	Pascagoula	28-059-0006	Pop. Exp.	Neighborhood	0	Continuous	060	Jan-Dec
Pascagoula Cherokee	Jackson	Pascagoula	28-059-0007	Pop. Exp.	Neighborhood	0	Continuous	N/A	One year from startup

**Comments:** All monitors are classified as SLAMS, Except the Pascagoula Cherokee Site

**NO<sub>x</sub>/NO<sub>y</sub>**

Location	County	MSA	AQS ID	Monitoring Objective	Measurement Scale	MSA Min Required	Type	Method	Schedule
Jackson NCore	Hinds	Jackson	28-049-0020	Pop. Exp.	Neighborhood /Urban	1	Continuous	699	Jan-Dec
Pascagoula	Jackson	Pascagoula	28-059-0006	Pop. Exp.	Neighborhood	0	Continuous	099	Jan-Dec

Comments: All monitors are classified as SLAMS

**CO**

Location	County	MSA	AQS ID	Monitoring Objective	Measurement Scale	MSA Min Required	Type	Method	Schedule
Jackson NCore	Hinds	Jackson	28-049-0020	Pop. Exp.	Neighborhood	1	Continuous	055	Jan-Dec

**OZONE**

Location	County	MSA	AQS ID	Monitoring Objective	Measurement Scale	MSA Min Required	Type	Method	Schedule
Cleveland	Bolivar	N/A	28-011-0002	Pop. Exp.	Urban	0	Continuous	UV Absorp	Mar - Oct
Gulfport	Harrison	Gulf/Biloxi/Pas	28-047-0008	Pop. Exp.	Urban	1	Continuous	UV Absorp	Mar - Oct
Waveland	Hancock	Gulf/Biloxi/Pas	28-045-0003	Pop. Exp.	Urban	0	Continuous	UV Absorp	Mar - Oct
Hernando	DeSoto	Memphis	28-033-0002	Pop. Exp.	Urban	1	Continuous	UV Absorp	Mar - Oct
Jackson	Hinds	Jackson	28-049-0021	Pop. Exp.	Urban	1	Continuous	UV Absorp	Mar - Oct
Jackson NCore	Hinds	Jackson	28-049-0020	Pop. Exp.	Urban	1	Continuous	UV Absorp	Jan - Dec
Meridian	Lauderdale	N/A	28-075-0003	Pop. Exp.	Urban	0	Continuous	UV Absorp	Mar - Oct
Pascagoula	Jackson	Gulf/Biloxi/Pas	28-059-0006	Pop. Exp.	Urban	1	Continuous	UV Absorp	Mar - Oct
Tupelo	Lee	N/A	28-081-0005	Pop. Exp.	Urban	0	Continuous	UV Absorp	Mar - Oct

Comments: All monitors are classified as SLAMS

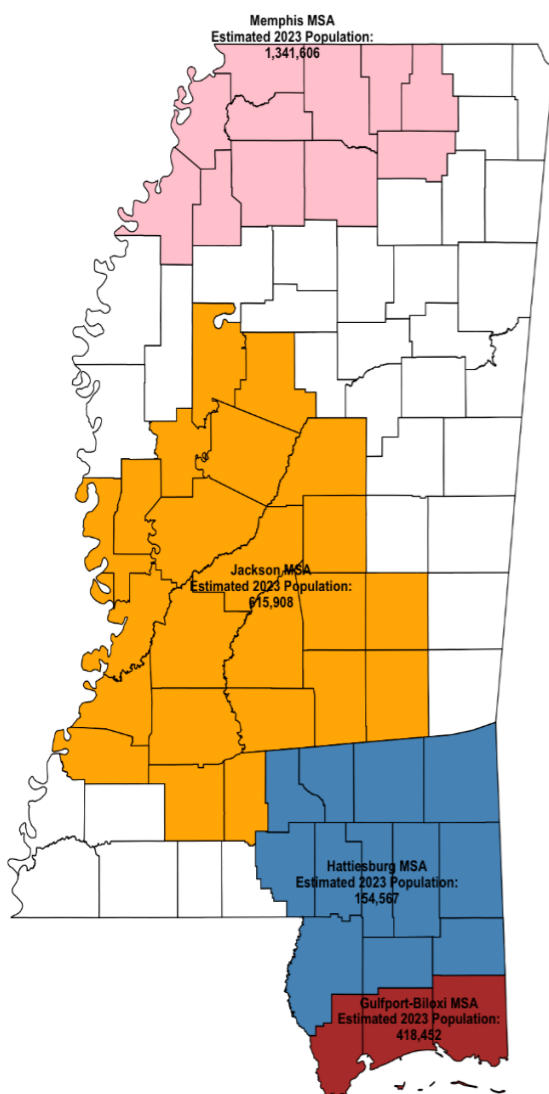
## 7.0 Site Location Coordinates

Site ID	Latitude	Longitude	Site Name	County	Address
28-011-0002	33.75065	-90.73418	Cleveland	Bolivar	HWY 8 Cleveland, MS (Delta State)
28-033-0002	34.82063	-89.9878	Hernando	Desoto	5 East Sout Street
28-035-0004	31.32399	-89.29222	Hattiesburg	Forrest	101 Ferguson Street
28-045-0003	30.30092	-89.39596	Waveland	Hancock	400 Baltic Street
28-047-0008	30.390083	-89.049709	Gulfport YC	Harrison	47 Maples Drive
28-049-0021	32.34673	-90.22576	Hinds CC	Hinds	3925 Sunset Drive
28-049-0020	32.32906	-90.18267	Jackson NCore	Hinds	232 E. Woodrow Wilson
28-059-0006	30.37805	-88.53389	Pascagoula	Jackson	Hospital Rd./LT Eugene J Majure Dr.
28-075-0003	32.36435	-88.73145	Meridian	Lauderdale	HWY 19 and 53 <sup>rd</sup> Ave.
28-081-0005	34.26488	-88.76624	Tupelo	Lee	West Jackson at Tupelo Airport
28-059-0007	30.3524	-88.5090	Pascagoula (Cherokee)	Jackson	5305 Ladner Rd

## 8.0 MSA and Pollutant Maps with Census

### Mississippi MSA Population Estimates & Map

Counties within MSA colored. Population is ACS 5-Year Estimate for 2023 (entire MSA)



Geographic Area	Population Estimate 2021	Population Estimate 2022	Population Estimate 2023
Gulfport-Biloxi, MS Metro Area	414,642	416,839	418,452
Hattiesburg, MS Metro Area	171,455	172,176	154,567
Jackson, MS Metro Area	594,756	591,397	615,908
Memphis, TN-MS-AR Metro Area	1,335,291	1,335,804	1,341,606

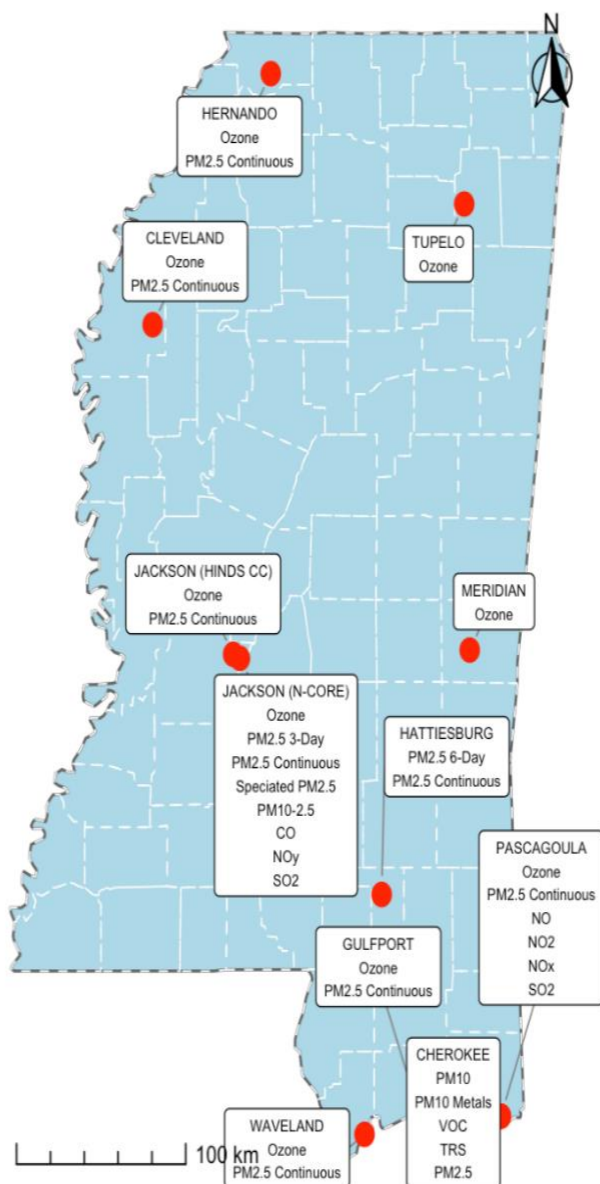
Data Source: US Census Bureau ACS 5-Year Estimates via tidyuscensus

#### MISSISSIPPI MSA AREAS 2025

MEMPHIS – DeSoto, Tunica, Marshall, Tate  
 JACKSON – Hinds, Rankin, Copiah, Simpson, Madison  
 HATTIESBURG – Lamar, Forrest, Perry  
 GULFPORT-BILOXI-PASAGOULA – Hancock, Harrison, Jackson

## Mississippi Air Monitoring Network (2025)

Monitoring sites and primary pollutants measured



Source: MDEQ Data

## 9.0 Site Maps and Current Photos

### CLEVELAND



Cleveland- North (2025)



Cleveland- South (2025)



Cleveland- East (2025)

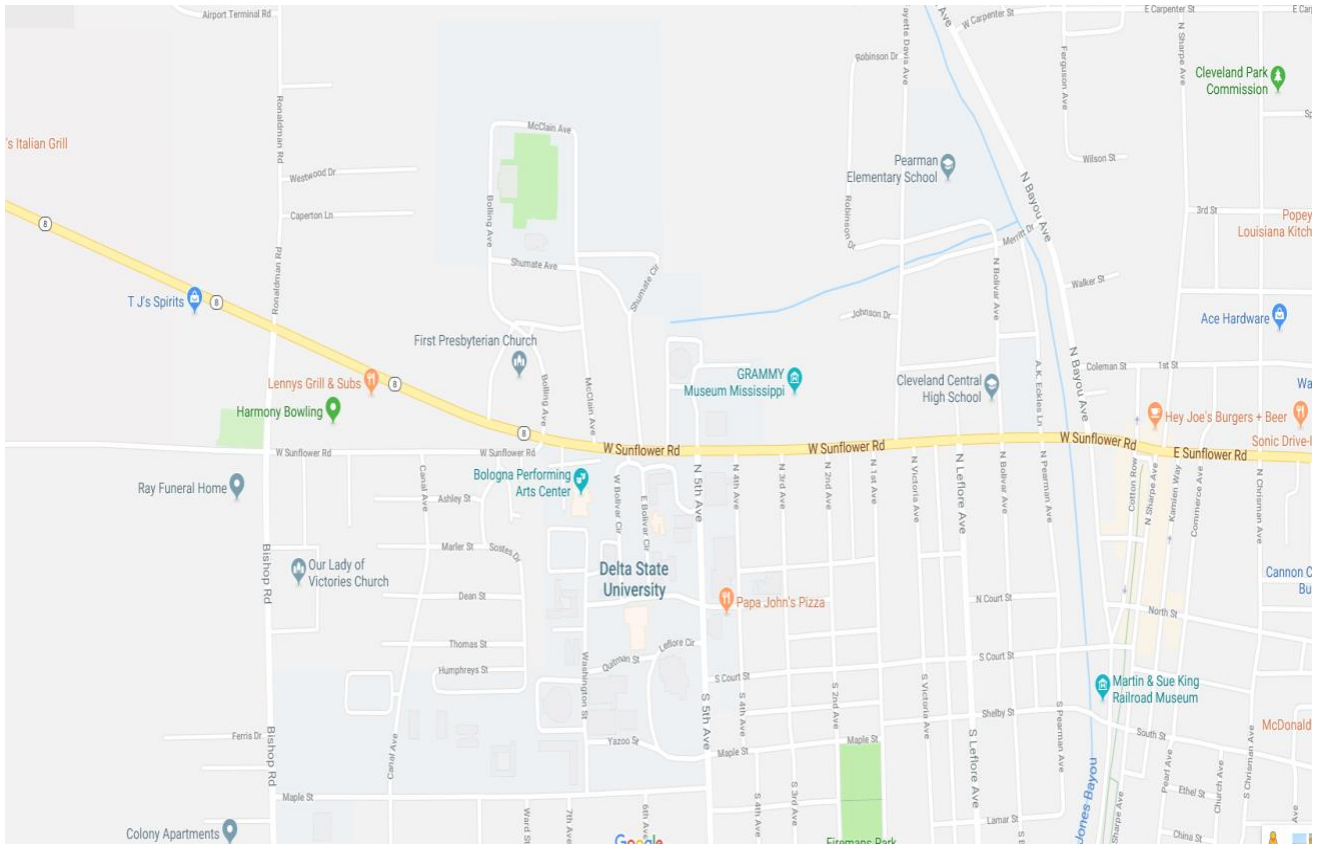


Cleveland- West (2025)



