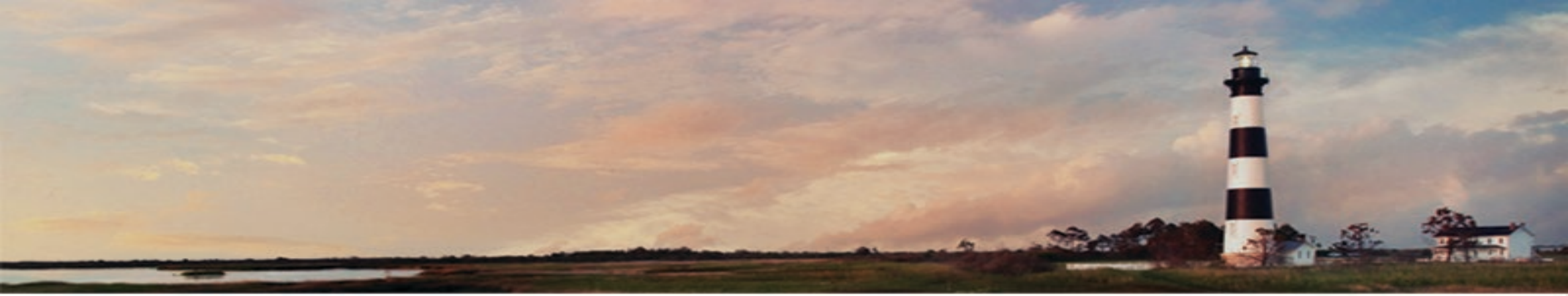


NORTH CAROLINA
Department of Environmental Quality

Division of Air Quality Update

CAPCA Virtual Spring Meeting

April 8, 2021

Mike Abraczinskas, Director, Division of Air Quality

Agenda

- Leadership/Staffing Update
- Future Workplace planning – Phase 1 – DAQ
- Stationary Source Compliance Update
- Air Quality Permitting and EJ
- Transportation and Air Quality
  - Clean Transportation Initiatives
- PFAS Update

New DEQ Leadership

Welcome to Secretary Dionne Delli-Gatti !

Thank You Sheila Holman!!!

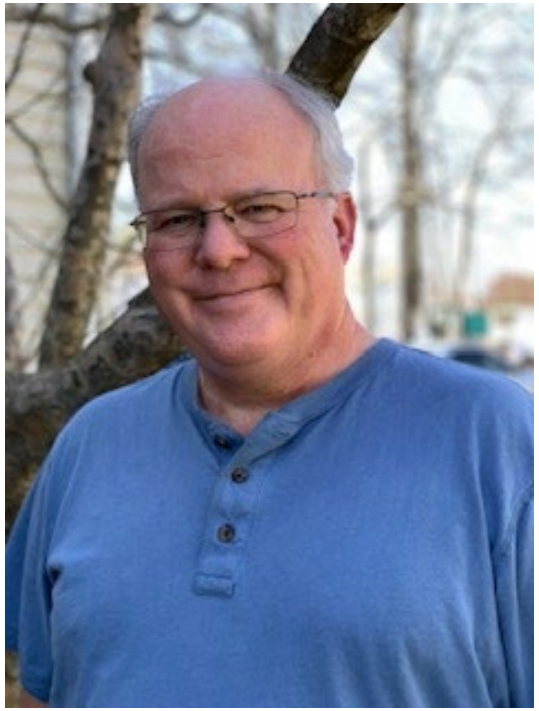
Assistant Secretary of the Environment retiring May 1

