



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

AGENDA: 14

PM_{2.5} National Ambient Air Quality Standards and Initial Area Designations

**Board of Directors Meeting
February 7, 2024**

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Presentation Outcome



To provide an informational update on Environmental Protection Agency's revision to the PM NAAQS and the process EPA uses to designate areas as attaining or not attaining the revised NAAQS.

Presentation Outline



- National Ambient Air Quality Standards (NAAQS)
- Designations process including exceptional events
- Preliminary 2021 - 2023 data
- Next Steps

Presentation for Information Only



No action required.

National Ambient Air Quality Standards (NAAQS)

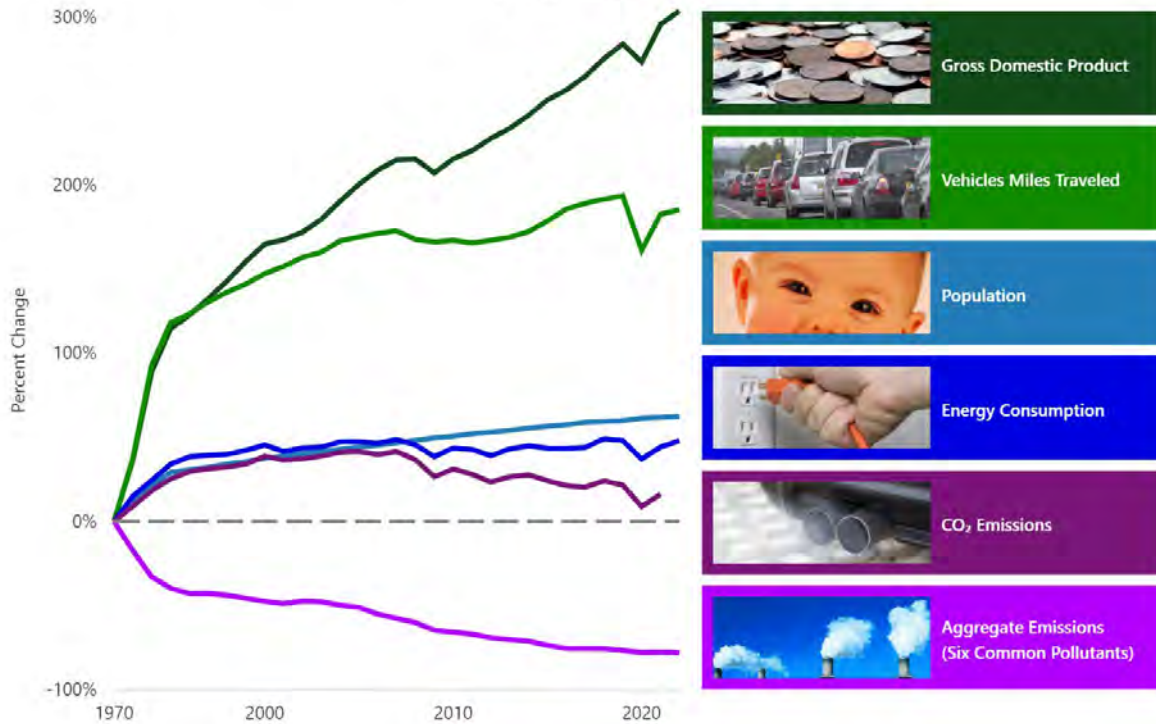


- U.S. Environmental Protection Agency (EPA) sets limits for concentrations of six pollutants in ambient (outdoor) air according to the Federal Clean Air Act
 - Carbon monoxide, ozone, lead, oxides of nitrogen, particulate matter (PM), and oxides of sulfur
 - Primary NAAQS: Health-based, to an adequate margin of safety
 - Secondary NAAQS: Welfare-based, e.g. visibility, damage to crops, vegetation, buildings, and animals
- EPA is required to review NAAQS every five years

National Ambient Air Quality Standards (NAAQS)



