

Ohio EPA

Division of Air Pollution Control

Association of Air Pollution Control Agencies

August 29, 2024



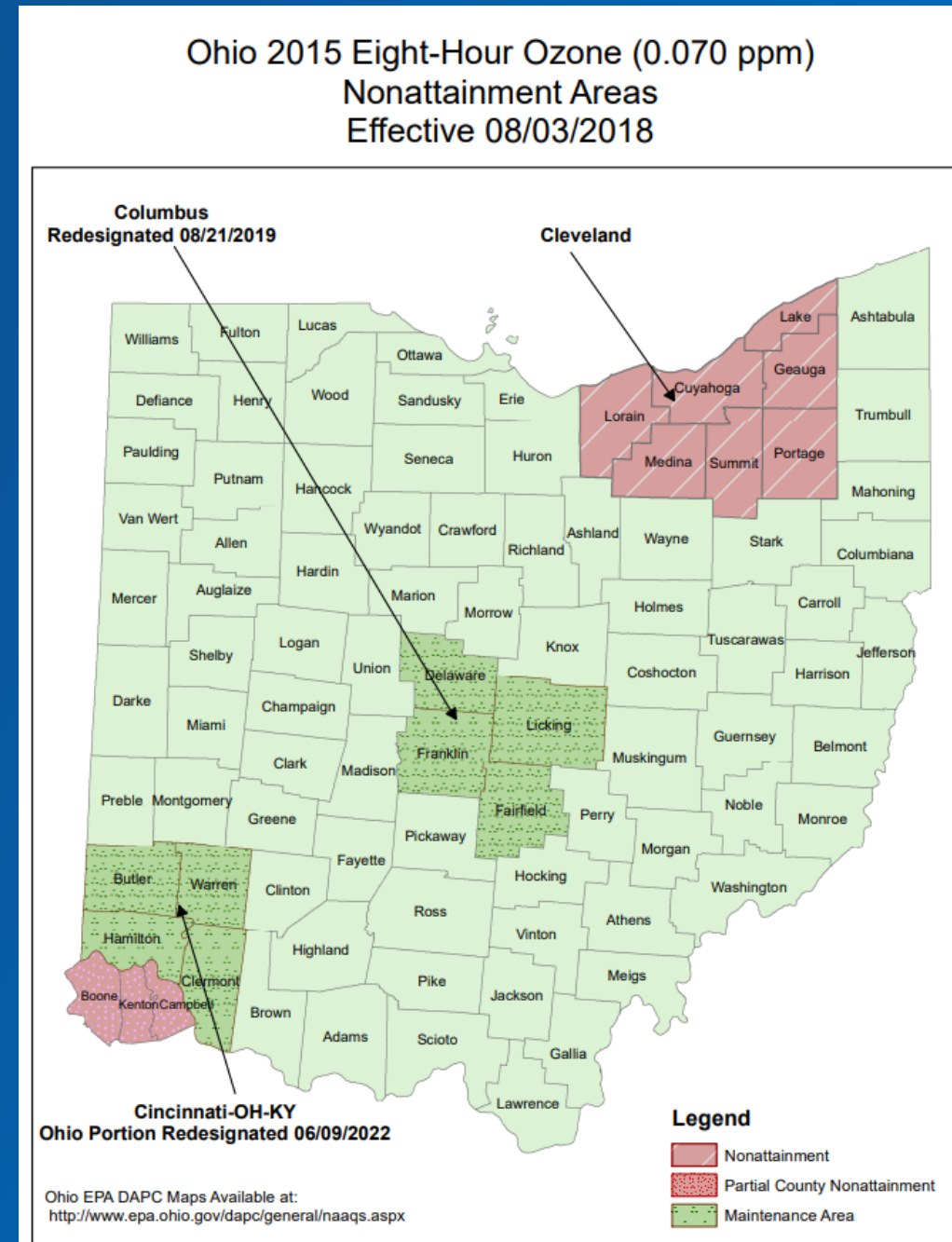
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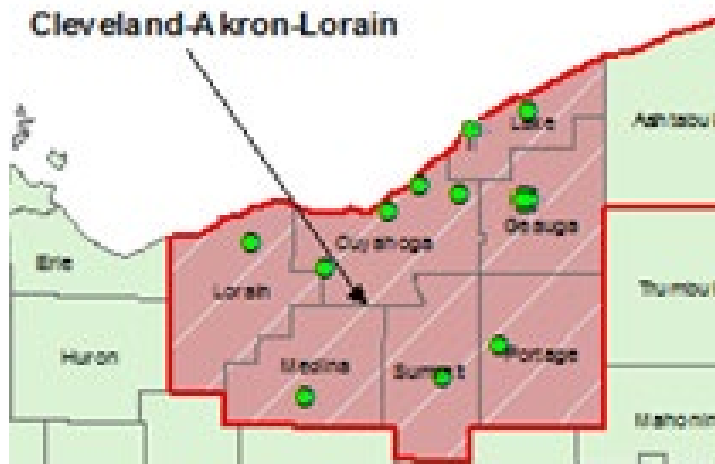
PRIORITY ISSUES FOR DIVISION OF AIR POLLUTION CONTROL

