Georgia Environmental Conference
Air Regulatory Update
August 20, 2014

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Georgia EPD

Stationary Source Permitting Program

$PM_{2.5}$ NAAQS -1

- Three exceedances of the 24-hour $PM_{2.5}$ NAAQS (35 $\mu g/m^3$) on July 2, 2014
  - Macon SE (37 $\mu g/m^3$)
  - Warner Robins (42.9 $\mu g/m^3$)
  - Albany (40 $\mu g/m^3$)

$PM_{2.5}$ NAAQS -2

- Updated $PM_{2.5}$ nonattainment designations, based on certified 2013 data, were sent to EPA on May 30, 2014. EPD continues to recommend that all areas of the state be designated attainment.

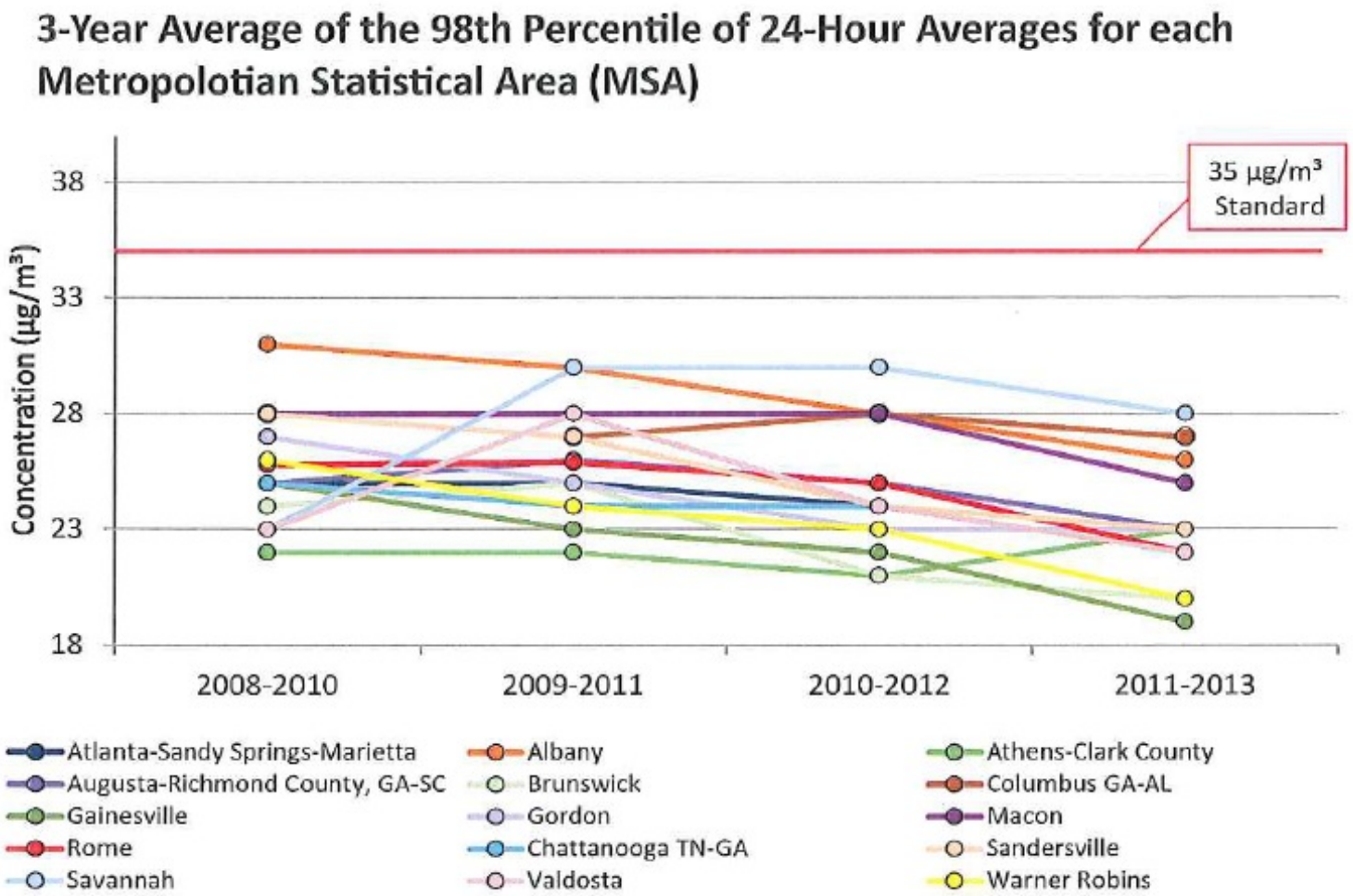
$PM_{2.5}$ NAAQS -3

- <u>Macon Nonattainment Area:</u> A Federal Register notice re-designating this NAA to attainment for the 1997 NAAQS was published May 13, 2014. The re-designation becomes effective June 12, 2014.
- <u>Floyd County:</u> A Federal Register notice re-designating this NAA to attainment for the 1997 NAAQS was published May 14, 2014. The re-designation becomes effective June 12, 2014.