Cleveland- 28-011-0002 (2025)







## HERNANDO



Hernando- North (2025)



Hernando- South (2025)



Hernando- East (2025)

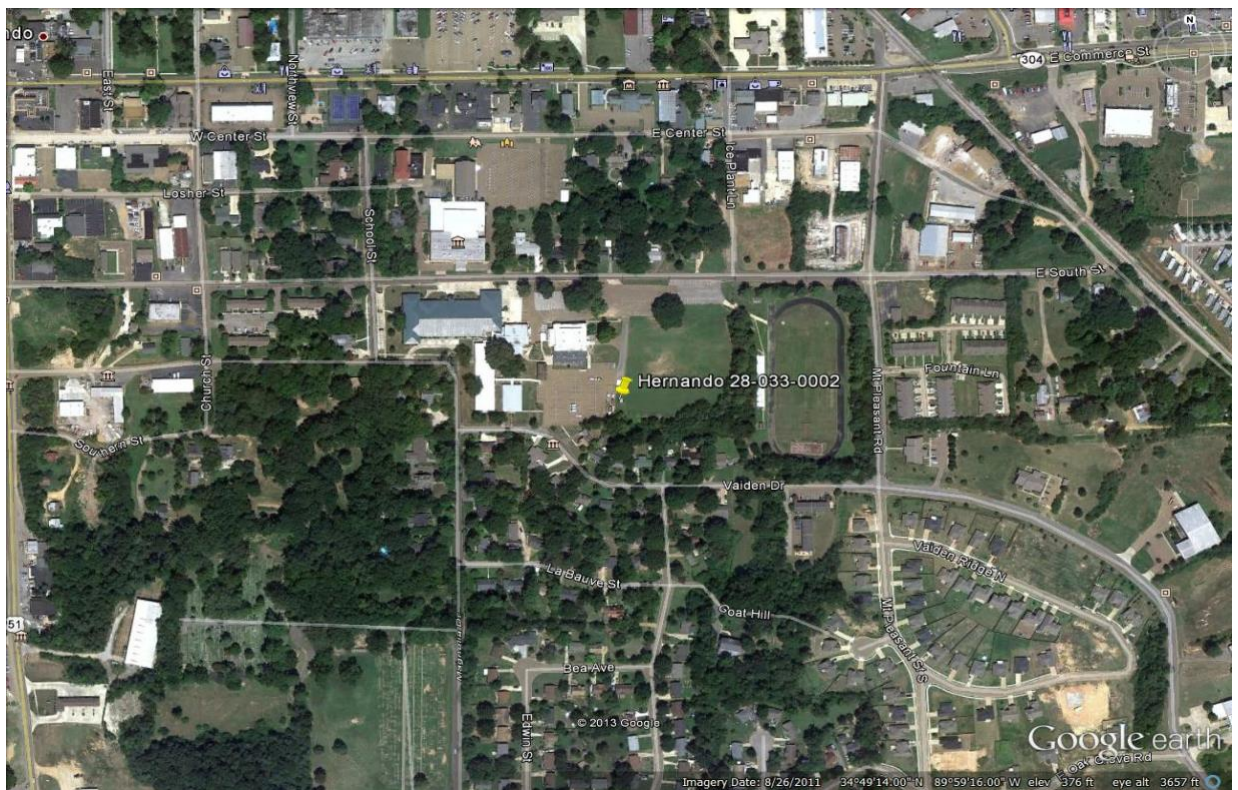
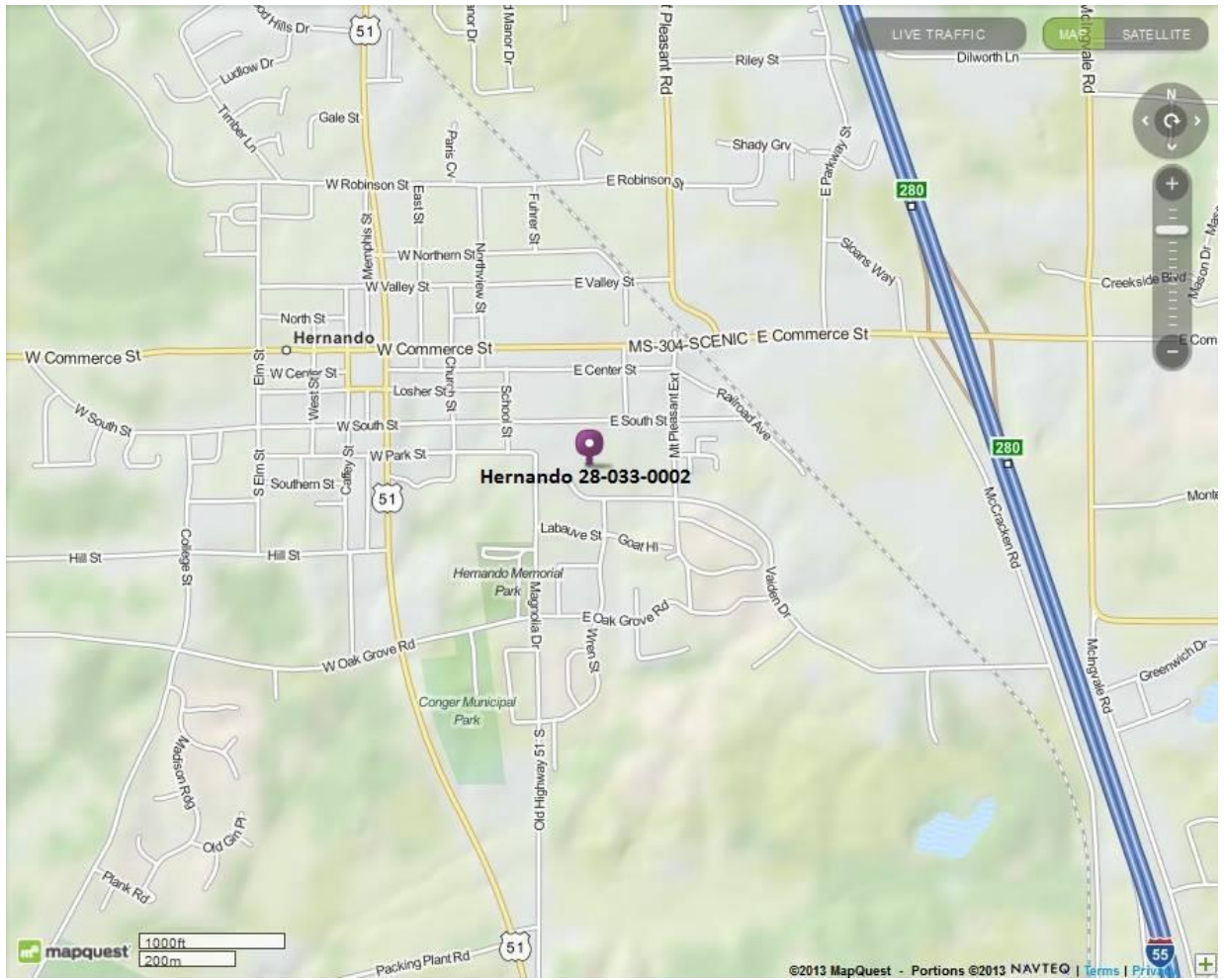


Hernando- West (2025)



Hernando 28-033-0002 (2025)







## TUPELO



Tupelo- North (2025)



Tupelo- South (2025)



Tupelo- East (2025)

