Mississippi Air Regulatory Update

Dallas Baker, P.E., BCEE

MDEQ Air Director

September 21, 2016

AIR & WASTE MANAGEMENT ASSOCIATION

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

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MDEQ Staffing

G. Rikard / Executive Director

C. Sanders / Office of Pollution Control

K. Whittington/ Office of Land & Water

M. Bograd / Office of Geology

G. Rikard / Executive Director

OPC: enforcing federal and state laws to conserve the air and water and to protect, maintain and improve the quality thereof for public use.

OLW: conserving, managing, and protecting the water resources of Mississippi. The agency regulates water quantity issues affecting the beneficial use of these resources in the best interest and welfare of the citizens of the state.

OG: research into the surface and subsurface geology, paleontology, and mineral resources of Mississippi; regulating the permitting of mines and the reclamation of surface-mined land; and administering the Mississippi Digital Earth Model (MDEM).

C. Sanders / OPC

D. Baker / Air Division

M. Freiman / Surface Water Div.

L. Chambers / GARD

D. Upton / Field Services Division

T. Aultman / ECED

H. Wilson / EPD

C. Sanders / OPC

M. Williams / *NEW* Waste Division

S. High / Data Integration Div.

Expected 2017

C. Sanders / OPC

D. Baker / Air Division

M. Freiman / Surface Water Div.

L. Chambers / GARD

D. Upton / Field Services Division

T. Aultman / ECED

H. Wilson / EPD

EPD

Environmental Permits Division

Harry Wilson, Chief

T. Tomkins / Agricultural

C. Lafontaine / Chemical Manufacturing

M. Griffith / Construction

K. Rudolph / Energy & Transportation

B. Nester / Metals & Metal Manufacturing

B. Crain / Municipal & Private Facilities

T. Jones / Solid Waste & Mining

S. Hodges / Timber & Wood Products

Vacant / Service & Misc. Industries

C. Sanders / OPC

D. Baker / Air Division

M. Freiman / Surface Water Div.

L. Chambers / GARD

D. Upton / Field Services Division

T. Aultman / ECED

H. Wilson / EPD

Air Division

Dallas Baker, Chief

K. Head / Air Monitoring

C. Simmons / Regulation Development

M. Fortenberry / Title V Program

D. Jackson / Air Toxics

E. Bickerstaff / Emission Inventory

B. J. Hailey / Air Toxics & RMP

M. Jordan / Ambient Monitoring

Modeling Group

Dallas Baker, Chief

P. McNeel / Modeling

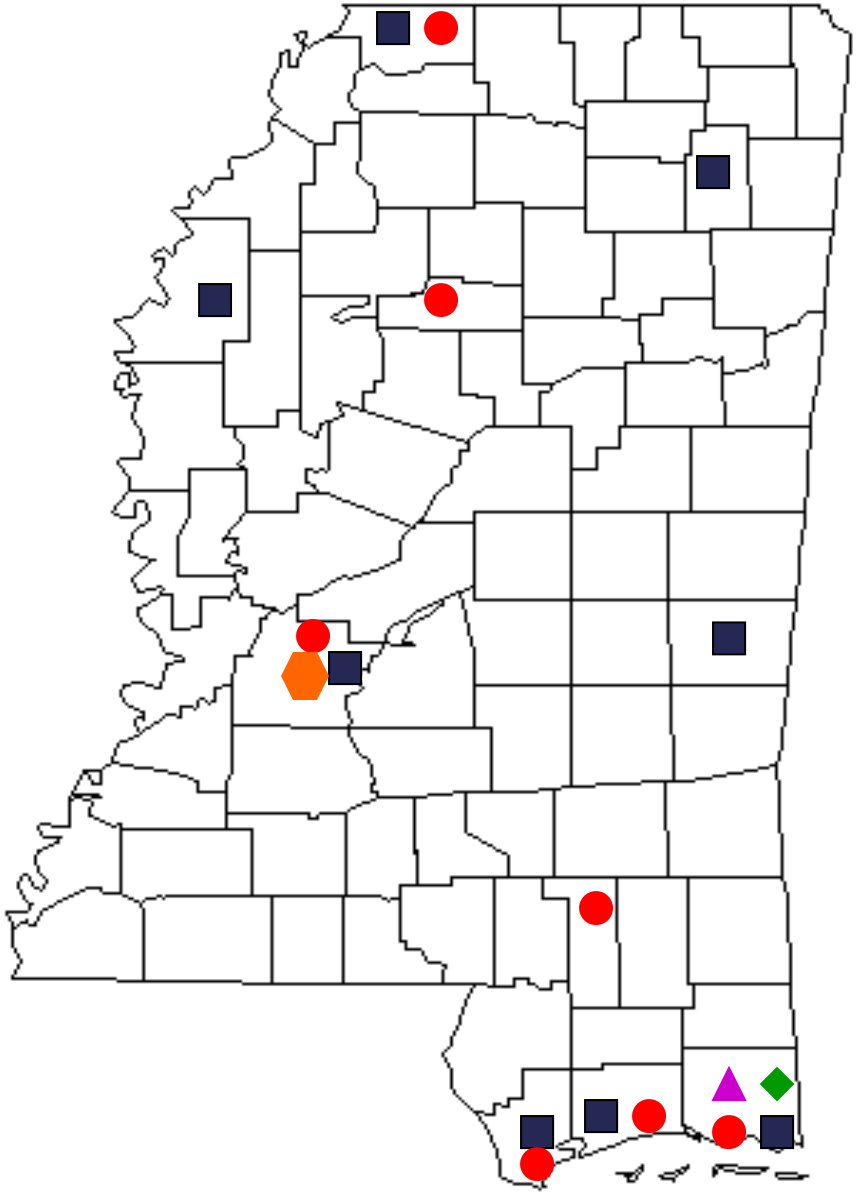
J. Evans / Modeling

R. Cuevas / Meteorologist

A. McDaniel / Emissions Data

Air Quality

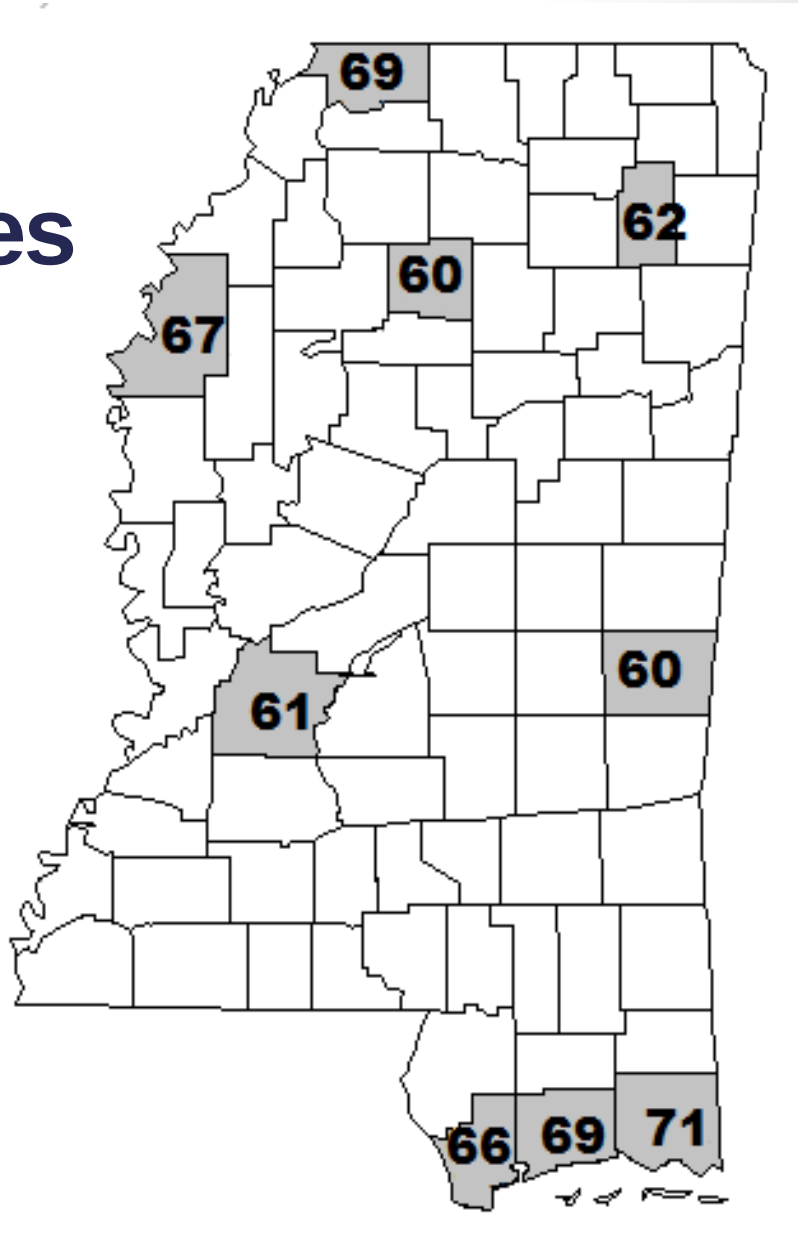
2016 Mississippi Ambient Air Quality Monitoring Sites



- Ozone
- Particulate Matter
- Sulfur Dioxide
- Nitrogen Oxides
- Multipollutant Site