$PM_{2.5}$ NAAQS -4

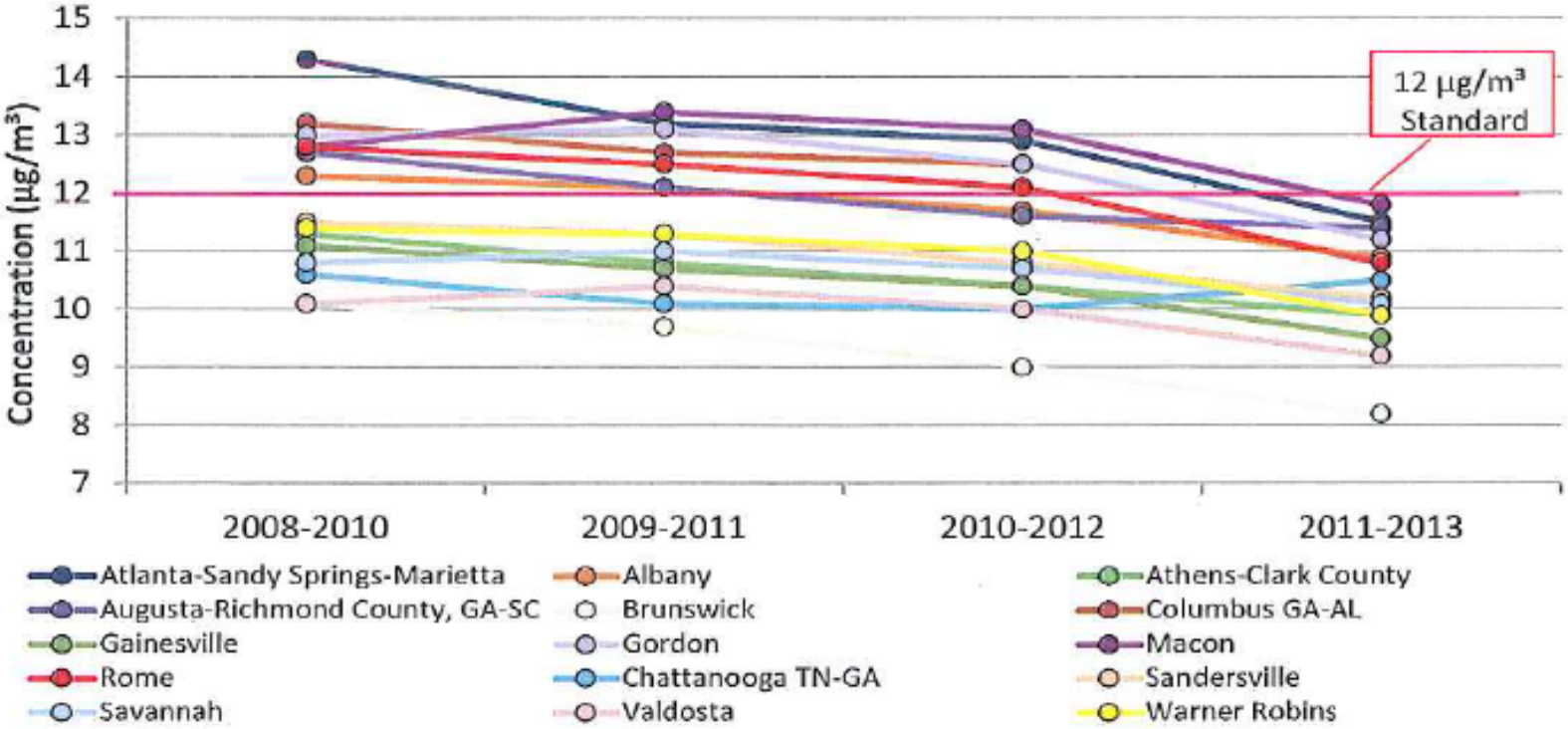
- **<u>SEMAP Results:</u> All $PM_{2.5}$ monitors are expected to be below the level of the standard (12.0 $\mu g/m^3$) in 2018. Most monitors are predicted to be below 11 $\mu g/m^3$ with the highest in the Macon area being between 11 and 12 $\mu g/m^3$.**
- **<u>SEMAP Results:</u> Regional Haze levels at Georgia Class I areas are predicted to be well below 2018 Regional Haze goals.**