- Bump up to Serious Ozone Nonattainment
- PM2.5 Upcoming non-attainment
- 111(d) for power plants
- 111(d) for oil and gas
- Construction permits
- Title V fee shortfall

2015 Ozone Standard Designation Timeline

- August 3, 2018: U.S. EPA finalized nonattainment areas
 - Columbus, Cincinnati, and Cleveland areas designated *marginal* nonattainment
 - Marginal attainment date set for August 3, 2021 (2018-2020 design values)
- August 2019 - Columbus redesignated to attainment
- June 2022 – Cincinnati redesignated to attainment
- November 2022: Cleveland “bumped up” to *moderate* nonattainment
 - Moderate attainment date set for August 3, 2024 (2021-2023 design values)





Cleveland Ozone Outlook (*as of 6/12/24)

Eastlake has had 4 of 4 days over already (65, 68, 73, 81)

District 6 has had 2 of 4 days over already (69, 75)

Lake Rockwell has had 1 of 4 days over already (72)

Site Name	Site Id	County	2021 4th High	2022 4th high	2023 4th high	2024 4 th high needed to violate 2015 standard	2024 4 th high	2021-2023 DV	2022-2024 DV*
District 6	39-035-0034	Cuyahoga	70	73	71	69	72	71	72
GT Craig NCore	39-035-0060	Cuyahoga	59	61	65	87	60	61	62
Berea BOE	39-035-0064	Cuyahoga	69	65	75	73	64	69	68
Mayfield	39-035-5002	Cuyahoga	68	65	73	75	65	68	67
Notre Dame	39-055-0004	Geauga	67	64	66	83	62	65	64
Eastlake	39-085-0003	Lake	72	76	72	65	71	73	73
Painesville	39-085-0007	Lake	63	62	73	78	63	66	66
Sheffield	39-093-0018	Lorain	59	63	64	86	57	62	61
Chippewa	39-103-0004	Medina	65	67	72	74	63	68	67
Lake Rockwell	39-133-1001	Portage	67	71	70	72	67	69	69
North High	39-153-0026	Summit	66	69	71	76	64	68	68

“Mandatory” *Moderate* Classification Requirements

- NOx and VOC Reasonably Available Control Technology (RACT)
 - Revised OAC Chapters 3745-110 NOx RACT, 3745-21 VOC RACT
- Emissions Inspection and Maintenance (I/M) Program (i.e., E-Check)
 - in operation
- Additional challenges permitting new and modified sources
 - NSR offset ratio 1.15:1
 - Baseline year reset

