New Mexico Environment Department

Ozone Attainment Initiative
Air Quality Bureau, Control Strategies
September 26, 2019

New Mexico Ozone Attainment Initiative Development

Our mission is to protect the inhabitants and natural beauty of New Mexico by preventing the deterioration of air quality.

The NMED will use the following during the development of the Ozone Attainment Initiative (OAI):

- Science: We will use the best available science to inform our decision-making.
- Innovation: We will employ creative engineering and technological solutions.
- Collaboration: We will engage with communities and interested stakeholders in our OAI development strategy.
- Compliance: We will ensure compliance with National Ambient Air Quality Standards and state regulations.

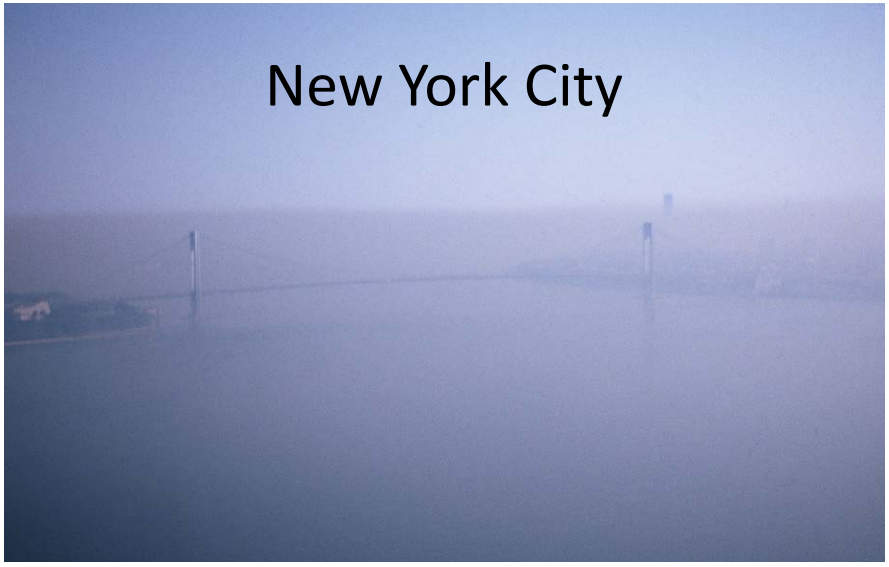
Outline

- What is Ozone?
- What are the health effects of ground level ozone?
- What is the Ozone Attainment Initiative?
- Why do we need the OAI?
- How will NMED implement the OAI?
- Where are the focus areas?
- What is the projected timeline?
- How can stakeholders get involved?