$PM_{2.5}$ NAAQS -2


3-Year Average of the 98th Percentile of 24-Hour Averages for each Metropolotian Statistical Area (MSA)
35 µg/m³ Standard
Concentration (µg/m³)
38
33
28
23
18
2008-2010
2009-2011
2010-2012
2011-2013
Atlanta-Sandy Springs-Marietta
Albany
Athens-Clark County
Augusta-Richmond County, GA-SC
Brunswick
Columbus GA-AL
Gainesville
Gordon
Macon
Rome
Chattanooga TN-GA
Sandersville
Savannah
Valdosta
Warner Robins

$PM_{2.5}$ NAAQS -3

3-Year Average of the Highest Annual Averages for Each Metropolitan Statistical Area (MSA)



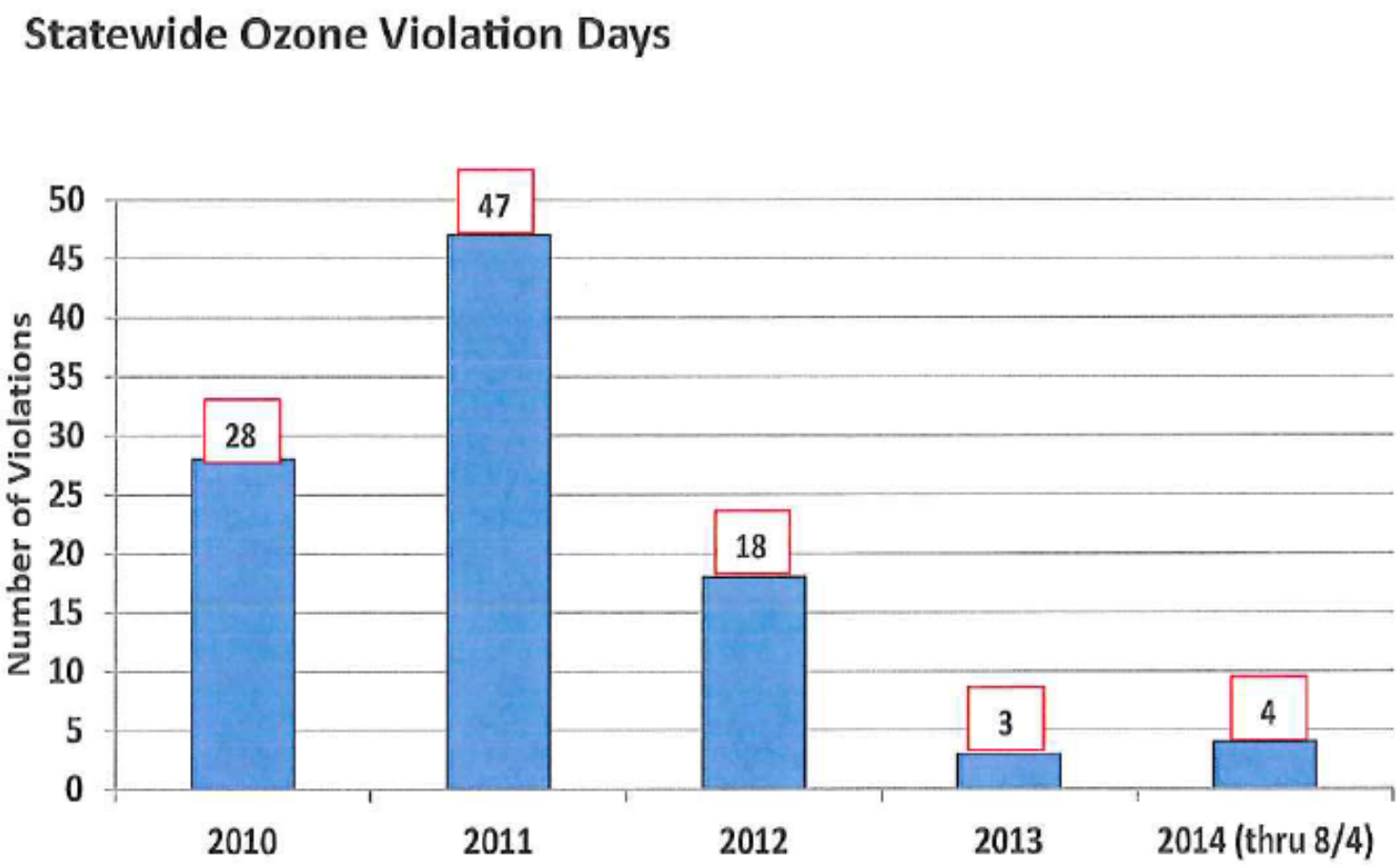
2008 Ozone NAAQS -1

- Two violations of the 8-hour Ozone NAAQS (0.075 ppm) on July 2, 2014
  - McDonough site
  - Douglasville site