New DEQ Leadership

Acting Assistant Secretary of the Environment

Sushma Masemore

DAQ Staffing Updates



Jeff Cole, Fayetteville Regional Office,
Compliance Coordinator

Davis Murphy, Winston-Salem Regional Office,
Compliance Supervisor

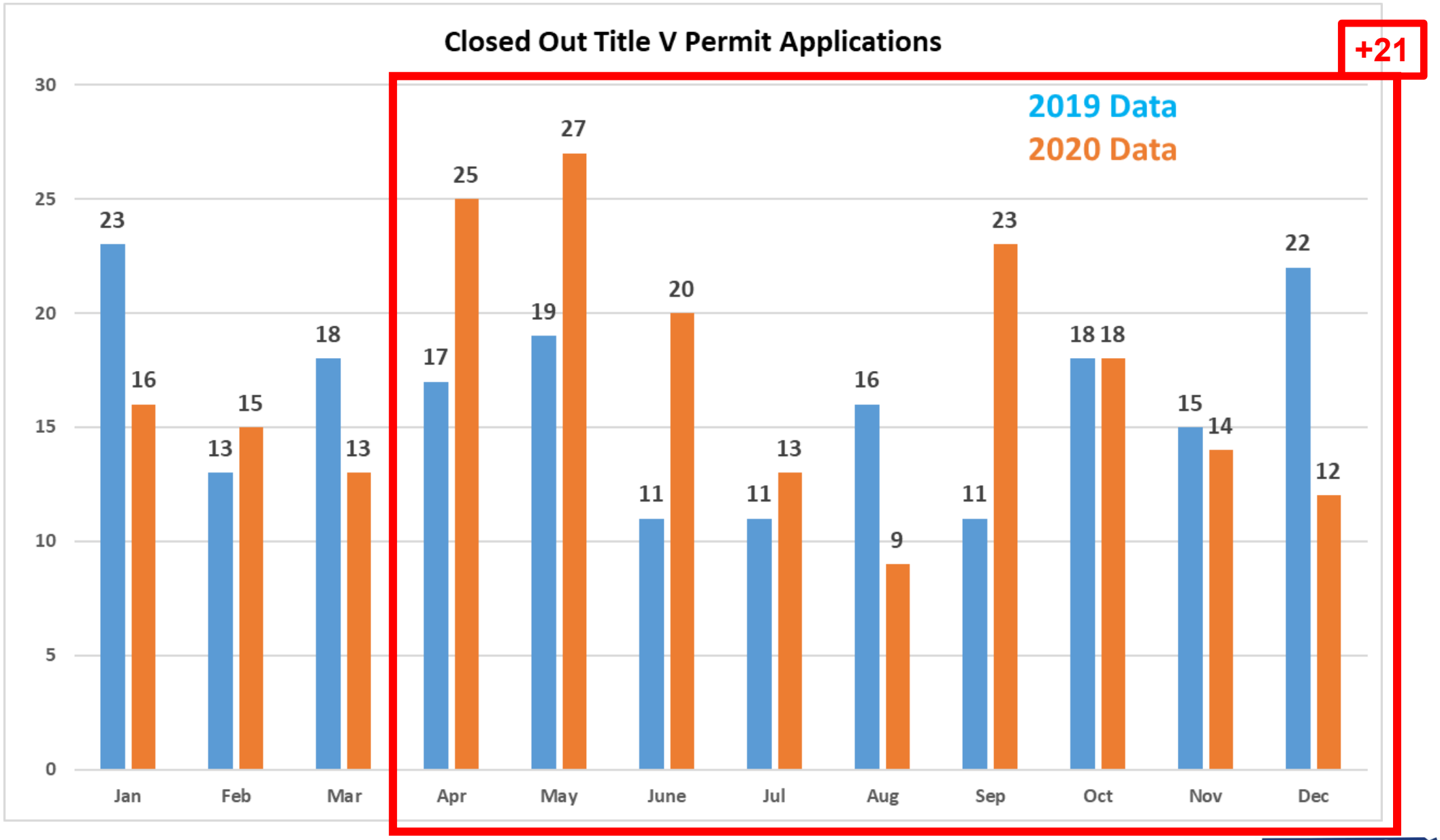
DAQ Staffing Updates

Taylor Hartsfield, Raleigh Regional Office Supervisor

Mark Cuilla, Permitting Section Chief

Future Workplace

Photo: Adobe


Closed Out Title V Permit Applications
+21
2019 Data
2020 Data
30
25
20
15
10
5
0
Jan 23 16
Feb 13 15
Mar 18 13
Apr 17 25
May 19 27
June 11 20
Jul 11 13
Aug 16 9
Sep 11 23
Oct 18 18
Nov 15 14
Dec 22 12

Future Workplace

- Transformation of the Workplace post-pandemic
- Don’t get left behind!
- DEQ/DAQ must remain competitive

- Deploy the right technologies

- Adjust our processes

- Adjust our policies

- Create business rules

- Orderly transition

Future Workplace

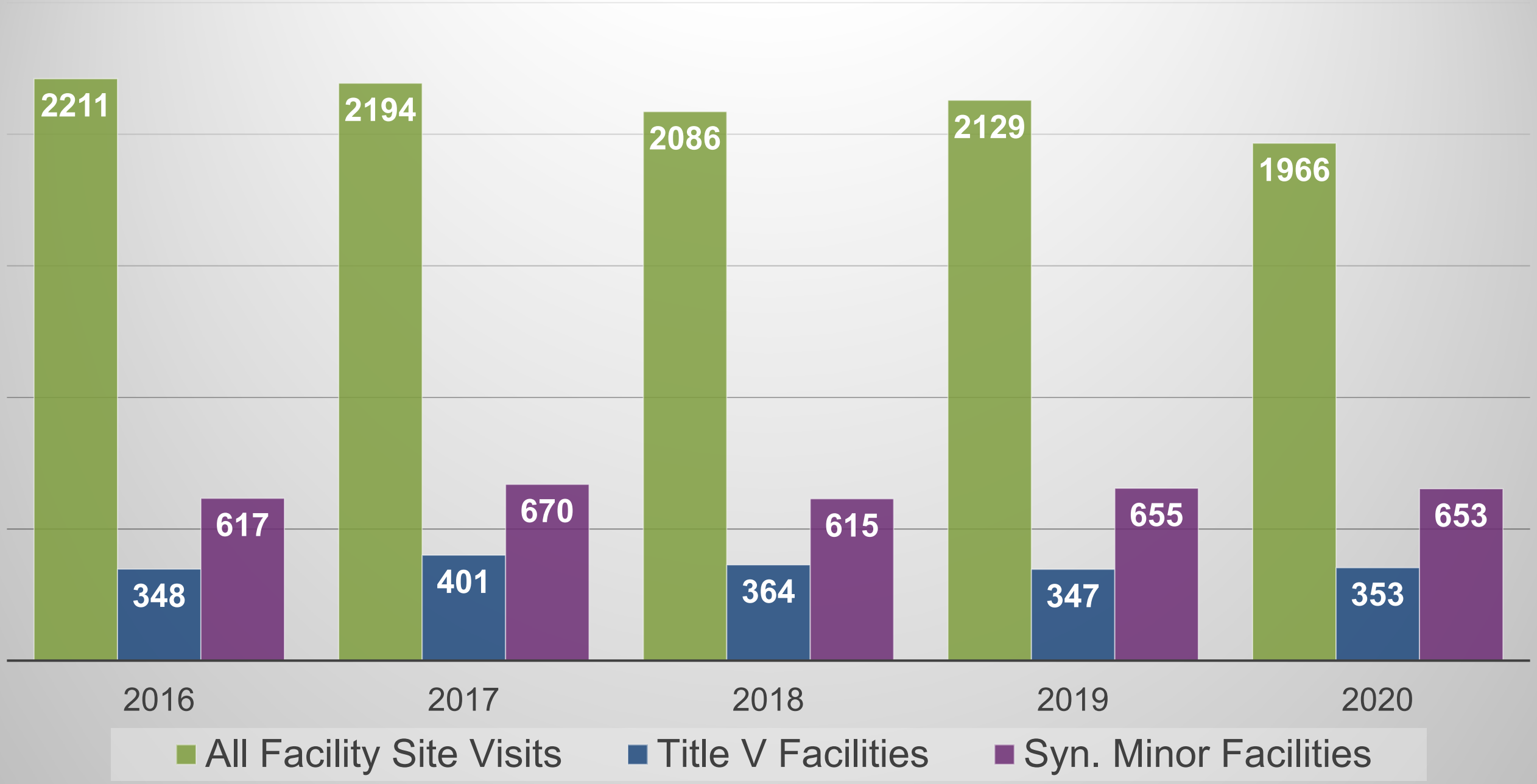
- **Getting started.**
- **Moving rapidly.**
- **Stay tuned!**

