

Second 10-Year Maintenance Plan for the Truckee Meadows 24-Hour PM₁₀ Attainment Area

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Background

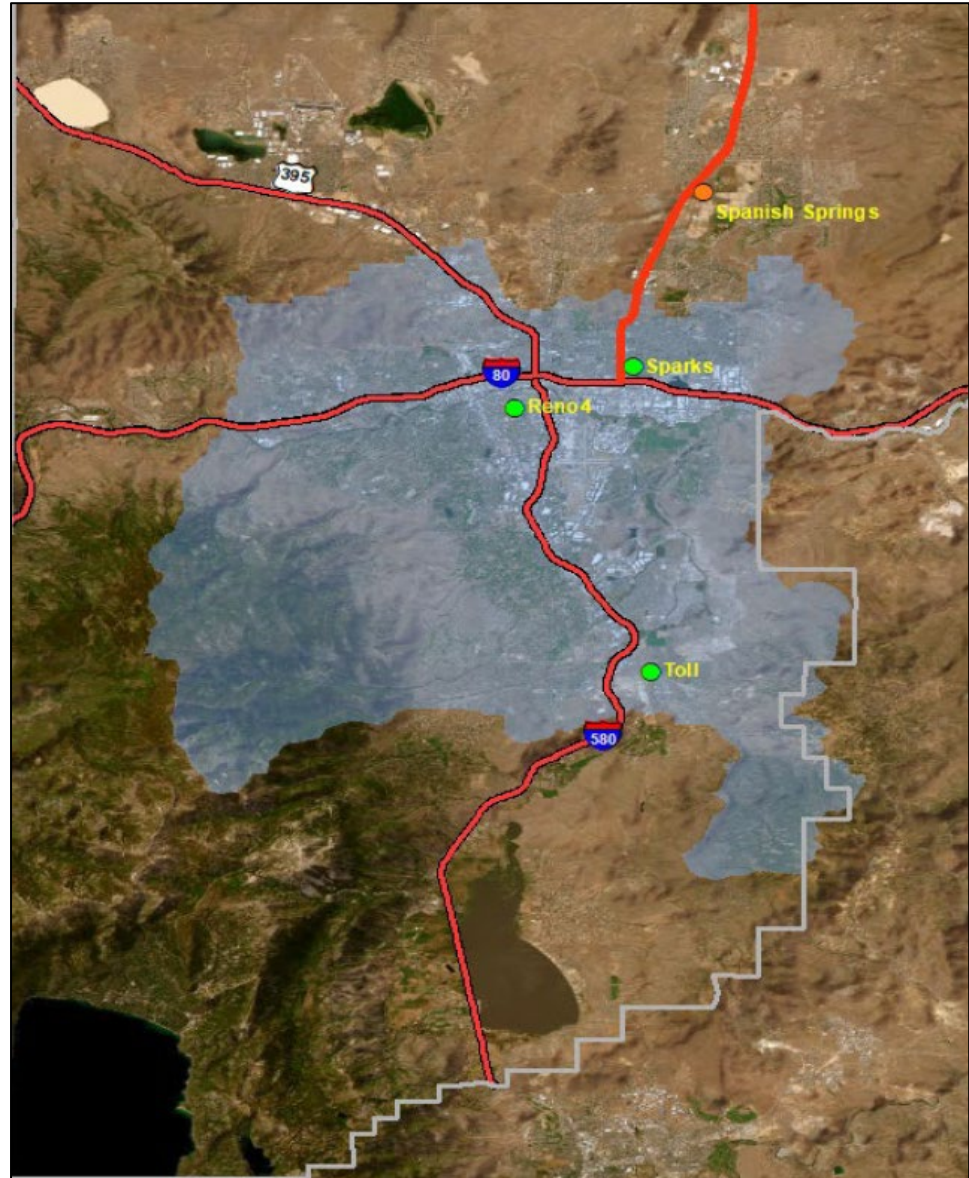
- The Clean Air Act requires the Environmental Protection Agency (EPA) to establish National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment.
- Currently, there are six criteria air pollutants.
 - Five of those six are monitored every hour of every day in Washoe County.