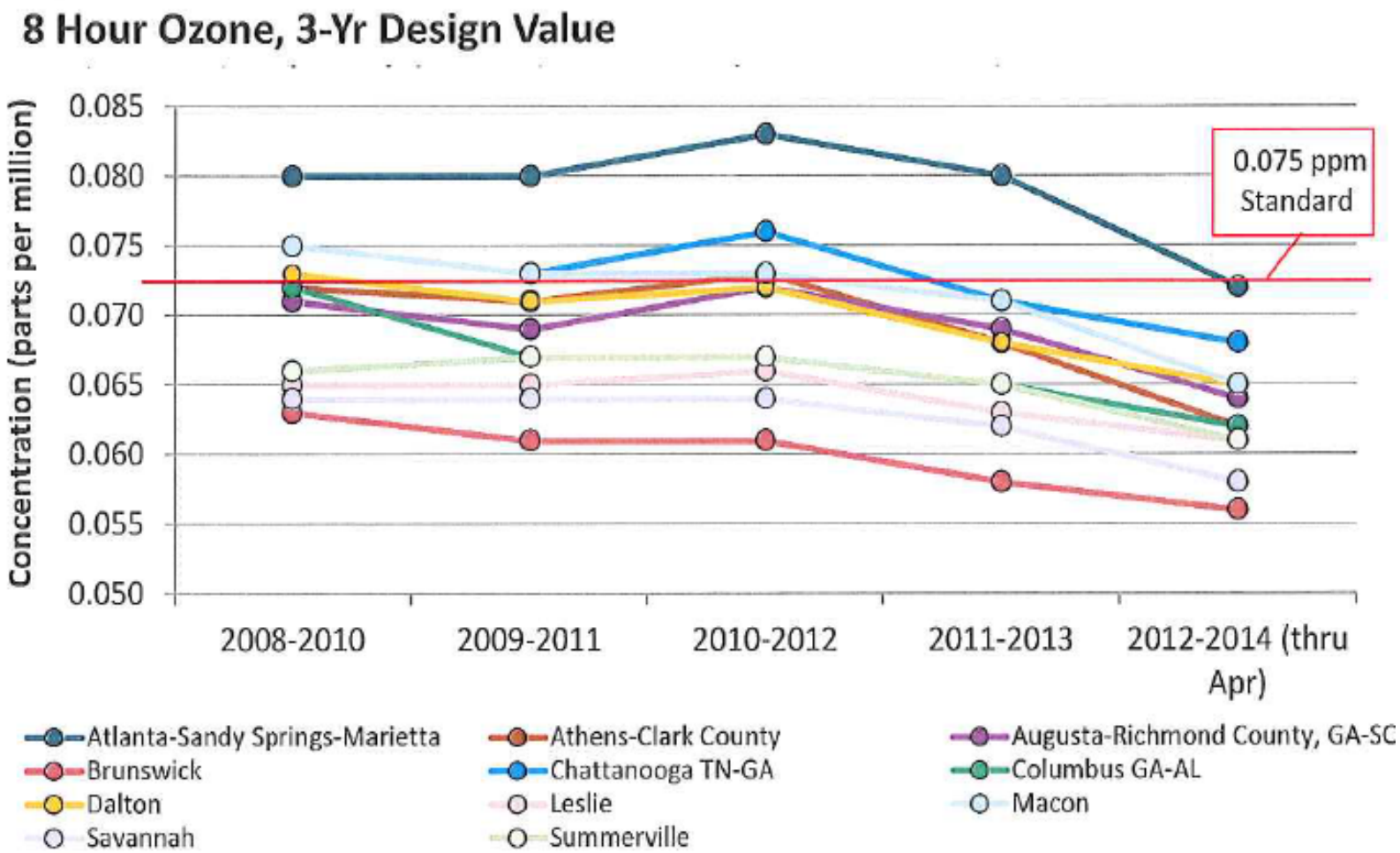
Future Ozone NAAQS -2

- <u>SEMAP Results:</u> Indicates that only the Atlanta area would exceed an ozone standard of 65 or 70 ppb but several other areas (Athens, Macon, Augusta, and possibly Columbus) would exceed a standard of 60 ppb, based on projected 2018 emissions.