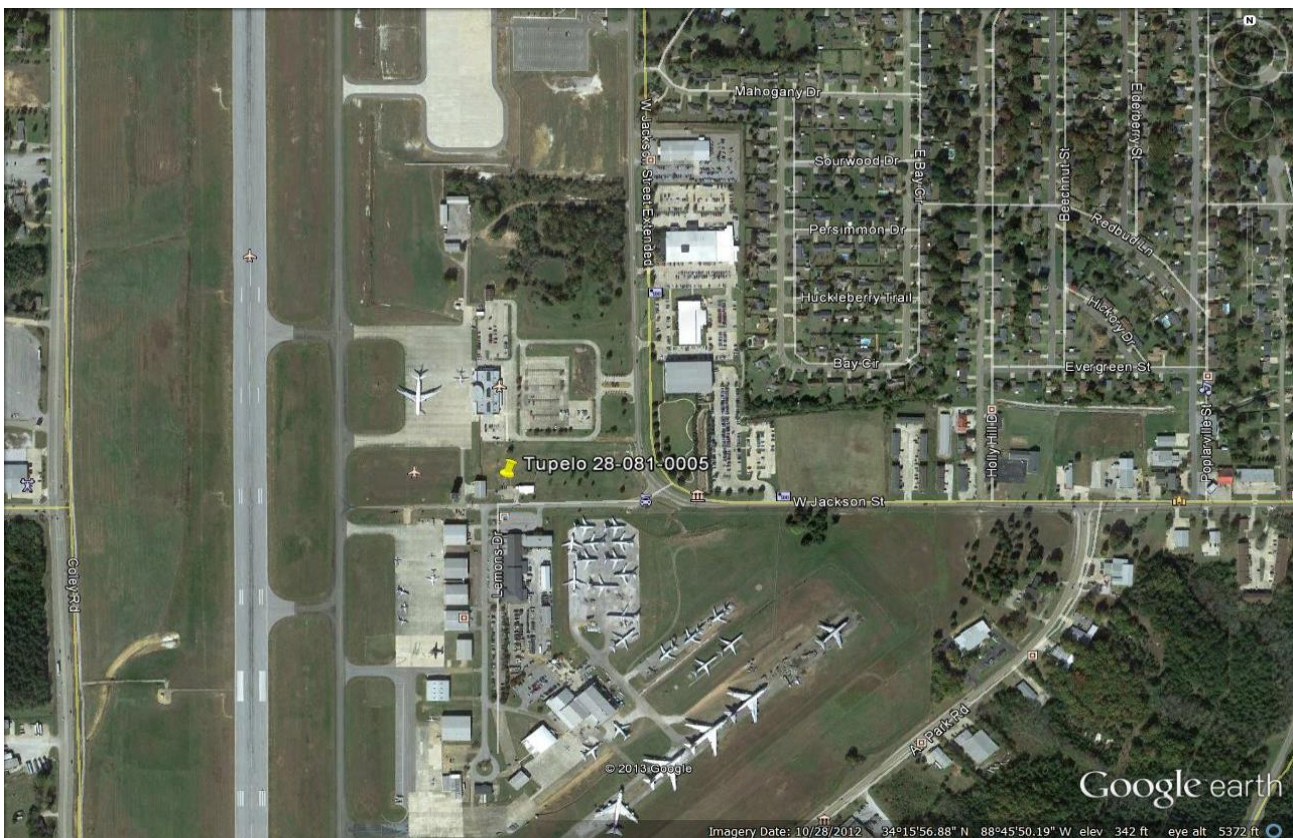
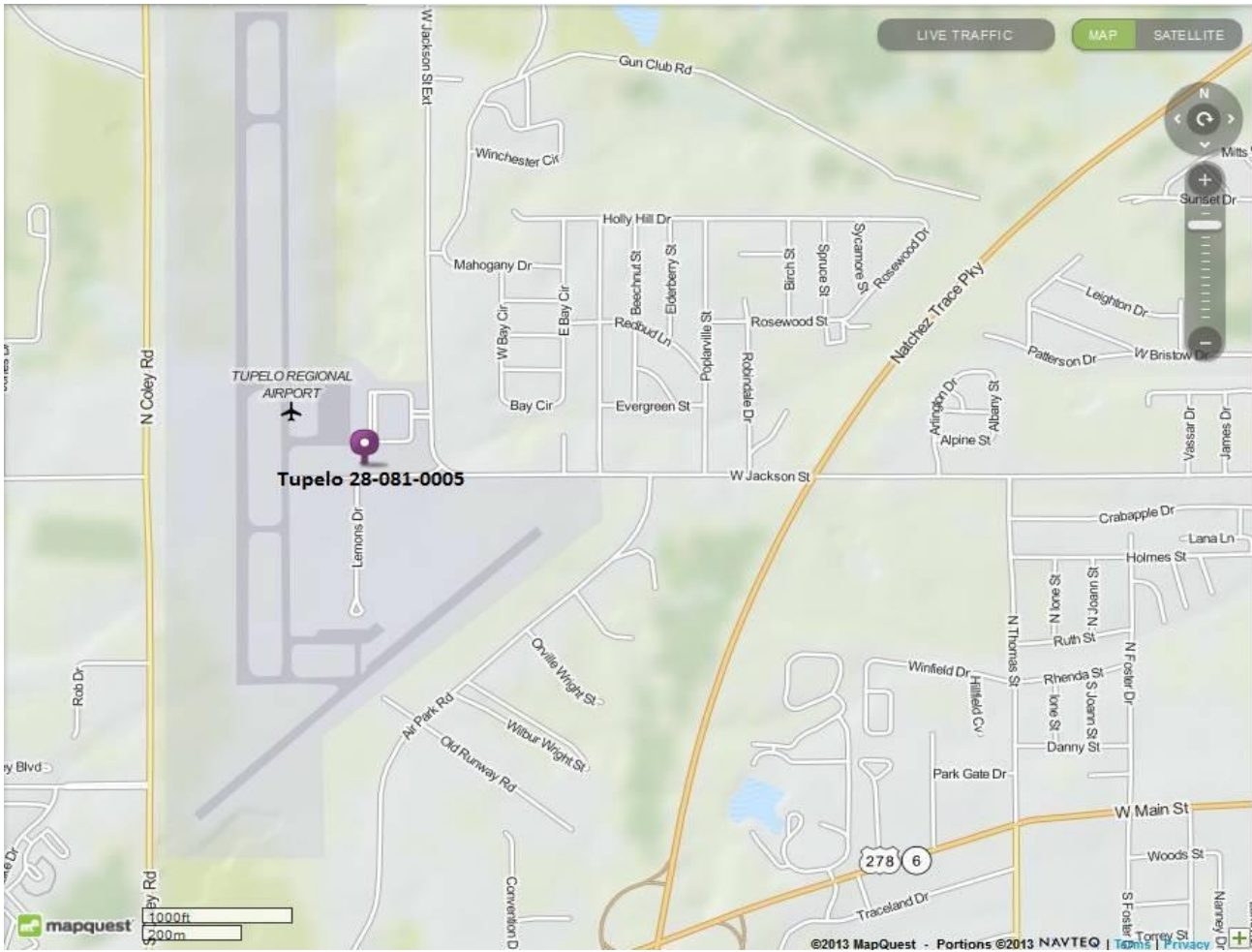


Tupelo- West (2025)



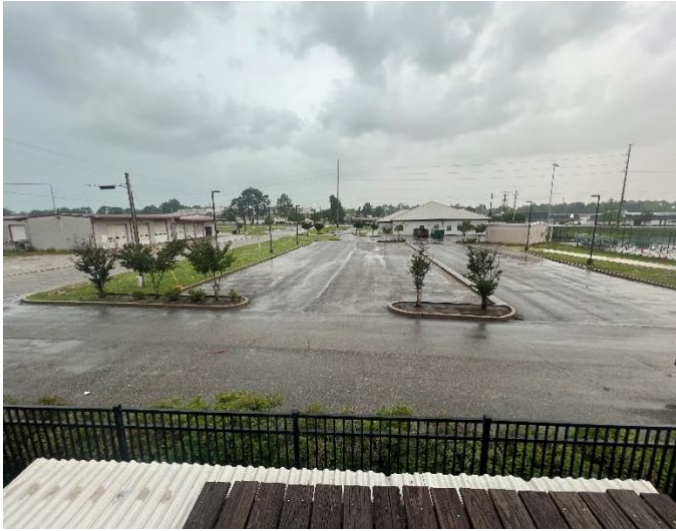
Tupelo 28-081-0005 (2025)







Meridian



Meridian- North (2025)



Meridian- South (2025)



Meridian- East (2025)

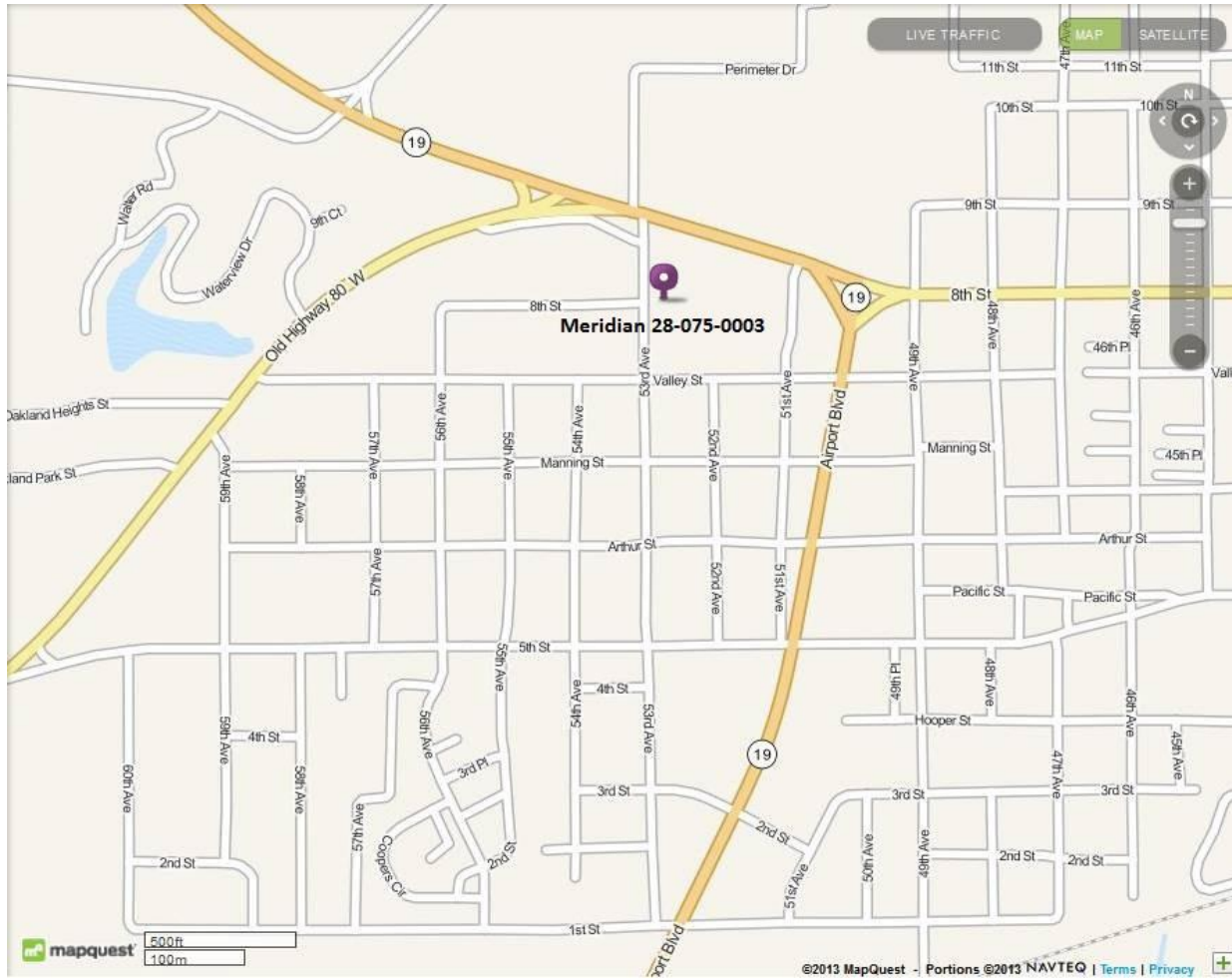


Meridian- West (2025)



Meridian-28-075-0003 (2025)







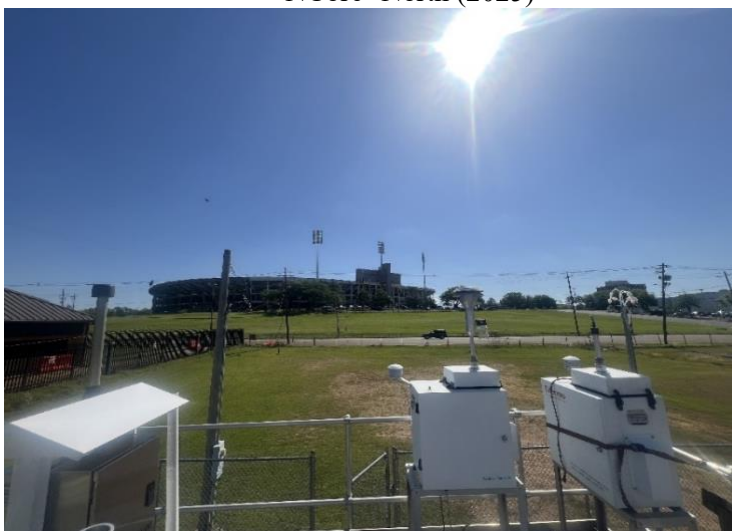
## NCore



NCore -North (2025)



NCore -South (2025)



NCore -East (2025)