Comparison of Growth Areas and Declining Emissions
1970-2022

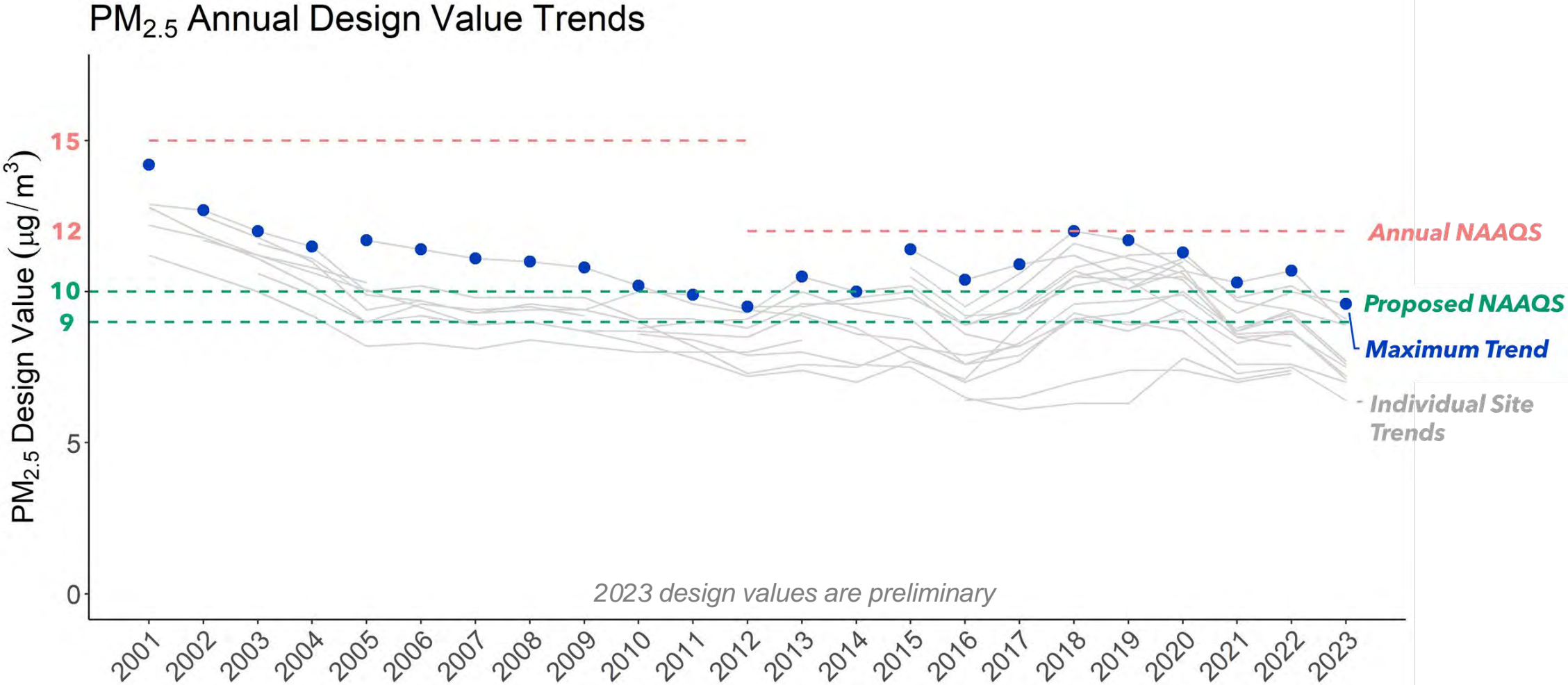


source: EPA, *Our Nation's Air, 2022*

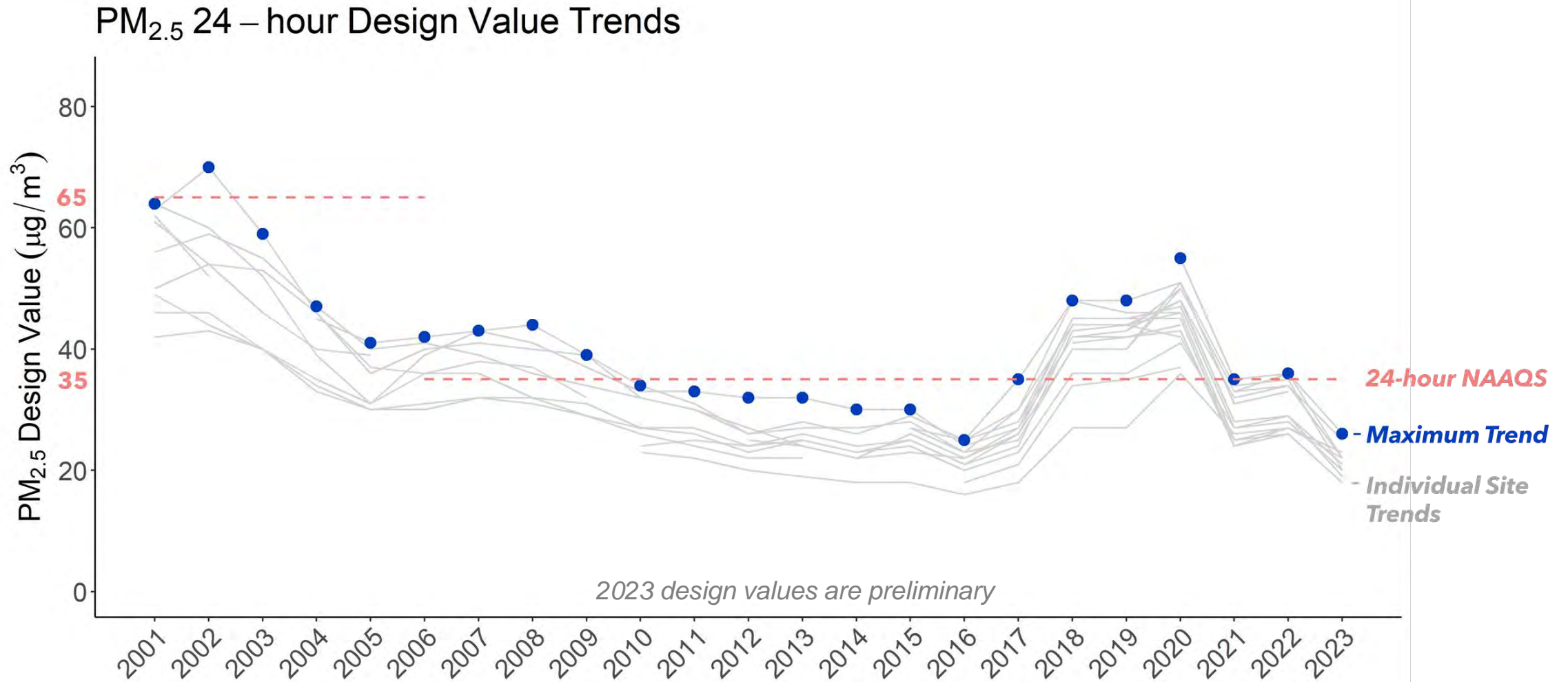
- Implementing the NAAQS has been a significant driver of emission reductions nationwide
- Implementation includes:
 - NAAQS revision
 - Nonattainment designations
 - State Implementation Plans
 - Emission reductions
 - Monitor to show attainment



Long-Term NAAQS Trends



Long-Term NAAQS Trends (cont.)