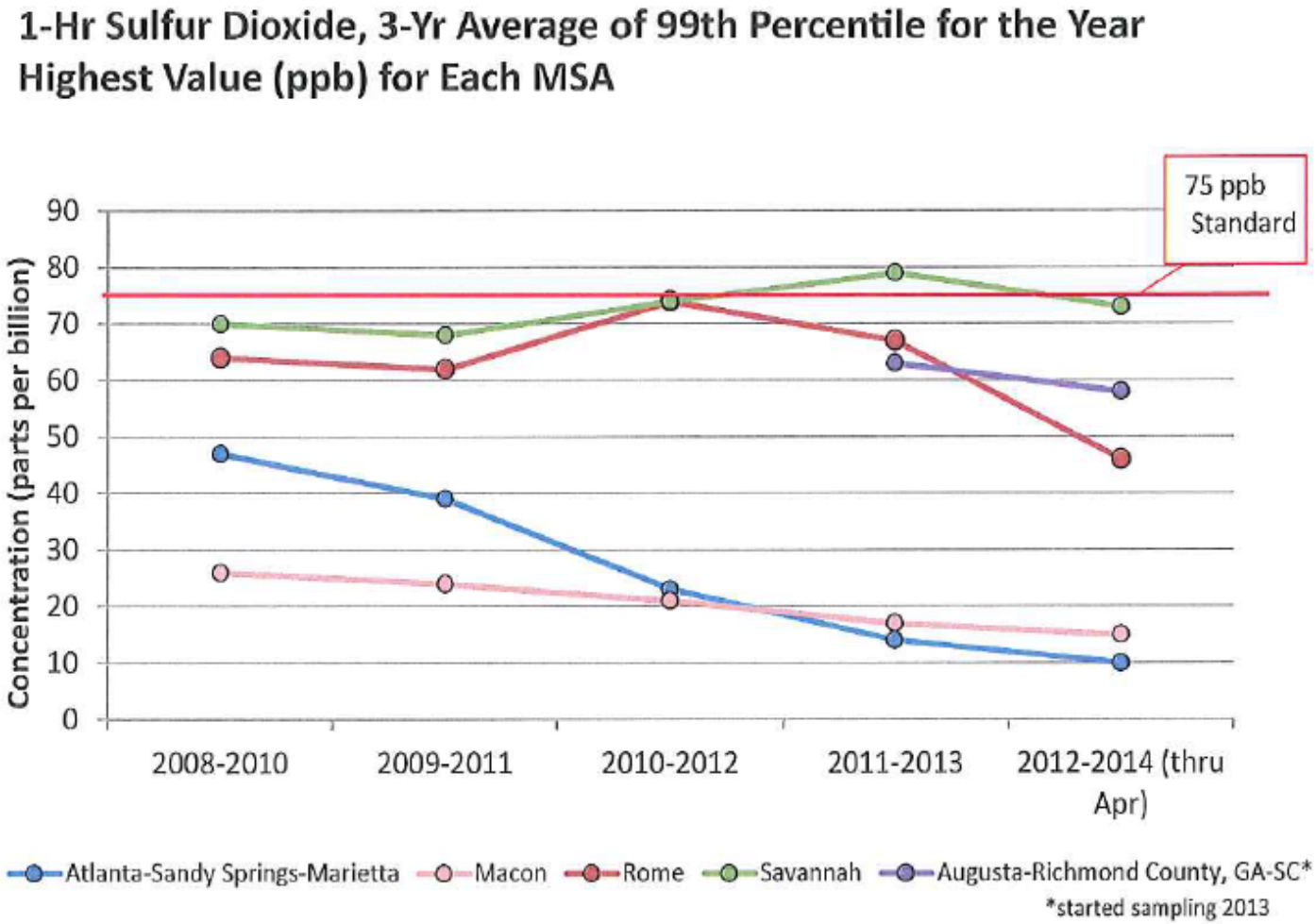
2008 Ozone NAAQS -3



2008 Ozone NAAQS -4



SO_2 NAAQS -1


1-Hr Sulfur Dioxide, 3-Yr Average of 99th Percentile for the Year
Highest Value (ppb) for Each MSA
75 ppb Standard
Concentration (parts per billion)
90
80
70
60
50
40
30
20
10
0
2008-2010
2009-2011
2010-2012
2011-2013
2012-2014 (thru Apr)
Atlanta-Sandy Springs-Marietta
Macon
Rome
Savannah
Augusta-Richmond County, GA-SC*
*started sampling 2013

SO_2 NAAQS Designations -2

- Round 1:October 4, 2013: No areas in Georgia were designated as nonattainment based on monitored violations.
- Round 2:
  - January 15, 2016: States submit list of SO_2 sources to EPA and indicate modeling or monitoring approach.
  - Most sources will want to complete modeling prior to this date so they know if they will pass or not.

SO_2 NAAQS Designations -3

- Round 2:
  - January 13, 2017: Modeling analyses due to EPA,
    - Emission reductions need to be in place with enforceable permit limits.
    - Permit limits can be longer than 1-hour (up to 30-days)
  - December 20, 2017: EPA makes designations based on modeling analysis and existing monitors.