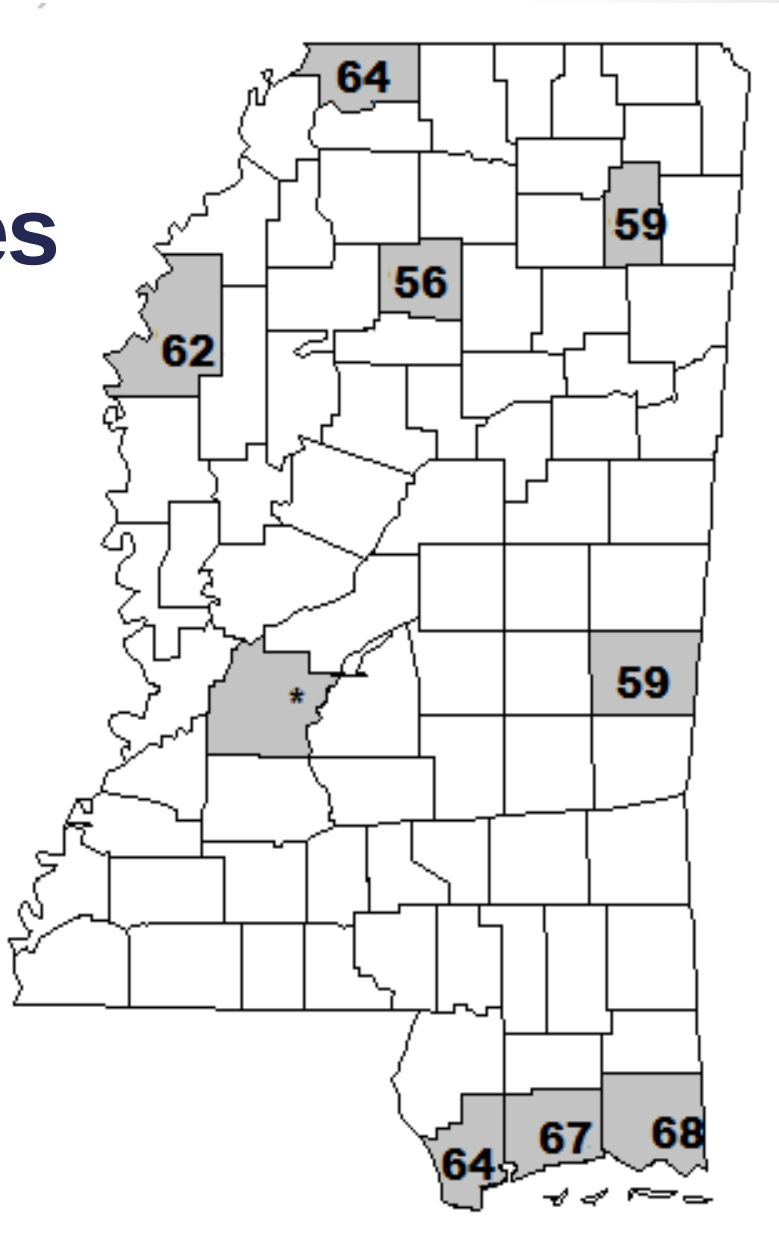
2012-2014 8-Hour Ozone Design Values

- Annual 4th highest daily 8-hour maximum, 3 yr. ave.
- 2008 Standard = 75 ppb



2013-2015 8-Hour Ozone Design Values

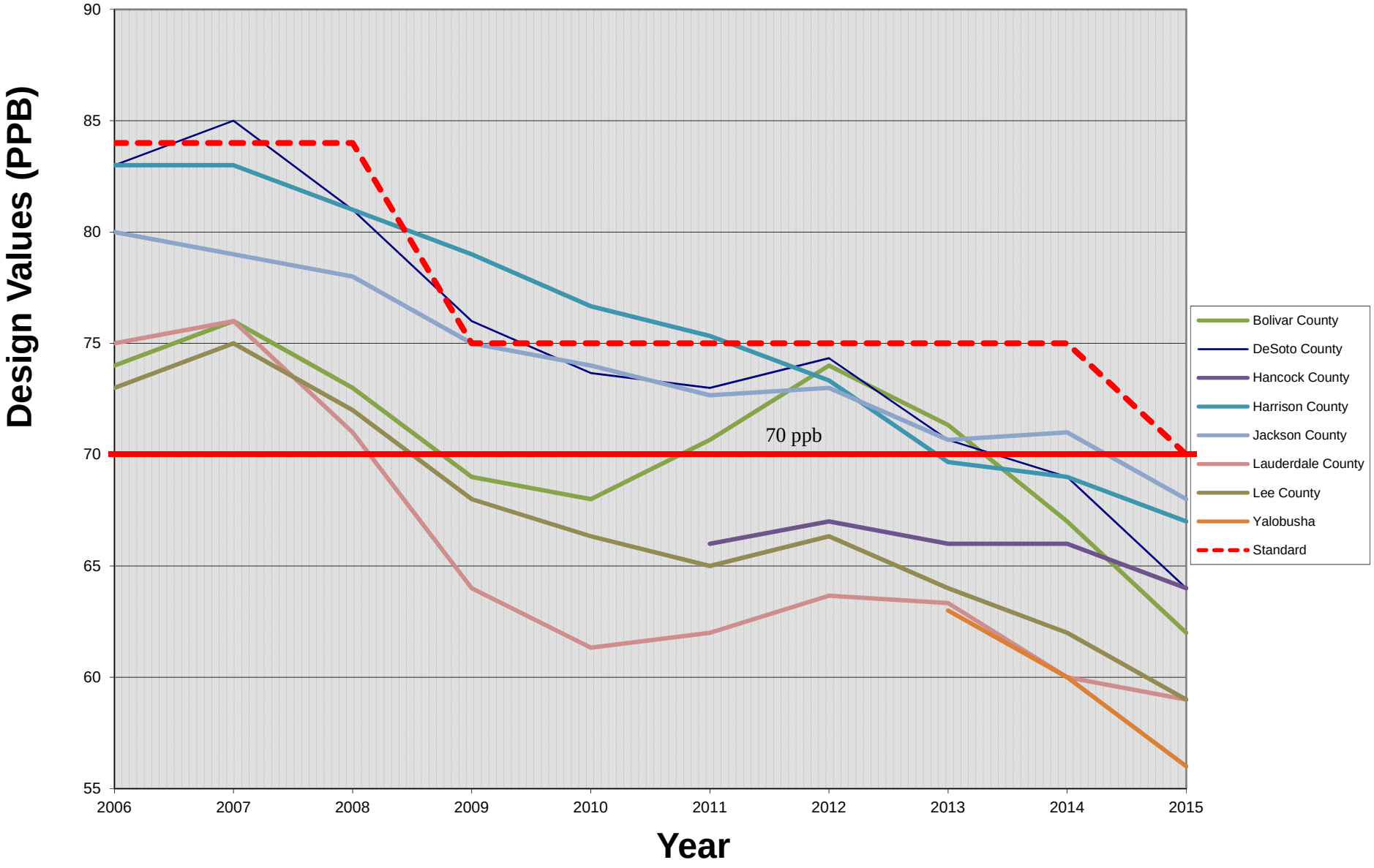
- Annual 4th highest daily 8-hour maximum, 3 yr. ave.
- 2008 Standard = 75 ppb
- 2015 Standard = **70 ppb**



