

**FEATHER RIVER AIR QUALITY MANAGEMENT DISTRICT  
MEMORANDUM  
02/27/2023**

**TO:** FRAQMD BOARD OF DIRECTORS

**FROM:** Christopher D. Brown, AICP, APCO

**SUBJECT:** Proposed Reconsideration of the National Ambient Air Quality Standards for Particulate Matter

**BACKGROUND:**

The United States Environmental Protection Agency (US EPA) sets health based ambient air quality standards for several pollutants. These standards are known as National Ambient Air Quality Standards, or NAAQS. The NAAQS are issued for pollutants for which a level can be established to protect public health and welfare, including ground level ozone and particulate matter. The Clean Air Act requires that US EPA re-evaluate current scientific evidence every five years to determine if the NAAQS are set at an adequate level.

The US EPA last reviewed the particulate matter NAAQS in 2020. At that time, the primary and secondary standards for coarse particulate matter (PM10) and fine particulate matter (PM2.5) were retained. Primary standards are set to protect public health; Secondary standards are set to protect welfare (i.e., damage to crops/forests).

Primary PM NAAQS established in 2020

Pollutant	Standard	Not to Exceed	Form
PM2.5	24-hour or daily	35 micrograms per cubic meter (µg/m <sup>3</sup> )	98 <sup>th</sup> percentile averaged over three years
PM2.5	Annual Average	12.0 µg/m <sup>3</sup>	Averaged over three years
PM10	24-hour or daily	150 µg/m <sup>3</sup>	Not to be exceeded more than once per year averaged over three years

The 24-hour PM<sub>2.5</sub> NAAQS was lowered to 35 µg/m<sup>3</sup> in 2006. The Yuba City – Marysville area was designated as not meeting the standard, or “nonattainment” effective in 2009. This designation triggered numerous Clean Air Act requirements to ensure the area attained the standard by the earliest possible date. The Yuba City – Marysville area was found to have met the standard and was re-designated to “attainment” effective January 2015.

In June 2021 US EPA announced its decision to reconsider the 2020 PM NAAQS final action, because available scientific evidence and technical information indicate the current standards may not be adequate to protect public health and welfare.

**DISCUSSION:**

On January 27, 2023, the US EPA published in the Federal Register<sup>1</sup> a proposed rule to reconsider the 2020 decision on the PM NAAQS. The proposed decision is to revise the primary annual PM<sub>2.5</sub> standard, and retain all other primary and secondary standards, but they are taking public comments on what level to set the annual PM<sub>2.5</sub> standard and whether to lower the primary 24-hour PM<sub>2.5</sub> standard.

Proposed Decision 2023 and Preliminary FRAQMD 2022 Data

Pollutant	Standard	Range	Yuba City 2022 Preliminary Data
PM <sub>2.5</sub>	Annual average	9.0 to 11.0 µg/m <sup>3</sup>	10.8 µg/m <sup>3</sup>
PM <sub>2.5</sub>	24-hour or daily	25 – 35 µg/m <sup>3</sup>	27.6 µg/m <sup>3</sup>

The US EPA is taking public comment on the proposed reconsideration until March 28, 2023. A final decision is expected in fall of 2023. Within two years of the effective date of the final decision, US EPA will designate areas as attainment or nonattainment for the standards that are revised. Standards that are retained will not trigger designations. Areas designated as nonattainment must submit a plan showing how they will meet the standard, known as an Attainment Plan, within 18 months of designation. Nonattainment areas must meet the revised standard no later than six years after designations, or additional requirements may apply.

<sup>1</sup> 88 FR 5558-5719 January 27, 2023

Estimated Timeline for 2023 Reconsideration of PM NAAQS



The District has one monitoring station that collects PM<sub>2.5</sub> and PM<sub>10</sub> data. It is located in downtown Yuba City on Almond Street and is representative of particulate matter concentrations in the greater Yuba City and Marysville area. The preliminary monitoring data from 2022 show that the area is meeting the current annual average and daily average standards but depending on the level the new standard is set, may not meet the most stringent levels proposed.