Stationary Source Compliance/Enforcement Update

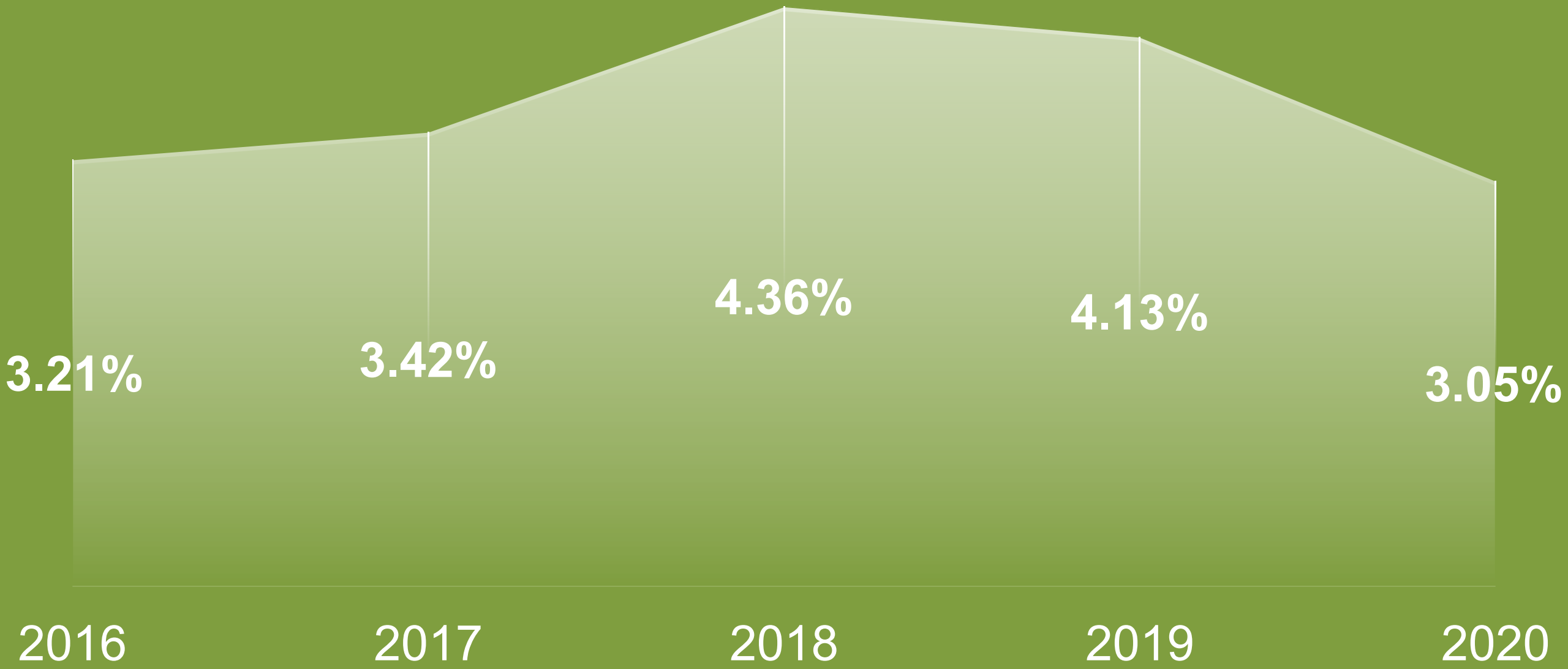
Air Quality Compliance Inspections

- 2020 was not a typical year in many ways
- COVID-19 precautions impacted DAQ staff and inspection activities
- DAQ staff adjusted to COVID-19 restrictions and implemented virtual (offsite) inspection techniques to ensure ongoing compliance
- Many of DAQ's normal onsite inspection goals were still met in 2020
- Inspection emphasis placed on the largest emitting facilities