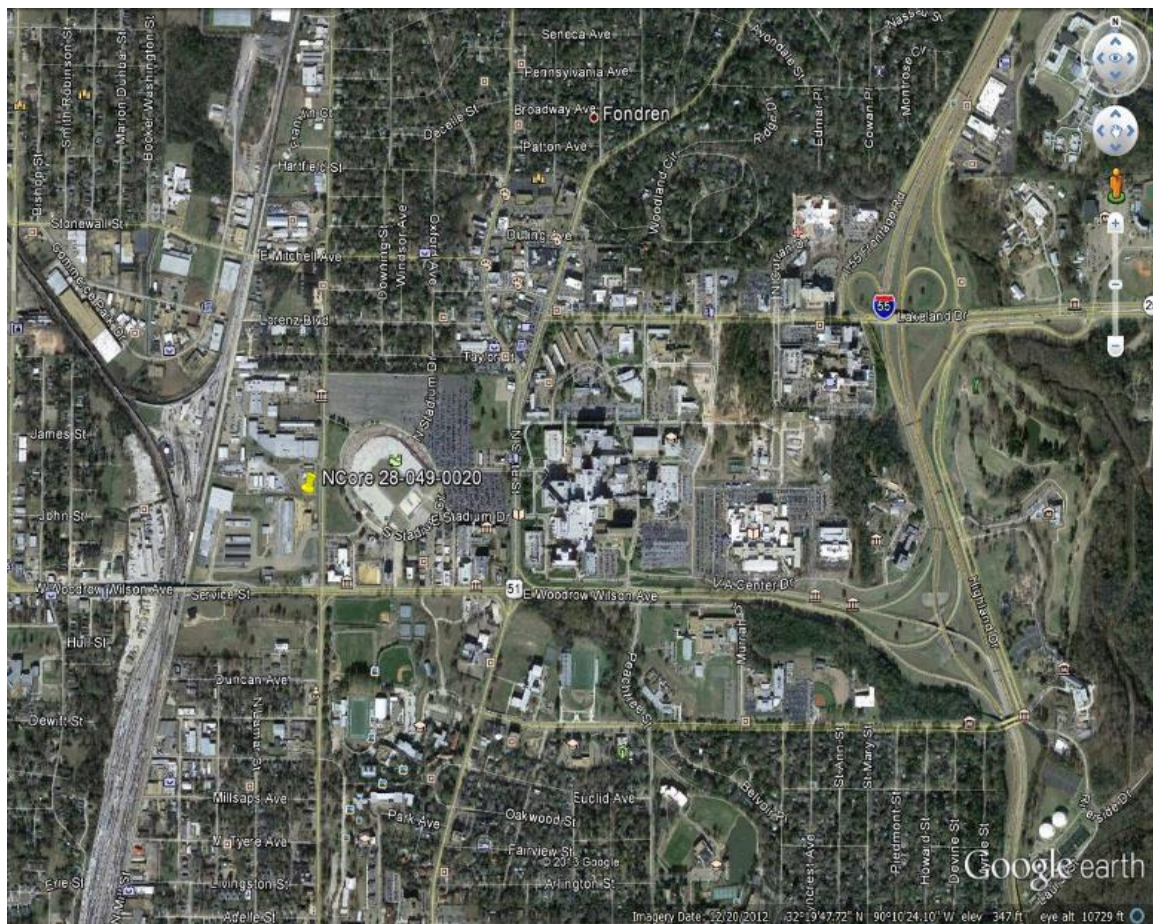
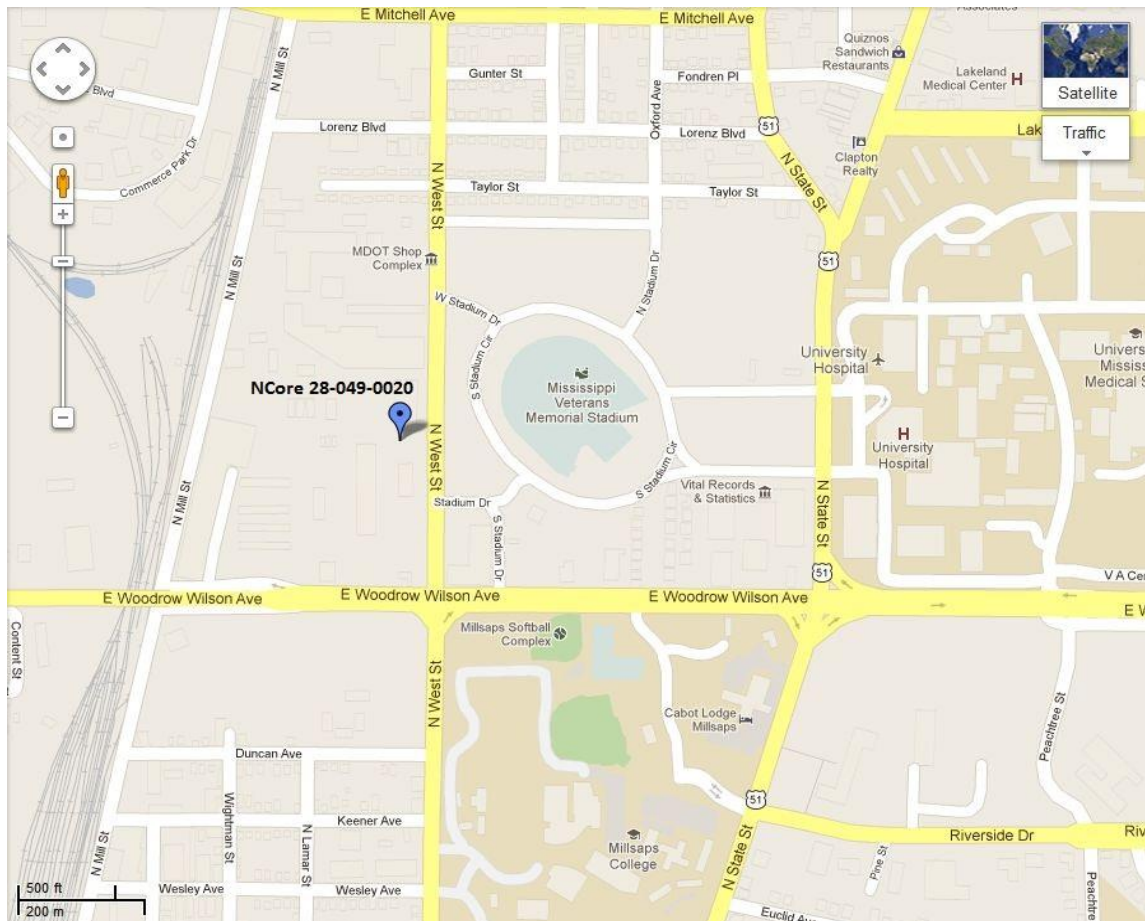


NCore -West (2025)



NCore-28-049-0020 (2025)







## Hinds CC



Hinds CC -North (2025)



Hinds CC -South (2025)



Hinds CC -East (2025)

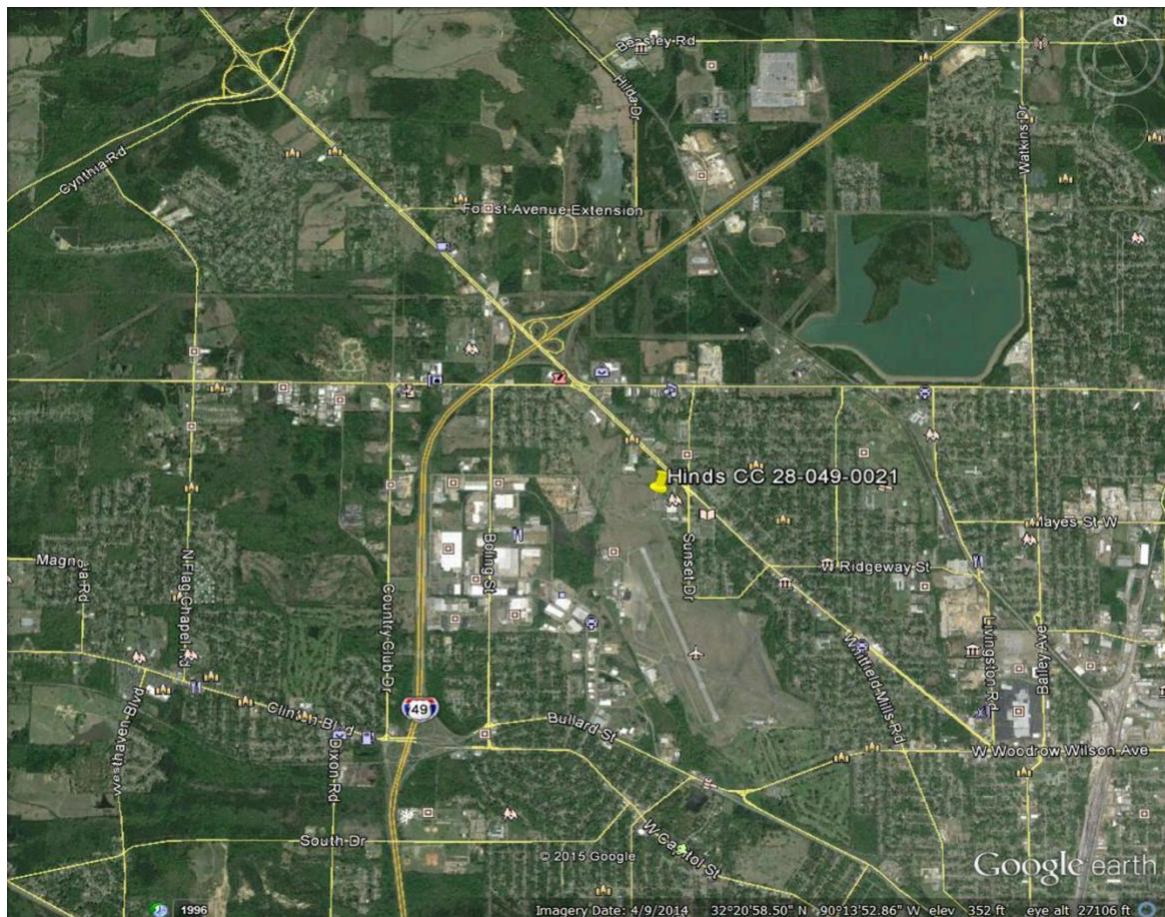
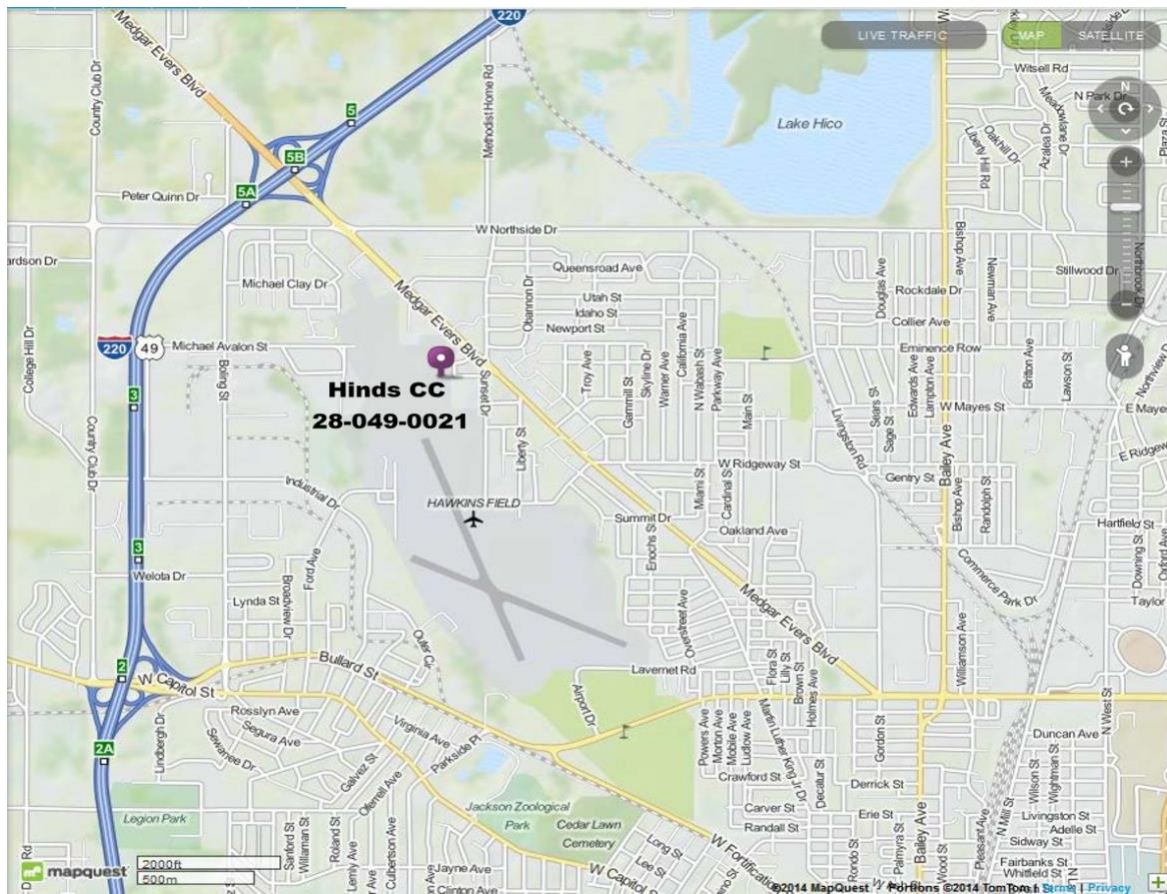