**all of these have been implemented*



“Mandatory” *Serious* Classification Requirements

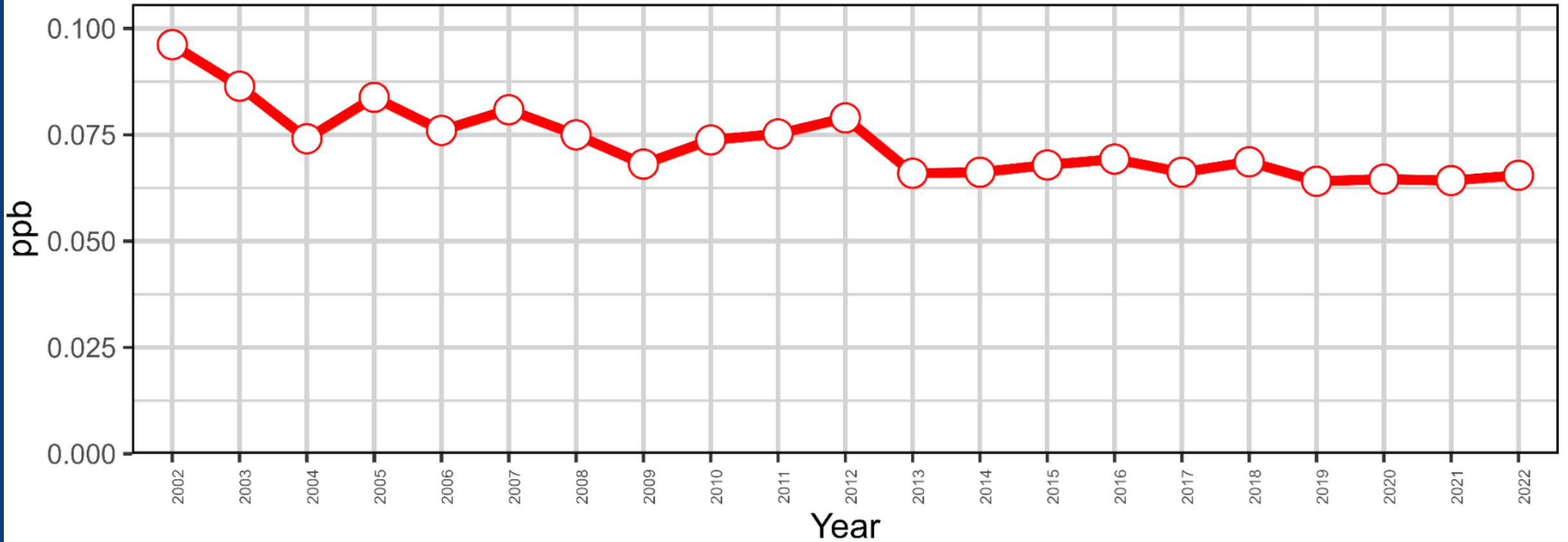
- Keep all Moderate programs in place
- NOx and VOC RACT – lower thresholds for applicability from 100 TPY to 50 TPY
- Additional challenges permitting new and modified sources
 - NSR offset ratio 1.2:1
 - Baseline year reset
 - Major source permitting threshold lowered from 100 TPY to 50 TPY
 - More Title V and synthetic minor sources
 - Application timing to avoid Title V
 - Major modification significance levels decrease from 40 TPY to 25 TPY thresholds will be lowered
 - More changes at existing facilities will trigger major new source review

**Preparing to move to proposed rulemaking*

Ozone 20-Year Trend

Ozone **All of Ohio**

Yearly 8-hour Fourth Max Value Trend



Particulate Matter Proposal

Final Changes to PM_{2.5} NAAQS

Two standards, annual and 24-hour, for which the implementation steps are done independently

- 2006 - 24-hour Standard – 35 ug/m³
- 2013 annual standard – 12.0 ug/m³ - ***TIGHTENED in 2024 TO 9.0 ug/m³***
 - ***Promulgated FEBRUARY 7, 2024***
 - ***Effective MAY 6, 2024***

PM_{2.5} Data – Statewide with Data Adjustment

PM25-Annual Yearly and Design Value (ug/m3)			
SITEID	County	2022-2023 DV Unadjusted	2022-2023 DV Adjusted
39-003-0009	Allen	7.5	
39-009-0003	Athens	6.1	
39-013-0006	Belmont	7.8	
39-017-0022	Butler	11.0	10.9
39-023-0005	Clark	9.4	8.8
39-035-0065	Cuyahoga	12.2	12.2
39-049-0038	Franklin	9.9	9.3
39-061-0014	Hamilton	10.7	9.9
39-061-0048	Hamilton	10.2	10.2
39-081-0017	Jefferson	10.6	10.0
39-085-0007	Lake	7.2	
39-087-0012	Lawrence	8.5	
39-093-3002	Lorain	7.6	
39-095-1003	Lucas	9.4	9.4
39-099-0015	Mahoning	9.0	
39-103-0004	Medina	7.5	
39-113-0038	Montgomery	9.6	9.0
39-133-0002	Portage	6.9	
39-135-1001	Preble	8.7	
39-145-0015	Scioto	7.8	
39-151-0020	Stark	9.9	9.2
39-153-0017	Summit	8.7	
39-155-0014	Trumbull	8.8	