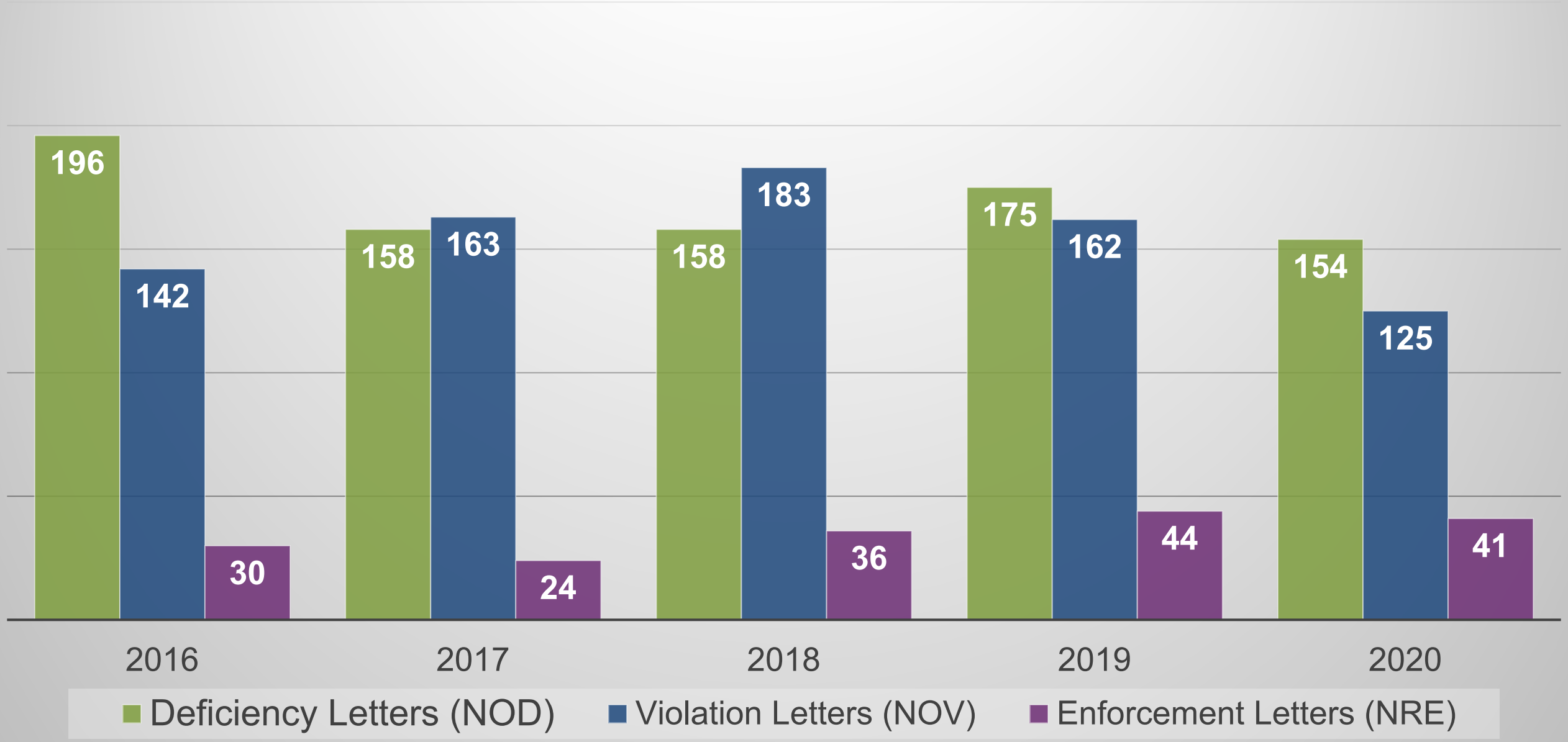
Total Compliance Evaluations by DAQ



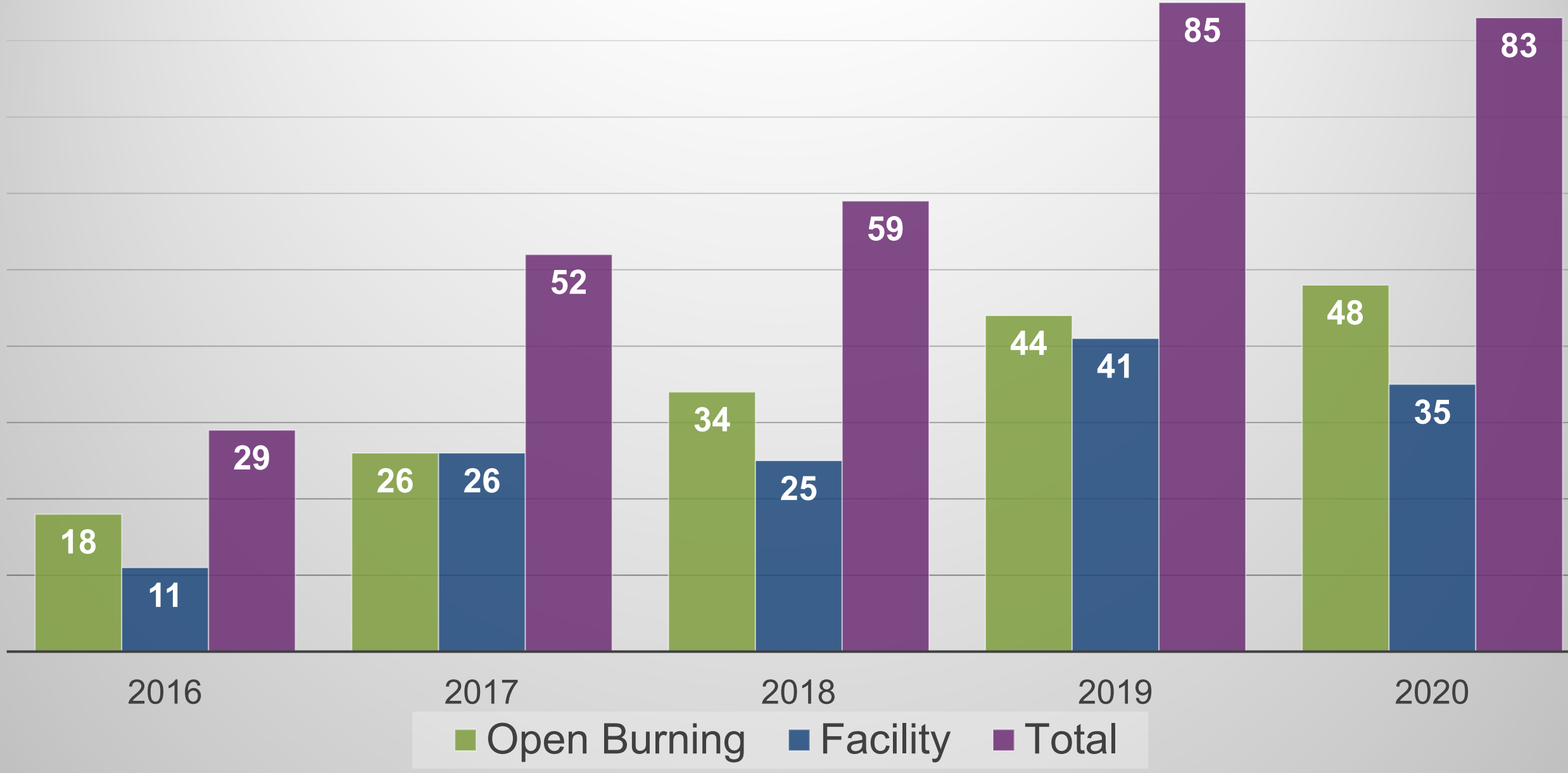
VIOLATION DISCOVERY RATE
(INSPECTIONS – ONSITE AND OFFSITE)



Compliance and Enforcement Letters (Facility Related Cases Only)



Civil Penalty Assessments
(Facility Related and Open Burning Cases)



Recurring Compliance Issues at Regulated Facilities

- Violation of various requirements in federal regulations
  - NSPS (e.g., Subpart Dc and OOO)
  - NESHAP/MACT/GACT (e.g., Subparts ZZZZ, DDDDD, and JJJJJJJ)
- Failure to pay annual air quality permit fees
- Violation of a synthetic minor or other similar type avoidance condition
- Failure to conduct permit-required monitoring and/or record keeping
- Late submittal of report required by permit or regulation
- Violation of various requirements in NC state rules

Air Quality permitting process – EJ reviews

Air Quality permitting process – EJ reviews

The Department of Environmental Quality has developed guidelines for those permits that meet the threshold for conducting Environmental Justice (EJ) reviews. For Air Quality, those permits are:

- **New Title V facilities**
- **Major modification at a Prevention of Significant Deterioration facility that results in major emissions increases**
- **Division Director's Discretion**