Ozone Timeline

- EPA proposed a new standard range in December 2014.
  - Final standard issued Oct. 1, 2015: **70 ppb**
  - Governor's designation recommendations was sent in August 2016 based on 2013-15 data.
  - Final EPA designations will be issued in Oct. 2017 based on 2014-16 data.

Mississippi 10 Year Ozone Trends
2006 - 2015



8-Hour Ozone Design Values 2012 – 2015

County	2012	2013	2014	2015	3-Year Average 2012 – 2014	3-Year Average 2013 – 2015
Bolivar	76	65	60	63	67	62
DeSoto	75	65	67	61	69	64
Hancock	67	63	69	61	66	64
Harrison	73	62	73	67	69	67
Hinds	*	*	64	61	*	*
Jackson	74	66	75	65	71	68
Lauderdale	63	61	58	59	60	59
Lee	67	61	59	58	62	59
Yalobusha	63	57	62	56	60	56

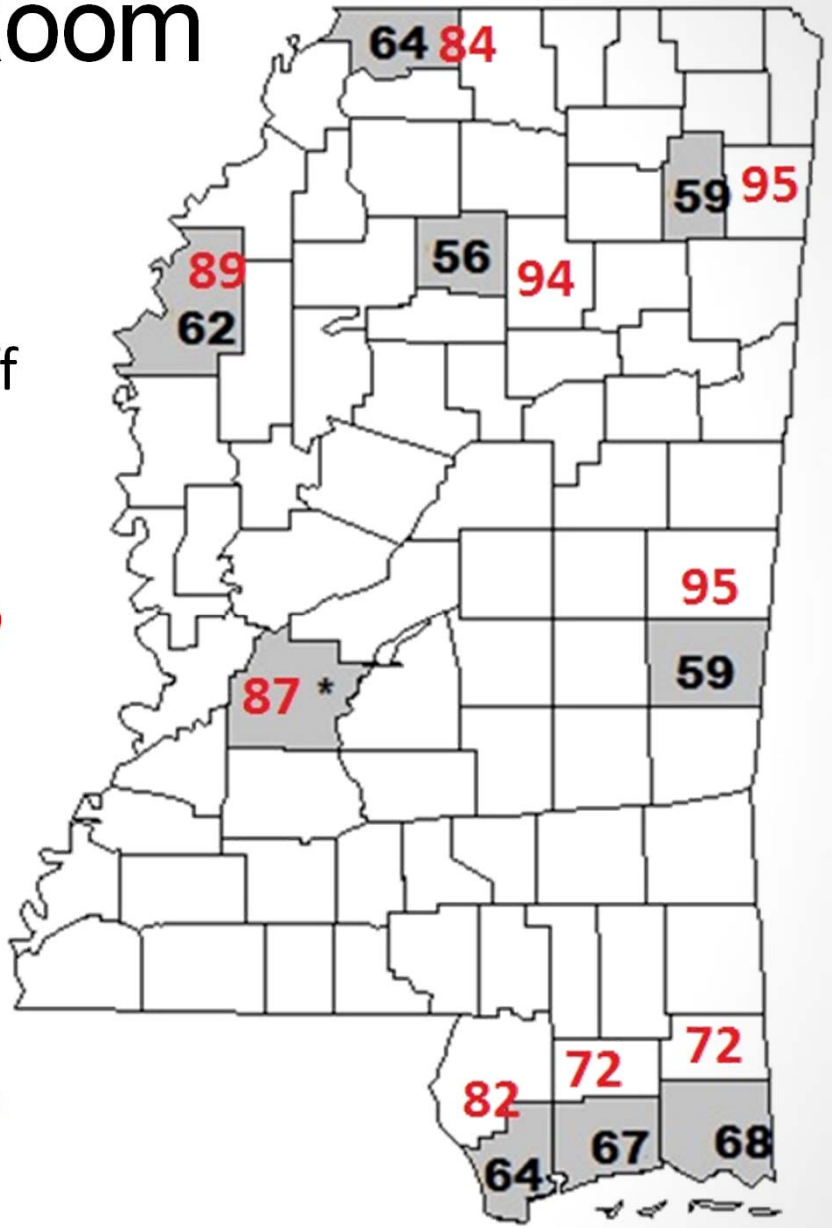
8-Hour Ozone Data 2013 – 2016*

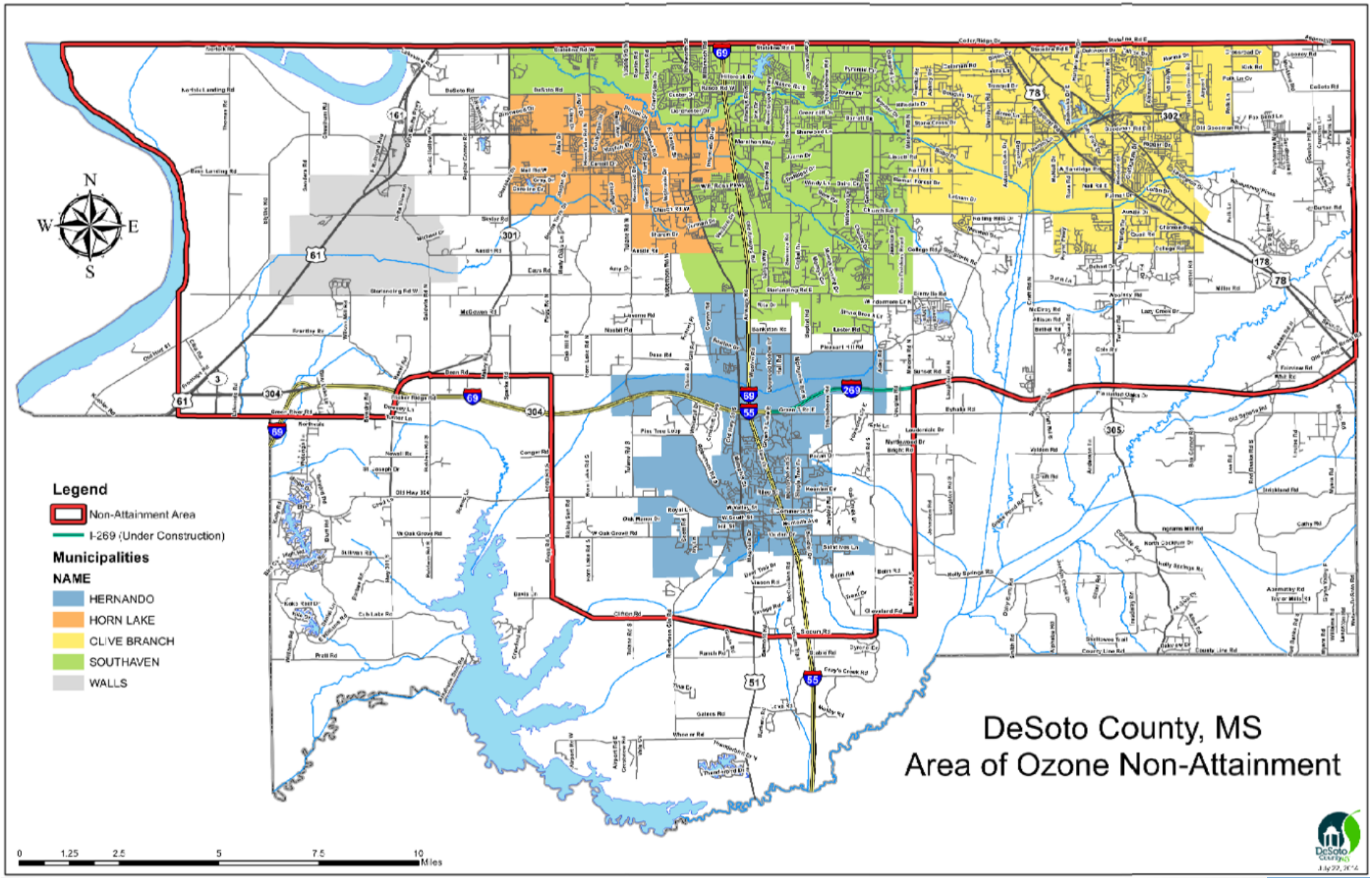
County	2013	2014	2015	2016*	3-Year Average 2013 –15	3-Year Average 2014 –16*	Max 4th to remain attainment
Bolivar	65	60	63	64	62	62	89
DeSoto	65	67	61	65	64	64	84
Hancock	63	69	61	61	64	63	82
Harrison	62	73	67	63	67	67	72
Hinds N-Core	*	64	61	60	*	61	87
Hinds HCC	*	*	63	62	*	*	
Jackson	66	75	65	62	68	67	72
Lauderdale	61	58	59	58	59	57	95
Lee	61	59	58	60	59	59	95
Yalobusha	57	62	56		58	58	

