

Ozone Advance Progress Report

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Washoe County Planning Commission

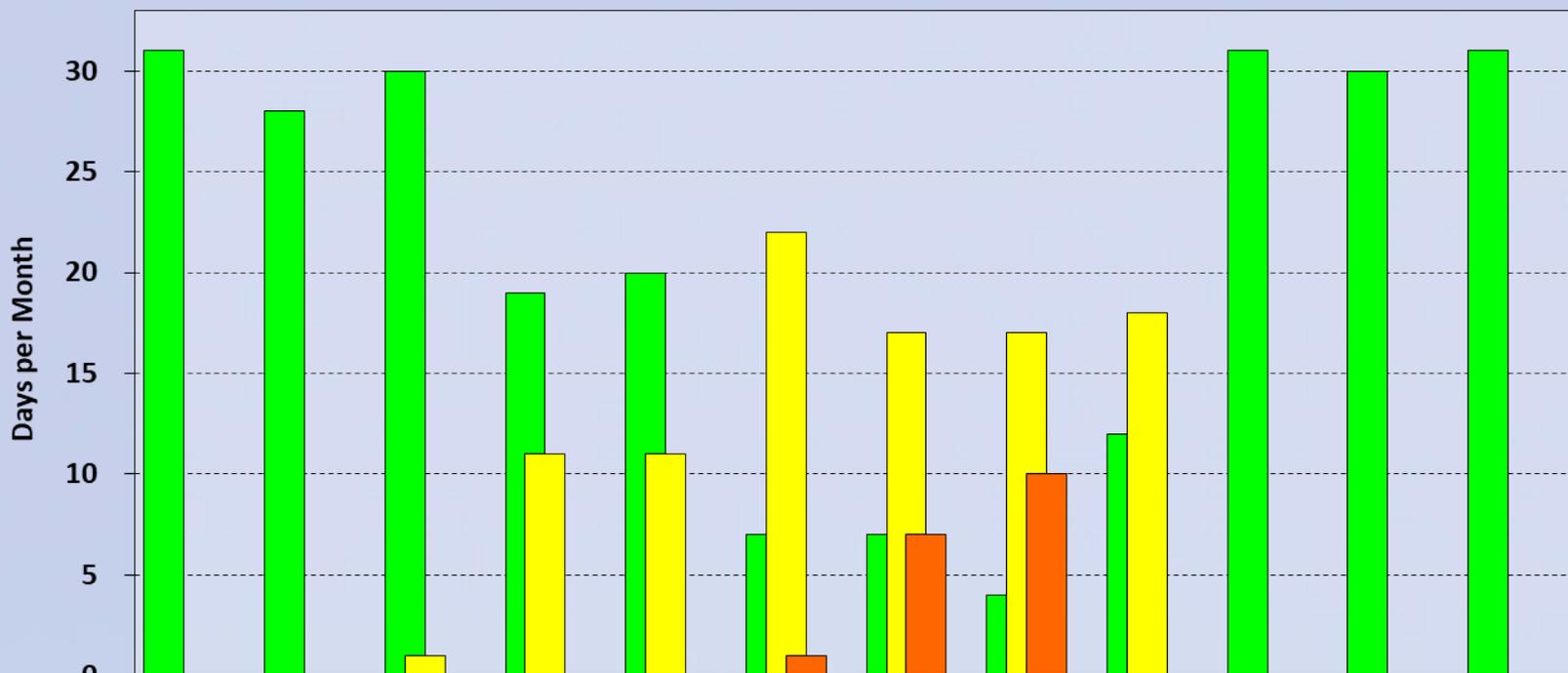
November 5, 2019

Reno NWS

National Ambient Air Quality Standards (NAAQS)