Enhanced Outreach – Example

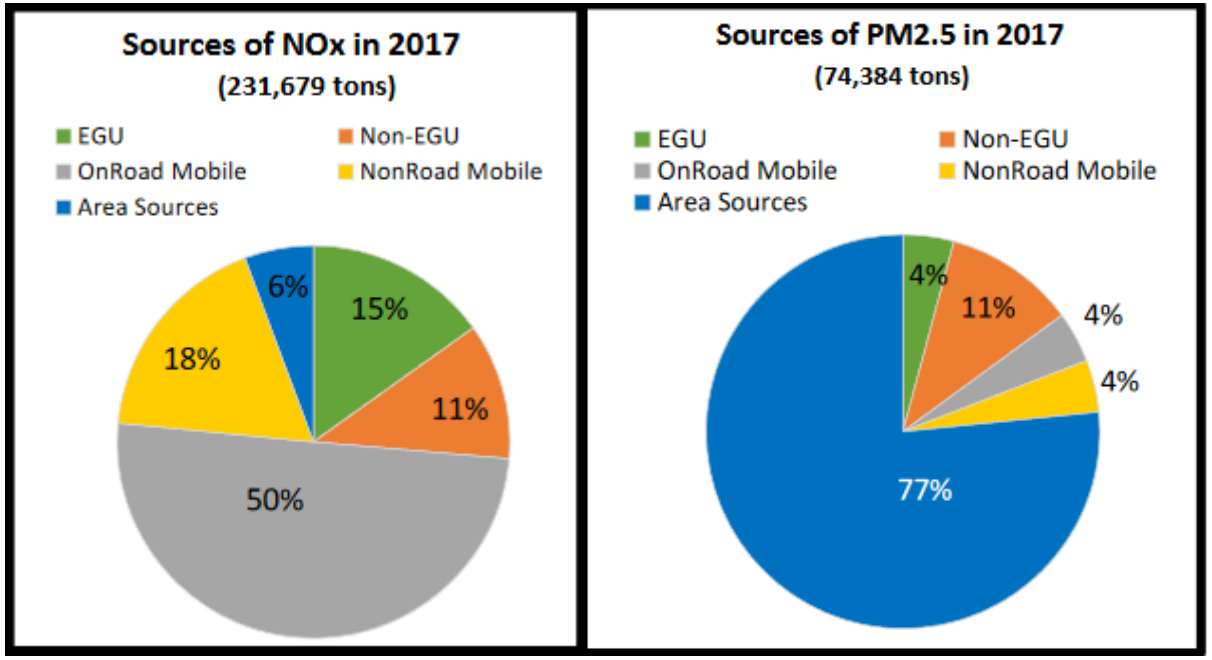
Beyond the draft permit and permit review document, DAQ may produce a lot more material in order to educate the community about the project.

- EJ report
- Public notice
  - Publish in newspaper(s), online, press release
  - Translate to Spanish and post on website
- Develop and distribute informational flyers (translate?)
  - Mail to all residents w/in ? miles of the proposed facility.
  - Distribute to sensitive receptors identified in EJ report
- Develop and post FAQ document for website
- Presentation on draft permit for information session
- Communicate with early requestors for information (email)
- Communicate with local interested groups, local governments
- Conduct a “permitting 101” ?
- Phone line w/ voicemail to leave comments (English and Spanish)

Lots of work!!! Takes time!!! Fit it into the permitting framework/schedule.

Transportation and Air Quality

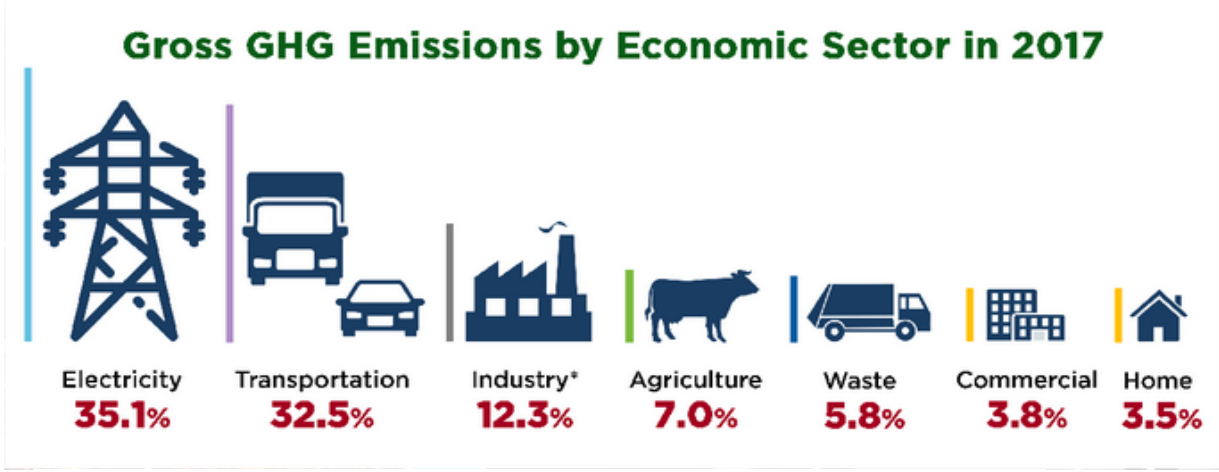
Connection Between Transportation & Air Quality



Source: Air Quality Trends in NC; October 2020

Primary air pollutants from transportation:

- **Nitrogen Oxides (NOx)**
- **Particulate Matter (PM2.5)**
- **Greenhouse Gases**



Source: NC Greenhouse Gas Inventory; January 2019

Clean Transportation Options

- Partial Zero Emission Vehicle (PZEV) - Hybrid
  - Clean combustion engine
  - Tailpipe
  - GHG and NOx pollutants
  - Advanced emission controls
- Zero Emission Vehicle (ZEV) - Plug-In
  - All battery powered
  - No tailpipe
  - No direct air pollutants
  - Sometimes called “Battery Electric”