Hinds CC -West (2025)



Hinds-28-049-0021 (2025)







## GULFPORT



Gulfport-North (2025)



Gulfport-South (2025)



Gulfport-East (2025)

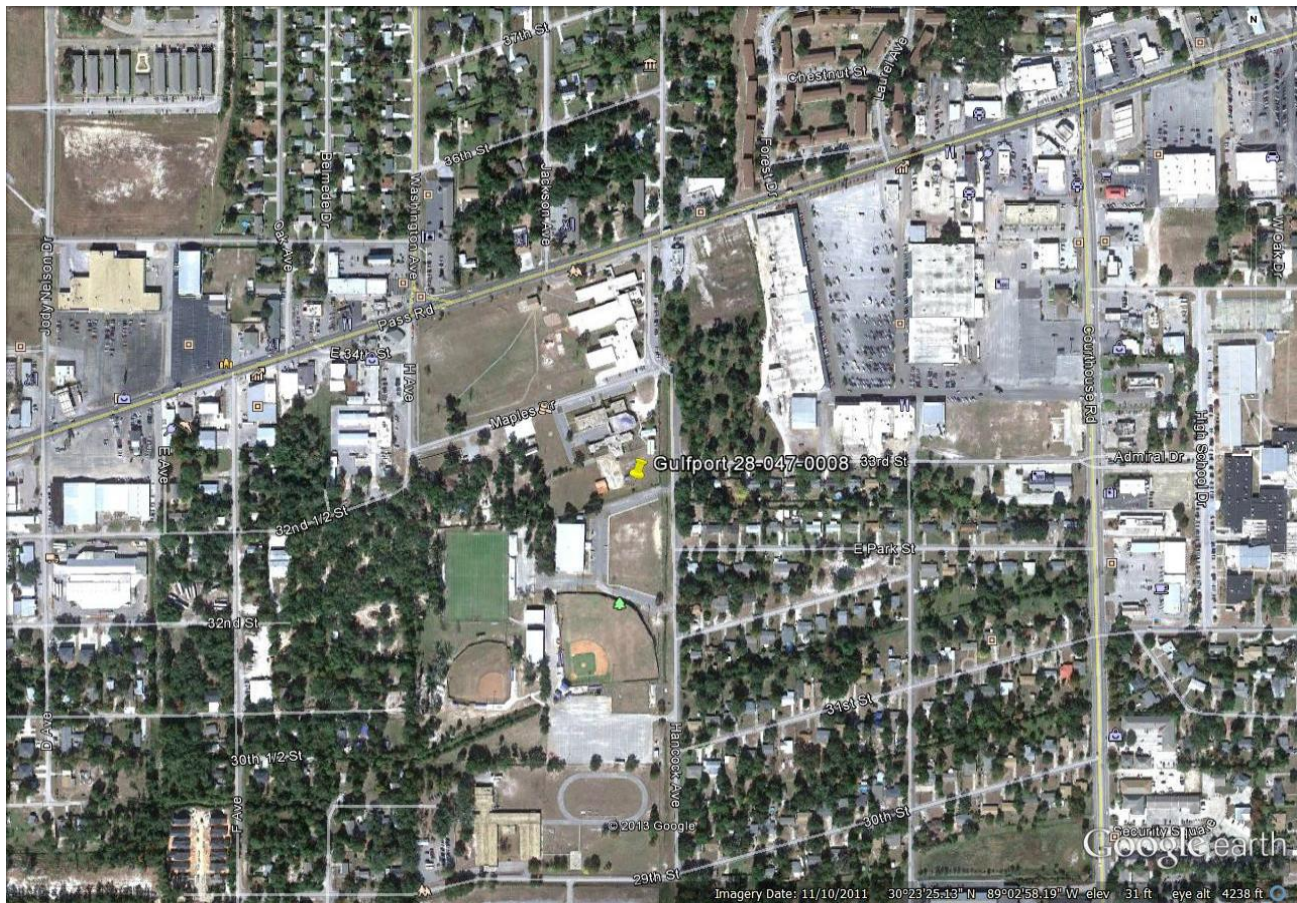
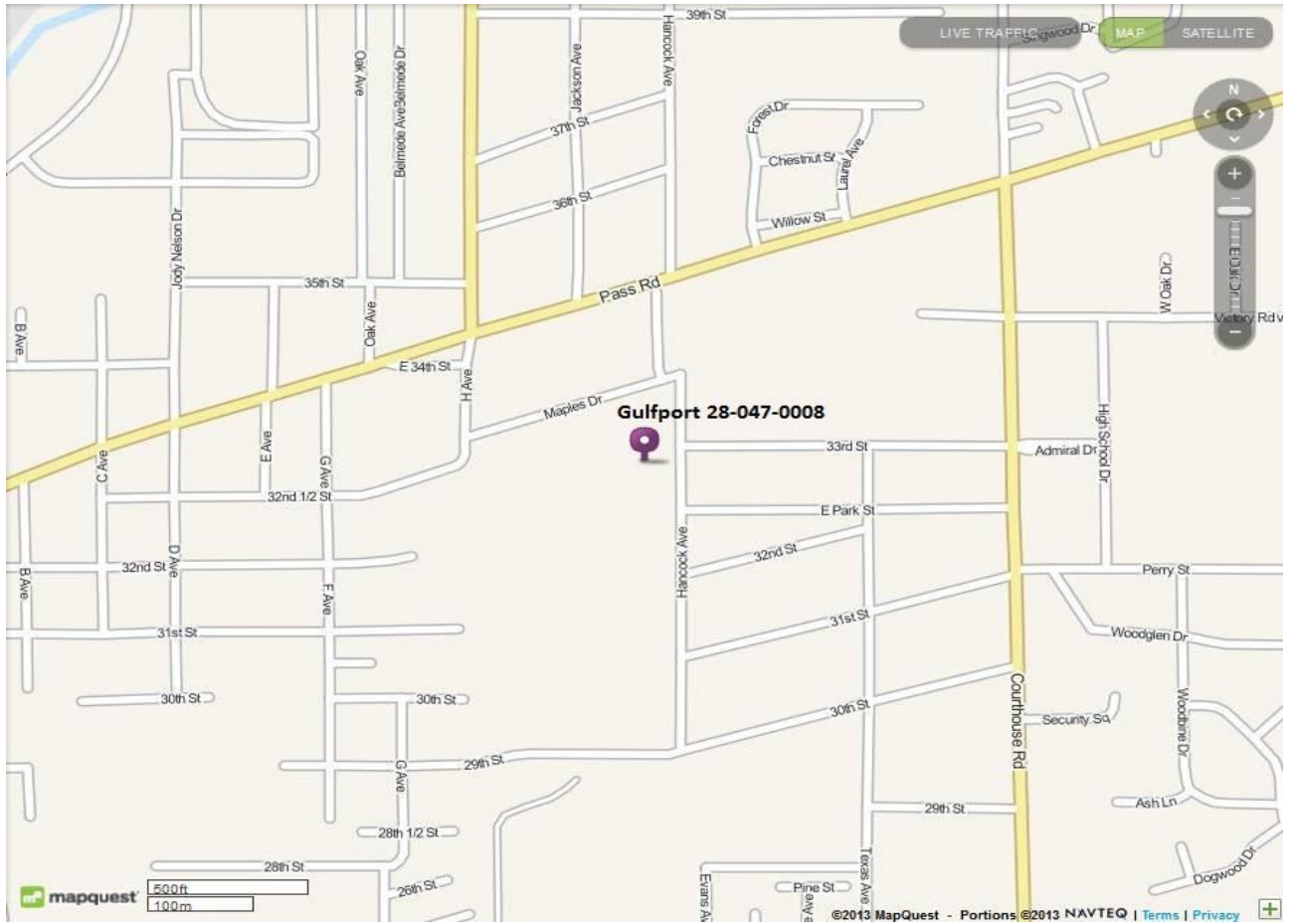


Gulfport-West (2025)



Gulfport-28-047-0008 (2025)







**WAVELAND**



Waveland-North (2025)



Waveland-South (2025)



Waveland-East (2025)

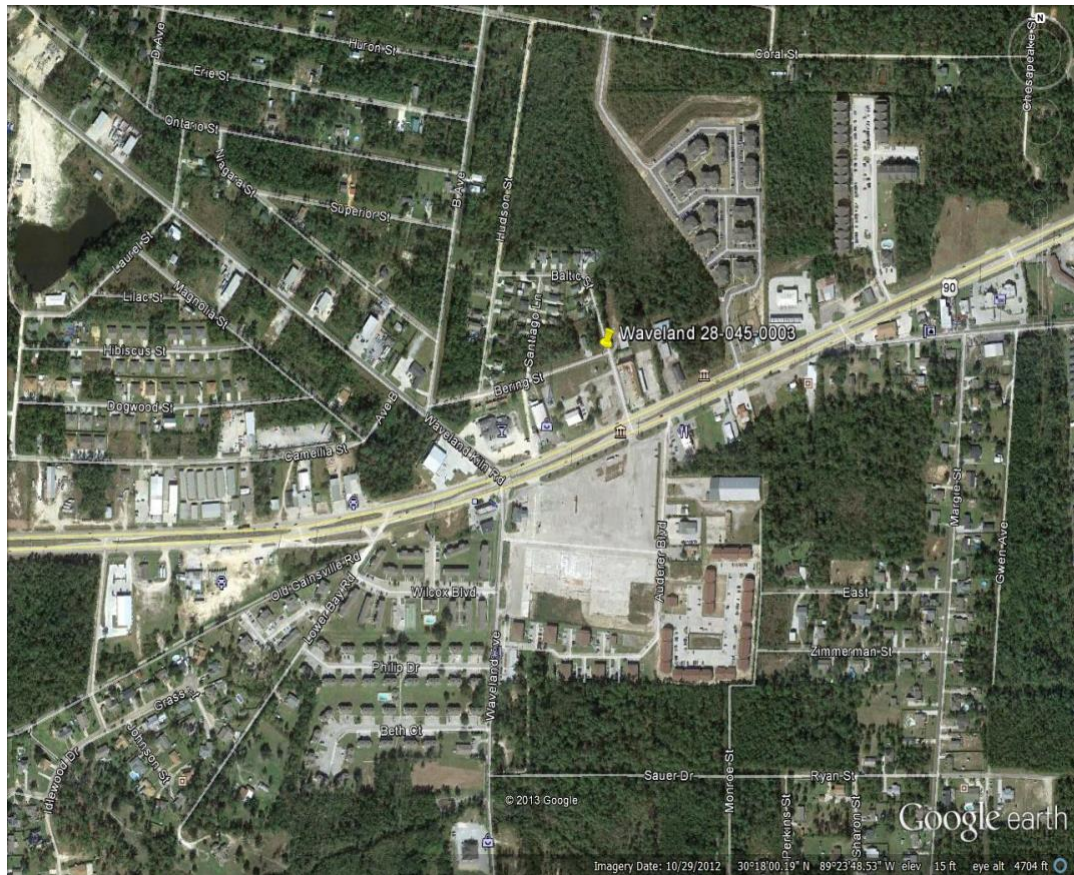
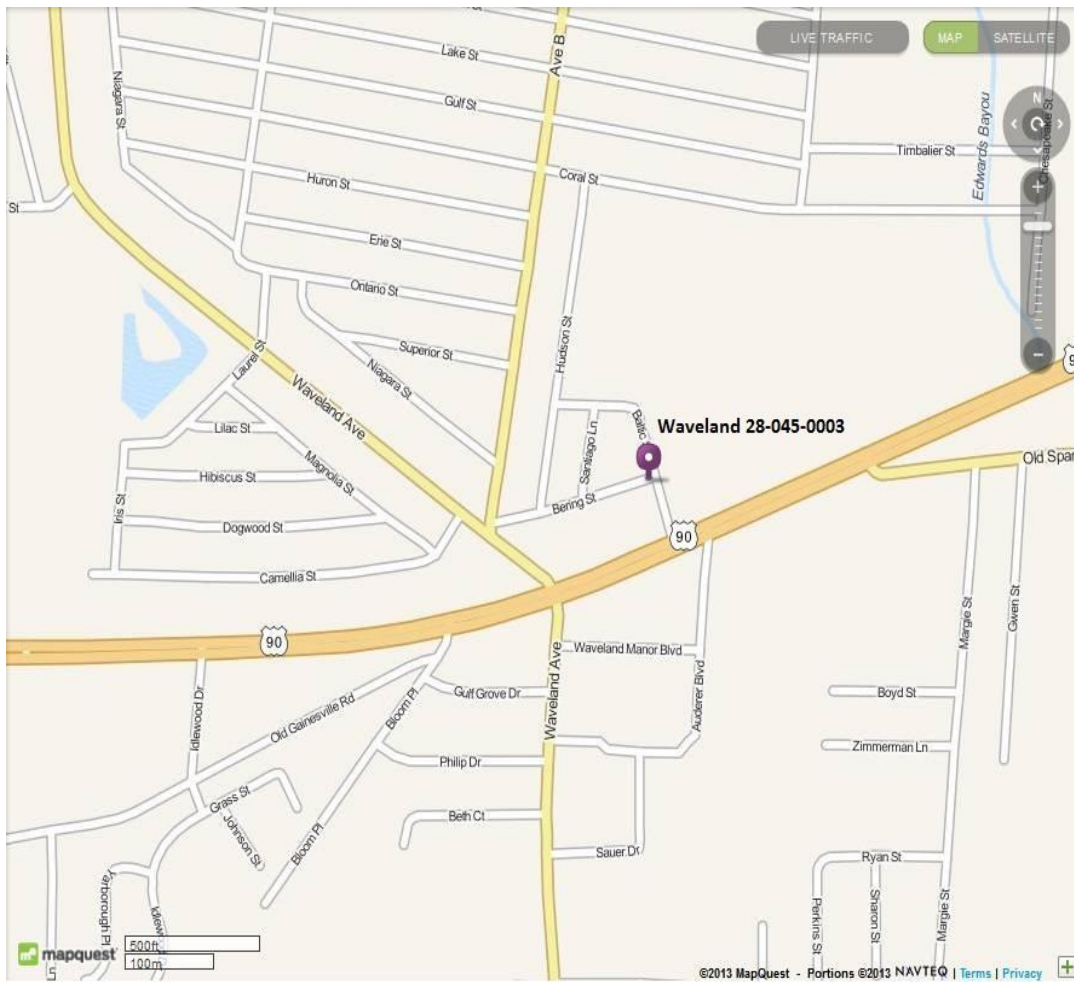