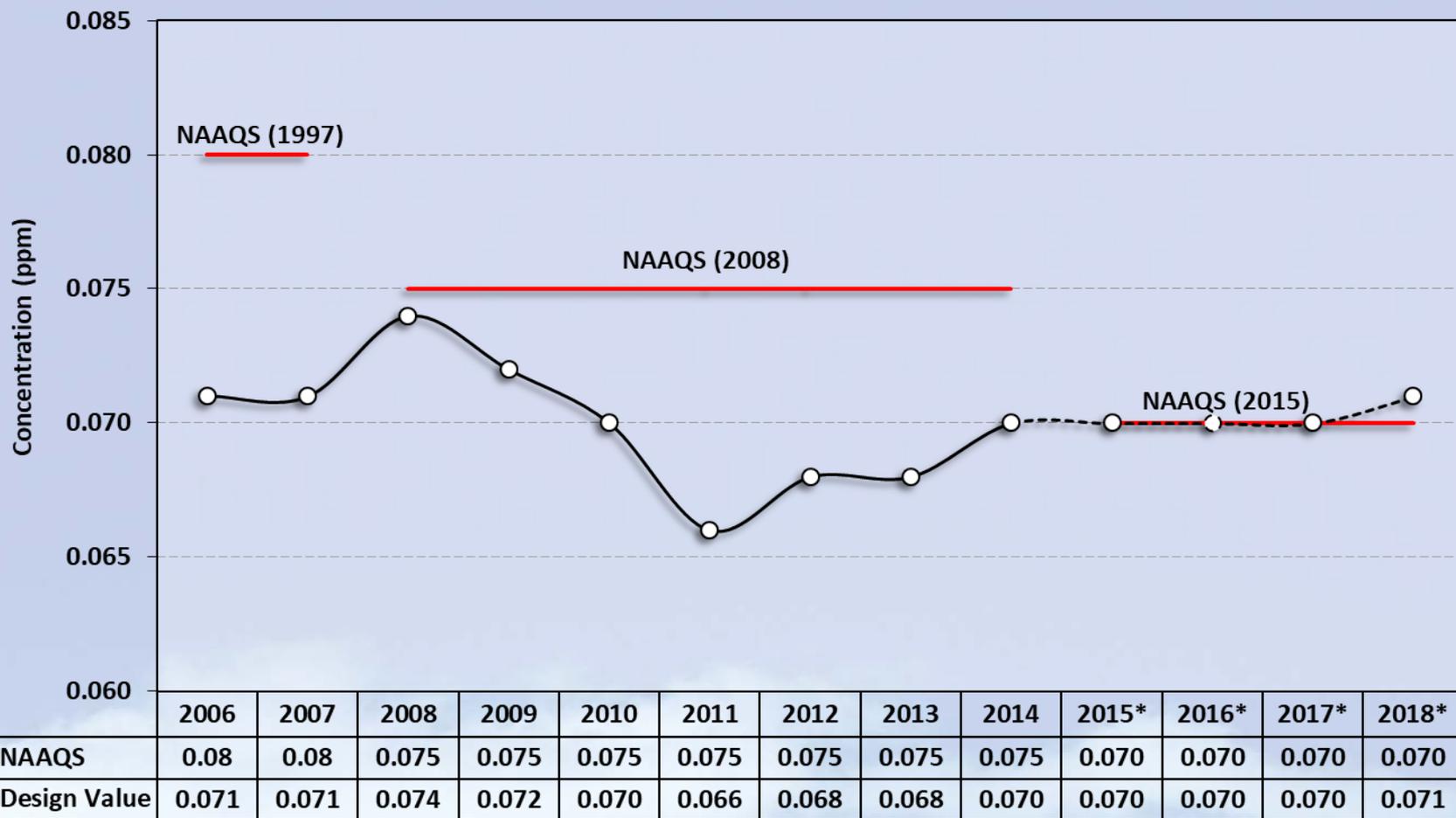
Pollutant	Averaging Time	Level	Design Value (2018)
Ozone	8-hour	0.070 ppm	0.071 ppm*
PM _{2.5}	24-hour Annual	35 mg/m ³ 12 mg/m ³	25 mg/m ³ 7.6 mg/m ³
PM ₁₀	24-hour	150 mg/m ³	0.0 expected exceedances
Carbon Monoxide	8-hour 1-hour	9 ppm 35 ppm	2.2 ppm 2.7 ppm
Nitrogen Dioxide	1-hour Annual	100 ppb 53 ppb	48 ppb 12 ppb
Sulfur Dioxide	1-hour	75 ppb	5 ppb
Lead	3-month	0.15 mg/m ³	n/a

Ozone (2018)



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Good	31	28	30	19	20	7	7	4	12	31	30	31
Moderate	-	-	1	11	11	22	17	17	18	-	-	-
USG	-	-	-	-	-	1	7	10	-	-	-	-
Unhealthy or worse	-	-	-	-	-	-	-	-	-	-	-	-

Ozone Trend (2006-18)

