

FEATHER RIVER AIR QUALITY MANAGEMENT DISTRICT
MEMORANDUM
04/08/2024

TO: FRAQMD BOARD OF DIRECTORS

FROM: Christopher D. Brown, AICP, APCO

SUBJECT: Informational Item on New 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 particulate matter NAAQS include coarse (PM₁₀) and fine (PM_{2.5}) particles, primary and secondary standards, and an annual and 24-hour standard.

The 24-hour PM_{2.5} NAAQS was lowered to 35 µg/m³ in 2006 and 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. The District prepared and submitted the second maintenance plan, a condition of redesignation to attainment, last year for this standard.

On January 27, 2023, the US EPA published in the Federal Register¹ a proposed rule to reconsider the 2020 decision on the PM NAAQS. The proposed decision is to revise the primary annual PM_{2.5} standard, and retain all other primary and secondary standards, but they are taking public comments on what level to set the annual PM_{2.5} standard and whether to lower the primary 24-hour PM_{2.5} standard.

¹ 88 FR 5558-5719 January 27, 2023

DISCUSSION:

On February 7, 2024, the US EPA announced a final rule to strengthen the primary annual PM2.5 standard from 12.0 to 9.0 µg/m³². This action will be effective on May 6, 2024, and initiates a process of designating areas and submitting SIPs to the US EPA.

New Primary PM2.5 NAAQS

Pollutant	Standard	Not to Exceed	Yuba City 2022 Design Value
PM2.5	Annual average	9.0 µg/m ³	13.8 µg/m ³

Within one year California will send its recommended designations to US EPA. 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. 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.

Timeline for 2024 PM NAAQS



The District has one monitoring station that collects PM2.5. 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.

Impact of Exceptional Events on Designations

The District has experienced significant wildfire smoke events which impact the monitoring data. The District prepared the 2020 and 2021 Exceptional Event Demonstrations last year to remove data affected by wildfire smoke that impacted the District’s ability to show attainment

² <https://www.federalregister.gov/documents/2024/03/06/2024-02637/reconsideration-of-the-national-ambient-air-quality-standards-for-particulate-matter> 89 FR 16202, March 6, 2024

and maintenance of the 2006 24-hour PM2.5 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 PM2.5 standard of 35 $\mu\text{g}/\text{m}^3$. The design values shown in this memorandum includes all EE impacted data.

The year 2024 will be important in determining whether the District attains the new standard, and whether another EE demonstration is required since the final designations will be based on 2022, 2023, and 2024 data.

Chart 1 shows the annual PM2.5 design value for the Yuba City – Marysville area from 2007 to 2022. The design value is a three-year average of annual data and is used by US EPA to determine attainment of the standard. Chart 2 shows the annual averages, which vary depending on whether the District experienced prolonged wildfire smoke impacts, for example in 2008, 2018, 2020, 2021, and 2022.

Chart 1: Yuba City PM2.5 Annual Design Value ($\mu\text{g}/\text{m}^3$)