Waveland-West (2025)



Waveland-28-045-0003 (2025)







## PASCAGOULA



Pascagoula-North (2025)



Pascagoula-South (2025)



Pascagoula-East (2025)

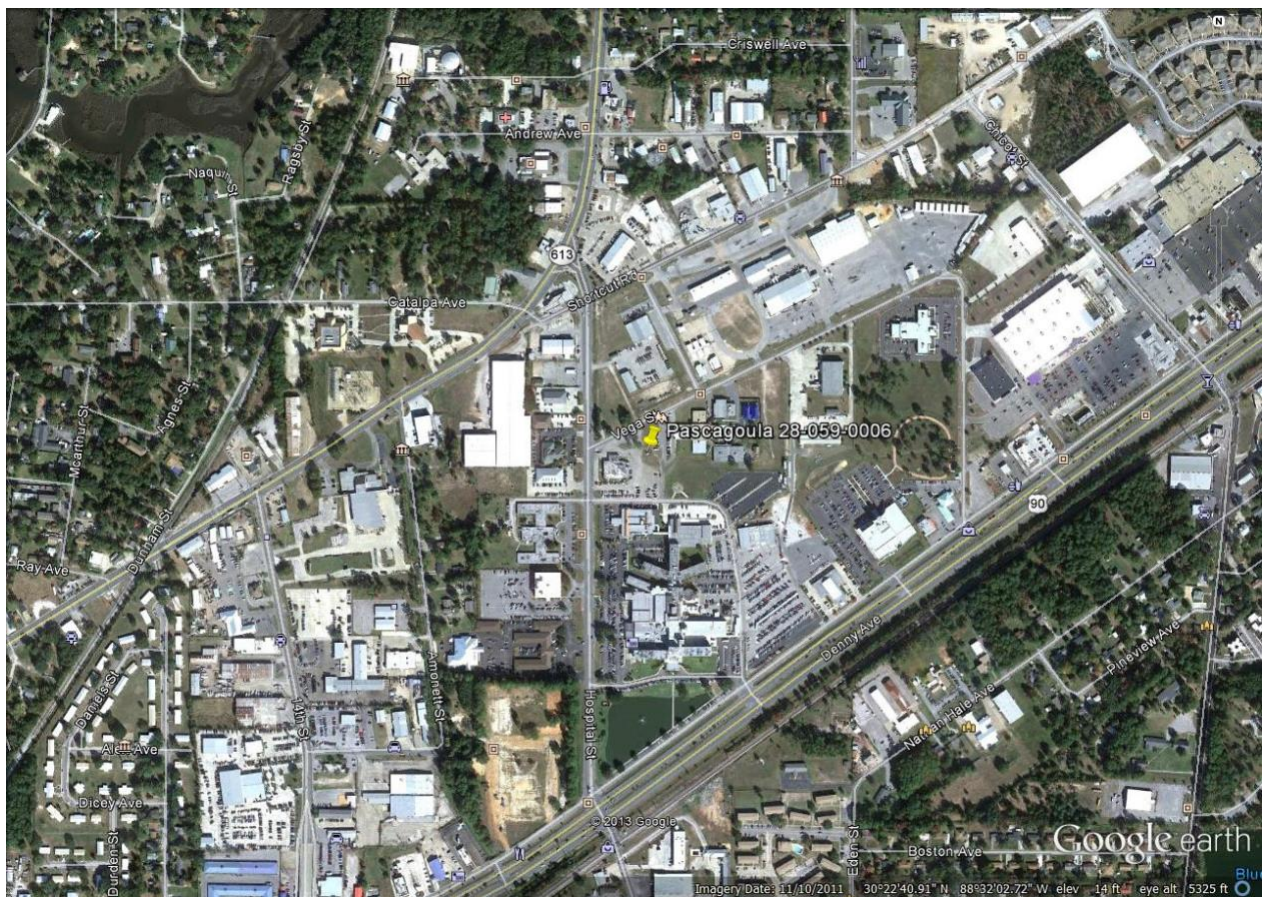
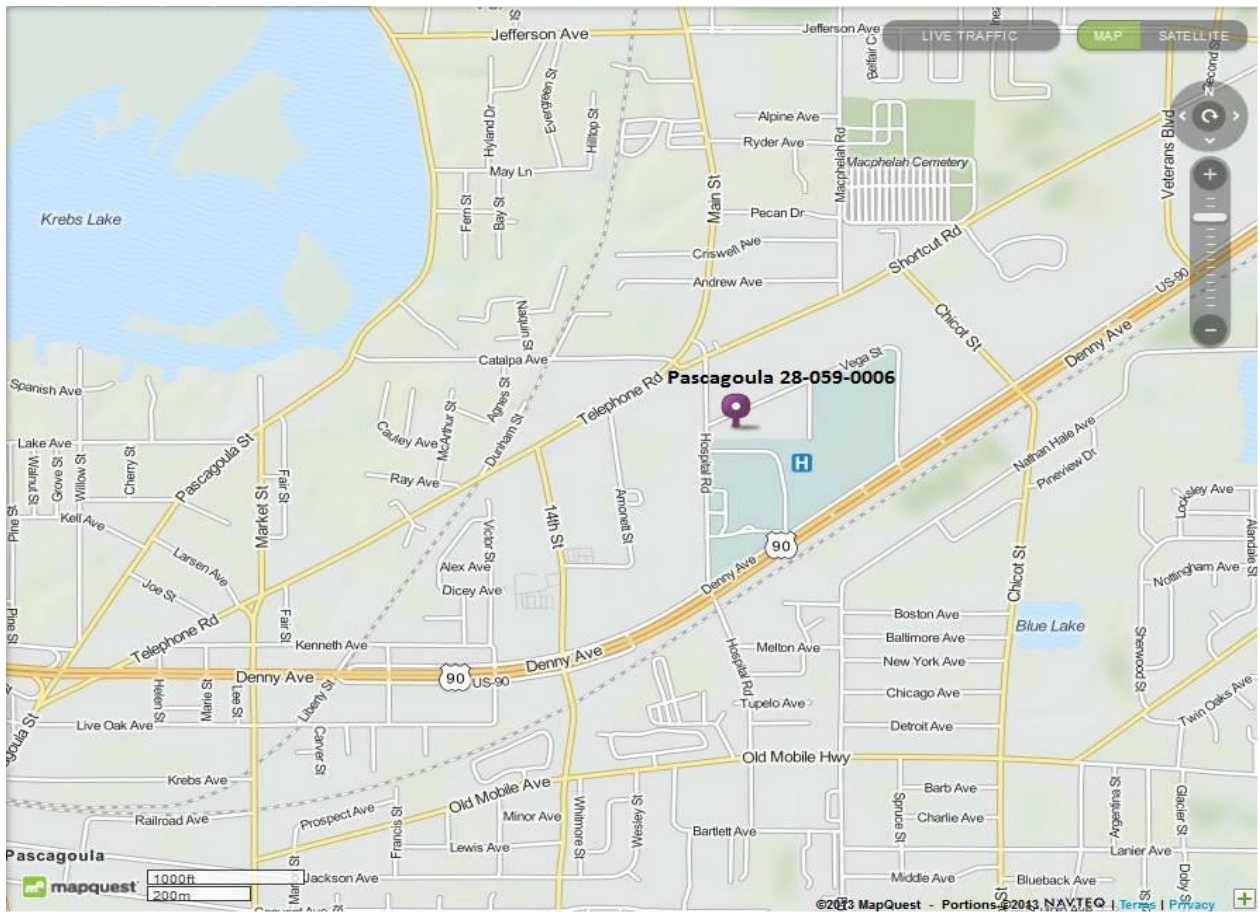


Pascagoula-West (2025)



Pascagoula-28-059-0006 (2025)







## HATTIESBURG



Hattiesburg-North (2025)



Hattiesburg-South (2025)



Hattiesburg-East (2025)