SO_2 NAAQS Designations -4

- Round 3:
  - July 1, 2016: States submit monitoring details to EPA as part of their annual monitoring network plan.
  - January 1, 2017: New monitors operational, Location and number of monitors determined by modeling
  - 2020: EPA makes designations based on 2017-2019 monitoring data

Large SO_2 Sources in GA -5

Site Name	County	2010 (TPY)	2011 (TPY)	2012 (TPY)	Option 1	Option 2	Option 3
Ga Power Company - Plant Bowen	**Bartow**	**7,618.00**	**5,888.85**	**3,118.87**	**Yes**	**Yes**	**Yes**
Ga Power Company - Plant Kraft	Chatham	8,340.92	2,806.00	1,190.13	No	No	No
International Paper - Savannah	Chatham	5,871.79	4,232.78	3,622.41	Yes	No	No
Southern States Phosphate & Fertilizer	Chatham		1,211.44	1,194.00	No	No	No
Ga Power Company - Plant McDonough/Atkinson	Cobb	17,115.00	18,307.10	424.39	No	No	No
Ga Power Company - Plant Yates	Coweta	54,256.80	47,529.56	29,788.83	Yes	Yes	Yes
Georgia-Pacific Corp Cedar Springs Operation	Early	3,897.76	1,906.84	860.09	No	No	No
Ga Power Co Plt McIntosh	Effingham	2,506.20	691.81	0.13	No	No	No
Georgia-Pacific Consumer Products (Savannah River Mill)	Effingham	3,517.09	3,724.79	3,036.25	Yes	No	No
Ga Power Company - Plant Hammond	Floyd	2,417.66	2,174.44	978.26	No	No	No
TEMPLE INLAND (International Paper - Rome)	Floyd	2,116.72	2,202.81	2,158.63	Yes	No	No
Ga Power Company - Plant Wansley	**Heard**	**2,346.12**	**3,084.53**	**2,101.73**	**Yes**	**Yes**	**No**
SP Newsprint Company, LLC	Laurens	1,145.72	1,393.83	1,407.30	No	No	No
Ga Power Company - Plant Scherer	Monroe	69,861.00	50,487.98	42,347.74	Yes	Yes	Yes
Ga Power Company - Plant Branch	Putnam	53,258.10	55,179.80	20,984.20	Yes	Yes	Yes
Thermal Ceramics	Richmond		1,980.13	1,698.02	No	No	No
International Paper - Augusta Mill	Richmond	2,174.98	1,709.82	459.17	No	No	No

* **BOLD** indicates source is in a CBSA > 1M

** **RED HIGHLIGHT** indicates source will retire or convert to natural gas by 2016

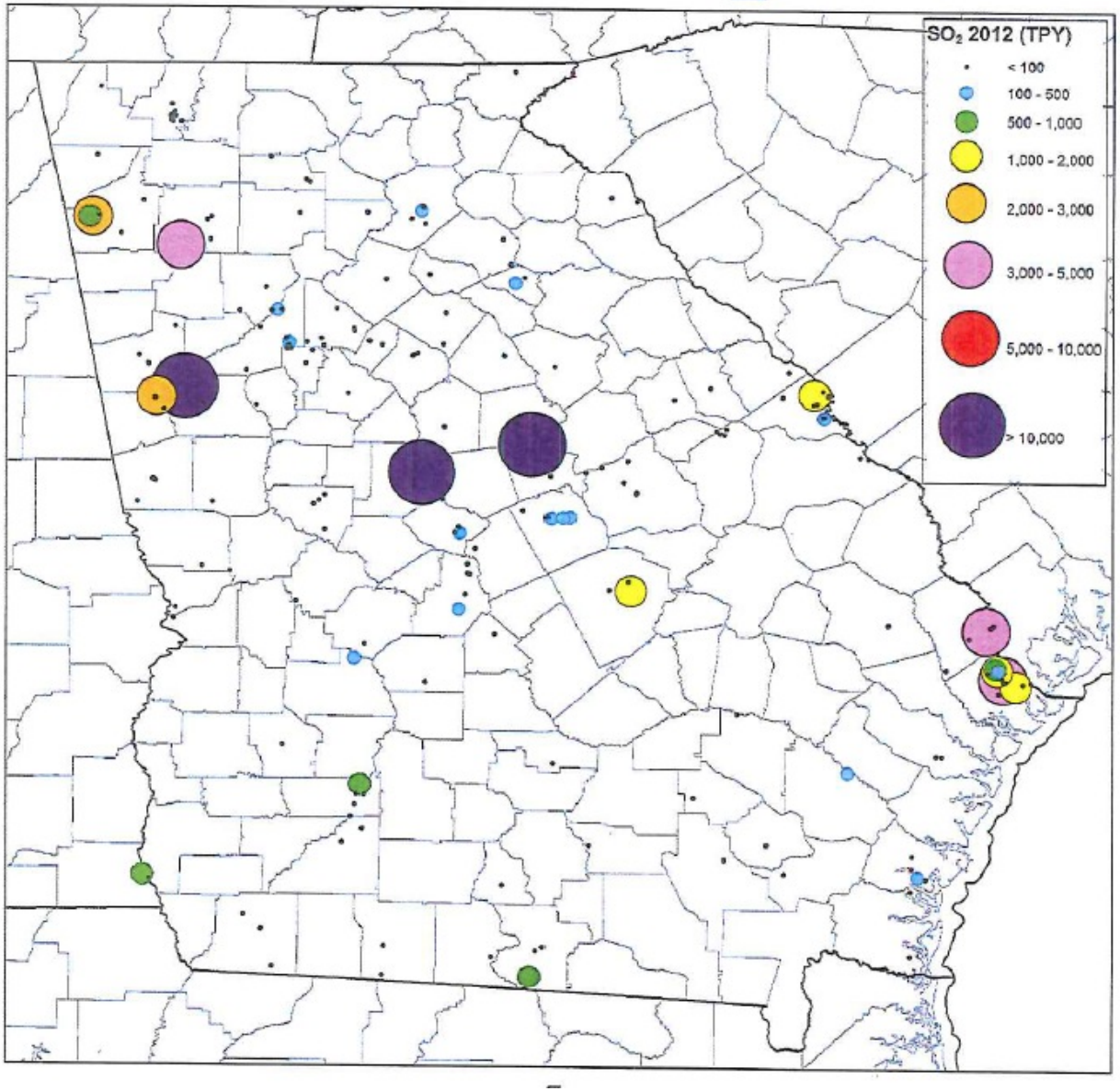
*** **YELLOW HIGHLIGHT** indicates source impacted by proposed Sierra Club Consent Decree