* Incomplete Data

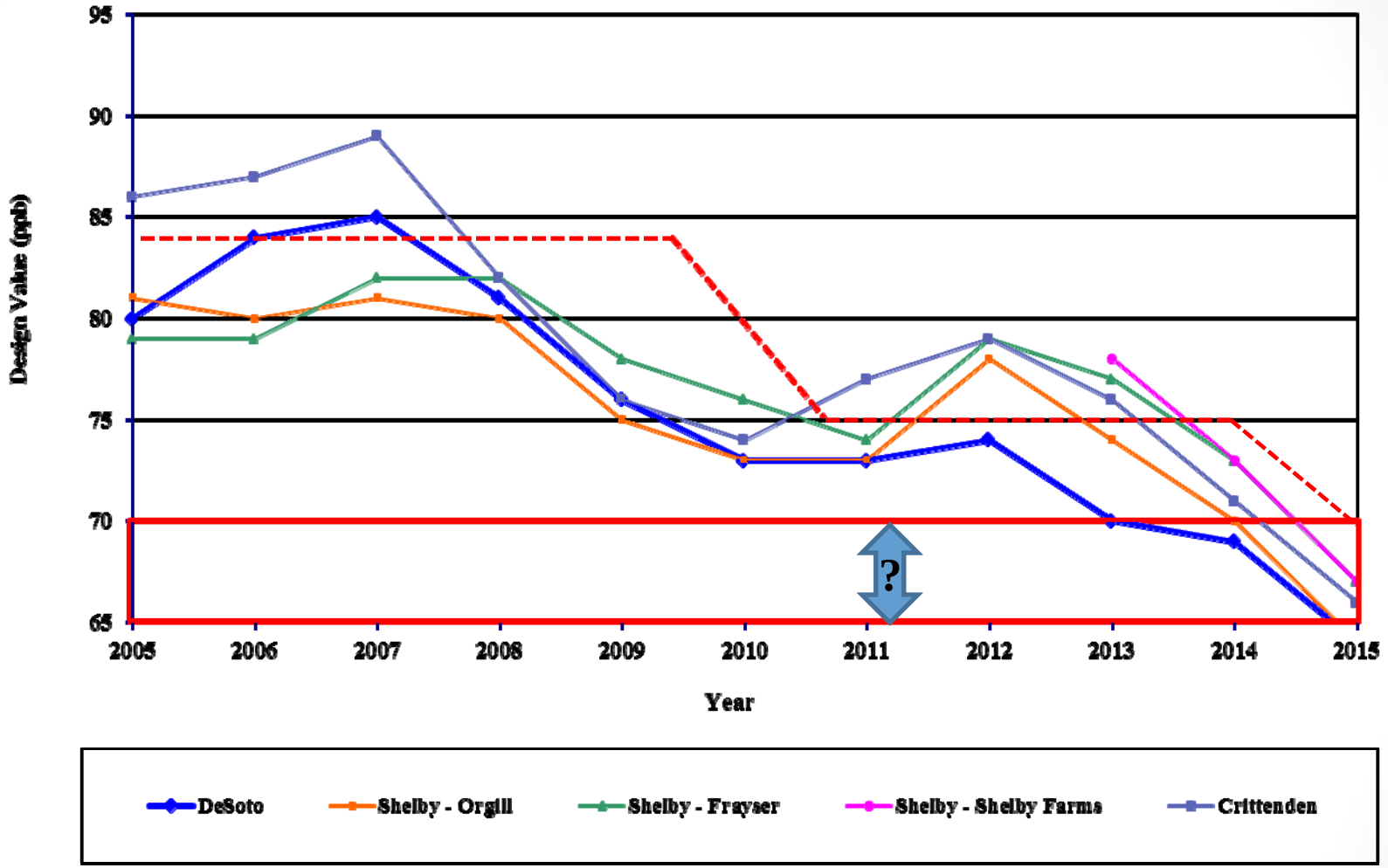
Some Breathing Room for 2016

- 2015 Standard = 70 ppb
- Designations will be based off 2014-2016 Design Values
- Red numbers are the largest allowable 4th highest value to remain in attainment
- Memphis Area Monitors
  - Shelby Farms - **80ppb**
  - Frayser – **80ppb**
  - Orgill Park – **83ppb**
  - Crittenden County, AR – **79ppb**




N
W
E
S
Legend
Non-Attainment Area
I-269 (Under Construction)
Municipalities
NAME
HERNANDO
HORN LAKE
CLIVE BRANCH
SOUTHAVEN
WALLS
0
1.25
2.5
5
7.5
10
Miles
DeSoto County, MS
Area of Ozone Non-Attainment