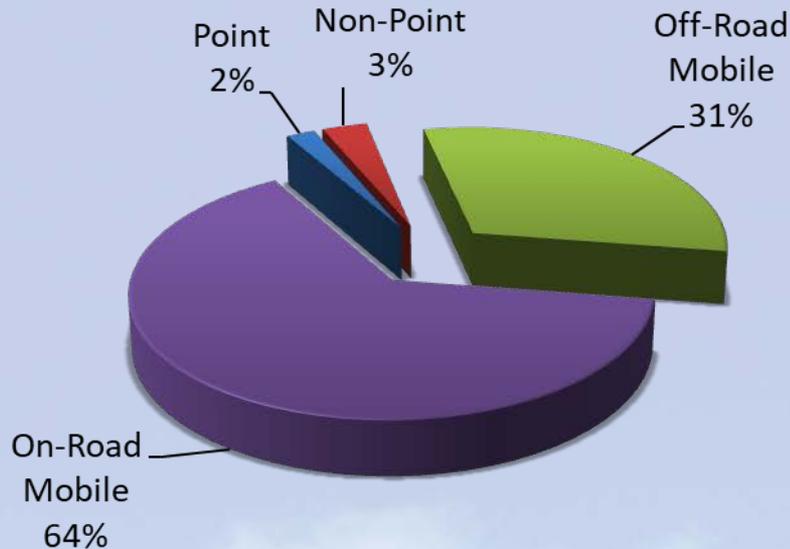


How did we get to 100% of the NAAQS?

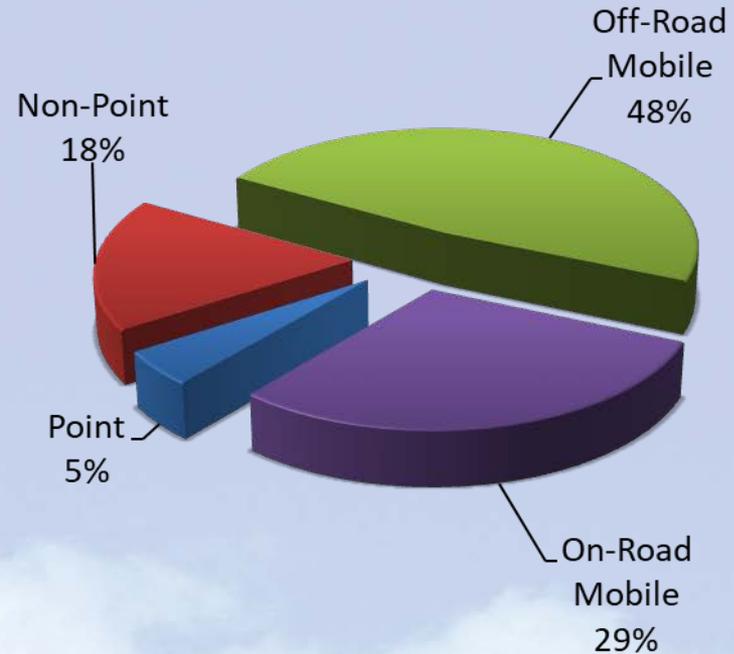
- EPA strengthens Ozone NAAQS (97, 08, 15)
- Economic Recovery and Growth (11 - today)
 - Population, Employment, VMT, Ozone
- WC Health participates in Ozone Advance (16)
- Resolutions supporting Ozone Advance (16)

Ozone = NOx + VOC + Sunlight

NOx
(71,194 lbs/day)



VOC
(70,245 lbs/day)



Health District's Approach

- Incorporate Ozone Advance goals into:
 - Region-wide plans
 - Local plans
 - Other long-term plans
 - Priorities
- Top-Down support
- Goals target Technology, Behavior, and Built Environment