Smog


Denver Colorado

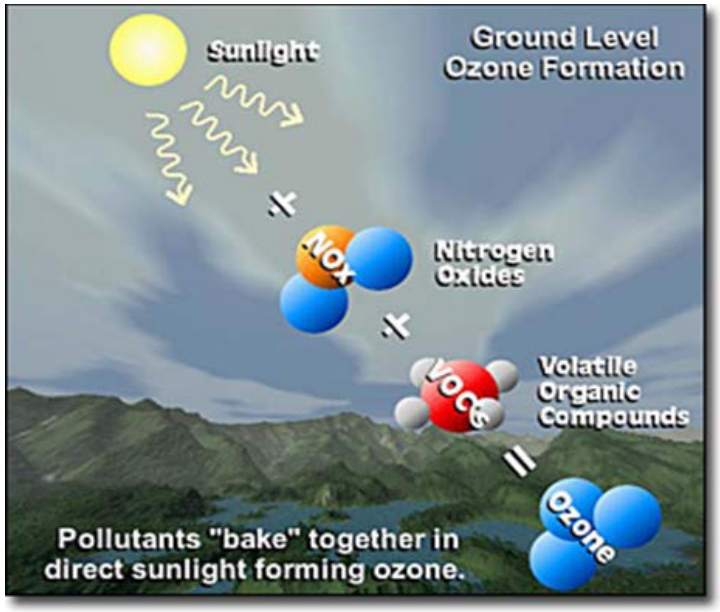

A layer of smog hovers over Los Angeles

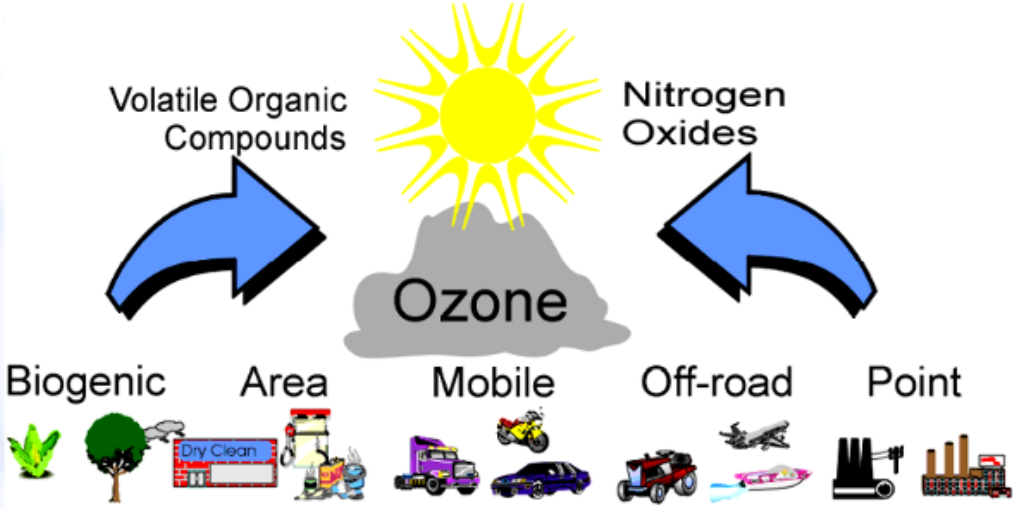

New York City

Ground-level Ozone Formation

The main pollutants that form ozone are oxides of nitrogen (NOx) and volatile organic compounds (VOC).

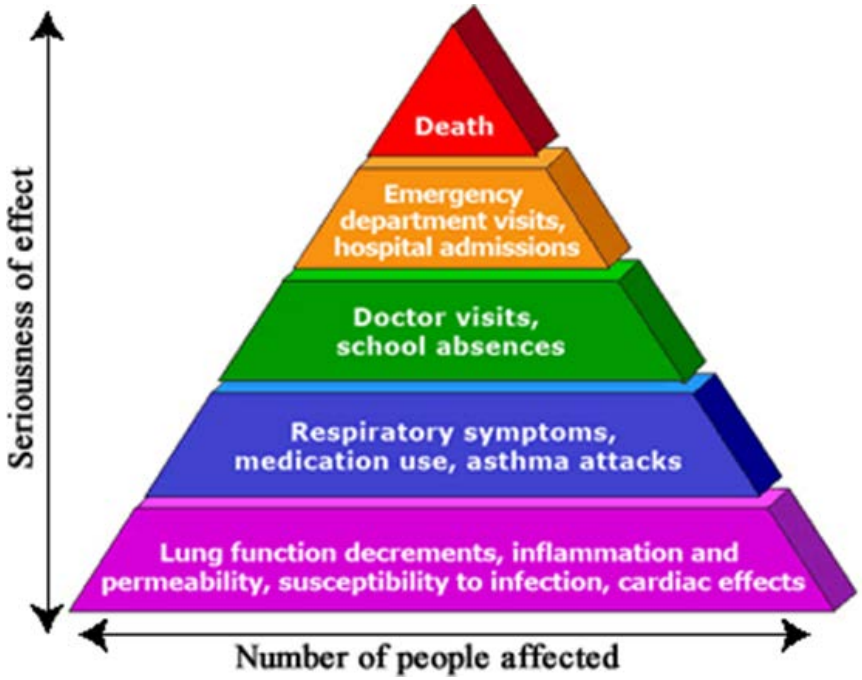
Ground level ozone, is not emitted directly into the air, but is created by chemical reactions between the "precursor" pollutants of nitrogen oxides (NOx) and volatile organic compounds (VOC) in the presence of sunlight.