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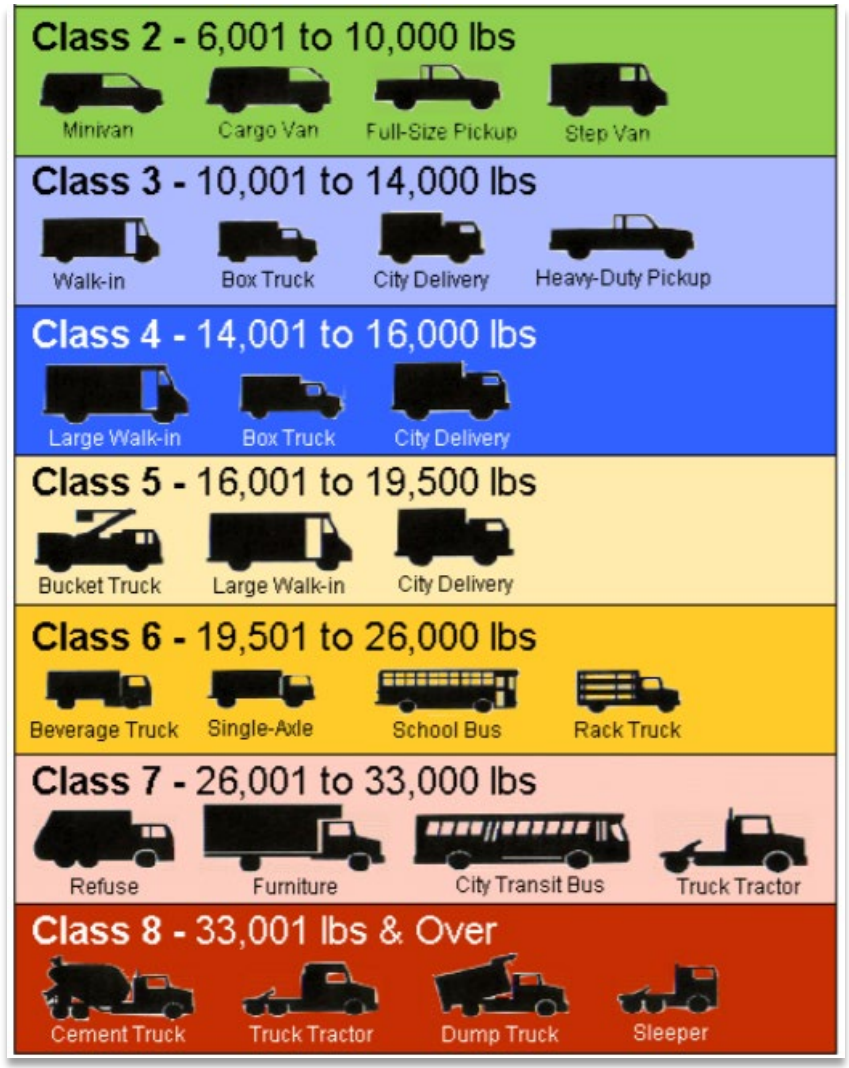
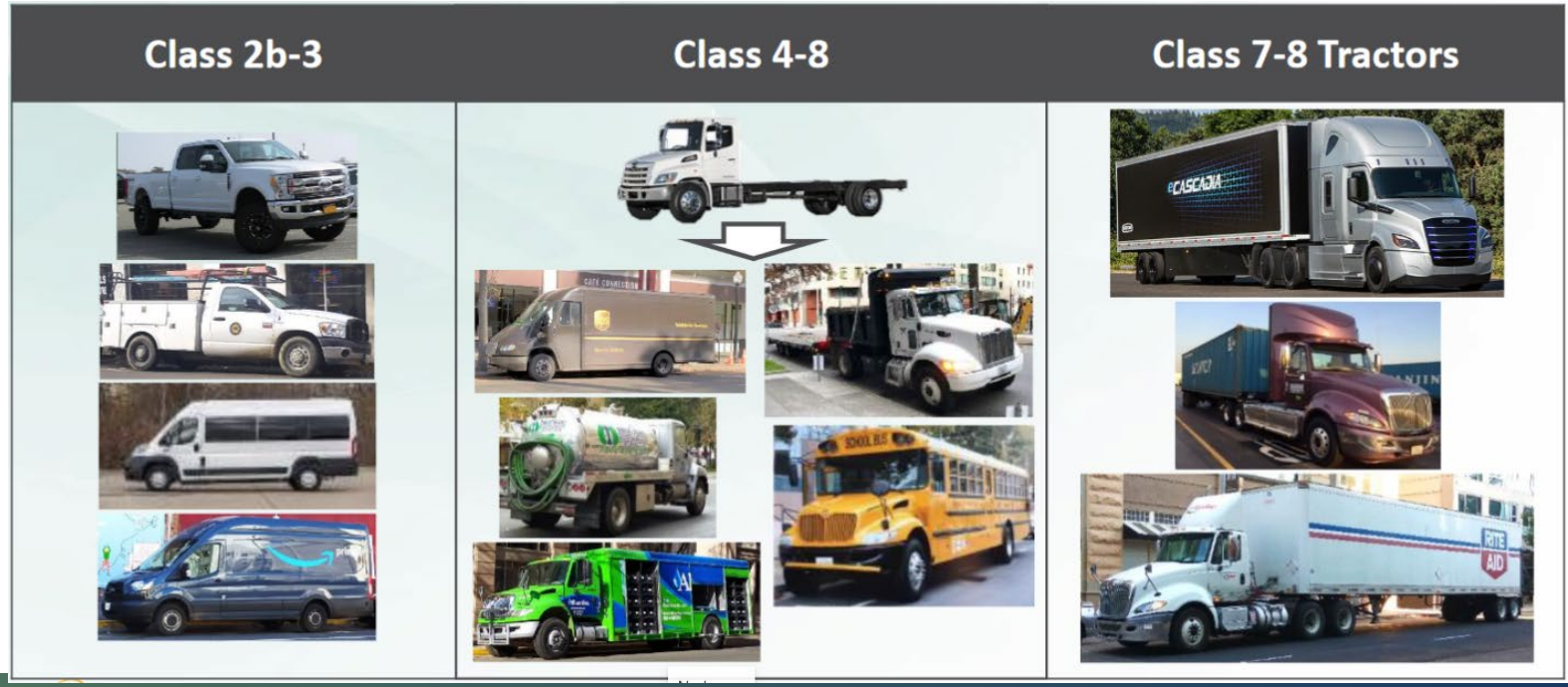


Source: U.S. Department of Energy

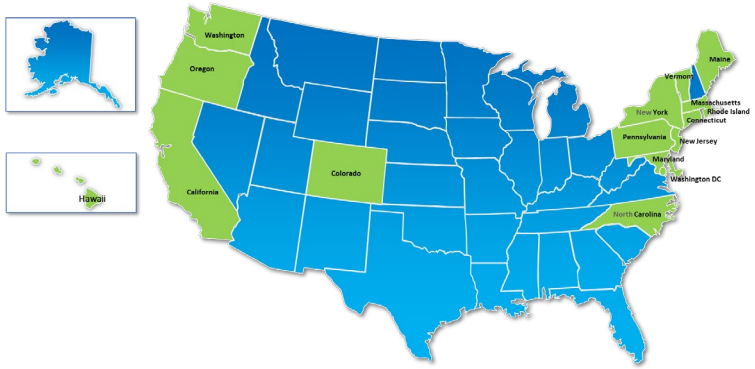
Truck Classifications

- Vehicle classes are based on gross vehicle weight rating (GVWR).
- Class 2 is subdivided into:
  - Class 2a vehicles with a GVWR of 6,001-8,500 lbs.; and
  - Class 2b vehicles with a GVWR of 8,501-10,000 lbs.
- MHDVs consist of classes 2b-8.