Late May – US EPA makes “adjustments” to data for certain high-reading continuous instruments

9 **7** counties and 7 **6** areas (MSA) with monitors > 9.0 ug/m³

- Cleveland area: Cuyahoga County
- Canton-Massilon area: Stark County
- Cincinnati area: Butler & Hamilton Counties
- Columbus area: Franklin County
- Steubenville-Weirton area: Jefferson County
- ~~Dayton area: Clark & Montgomery Counties~~
- Toledo area: Lucas County

Exceptional Event?

- Unusual to have wildfires in Canada have this large of an impact
- Low pressure in eastern U.S./Canada was stationary bringing down northerly winds for an extended period of time
- Ohio does not have any control of source of emissions
- U.S. EPA allows for exclusion of measured air quality values for Exceptional Events, but...



Exceptional Event?

- ... Not that easy
- U.S. EPA will only consider an Exceptional Event if it has “regulatory significance” ...if it does not change areas from attainment to nonattainment – not interested in reviewing
- We are working on three separate packages for exceptional events. – for the Columbus, Toledo, and Canton areas



PM2.5 NAAQS Implementation Timeline

- Ohio EPA recommends nonattainment designations due 1 year from **PROMULGATION** of the NAAQS - 2/7/25
 - Ohio recommended designations would be based on 2021-2023 data
 - Five factor analysis may result in multi-county nonattainment areas
- U.S. EPA finalizes nonattainment designations required 2 years from **PROMULGATION** of the NAAQS - 2/7/26 +90 days to effective date typically ~ 5/7/26
 - Estimate U.S. EPA recommended designations would be based on 2022-2024 data
- Infrastructure SIP due 3 years from **PROMULGATION** of the NAAQS - 2/7/28
 - Transport likely addressed by U.S.EPA as a FIP
- Attainment demonstration due 18 months from **final designations** the effective date ~11/7/27
- Moderate attainment date is set at the end of the 6th year after the effective date of **final designations** ~ 12/31/32

Moderate Attainment Demonstration SIP

- Follow 2016 U.S. EPA Implementation Rule (August 24, 2016)
- PM_{2.5} (filterable and condensable) and precursors: SO₂, NOX, VOC, and NH₃
- Emissions Inventory
 - Resets base year and impacts availability of offsets
 - Likely NEI year 2023 (requirement: one of 3 years in nonattainment designations)
- Mobile emissions budgets
- RACT/RACM and additional reasonable measures