Memphis Area 8-Hour Ozone Data 2005-2015



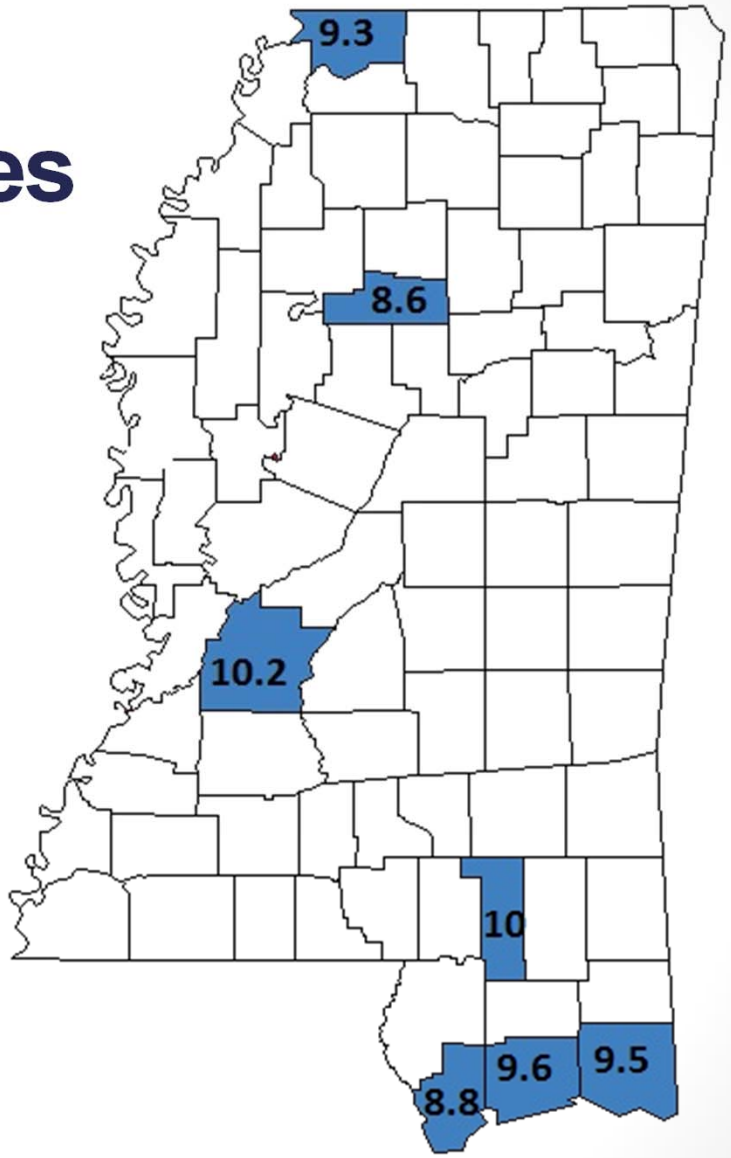
Memphis Area 8-Hour Ozone Data 2012-2015

Monitoring Sites	2012 4th Max.	2013 4th Max.	2014 4th Max.	2015* 4th Max.	3-year average 2012-2014	3-year average 2013-2015
Hernando – DeSoto Co., MS	75	65	67	60	69	64
Memphis – Shelby Farms – Shelby Co., TN	86	69	66	66	73	67
Memphis – Frayser – Shelby Co., TN	83	69	67	65	73	67
Orgill Park – Shelby Co., TN	84	63	65	64	70	64
Marion – Crittenden Co., AR	79	67	67	66	71	66

On April 8, 2016
EPA approved our recommendation for ATTAINMENT status.

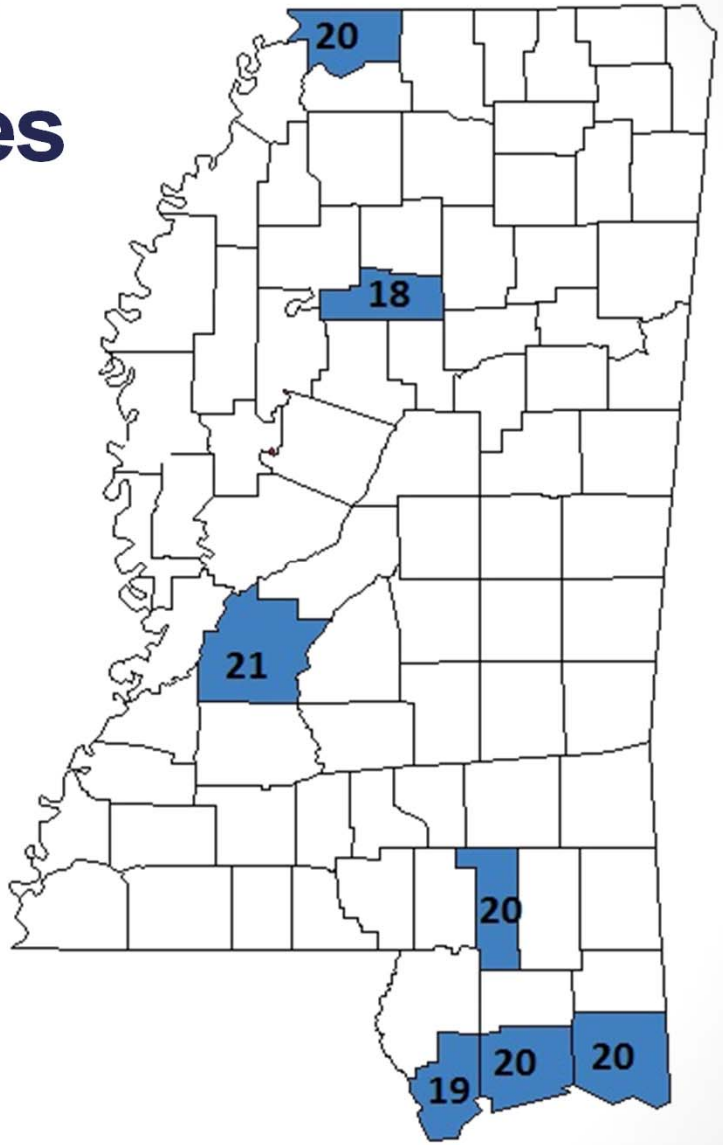
2013-2015 Annual $PM_{2.5}$ Design Values

- Standard = 12 µg/m^3
- Annual mean, 3 yr. ave.