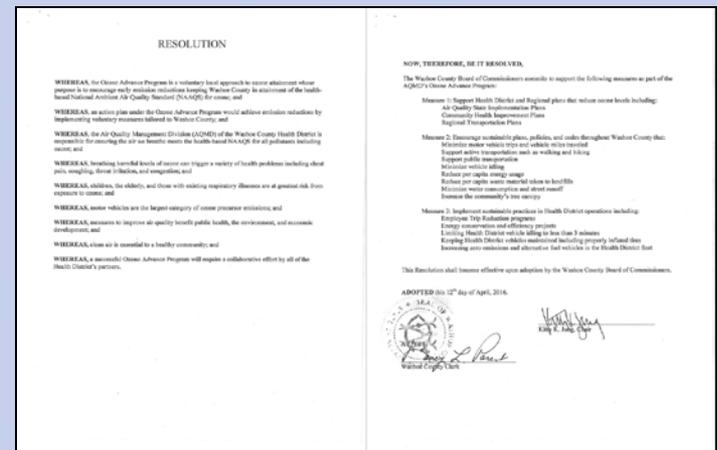


Ozone Advance's 5 Goals

1. Reduce impacts from on-road motor vehicles
 - a) Trips, VMT, Tailpipe Emissions. . . not LOS
2. Reduce impacts from off-road motor vehicles
3. Reduce impacts from Urban Heat Island
4. Increase efficiency of buildings
5. Educate and empower champions to make good decisions for a Healthy Community

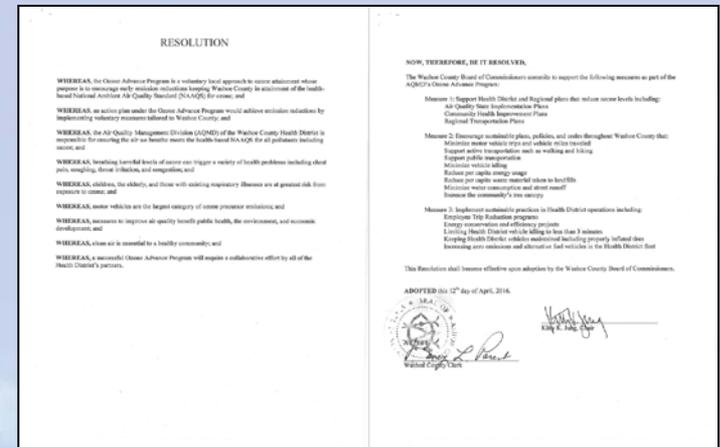
Top-Down Support

- Adopted Resolutions
 - District Board of Health
 - BCC
 - City of Reno
 - City of Sparks
 - RTC
 - Regional Planning Governing Board
- Jurisdictions cover all of Washoe County
 - especially Reno/Sparks area



BCC Resolution of Support (April 2016)

- Encourage plans, policies, and codes that:
 - Minimize motor vehicle trips and VMT
 - Support active transportation and transit
 - Reduce per capita
 - Energy and water usage
 - Waste material to landfills
 - Reduce stormwater runoff
 - Increase tree canopy



Connections Between Development and Air Quality

- Transportation
 - Largest category of ozone precursors
 - Reduce number and length of trips
 - Smart Trips (employee trip reduction)
 - Active transportation (ped and bike)
 - Transit
 - Reduce per mile emission rates
 - Cleaner technology such as Electric Vehicles
- Energy
 - Conservation and efficiency
 - Avoided emissions

Connections Between Development and Air Quality

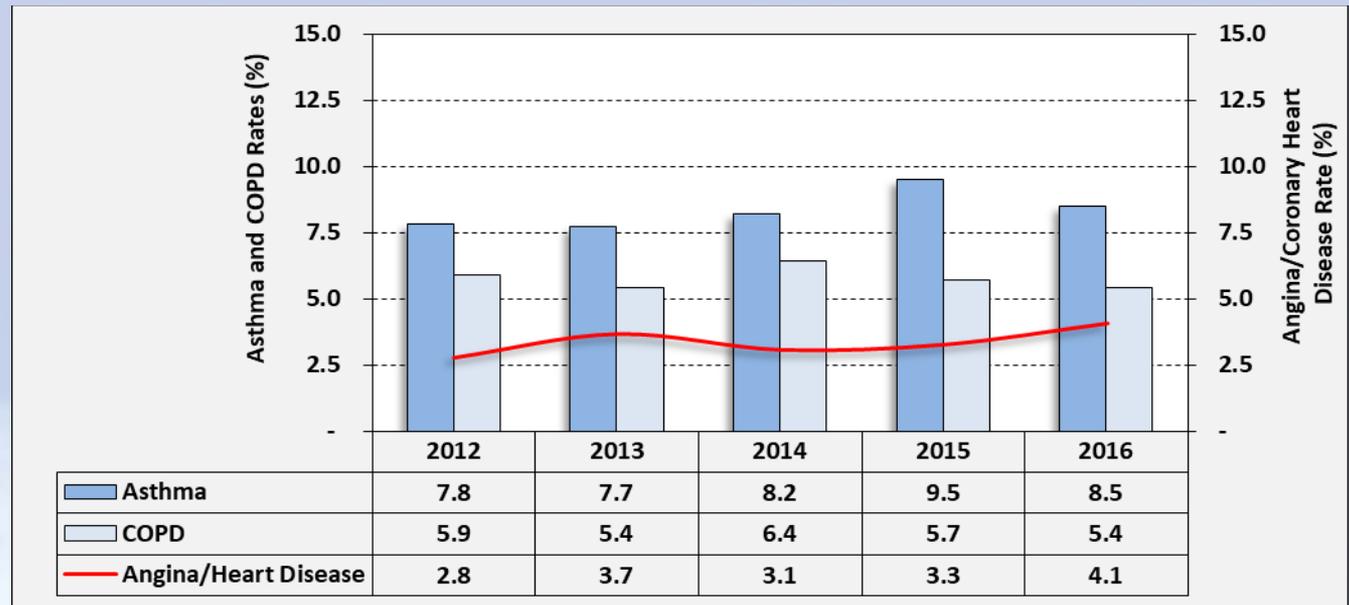
- Schools
 - Central location
 - Reduces need for bus routes
 - Multimodal transportation options and connectivity
- Urban Heat Island
 - Increases energy usage for comfort cooling
 - Increases heat vulnerability
- Construction Impacts
 - Portion of second largest category of ozone precursors