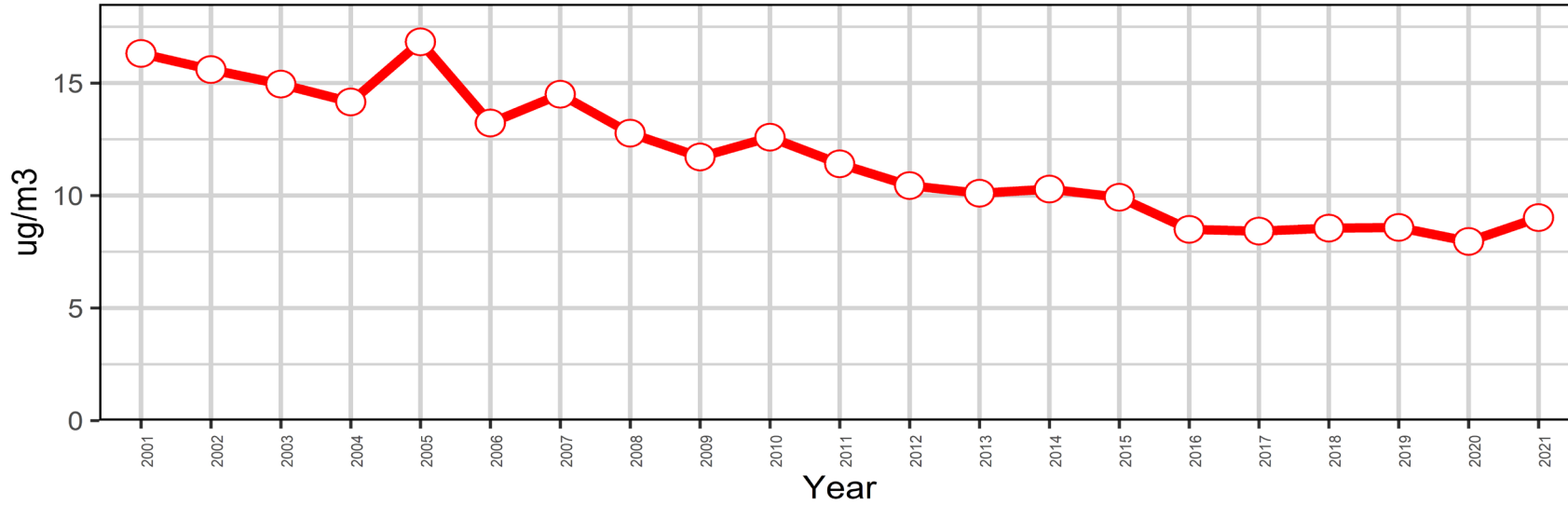
Moderate Attainment Demonstration SIP

- NNSR precursor demonstration for major NNSR
 - NH₃ and VOC no longer “presumptively insignificant”
 - Resource intensive modeling iteration process
- Modeling of attainment year showing attainment with-on-the-books controls and/or RACT/RACM
- Reasonable further progress