2013-2015 24-hour $PM_{2.5}$ Design Values

- Standard = 35 $\mu g/m^3$
- 98th Percentile, 3 yr. ave.



PM_{10}

- The PM_{10} 24-hour NAAQS, 3 yr. ave. is 150 $\mu g/m^3$.
- The 2015 Design Value at Jackson was 46 $\mu g/m^3$ (data not complete).

Nitrogen Dioxide

- The NO_2 NAAQS:
  - 1-hour average of 100 ppb, averaged over three years and
  - Annual average of 53 ppb.
- Pascagoula 2015 Design Values:
  - 1-hour Design Value was 31 ppb
  - Annual Design Value was 4 ppb
- Near-Road monitoring is not required at this time for Mississippi, but may be required by January 1, 2017 for the Jackson area.

Sulfur Dioxide

- The SO2 NAAQS is a 1-hr ave. of 75 ppb
- The 2015 Design Value:
  - Pascagoula was 28 ppb
  - Jackson was 19 ppb (data not complete).
- EPA plans to use a hybrid approach combining air quality modeling and monitoring to determine compliance with the new SO_2 standard.

Lead and Carbon Monoxide

- The lead standard is 0.15 µg/m^3 rolling quarterly average.
- For 2015, the lead Design Value was 0.00 µg/m^3 (data not complete).
- The CO 1-hour annual standard is 35 ppm and the 8-hr annual standard is 9 ppm.
- In 2015, the CO 1-hour Design Value was 1.8 ppm and the 8-hour design value was 1.5 ppm.

Rule Making

Cross State Air Pollution Rule (CSAPR) Revisions

- Final Rule signed September 7, 2016
- Effective 2017 Ozone Season
  - (May 1- September 30, 2017)
- *Current* Allocation: 12,429 tpy NOx
  - In effect 2015 Ozone Season
- *Proposed* Allocation: 5,910 tpy NOx
- Final Allocation: **6,315** tpy NOx
- 2015 Ozone Season *actual* emissions: **6,438** tpy NOx

Cross State Air Pollution Rule (CSAPR) Revisions

- Assurance Provisions: limit the amount of interstate trading
  - MS Assurance level: 7,641 tpy NOx
  - This limits *incoming* allocations for state to 1,203 tpy NOx

- Facility Allocations: Mississippi does not have a CSAPR SIP and is under the Federal allocation scheme for at least 2017.

- Allowance Bank: allows a one-time conversion of a limited number of banked 2015 and 2016 allowances for compliance with 2017 and beyond.

SO_2 Consent Decree

- Issued on March 2, 2015
- In Mississippi, SMEPA, R.D. Morrow Generating Plant is the only facility affected by the consent decree. (Round 1)
  - Demonstrate attainment by using modeling instead of monitoring.
- Designation recommendations due to EPA by Sept. 18, 2015; EPA issued final designations on July 2, 2016.
- (Round 2) Five facilities targeted. Strategy sent to EPA July 2016
  - Two facilities are planning to “model out”.
  - Two facilities will receive permit limitations.
  - One facility will shutdown.

Startup/Shutdown/Malfunction

- On August 11, 2015, the Mississippi Attorney General joined in a Petition for Review filed by the Attorneys General in 16 other states in the D.C. Circuit Court of Appeals. The petition challenges EPA's Final Rule requiring the states to revise the SSM SIP provisions. MDEQ will participate in the briefing process, and we will await a court scheduling order.

- Meanwhile, we are reviewing our SIP and our current compliance enforcement policies to develop options for us to consider in addressing the SSM SIP call if the challenge is not successful. PH was Sept. 16. Our SIP submission deadline to EPA is Nov. 22, 2016.

Clean Power Plan - MS

- August 2015, EPA released FINAL CPP - 111(d) Rule:
  - Final Rule *rate* goal from 692 lbs CO2/ MWh to **945 lbs/MWh**.
    - (MS's baseline rate from 2012 was 1185 lbs/MWh)
  - Final Rule *mass* goal of 25,304,337 tons of CO2.

- The proposed interim goal for 2020-2029 of 732 lbs/MWh was changed to **1061 lbs/MWh**

- SCOTUS issued a CPP "stay" on Feb. 9, 2016

Title V Fees

- April 28, 2016, the Commission on Environmental Quality approved the Title V permit fee from September 1, 2016, to August 31, 2017 of $47 per ton of regulated air pollutants
  - Increased from $41 per ton (Fee Years 2014-2016)
  - Increased from $36 per ton (Fee Years 2009-2013)

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THANKS FOR YOUR ATTENTION!

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