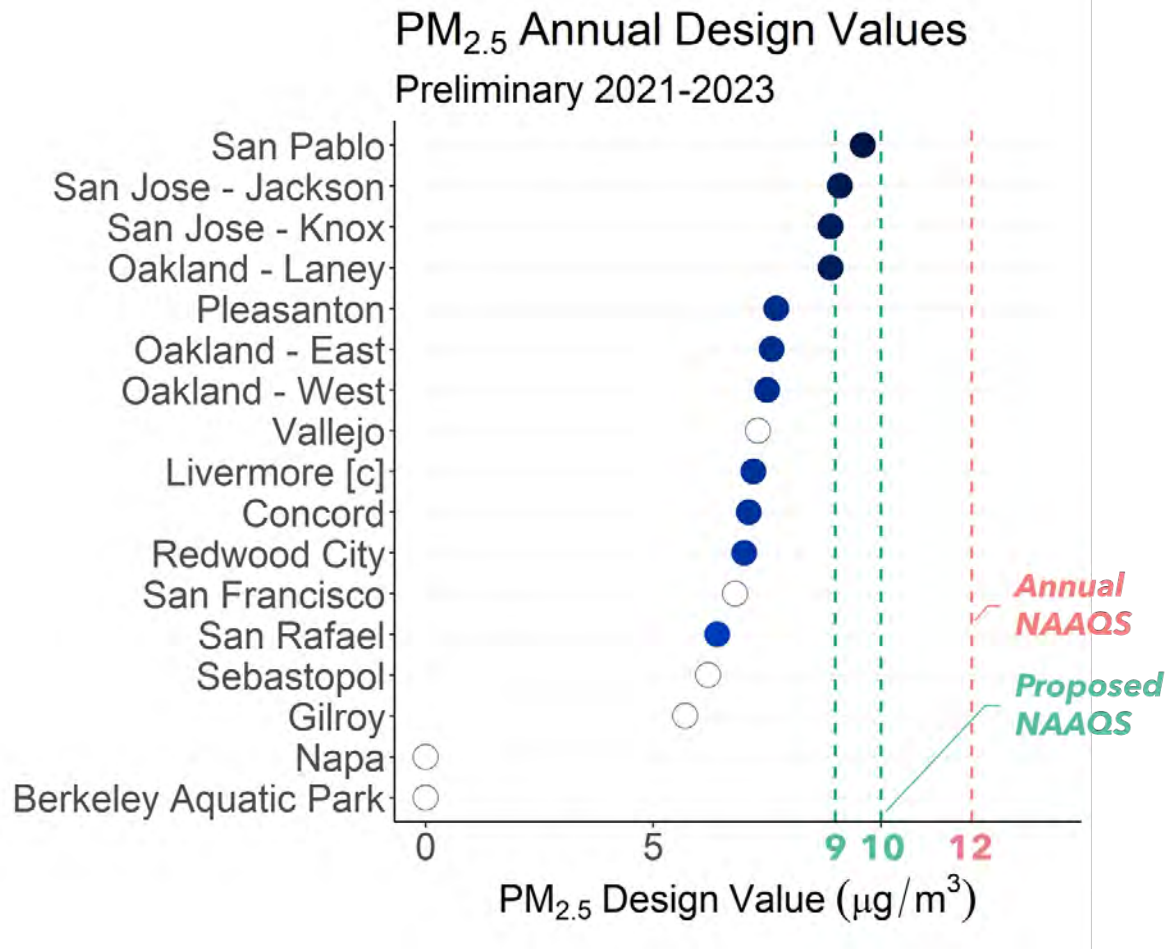


Proposed 2024 PM NAAQS (Primary)



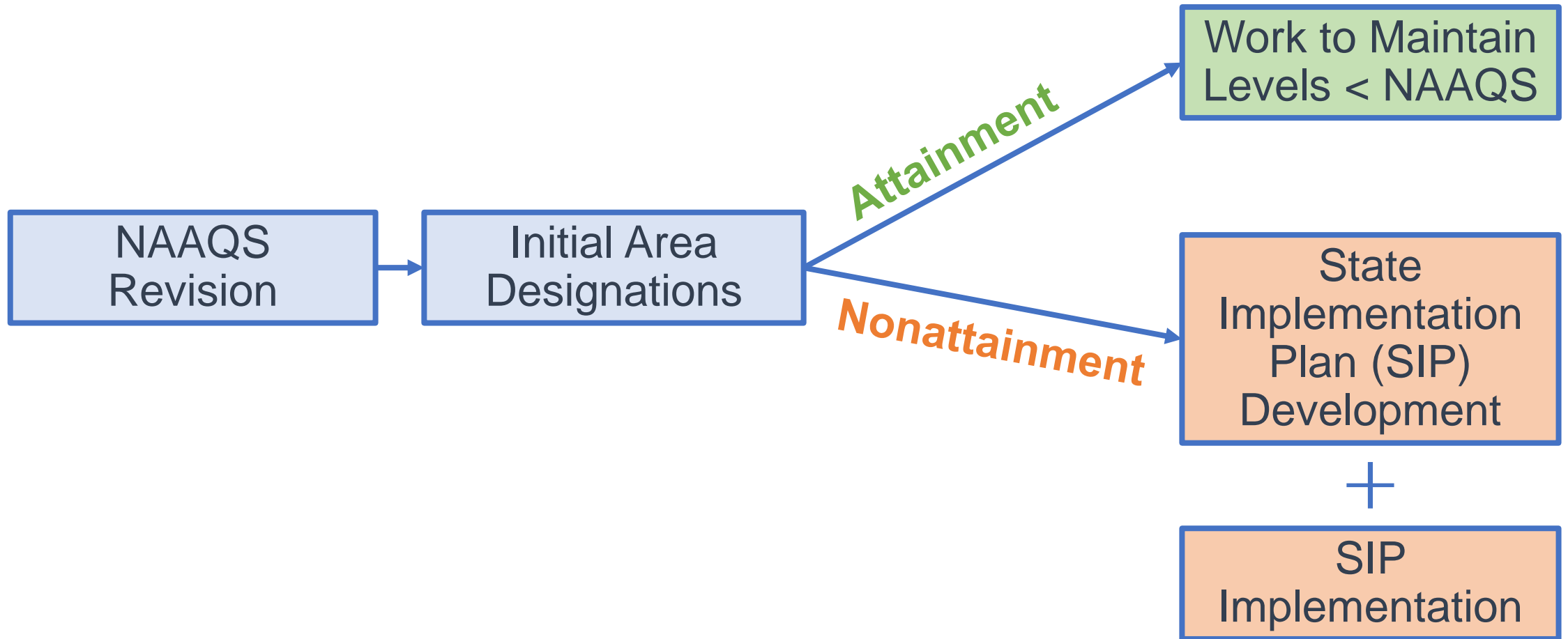
Indicator	Averaging Time	Previous Level	Existing Bay Area Status	EPA Proposal
PM _{2.5}	Annual	12.0 µg/m ³	Unclassifiable / Attainment	9.0 – 10.0 µg/m ³
PM _{2.5}	24-Hours	35 µg/m ³	Nonattainment	No change / Retain
PM ₁₀	24-Hours	150 µg/m ³	Unclassifiable / Attainment	No change / Retain