Ozone Pollution Health Effects

- Effects seen across a wide range of health outcomes
- Sensitive groups include:
  - Asthmatic children and other people with lung disease
  - All children and older adults, especially people active outdoors
  - Outdoor workers



https://www.epa.gov/ozone-pollution-and-your-patients-health/health-effects-ozone-patients-asthma-and-other-chronic

NAAQS and Nonattainment

National Ambient Air Quality Standards (NAAQS)

- Standards for criteria pollutants
- Established by the U.S. Environmental Protection Agency (EPA)
- Nonattainment Area= Can be an area that violates/exceeds one of the NAAQS

Pollutant	Type	Standard	Averaging	Form
Ozone (O_3)	Primary and Secondary	0.070 ppm (70 ppb)	8-hour	Annual 4th high daily maximum 8-hr. avg., averaged over 3 yrs.*

*EPA's calculation methodology can be found at:
https://www.epa.gov/air-trends/air-quality-design-values

What is the Ozone Attainment Initiative (OAI)?

Monitoring data show several areas in the State approaching the level of the National Ambient Air Quality Standard (NAAQS) for Ozone

The OAI aims to:

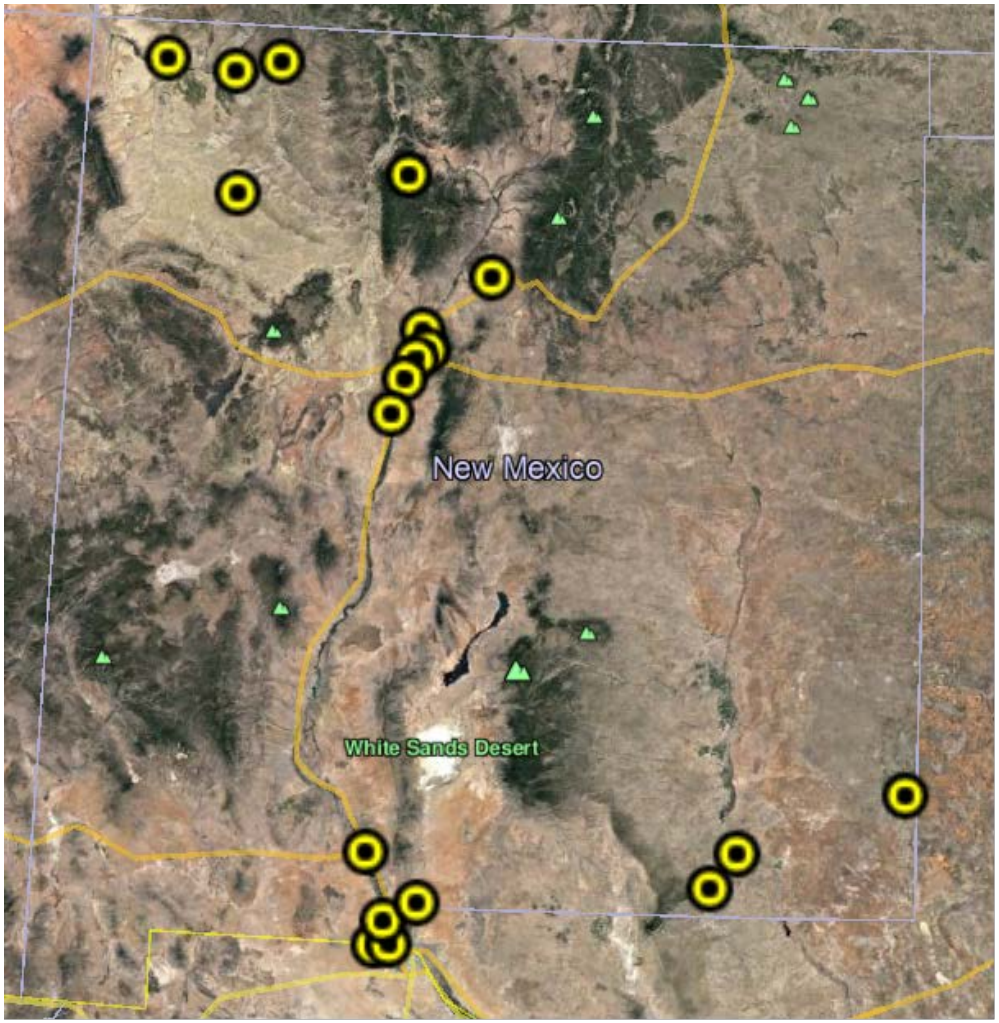
- Protect the attainment/unclassifiable status of all areas in the state
- Ensure the health and welfare of the residents of the state for future generations