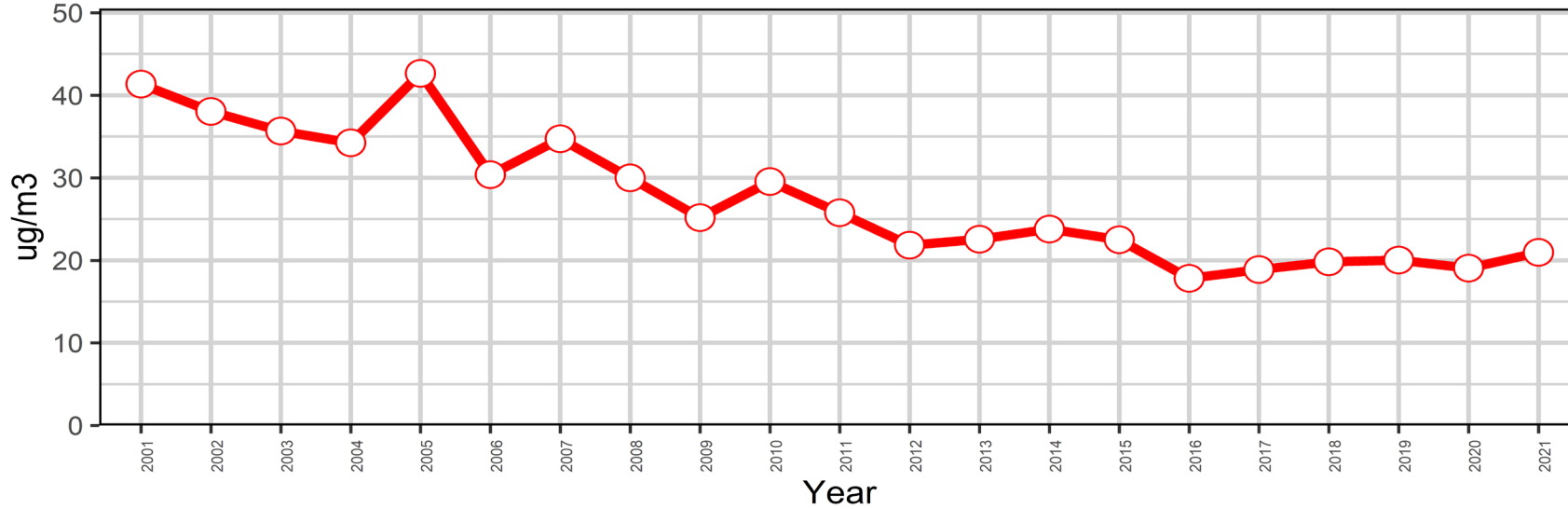
PM2.5 Annual

Yearly Annual Average Trend



PM2.5 24-Hour

Yearly 98th Percentile Trend



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Greenhouse Gas Requirements


Bob Hodanbosi, Chief
Division of Air Pollution Control

GHG Restrictions from Power Plants

- U.S. EPA has adopted revisions of the New Source Performance Standards for power plants to include emissions of GHGs
- Will require carbon capture and control/sequestration (CCS) of CO₂
- CCS is very expensive to install and operate
- Other option is to co-fire with Hydrogen

GHG Restrictions from Coal-fired Power Plants

- Because CO₂ is a non-criteria pollutant, under 111(d) of the Clean Air Act, states must develop plans to control CO₂ from existing plants
- U.S. EPA has proposed extended timeframes for the control of existing coal plants until 2032 or 2040 if plant will shutdown
- Two options for plants that continue to operate:
 - Install CCS
 - Co-fire with hydrogen

A photograph of an oil pumpjack (jack-o'-lantern) in a field at dusk or dawn. The pumpjack is a large, green metal structure with a long arm and a counterweight. It is mounted on a concrete foundation. The background shows a dark sky with a few stars and a horizon line. The foreground is a grassy field.

U.S. EPA Regulatory Activities Oil and Gas

- Robert Hodanbosi, Chief
- Division of Air Pollution Control

Rules Finalized

- U.S. EPA announced the finalization of the rules on December 2, 2023
- Rules were published in Federal Register on March 8, 2024
- Rules effective May 7, 2024
- Ohio Attorney General joined many other states in the appeal of the rule



Current Ohio EPA Regulated Facilities

724 well sites (1056 air permits)

- All horizontal, fractured wells
- Don't currently regulate traditional oil & gas wells
- ODNR says ~53,000 active oil & gas wells

279 mid-stream facilities (890 permits)

11 gas processing facilities (90 permits)

Final Rules

- Standards for existing sources will be very similar to proposed standards for new
- Significantly more stringent than Ohio EPA's requirements for existing wells
- Covers all wells:
 - *“Well” means a hole drilled for the purpose of producing oil or natural gas, or a well into which fluids are injected.*
- All wells, not just horizontal – ODNR has 53,000 on file

Final Rules

Small business/
individual owner
impact

- OVA inspections, reports, etc. lot of work

Ohio EPA work

- Review reports, inspections, testing – large effort for 53,00 wells
- Significant staffing needs/\$ needs
- Can general permits be developed?



Final Rules

- We have created an oil and gas stakeholder group that includes both horizontal and vertical well site owners
- We have started drafting the rules – first step is the Early Stakeholder Outreach notice

Permitting Updates

A stack of white papers is the central focus, held together by several silver metal clips. The papers are slightly fanned out, and some have gold-colored fasteners or staples. The background is a soft-focus office environment with circular bokeh lights from ceiling fixtures. The entire image is framed by a solid blue border on the left and right sides.