Example: Co-Benefits of Tree Canopies

- Acts as a cool corridor/island
 - Reduces energy use and heat vulnerability
- Walking/biking becomes a more attractive option
 - Reduces vehicle trips and congestion
- Improves stormwater management
 - Reduces amount and temperature of runoff
- Lengthens pavement life
 - Reduces maintenance costs

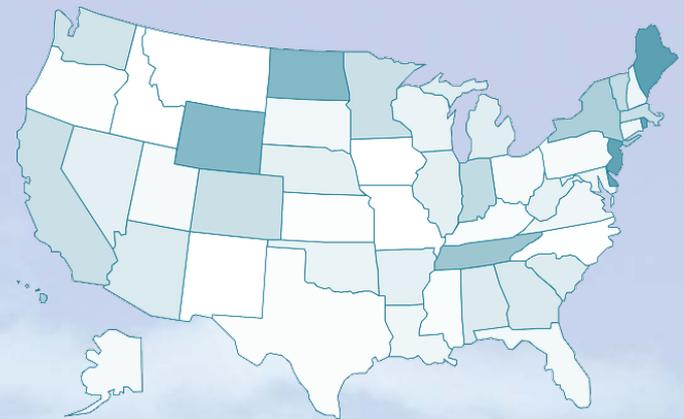
What Does Long-Term “Non-Attainment” Mean in the Future?

- Environmental Health: Poor air quality
- Public Health: Higher rates of chronic diseases such as asthma, COPD, and diabetes



What Does Long-Term “Non-Attainment” Mean in the Future?

- Economic Health: Economy can grow, but growth must be connected to improved air quality
 - Clean Air Act requires progressively more stringent requirements until the NAAQS is met
 - Additional pollution control equipment for industry
 - Regional Transportation Plan revision
 - Transportation Conformity, MVEB . . . and fewer VMT
 - Emission offsets up to 1.5 : 1
 - Federal Implementation Plan
 - Loss of federal highway dollars
 - Adjacent counties and states become more attractive for new and expanding businesses



What can the Planning Commission do?

- Recognize . . .
 - The environmental, public health, and economic impacts of not meeting the ozone standard
 - A collaborative effort is needed by regional partners such as Washoe County and the Health District to meet the Ozone standard
- Encourage . . .
 - “Better than Business as Usual” projects
 - Smart trips programs, Increased tree canopy, Cool roofs, . . .
 - Ordinances, codes, and policies that support Ozone Advance

Takeaways

- “Business as Usual” = 100% of ozone standard
- Ozone = Vehicle Trips, VMT, and Fleet Mix
- Washoe County and PC can encourage . . .
 - “Better than Business as Usual” projects
 - Strategies that support meeting the Ozone standard
- Supporting Ozone Advance also supports . . .
 - WC Master Plan; WC Energy and Sustainability Strategy; Regional Plan; a Healthy Community; and many more plans. . .

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**** 2014 EPA Gregg Cooke Visionary Program Award ****

Ozone Trend (2006-18)