Why do we need the OAI?

74-2-5.3 NMSA 1978

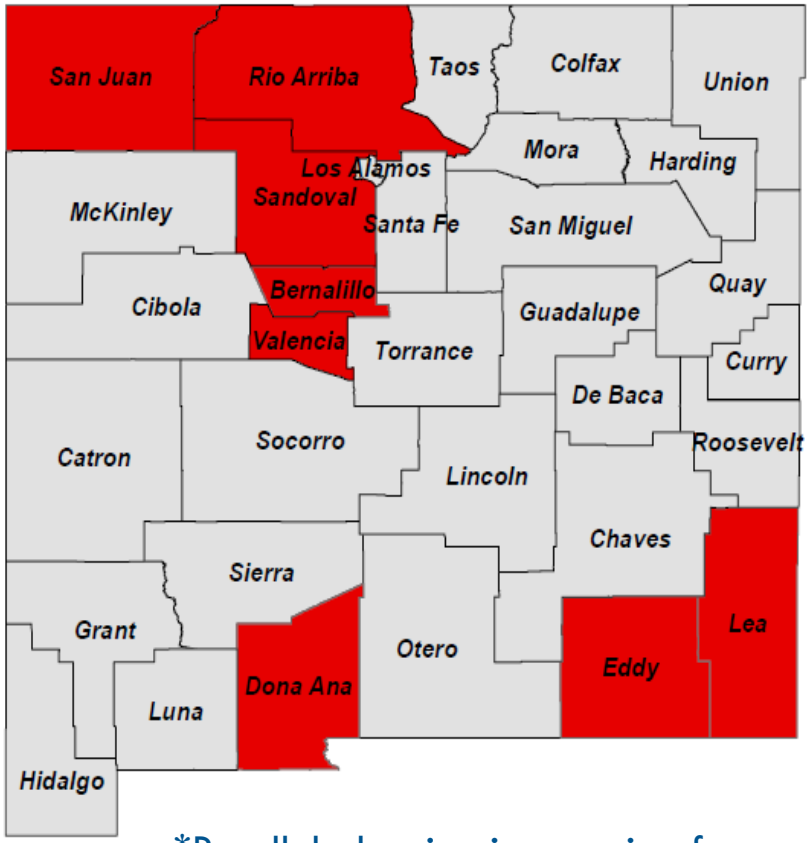
- If the EIB finds that sources cause or contribute to ozone concentrations in excess of ninety-five percent of a national ambient air quality standard for ozone, then
- NMED shall adopt a plan to control oxides of nitrogen and volatile organic compounds.

Affected Monitoring Stations*



- Includes CABQ/EHD O_3 monitoring sites. Each monitoring station includes several air monitors that each monitor a different pollutant.