****Comparison to thresholds will be based on 2014 data for EGUs and 2013 data for non-EGUs (maybe 2014 data?)

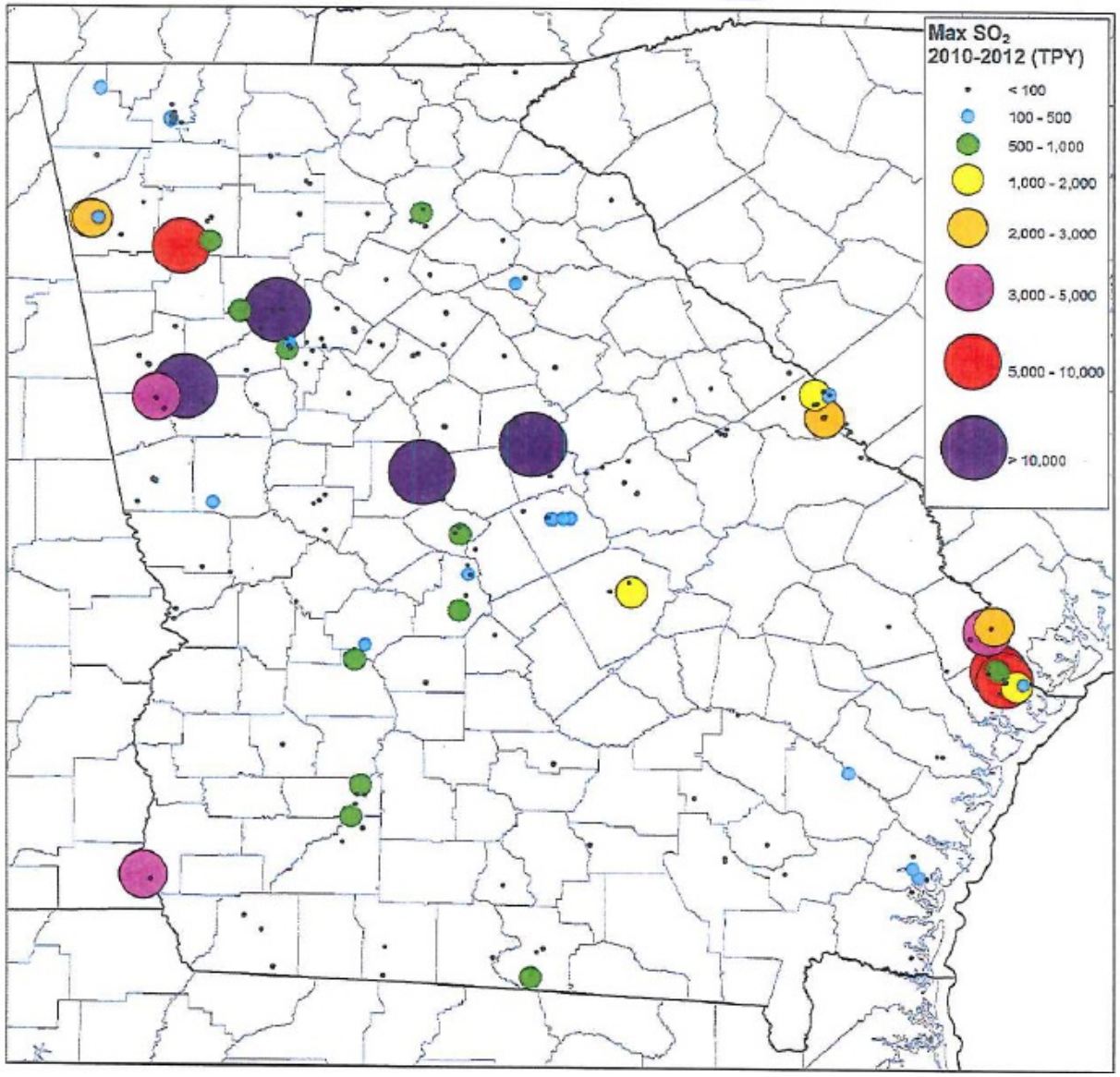
Based on 2012 SO_2 emissions…

- Option 1 ➔ 8 sources, 2 will retire/repower ➔ 7 sources, 2 will be accelerated
- Option 2 ➔ 5 sources, 2 will retire/repower ➔ 3 sources
- Option 3 ➔ 4 sources, 2 will retire/repower ➔ 2 sources

Georgia – 2012 SO_2 Emissions -6



Georgia – Max SO_2 Emissions -7



SO_2 Modeling Set-Up -8

- Emissions
  - Use the most recent 3 years of actual emissions data
  - For control modeling, use the future permit limits or PTE
  - Use Actual Stack Heights

SO_2 Modeling Set-Up -9

- Meteorology
  - Use 3 years concurrent met data
- Modeling Domain
  - 10-25 km radius
- Off-Site Sources and Background
  - All sources expected to cause a significant concentration gradient in the vicinity of the source of interest should be explicitly modeled

Title V Application

- Web-Based App and Database
- Outside contractor
- September 2014 expected roll out.
- Until then? XP

Paperless Draft Permits

- Title V Renewal
- Title V Initial
- Title V Sig Mods without Const.
- Saves our time, paper, postage
- Please make sure you can open docs.

Expedited Air Permitting-1

- In place since May 20, 2013
- Modeled after S.C. DHEC's program
- EPD staff review (no third party review)
- Sliding scale for fees and timelines
- Optional for applicant
- Focus on Construction Permits

Expedited Air Permitting-2

Permit Type	Timeline (days)**	Fee
Synthetic Minor 502(b)(10) Minor Mod w/const*	65	$4000
TV Sig Mod	122	$6000
PSD (w/o modeling)	152	$15,000
PSD (subject to PM2.5, NO2, or SO2 modeling)	183	$25,000

Expedited Air Permitting-3

- 28 Applicants
  - Permits issued in 2/3 expedited timeline
- $175K revenue generated thus far
- Customer reviews?

State Rules Changes-1

- **Rule 391-3-1-.02(2)(zz), "Gasoline Dispensing Facilities – Stage II"** is amended to require the decommissioning of Stage II vapor recovery systems.