National Ambient Air Quality Standards

Pollutant [links to historical tables of NAAQS reviews]		Primary/ Secondary	Averaging Time	Level	Form
Carbon Monoxide (CO)		primary	8 hours	9 ppm	Not to be exceeded more than once per year
			1 hour	35 ppm	
Lead (Pb)		primary and secondary	Rolling 3 month average	0.15 µg/m ³ ⁽¹⁾	Not to be exceeded
Nitrogen Dioxide (NO₂)		primary	1 hour	100 ppb	98th percentile of 1-hour daily maximum concentrations, averaged over 3 years
		primary and secondary	1 year	53 ppb ⁽²⁾	Annual Mean
Ozone (O₃)		primary and secondary	8 hours	0.070 ppm ⁽³⁾	Annual fourth-highest daily maximum 8-hour concentration, averaged over 3 years
Particle Pollution (PM)	PM _{2.5}	primary	1 year	12.0 µg/m ³	annual mean, averaged over 3 years
		secondary	1 year	15.0 µg/m ³	annual mean, averaged over 3 years
		primary and secondary	24 hours	35 µg/m ³	98th percentile, averaged over 3 years
	PM ₁₀	primary and secondary	24 hours	150 µg/m ³	Not to be exceeded more than once per year on average over 3 years
Sulfur Dioxide (SO₂)		primary	1 hour	75 ppb ⁽⁴⁾	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years
		secondary	3 hours	0.5 ppm	Not to be exceeded more than once per year

EPA Designations

- Whenever a NAAQS is revised, strengthened, or is newly promulgated by the EPA, all geographic areas are subject to be designated by the EPA as attainment/unclassifiable or nonattainment.
- Attainment/unclassifiable means an area that meets the primary or secondary NAAQS.
- Nonattainment means an area does not meet the primary or secondary NAAQS.