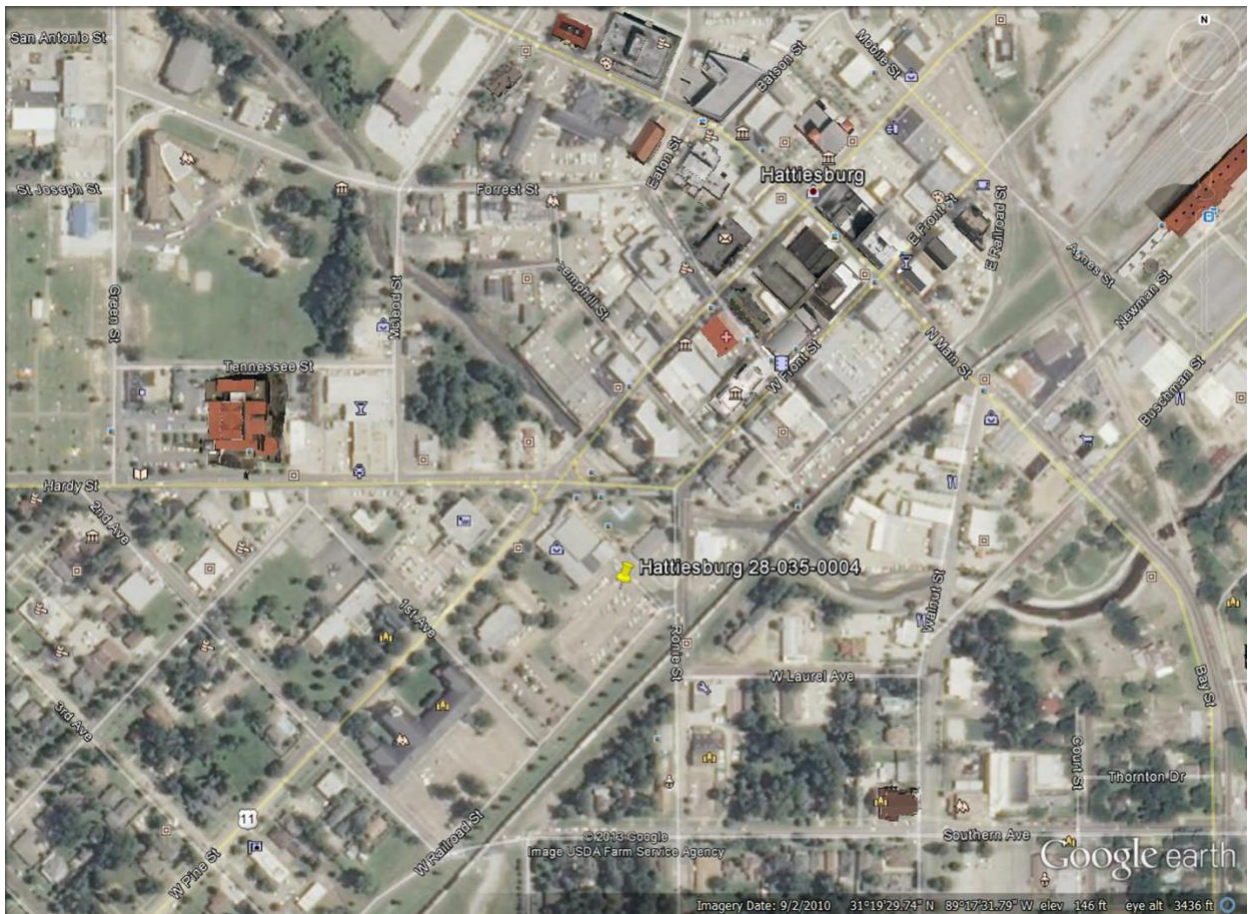
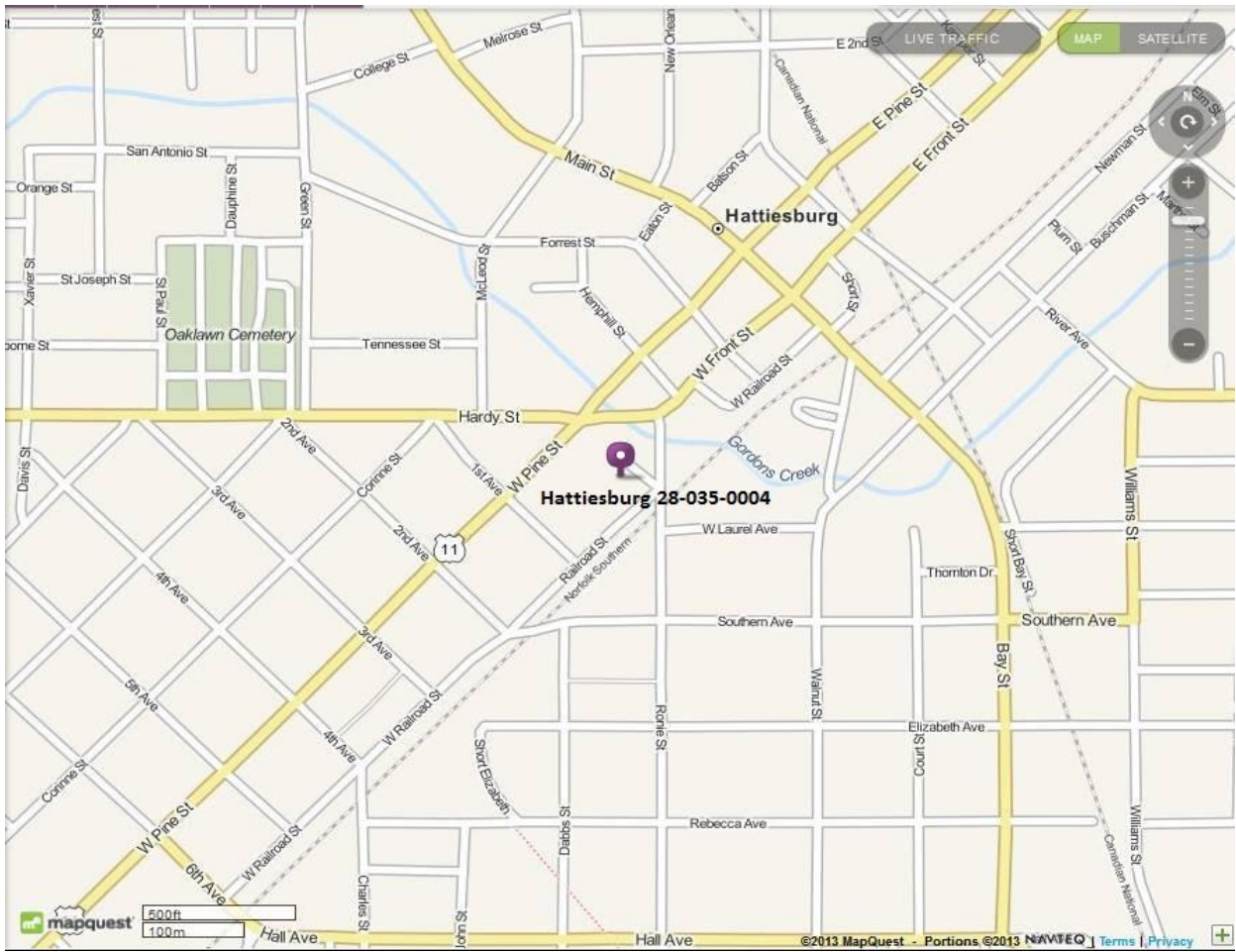


Hattiesburg-West (2025)



Hattiesburg-28-035-0004 (2025)







**PASCAGOULA (CHEROKEE)**



Pascagoula Cherokee-North (2025)



Pascagoula Cherokee-South (2025)



Pascagoula Cherokee-East (2025)

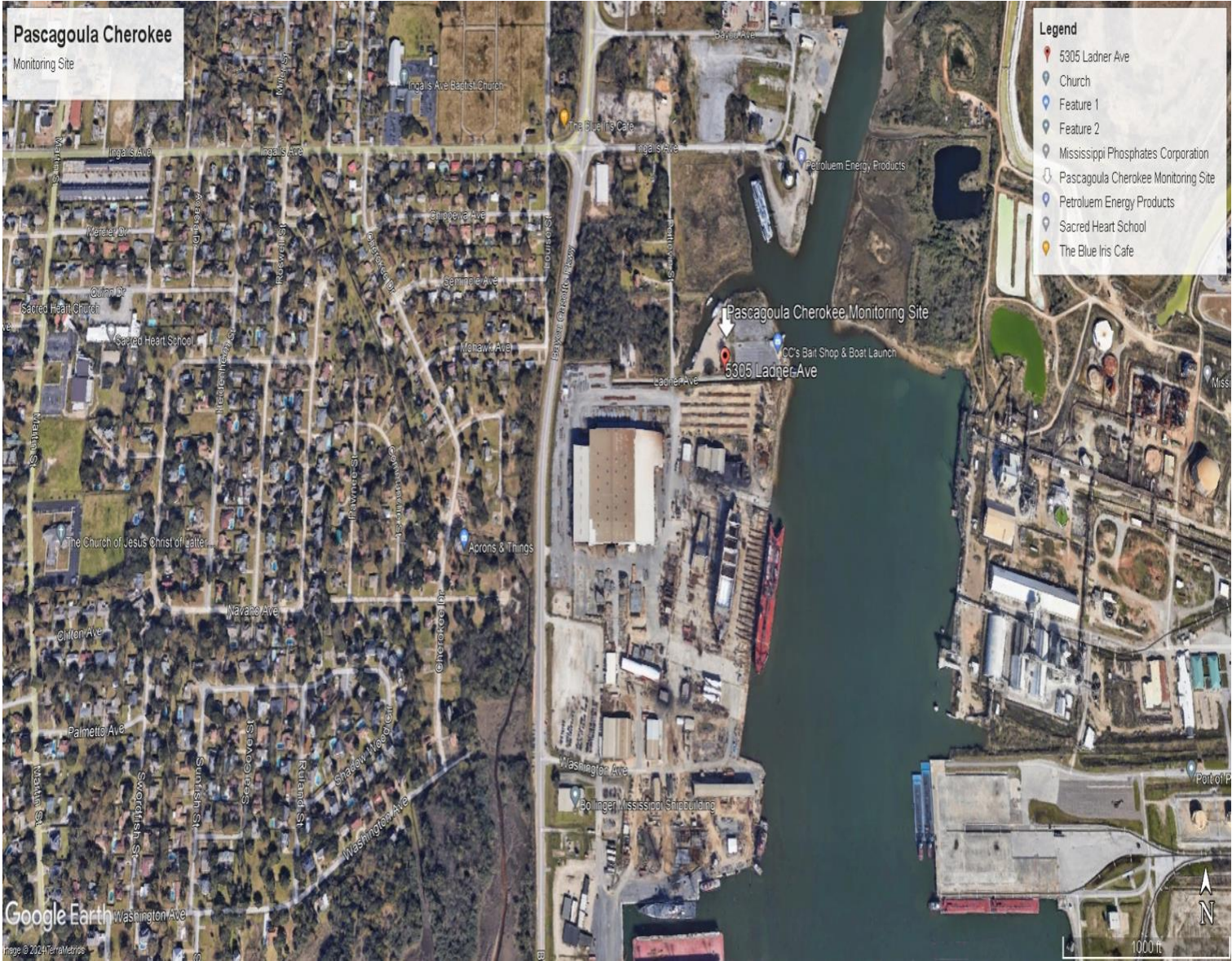


Pascagoula Cherokee-West (2025)



Pascagoula Cherokee-28-059-0007 (2025)





## 10.0 Regional Monitoring Agreement



### SHELBY COUNTY HEALTH DEPARTMENT



Public Health  
Protect • Promote • Prevent  
Shelby County Health Department

MICHELLE A. TAYLOR, MD DRPH, MPA  
HEALTH DIRECTOR & OFFICER

May 12, 2025

Ms. Michelle Walker Owenby, Air Director  
Tennessee Department of Environment and Conservation Air Pollution Control Division  
Davy Crockett Tower  
500 James Robertson Parkway, 7th Floor  
Nashville, Tennessee 37243

Mr. Jaricus Whitlock, P.E., Chief, Air Division  
Mississippi Department of Environmental Quality  
Office of Pollution Control  
P.O. Box 2261  
Jackson, Mississippi 39225

Demetria Kimbrough, Associate Director, Office of Air Quality  
Division of Environmental Quality  
Arkansas Department of Energy and Environment  
5301 Northshore Drive  
North Little Rock, AR 72118

Dear All,  
In accordance with the provisions of the Memorandum of Agreement (MOA) signed in May and June of 2008 between the Shelby County Health Department (SCHD), Mississippi Department of Environmental Quality (MDEQ), and the Arkansas Department of Energy and Environment-Division of Environmental Quality (DEQ), this letter serves as a notification that each respective agency in the MOA have been contacted by the SCHD. Although no changes have occurred, there are a few planned changes later in the year (see chart below) within the SCHD and DEQ portions of the network. With this MOA, all agencies are meeting EPA monitoring requirements.