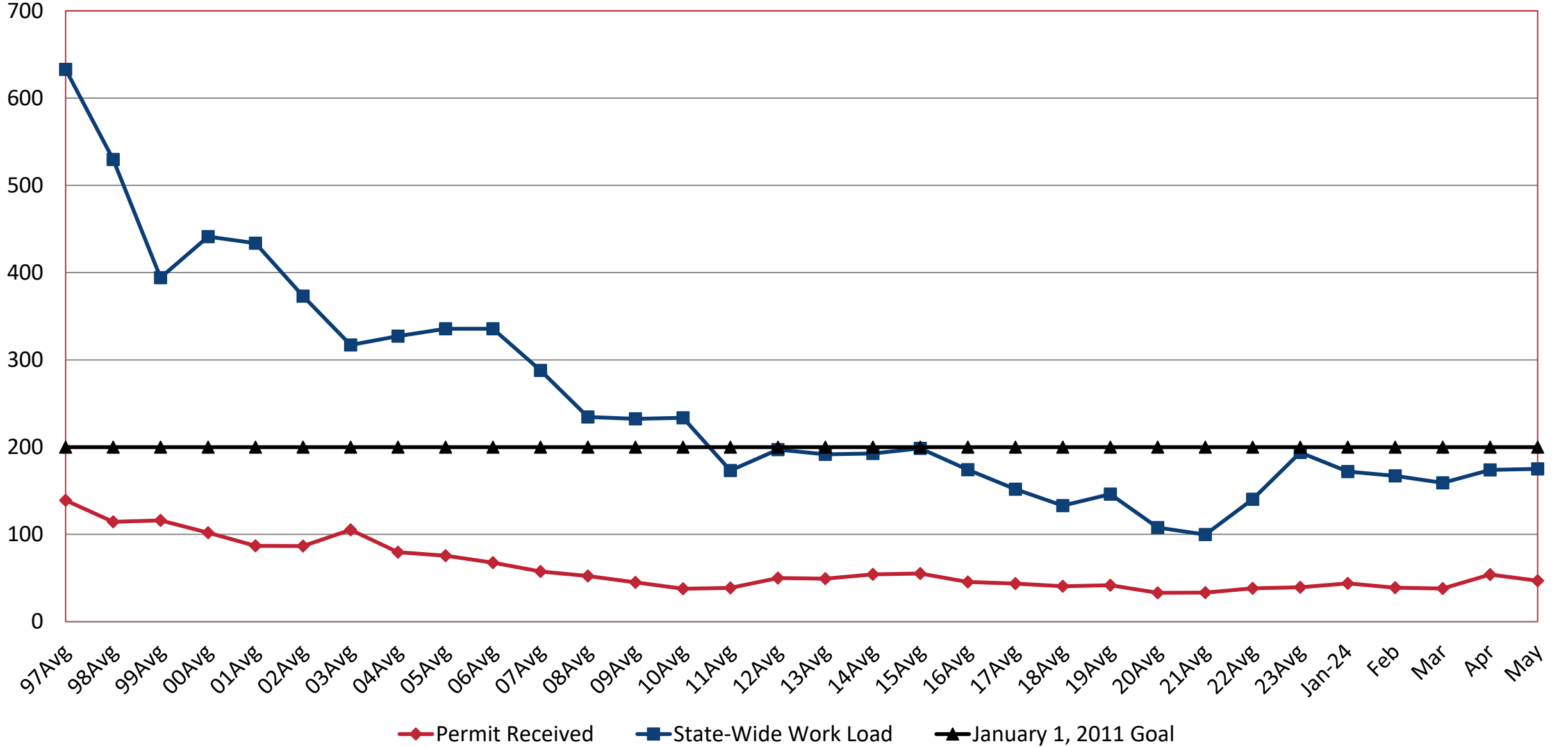
Construction Permits

- Permits for new construction projects remain the highest priority for the agency
- We have a goal of having no more than 200 permits in queue at any one time
- We are maintaining that goal, but are looking at ways to improve timeliness



Construction Permits

Air Installation Permit Work Load Trends



Priority Permits

- If there is a project that is under tight time constraints – we look for ways to reduce processing time
- We work with applicant through permit review and issuance – including trading terms and conditions as they are drafted
- Include weekly calls to stay on track



Need for Additional Title V Fees



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TITLE V FISCAL CHALLENGES

- Ohio adopted the presumptive minimum for Title V sources in 1993
- Maintained that level of fees for 30 years
- The various emission reduction programs under the Clean Air Act has resulted in substantially less emissions
- Along with improving air quality, the result has been less revenue to the air program including the local air agencies