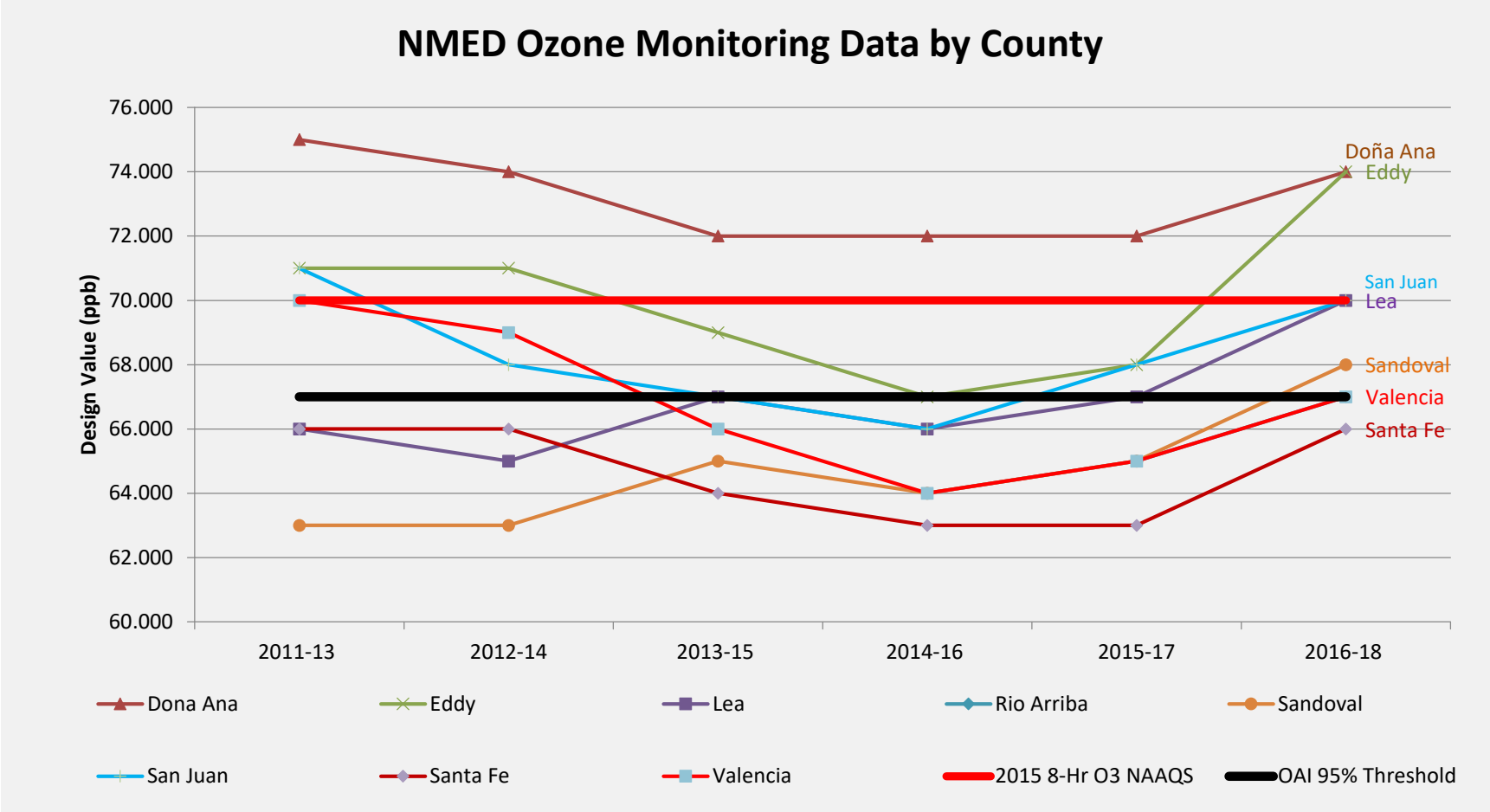
Focus Areas



*Parallel planning is occurring for Bernalillo County through the Albuquerque/Bernalillo County Department of Environmental Health

- Counties within 95% of the standard:
  - San Juan (Navajo Lake, 70 ppb)
  - Doña Ana (several monitors, 74 ppb)
  - Eddy (Carlsbad, 74 ppb)
  - Lea (Hobbs, 70 ppb)
  - Rio Arriba (Coyote, 67 ppb)
  - Sandoval (Bernalillo, 68 ppb)
  - Valencia (Los Lunas, 67 ppb)