If you have any questions, please call me at (901) 222-9193.

Sincerely,

*Kasia Smith Alexander*

Kasia Smith Alexander  
Bureau Director, Environmental Health and Sustainability Bureau  
Shelby County Health Department

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Mission

*To promote, protect and improve the health of ALL in Shelby County.*

814 Jefferson Avenue ♦ Memphis, TN 38105 ♦ 901 222-9000 ♦ [www.shelbytnhealth.com](http://www.shelbytnhealth.com)

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**MEMORANDUM OF AGREEMENT  
ON AIR QUALITY MONITORING FOR CRITERIA  
POLLUTANTS FOR  
THE MEMPHIS, TN- MS- AR  
METROPOLITAN STATISTICAL AREA (MSA)**

Participating Agencies:

Shelby County Health Department (SCHD)  
Air Pollution Control Program

Mississippi Department of Environmental Quality (MDEQ)  
Office of Pollution Control, Air Division

Arkansas Department of Energy and Environment  
Division of Environmental Quality (DEQ)

**PURPOSE / OBJECTIVE / GOALS**

The purpose of this Memorandum of Agreement (MOA) is to inform the entities of the Memphis, Tennessee-Mississippi-Arkansas Metropolitan Statistical Area of monitoring network changes. The MOA between SCHD, MDEQ, and DEQ is to collectively meet United States Environmental Protection Agency (EPA) minimum monitoring requirements for particles of an aerodynamic diameter of 10 micrometers and less ( $PM_{2.5}$ ), and ozone; as well as other criteria pollutants air quality monitoring deemed necessary to meet the needs of the MSA as determined reasonable by all parties. This MOA will formalize and reaffirm the collective agreement in order to provide adequate criteria pollutant monitoring for the Memphis, TN-MS-AR MSA as required by 40 CFR 58 Appendix D, Section 2, (e).



PM<sub>2.5</sub> MSA monitoring network include:

<u>County</u>	<u>Federal Referenced Method PM<sub>2.5</sub></u>	<u>Federal Equivalent Method PM<sub>2.5</sub></u>	<u>Continuous PM<sub>2.5</sub></u>	<u>Speciation PM<sub>2.5</sub></u>	<u>Collocated PM<sub>2.5</sub></u>
Shelby County, TN <b>SCHD</b>	4 (includes 2 at Alabama, 1 at NCore, and 1 at the Near Road station*)	3*		1	2
Crittenden County, AR <b>DEQ</b>	1		1**		
DeSoto County, MS <b>MDEQ</b>		1			

\*The SCHD plans to replace one FRM PM<sub>2.5</sub> samplers with a T640x at Alabama Ave. later this year. Plans also include adding a T640x at Near Rd site.

\*\*The DEQ has plans to replace a broken TEOM later this year at the Marion, AR site.

Criteria Air Pollutant MSA monitoring network include:

<u>County</u>	<u>PM<sub>10</sub></u>	<u>PM<sub>10-2.5</sub></u>	<u>O<sub>3</sub></u>	<u>NO<sub>x</sub>/NO<sub>y</sub>/NO/NO<sub>2</sub></u>	<u>CO</u>	<u>SO<sub>2</sub></u>
Shelby County, TN <b>SCHD</b>	4 (1 TEOM at Alabama Ave., 3-T640x at NCore, Near Rd., & Alabama Ave***.	1	3	3 (includes 1 NO/NO <sub>2</sub> /NO <sub>x</sub> at Near Road Station, 1 NO/NO <sub>y</sub> (trace) at NCore/, 1 True NO <sub>2</sub> (trace) at NCore-PAMS)	2 (includes 1 trace at NCore and 1 at the Near Road Station)	1 (trace at NCore)
Crittenden County, AR <b>DEQ</b>			1	1		
DeSoto County, MS <b>MDEQ</b>			1			

\*\*\*The SCHD plans to replace the continuous PM<sub>10</sub> TEOM with a T640x at Alabama Ave. and add PM<sub>10</sub> at the Near Rd. site with a new T640x later this year. After the replacement, there will be three (3) PM<sub>10</sub> samplers (all T640x), three (3) FRM PM<sub>2.5</sub> samplers, and three FEM PM<sub>2.5</sub> (same T640x) samplers operating in Shelby County.

### **RESPONSIBILITIES / ACTIONS**

Each of the parties to this Agreement is responsible for ensuring that its obligations under the MOA are met. As conditions warrant, the affected agencies may conduct telephone conference calls, meetings, or other communications to discuss monitoring activities for the MSA. Each affected agency shall inform the other affected agencies via telephone or email of any monitoring changes occurring within its jurisdiction of the MSA at its earliest convenience, after learning of the need for the change or making the changes. Such unforeseen changes may include evictions from monitoring sites, destruction of monitoring sites due to natural disasters, or any occurrences that result in an extended (greater than one quarter) or permanent change in the monitoring network.

### **LIMITATIONS**

- All commitments made in this MOA are subject to the availability of appropriated funds and each agency's budget priorities. Nothing in this MOA obligates SCHD, MDEQ, or DEQ to expend appropriations or to enter into any contract, assistance agreement, interagency agreement or other financial obligation.
- This MOA is neither a fiscal nor a funds obligation document. Any endeavor involving reimbursement or contribution of funds between parties to this agreement will be handled in accordance with applicable laws, regulations, and procedures, and will be subject to separate agreements that will be affected in writing by representatives of the parties.
- This MOA does not create any right or benefit enforceable by law or equity against SCHD, MDEQ, or DEQ, their officers or employees, or any other person. This MOA does not apply to any entity outside SCHD, MDEQ, or DEQ.
- No proprietary information or intellectual property is anticipated to arise out of this MOA.

### **TERMINATION**

This Memorandum of Agreement may be revised upon the mutual consent of SCHD, MDEQ and DEQ. Each party reserves the right to terminate this MOA. A thirty (30) day written notice must be given prior to the date of termination.



## 11.0 Appendix: A

### 2025 Siting Criteria and Residence Time Summary

AQS #	Site Name:	Parameter	Probe Tubing and Fittings	Probe Rain Shield Material	Height of Probe from ground to Inlet (meters)	Residence Time Seconds	Nearest Road/ Meters	Obstructions < 10 Meters	Tree Drip Line < 10 Meters	270 Degrees Unrestricted Airflow (yes/no)
28-011-0002	Cleveland	Ozone	Teflon	Stainless	4.5 m	4.24s	Shumate Circle / 63.2 m	No	No	Yes
28-011-0002	Cleveland	PM	N/A	N/A	4.2 m	N/A	Shumate Circle / 62.2 m	No	No	Yes
28-033-0002	Hernando	Ozone	Teflon	Stainless	4.5 m	4.07 s	Vaiden Dr / 72.5 m	No	No	Yes
28-033-0002	Hernando	PM	N/A	N/A	4.2 m	N/A	Vaiden Dr / 71.5 m	No	No	Yes
28-045-0003	Waveland	Ozone	Teflon	Stainless	5.0 m	4.04 s	Bering St / 16.92 m	No	No	Yes
28-045-0003	Waveland	PM	N/A	N/A	4.75 m	N/A	Bering St / 14.5 m	No	No	Yes
28-047-0008	Gulfport YC	Ozone	Teflon	Stainless	4.20 m	4.11 s	Hancock AVE / 45 m	No	No	Yes
28-047-0008	Gulfport YC	PM	N/A	N/A	4.05 m	N/A	Hancock AVE / 45 m	No	No	Yes
28-049-0021	Hinds CC	Ozone	Teflon	Stainless	4.5 m	5.19 s	Medgar Evers Dr / > 300 m	No	No	Yes
28-049-0021	Hinds CC	PM	N/A	N/A	4.0 m	N/A	Medgar Evers Dr / > 300 m	No	No	Yes
28-075-0003	Meridian	Ozone	Teflon	Stainless	4.5 m	4.13 s	53rd Ave / 22 m	No	No	Yes
28-035-0004	Hattiesburg	PM	N/A	N/A	3.5 m	N/A	Ferguson St / 10.51 m	No	No	Yes
28-081-0005	Tupelo	Ozone	Teflon	Stainless	4.35 m	4.06 s	Lemons Dr / 14.63 m	No	No	Yes
28-049-0020	NCore	Ozone	Teflon	Stainless	4.5 m	4.97 s	N. West St/ 42 m	No	No	Yes
28-049-0020	NCore	SO2	Teflon	Stainless	4.5 m	6.28 s	N. West St/ 42 m	No	No	Yes
28-049-0020	NCore	CO	Teflon	Stainless	4.5 m	2.74 s	N. West St/ 42 m	No	No	Yes
28-049-0020	NCore	PM	N/A	N/A	4.0 m	N/A	N. West St/ 42 m	No	No	Yes
28-059-0006	Pascagoula	Ozone	Teflon	Stainless	4.57 m	3.68 s	LT Eugene J Majure Dr./ 41.88 m	No	No	Yes
28-059-0006	Pascagoula	SO2	Teflon	Stainless	4.57 m	5.42 s	LT Eugene J Majure Dr./ 41.88 m	No	No	Yes
28-059-0006	Pascagoula	NOx	Teflon	Stainless	4.57 m	7.40 s	LT Eugene J Majure Dr./ 41.88 m	No	No	Yes
28-059-0006	Pascagoula	PM	N/A	N/A	4.42 m	N/A	LT Eugene J Majure Dr./ 41.88 m	No	No	Yes
28-059-0007	Pascagoula	*TRS	Teflon	Stainless	4.55m	5.59 s	Poitevin St/ 383.89 m	No	No	Yes
28-059-0007	Pascagoula	PM10	N/A	N/A	4.25 m	N/A	Poitevin St/ 383.89 m	No	No	Yes

## 12.0 Appendix: B

### QAPP, QMP and SOP Approval/Accepted/Reviewed Date

Pollutant/Activity	QAPP, QMP and SOP Title	Revision #	Approved Date	Reviewed Date
Quality Objectives	Quality Assurance Project Plan (QAPP)	2.0	11/17/2025	1/7/2025
Project Policy	Quality Management Plan (QMP)	2.0	10/3/2019 The QMP has been revised and sent to EPA (2/28/2025) for review.	2/28/2025
Ozone	Teledyne/Advanced Pollution Instruments (API) models 400e and T400 ozone analyzers	2.0	4/6/2023	2/19/2025
SO <sub>2</sub>	Teledyne/Advanced Pollution Instruments (API) models 100EU and T100U	2.0	4/6/2023	2/26/2025
CO	Teledyne/Advanced Pollution Instruments (API) models API T300U	2.0	4/6/2023	2/26/2025
NO <sub>2</sub>	Teledyne/Advanced Pollution Instruments (API) models API T200	2.0	4/6/2023	3/3/2025
NO <sub>y</sub>	Teledyne/Advanced Pollution Instruments (API) models API T200U	2.0	4/6/2023	3/3/2025
FRM PM <sub>2.5</sub>	Thermo Model 2025 Instrument	2.0	11/28/2022	3/11/2025
T640 and T640X PM <sub>2.5</sub> , PM <sub>10</sub> , PM <sub>10-2.5</sub>	Teledyne/Advanced Pollution Instruments (API) Model T640 and T640x	1.0	11/28/2022	3/11/2025
Carbon	URG-3000n Sequential Particulate Speciation System	2.0	Adopted, National SOP 8/11/2011	12/17/2024
Speciation	Standard Operating Procedure for the MetOne Super SASS	2.0	Adopted, National SOP 7/27/2011	12/17/2024
Data Handling and Data Validation	Data Handling and Data Validation	2.0	4/6/2023	Currently, it is being revised.
API Calibrators- API 700, API T700, API T700U and API T703U	Teledyne API Model 700 Series Calibrators	2.0	4/6/2023	03/27/2025
PM <sub>2.5</sub> Lab	IML PM <sub>2.5</sub> Gravimetric Laboratory	15	5/17/21	10/15/2024