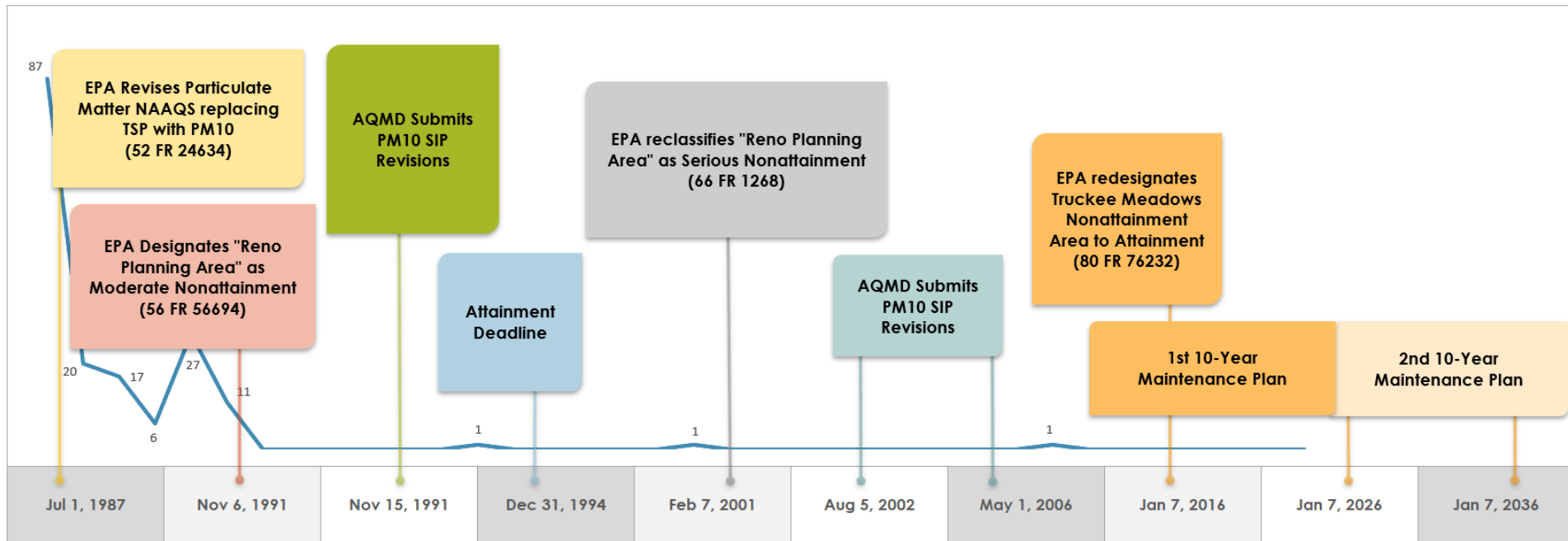
Nonattainment

- A nonattainment area means the air pollution within a geographic boundary can negatively impact human health and/or the environment.
- A nonattainment designation requires the state or delegated air agency to become attainment at a certain date depending on severity of the air pollution via the State Implementation Plan (SIP). These are known to you as our rules and regulations.
- Going from nonattainment to attainment isn't achieved overnight.

Maintenance Plans

- If an area goes from being designated as nonattainment to attainment, it does not mean the work is done.
- An air agency must further prove to EPA that it can maintain the attainment designation for decades into the future via two 10-year maintenance plans.
- Maintenance plans use emission inventories and growth factors from a baseline year to the horizon year (the 10th year of the plan) to demonstrate continued attainment.

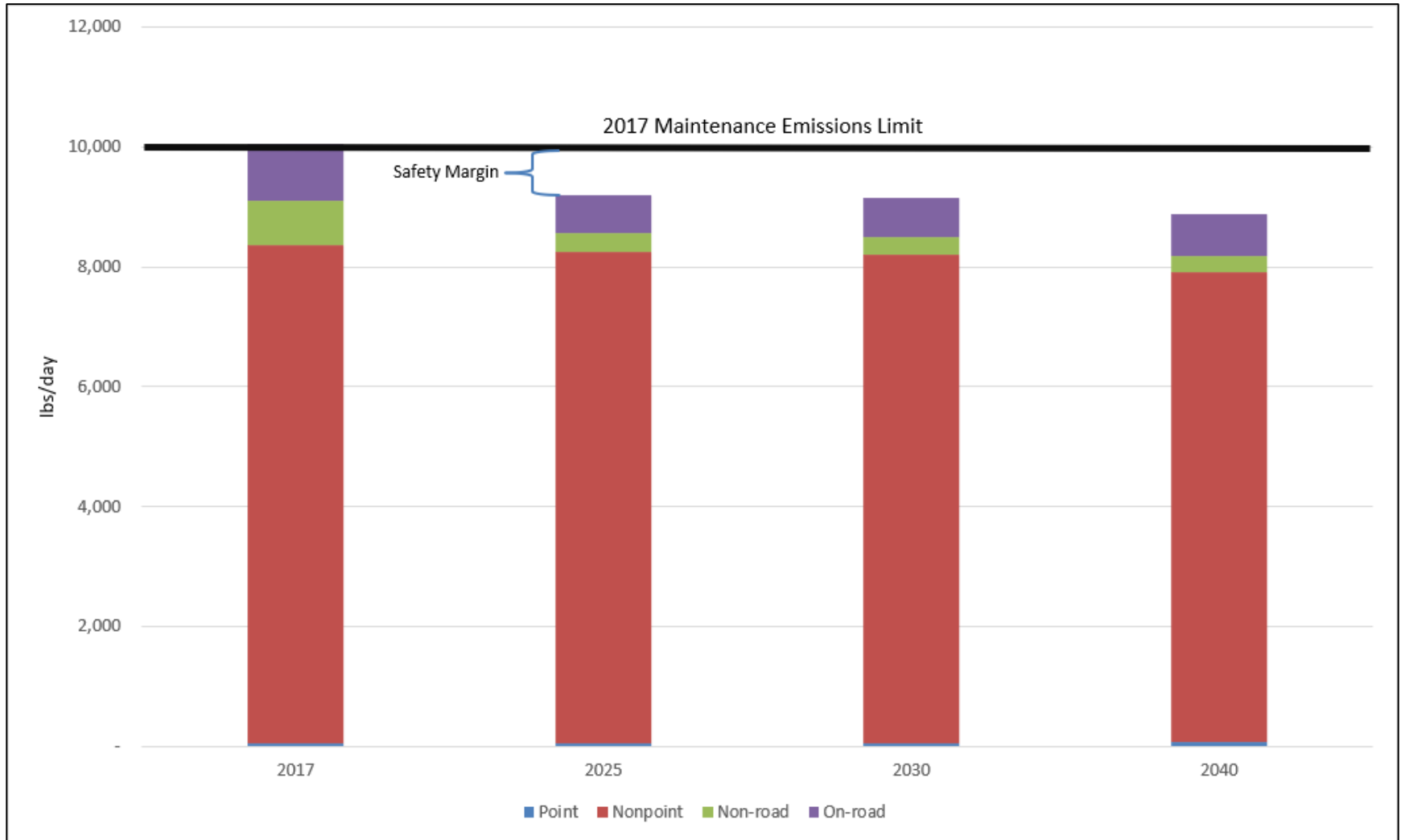
From Nonattainment to Maintenance for PM₁₀ in Washoe County