- **Rule 391-3-1-.02(2)(aaa), "Consumer and Commercial Products"** is being repealed in its entirety.
- **Rule 391-3-1-.02(2)(bbb), "Gasoline Marketing"** is being repealed in its entirety.
- **Rule 391-3-1-.02(2)(mmm), "NOx Emissions from Stationary Gas Turbines and Stationary Engines used to Generate Electricity"** is amended to provide an exemption for stationary engines at data centers.
- Adopted by DNR Board March 2014

State Rules Changes-2

- **Rule 391-3-1-.01, "Definitions"** is amended revise the definitions of "Volatile organic compound" and "Procedures for Testing and Monitoring Sources of Air Pollutants."
- **Rule 391-3-1-.02(2)(www), "Sewage Sludge Incineration Units Constructed On or Before October 14, 2010"** is amended to correct a discrepancy in the applicable requirements for record keeping and reporting.
- **Rule 391-3-1-.02(4), "Ambient Air Standards,"** is being amended to update the annual $PM_{2.5}$ standard to be consistent with the revision of the NAAQS for $PM_{2.5}$ in 2012.
- **Rule 391-3-1-.02(7), "Prevention of Significant Deterioration of Air Quality,"** is being amended to update the incorporation by reference date and to revise the definition of "Regulated NSR pollutant."

State Rules Changes-3

- **Rule 391-3-1-.02(8)(b), "New Source Performance Standards"** is being revised to incorporate the revisions to Performance Standards by reference to ensure consistency between the State and Federal programs.
- **Rule 391-3-1-.02(9)(b), "Emission Standards for Hazardous Air Pollutants"** is being revised to incorporate the revisions to NESHAP by reference to ensure consistency between the State and Federal programs.
- **Rule 391-3-1-.03(10), "Title V Operating Permits,"** is being amended to update the incorporation by reference date and to add a subparagraph to specify the application deadline for new major sources.
- Adopted by GA DNR Board in June 2014.

Contact Info

- Any questions?
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