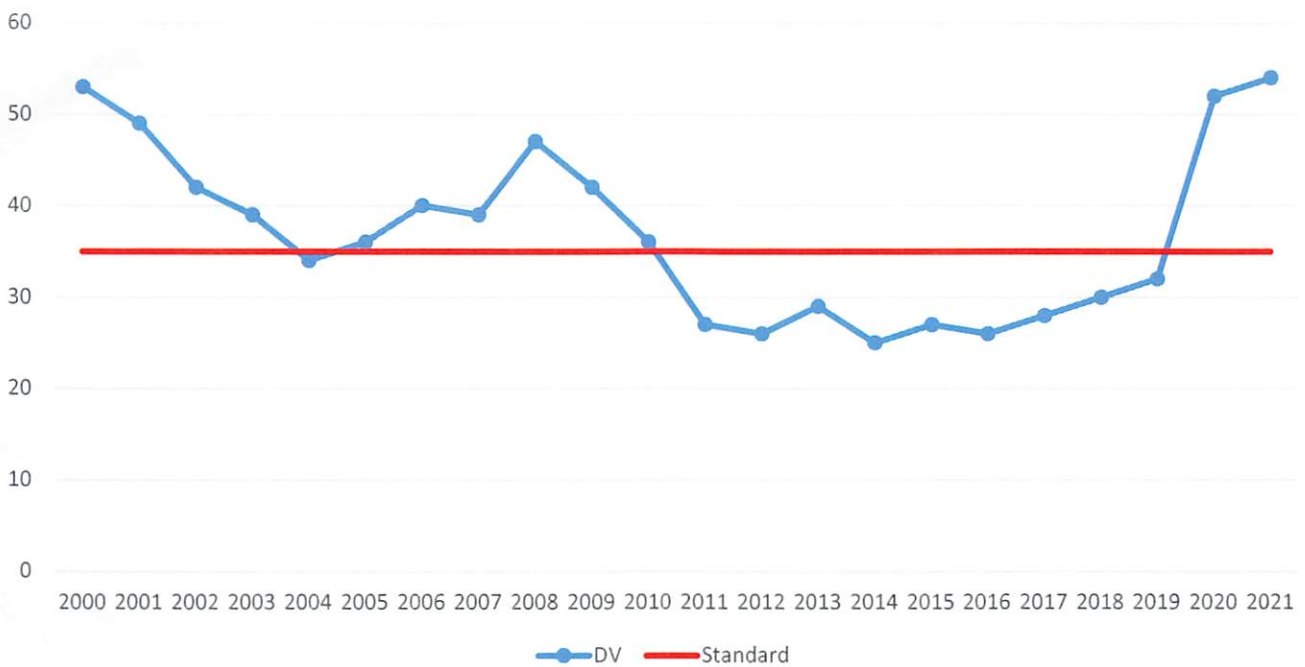
Impact of Exceptional Events on Designations

The District experienced significant wildfire smoke events in 2020 and 2021 which impacted the monitoring data. The Board will be receiving an informational item regarding the removal of data deemed “exceptional events” from regulatory consideration at this meeting that is currently out for public review and comment. The 2020 and 2021 Exceptional Event Demonstrations seek to remove data affected by wildfire smoke that are impacting the District’s ability to show attainment and maintenance of the 2006 PM<sub>2.5</sub> NAAQS. Work on these Demonstrations began many months before US EPA announced its proposed reconsideration of the 2020 decision, and only removes monitoring data preventing the area from showing attainment with the previous 24-hour PM<sub>2.5</sub> standard of 35 µg/m<sup>3</sup>. It is unknown at this time whether another exceptional event demonstration would be required if the US EPA lowers the annual average or daily PM<sub>2.5</sub> standard. The District staff estimates that the State’s recommended designations will use 2021 through 2023 monitoring data, but the US EPA’s final designations will use 2022 through 2024 data so 2020 and 2021 are not likely to factor into the final designations.