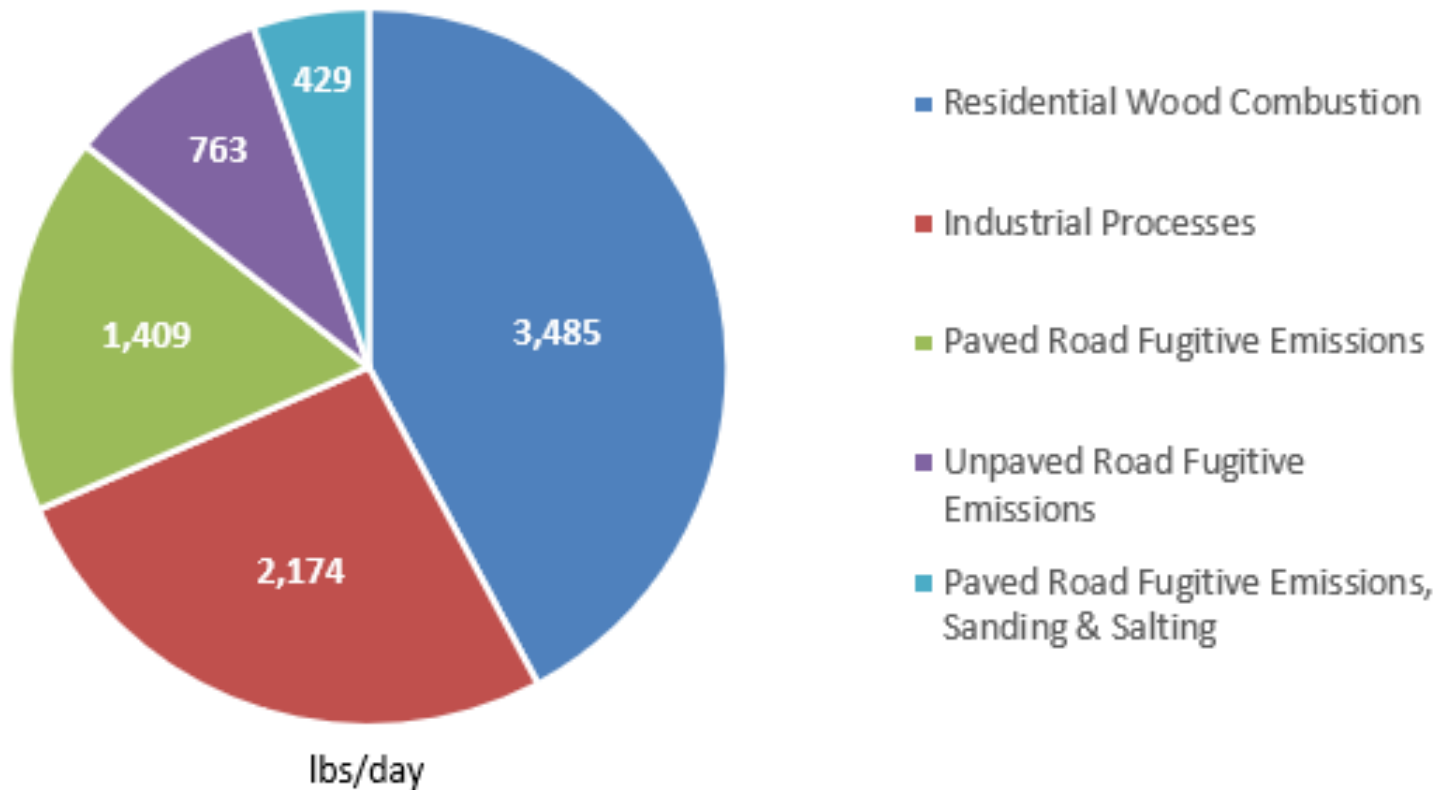
Second 10-Year Maintenance Plan for PM₁₀