Transportation Sector Initiatives

DERA



Medium and Heavy-Duty MOU

NORTH CAROLINA VOLKSWAGEN SETTLEMENT

Department of Environmental Quality

DEQ NORTH CAROLINA Department of Environmental Quality

MHD ZEV Projects in NC

Diesel Emission Reduction Act (DERA)

DERA Projects	Town of Cary	City of Wilmington	City of Charlotte
Vehicle being replaced (transit bus, school bus, etc)	Electric Refuse Truck	Electric Refuse Truck	Electric Transit Bus
Infrastructure included	Yes	Yes	No
Total cost of project	$560,834.05	$601,302.05	$867,127.00
DERA funding provided	$252,375.32	$270,585.92	$390,207.00
Location	Cary	Wilmington	Charlotte
Urban or Rural	Urban	Urban	Urban

VW Settlement

MHD ZEV Projects in NC

	Organization Name	County	Funding Amount	County Classification
School Bus	Department of Public Instruction	Transylvania	372,270.00	Rural
	Department of Public Instruction	Cabarrus	360,999.00	Urban
	Department of Public Instruction	Rowan	368,564.00	Urban
	Department of Public Instruction	Randolph	277,963.00	Rural
	Department of Public Instruction	New Hanover	369,325.00	Urban
	Eastern Band of Cherokee Indians	Swain	402,810.00	Rural
Transit Bus	Durham	Durham	$428,066.00	Urban
	Greensboro	Guilford	$501,838.77	Urban
	Salisbury	Rowan	$426,502.25	Urban
	Salisbury	Rowan	$392,269.25	Urban
	Chapel Hill	Orange	$485,000.00	Urban
	Raleigh	Wake	$397,200.73	Urban
	Boone-Appalachian State	Watauga	$1,001,500.00	Rural
	Fayetteville	Cumberland	$127,750.00	Urban
	Fayetteville	Cumberland	$127,750.00	Urban
	TOTALs		$6,039,808.00	

DEQ
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MHD ZEV MOU

July 14, 2020

- 15 states and the District of Columbia signed a joint memorandum of understanding (MOU)
- NC DAQ involved Sept 2020

Action

- Advance and accelerate the market for electric medium-and heavy-duty vehicles, including large pickup trucks and vans, delivery trucks, box trucks, school and transit buses, and long-haul delivery trucks (big-rigs)

Goals

- 100 percent of all new medium-and heavy-duty vehicle sales be zero emission vehicles by 2050 interim target of 30 percent zero-emission vehicle sales by 2030
- Drastically reduce greenhouse gas emissions from MHD ZEV

Health benefits

- Especially for communities burdened with higher levels of air pollution and heavy truck traffic

MULTI-STATE MEDIUM- AND HEAVY-DUTY ZERO EMISSION VEHICLE

MEMORANDUM OF UNDERSTANDING

WHEREAS, the Signatory States and the District of Columbia[1] recognize the importance of state leadership and coordinated state action to ensure national progress in the effort to reduce greenhouse gas (GHG) emissions and stabilize global warming;

WHEREAS, the Signatory States have statutory obligations or otherwise seek to significantly reduce statewide GHG emissions by 2050, consistent with science-based targets;

WHEREAS, transportation is now the nation's largest source of GHG emissions, and, after light-duty vehicles, medium- and heavy-duty trucks are the next largest source of transportation sector GHG emissions;

WHEREAS, the Signatory States have a statutory obligation to provide their citizens with air quality that complies with national health-based air quality standards, which are required to be protective of health and the environment with an adequate margin of safety;

WHEREAS, fossil fuel related emissions from medium- and heavy-duty vehicles (MHDVs) are a major source of nitrogen oxides (NOx), particulate matter, and toxic air emissions, which are preventing many densely populated areas from achieving compliance with federal ambient air quality standards;

WHEREAS, emissions from MHDVs are a widely acknowledged, but unaddressed,

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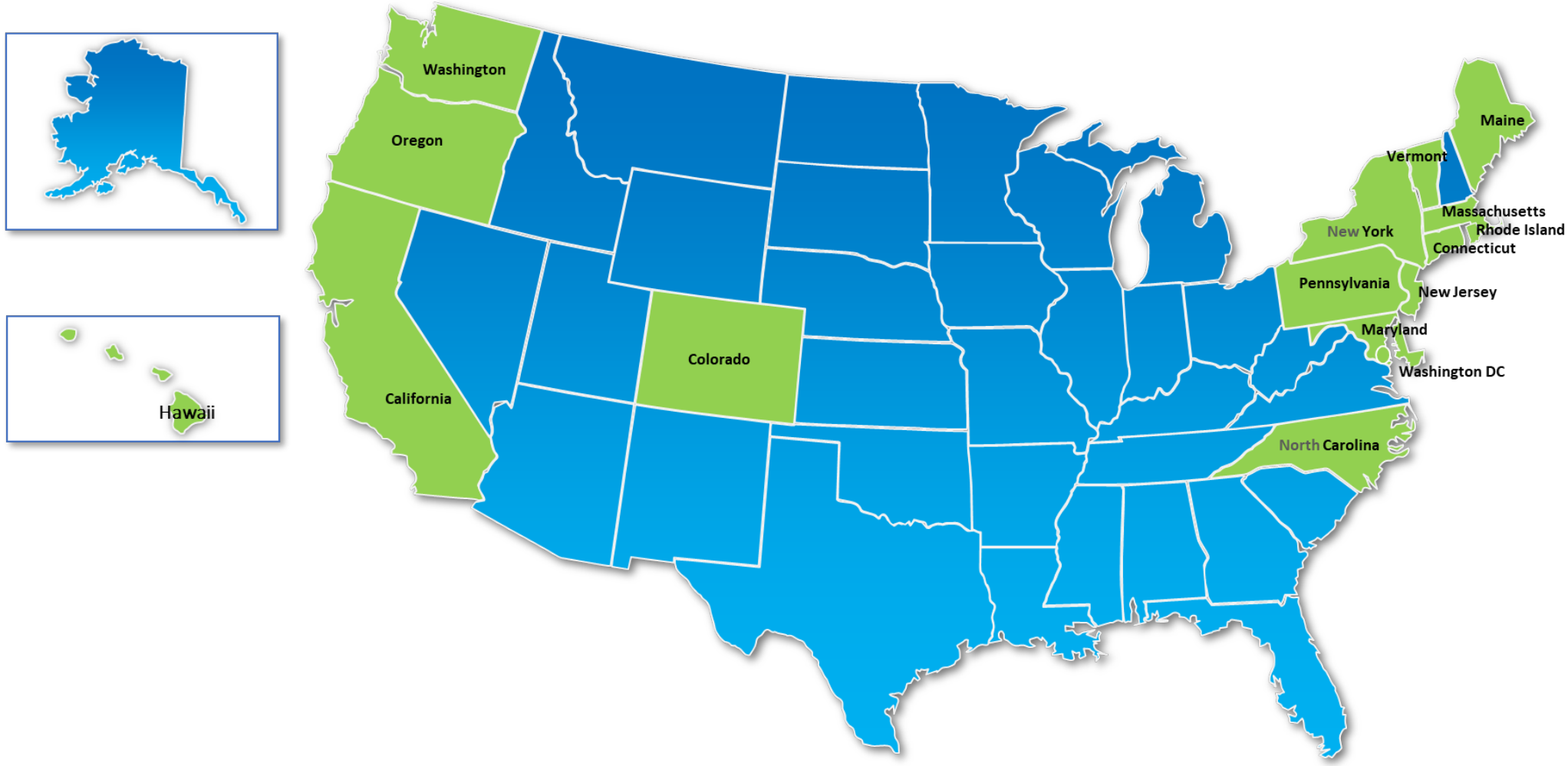
MHD ZEV MOU cont.