NMED Ozone Monitoring Data by County

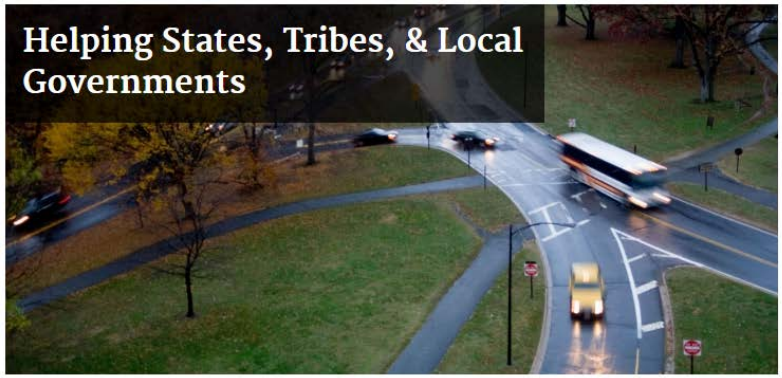


95% of the 70 ppb standard ≥ 67 ppb

How Will NMED Implement the OAI?

- Data Gathering
  - Emissions Inventories, Modeling and Continued Monitoring
    - O_3 and NOx Concentrations
    - Source sector contributions
    - Ozone formation and its transport
- Mandatory and/or Voluntary Measures
  - Normal NMED rulemaking process
  - EPA's Ozone Advance Program
- Robust stakeholder involvement
  - Stay informed through the OAI Listserv!

Ozone Advance



Currently, 38 areas are actively participating in Advance. These areas are located in 21 states and 9 of the 10 EPA Regions. They include 21 Ozone Advance areas, 7 PM Advance areas, and 10 areas that are participating in both Ozone and PM Advance.

- Is a collaborative effort by EPA, states, tribes and local governments to encourage emission reductions to help them continue to meet the NAAQS
- Take near-term steps to improve local air quality and ensure continued health protection
- Flexibility, participant determine their own goals and the measures
- Actions taken could better position an area to handle nonattainment requirements.

https://www.epa.gov/advance

Why are Early Efforts Important

- Local steps to reduce air pollution voluntarily, before becomes a requirement
- Improving air quality to ensure continued health protection
- Proactive efforts could better position areas to stay in attainment.
- Areas working voluntarily to reduce air pollution have more flexibility to choose measures that make sense to them
  - Once a nonattainment designation has occurred, less flexibility is available

Projected Timeline*

- **2018**
  - **Spring**
    - Kick off OAI planning meeting; and
    - Development of outreach and educational materials.
- **2019**
  - **Summer**
    - Initial public outreach including education and initial input request.
  - **Fall/Winter**
    - Conduct modeling;
    - Research and review mandatory or voluntary control measures; and
    - Additional public outreach.
- **2020**
  - **Winter/Spring**
    - Gather input; and
    - More public comment opportunities.
  - **Summer**
    - Analyze input;
    - Develop rules; and
    - Other measures for inclusion in programs.
  - **Fall/Winter**
    - OAI Plan drafted and released with formal comment period; and
    - EIB hearing to adopt proposed plan/rules.

*Note that NMED is in the initial stages of planning, which only includes the educational component and planning for public outreach. No rules/programs have yet been discussed.

Path Forward and Next Steps

Path Forward

- Modeling and Data Analyses
  - Identify source categories causing elevated ozone
  - Predict effectiveness of a proposed strategy or control measure
- Control and pollution reduction measures
  - Once sources and types are identified, a list of potential air quality improvements and/or emission reduction options can be developed

How can stakeholders get involved?

- NMED is committed to a robust, transparent process where feedback and suggestions are encouraged.
- Provide input!
  - Attend public meetings
  - Share comments and suggestions
- Stay current
  - OAI Listserv: public.govdelivery.com/accounts/NMED/subscriber/new
  - OAI webpage: www.env.nm.gov/air-quality/o3-initiative/
  - Air Monitoring Network: https://www.env.nm.gov/air-quality/air-monitoring-network-2/

Questions or comments?

Thank you. We look forward to working with our stakeholders.

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