- Using 2017 as a baseline year, the Second 10-Year Maintenance Plan for the Truckee Meadows 24-Hour PM₁₀ Attainment Area demonstrates that emissions from all local sources within the Truckee Meadows Hydrographic Area will not cause our air pollution to violate the 24-Hour PM₁₀ NAAQS through 2036 and beyond.
- The plan also:
 - Revises the Motor Vehicle Emissions Budget (MVEB) used by the Regional Transportation Commission of Washoe County.
 - Lists potential contingency measures that can be used
 - Revises the Washoe County portion of the PM₁₀ SIP

PM₁₀ Emissions Projections



Nonpoint Wintertime PM₁₀ Sources



Motor Vehicle Emissions Budget

Category	2017	2025	2030	2040
Road Construction	505	253	269	285
Paved Roads - Fugitives	1409	1,767	1,870	2,015
Unpaved Roads - Fugitives	763	742	653	430
On-Road Vehicles	954	643	665	706
Safety Margin	N/A	857	904	1,173
Motor Vehicle Emissions Budget	N/A	4,262	4,361	4,609

- The Motor Vehicles Emissions Budget (MVEB) includes Road Construction, Paved/Unpaved Roads Fugitives, On-road Vehicles and a Safety Margin (lbs/day).
- The MVEB in this plan is set at a level that keeps the intermediate and horizon years' emissions less than the 2017 Truckee Meadows maintenance emissions limit.
- This MVEB replaces the previous MVEB set in 2016 for the First 10-Year Maintenance Plan.

Potential Contingency Measures

Emission Category	Potential Contingency Measure
Paved Roads	• Increase stringency of street sanding and sweeping programs • Transportation control measures to reduce VMT
Unpaved Roads	• Improve unpaved roads and shoulders • Post speed limits to decrease vehicle speeds • Restrict access to decrease ADT and VMT
Dust Control	• Phased mass grading • Mass grading allocation system • Stabilize projects during PM₁₀ season • Decrease one acre dust control permit exemption
Residential Wood Combustion	• Increase one acre lot size exemption • Mandatory curtailment at lower PM₁₀ concentrations • Change-out program to cleaner burning device
Mobile Sources (Diesel)	• Non-road & on-road diesel engine repowers and rebuilds • Non-road & on-road diesel tailpipe controls • Truck Stop Electrification systems for heavy-duty vehicles • Fleet modernization • More stringent inspection & maintenance program of light-duty, medium-duty vehicles, and heavy-duty vehicles

Takeaways

- Two 10-Year Maintenance Plans are required after a nonattainment area is redesignated attainment by EPA.
- This Second 10-Year Maintenance Plan demonstrates future attainment of the PM₁₀ NAAQS within the Truckee Meadows Hydrographic Area 87 until 2040.
- This is a long-term process that has far reaching implications for the regulated community, economic development, and the public.
- Being designated as nonattainment should be avoided for all criteria air pollutants especially ozone by staying in attainment via voluntary measures.

Questions?

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