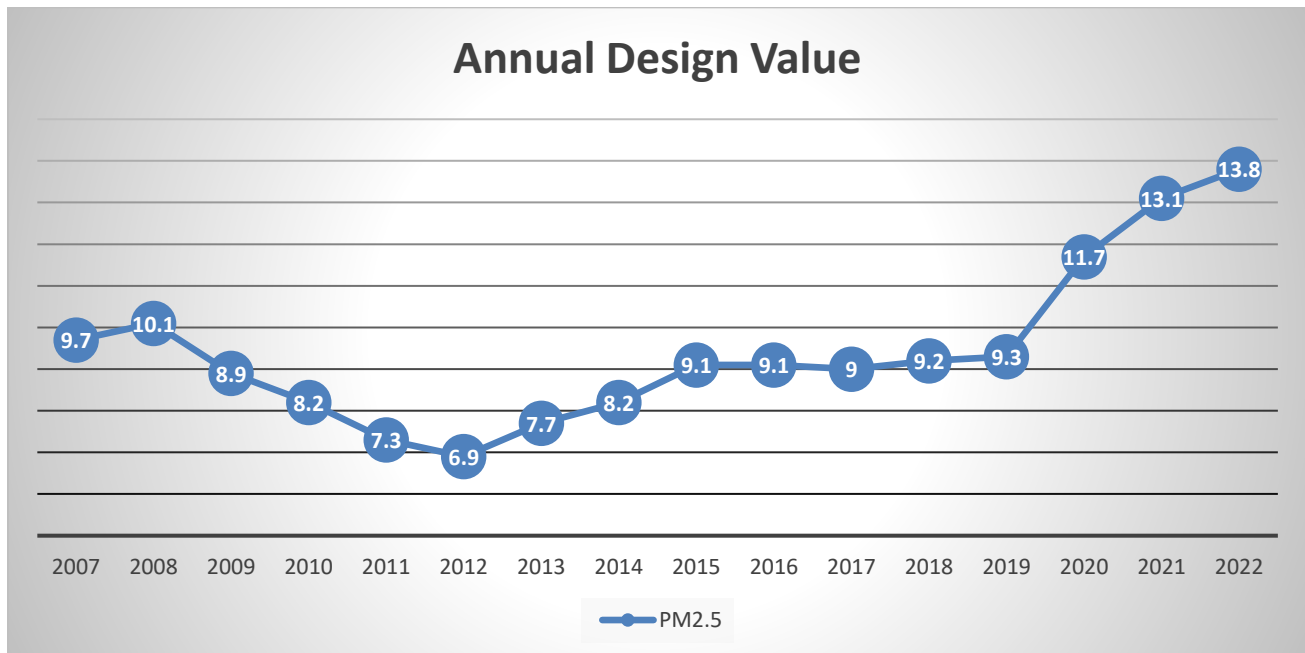
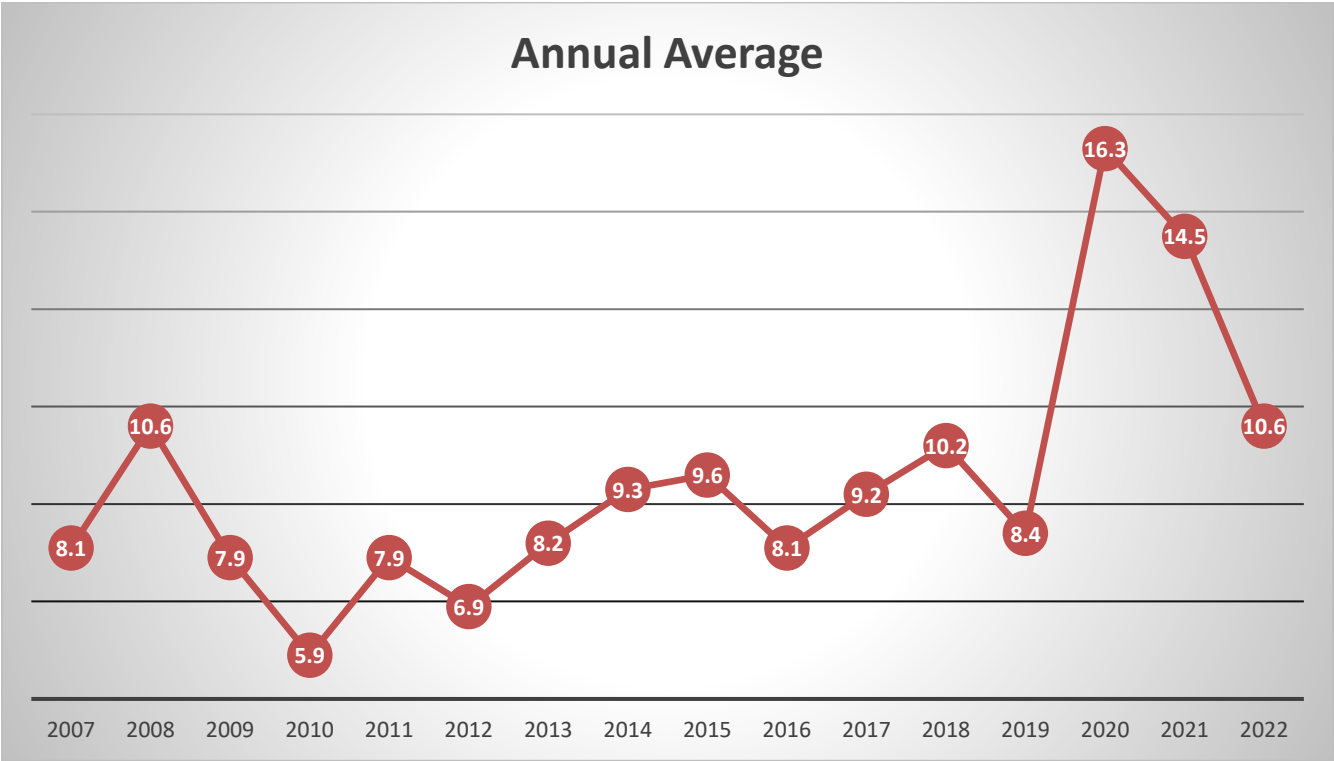


Chart 2: Yuba City PM2.5 Annual Average ($\mu\text{g}/\text{m}^3$)



The preliminary 2023 annual average was $8.4 \mu\text{g}/\text{m}^3$. Therefore, if the annual average for 2024 is $8.0 \mu\text{g}/\text{m}^3$ or less, the District will meet the new standard without the need to remove any EE impacted data.

FISCAL IMPACT:

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