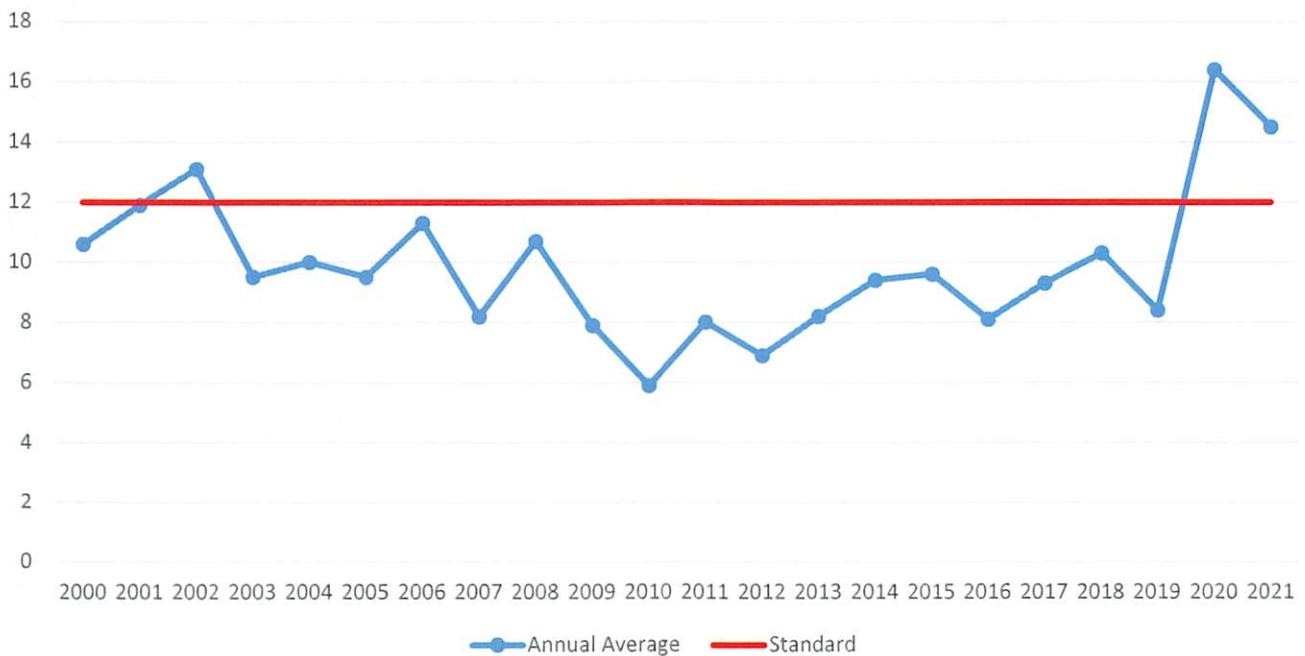
The following charts show the 24-hour PM<sub>2.5</sub> design value and annual average for the Yuba City – Marysville area from 2000 to 2021. Until the wildfire smoke impacts in 2020 and 2021, the area has met annual average since 2003 and the 24-hour standard since 2011. Once the Exceptional Event Demonstrations are approved by US EPA the 24-hour design values for 2020 and 2021 will be 33.8 µg/m<sup>3</sup> and 34.1 µg/m<sup>3</sup>. The annual averages for 2020 and 2021, with the same exceptional events removed for the annual average that were requested to be removed for the daily NAAQS, would be 11.3 µg/m<sup>3</sup> and 14.0 µg/m<sup>3</sup>.

Since only exceptional events that impact a regulatory determination are being considered by US EPA, not all of the data impacted by wildfire smoke will be requested to be removed. Thus the 24-hour and annual average design values for 2020 and 2021 will remain higher than historical data even after US EPA acts on the exceptional event requests.

Yuba City - Marysville Daily PM2.5 Design Value



Yuba City - Marysville Annual Average PM2.5



**FISCAL IMPACT:**

The District's staff time on the PM NAAQS will be included in the applicable fiscal year's budget.