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MHD ZEV Action Plan

- **Action Plan:**
  - **Task Force will develop a multi-state action plan to identify barriers and propose solutions to support widespread electrification of medium- and heavy-duty vehicles**
- **Focus on Disadvantaged Communities**
  - **Share equitably in the benefits of truck and bus electrification**
  - **Provide meaningful opportunities to provide input**
  - **Meet community needs**
  - **Build long-term relationships**
- **Measurable Sales of MHD ZEVs**
- **Public Fleet Purchases and Fueling Stations**
- **Inter-agency Cooperation within States**
- **Partnerships with Key Stakeholders**

EXAMPLES for Action Plan:

- **Financial vehicle and infrastructure incentives;**
- **Non-financial vehicle and infrastructure incentives;**
- **Actions to encourage public transit and public fleet ZEV MHD development;**
- **Effective infrastructure deployment strategies;**
- **Funding sources and innovative financing models to support incentives and other market-enabling programs;**
- **Leveraging environmental and air quality benefits associated with adoption of the California Advanced Clean Trucks rule under Section 177 of the Clean Air Act;**
- **Coordinated outreach and education to public and private MHDV fleet managers;**
- **Utility actions to promote zero emission MHDVs, such as electric distribution system planning, beneficial rate design and investment in "make-ready" charging infrastructure;**
- **Measures to foster electric truck use in densely populated areas;**
- **Addressing vehicle weight restrictions that are barriers to zero emission MHDV deployment;**
- **Uniform standards and data collection requirements; and**
- **Any other initiative the Task Force deems appropriate.**

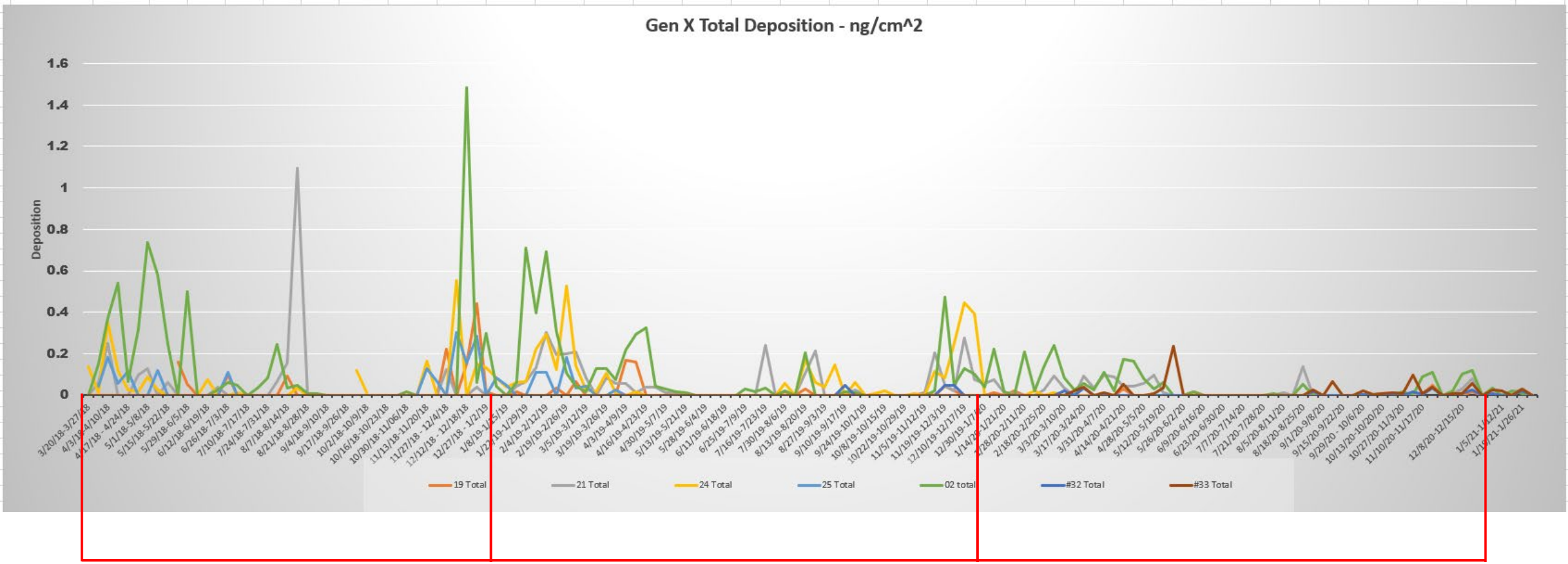
PFAS Update

PFAS - Chemours Update

- Control Technology
  - December 27, 2019 – Thermal Oxidizer operational resulting in 99.99% reduction in all PFAS routed to the thermal oxidizer.
  - Removal efficiency confirmed via stack tests reviewed by DAQ

- GenX Emissions
  - 2017 Baseline – 2302.7 lbs
  - Court Order – Required 99% GenX Baseline Reduction Facility Wide
  - Air Quality Permit – 23.027 lb/yr GenX emissions cap
  - 2020 reported GenX emissions – 16.81 pounds, facility wide
    - DAQ reviewed and confirmed

PFAS Update - Nearfield Deposition



Contact information

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919-707-8447

Thank you !