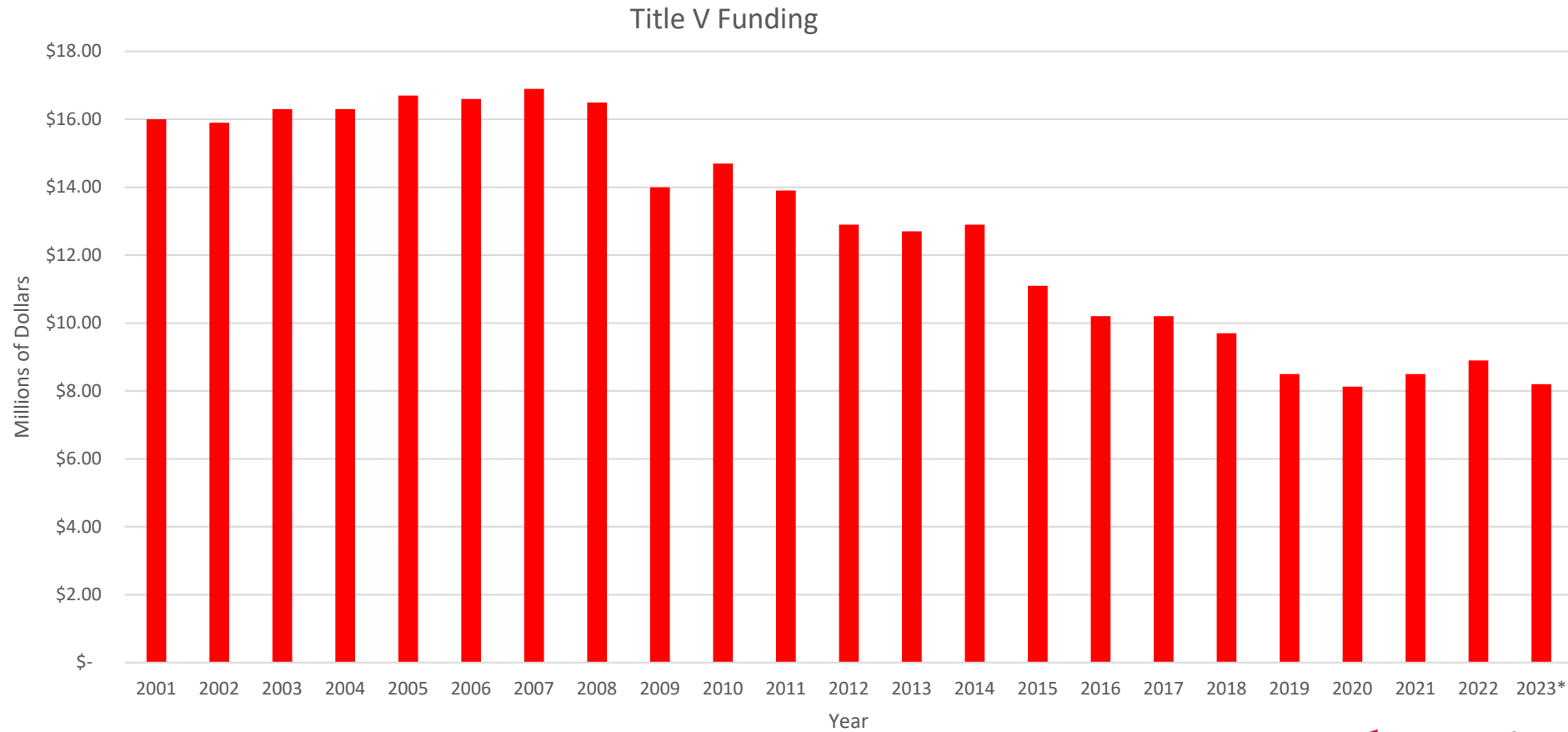


TITLE V FISCAL CHALLENGES

- Largest sources of revenue – power plants – many closed with others planning to close
- Title V emission reductions equates to significant decreases in Title V revenue
- U.S. EPA has identified Ohio EPA fee program as “Unsustainable”



Title V Revenue Dropping



Tightening our belts – DAPC Staffing Reduced Over Time

DAPC Staffing Level:

- FY2010 budgeted level: 220.6 FTEs
- FY2012-13 budgeted level: 206.5 FTEs
- FY2014-15 budgeted level: 190 FTEs
- FY2016-17 budgeted level: 190 FTEs
- FY2018-19 budgeted level: 185 FTEs
- FY2020-21 budgeted level: 179 FTEs
- FY2022-23 budgeted level: 180 FTEs
- FY2024-25 budgeted level: 183 FTEs



TITLE V FISCAL CHALLENGES

- All fees at Ohio EPA are in the Ohio Revised Code – any new fee increase must be approved by Ohio Legislature
- Talking to various trade groups in Ohio about a “base fee” for Title V sources and synthetic minor sources
- Plus, looking at an increase in construction fee costs





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