Preliminary 2023 PM_{2.5} Data



- Preliminary review shows area design value is 9.6 µg/m³
- Designations will also include 2024 and possibly 2025 data
- Final attainment status is uncertain until late 2024
- Other factors to consider:
 - 2023 had historically low PM levels due to a very stormy winter
 - Currently assessing magnitude of wildfire smoke impact on 2021-2023

What Happens After EPA Revises a NAAQS?

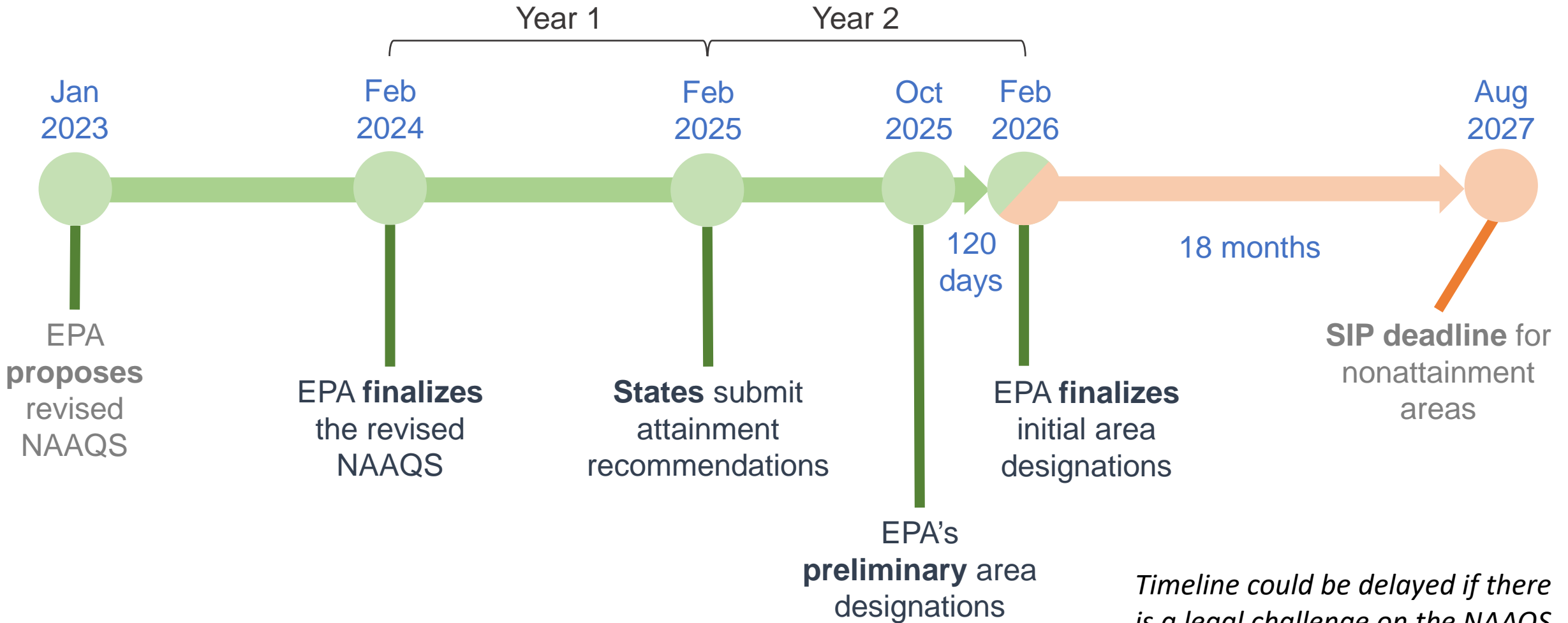


NAAQS: Initial Area Designations

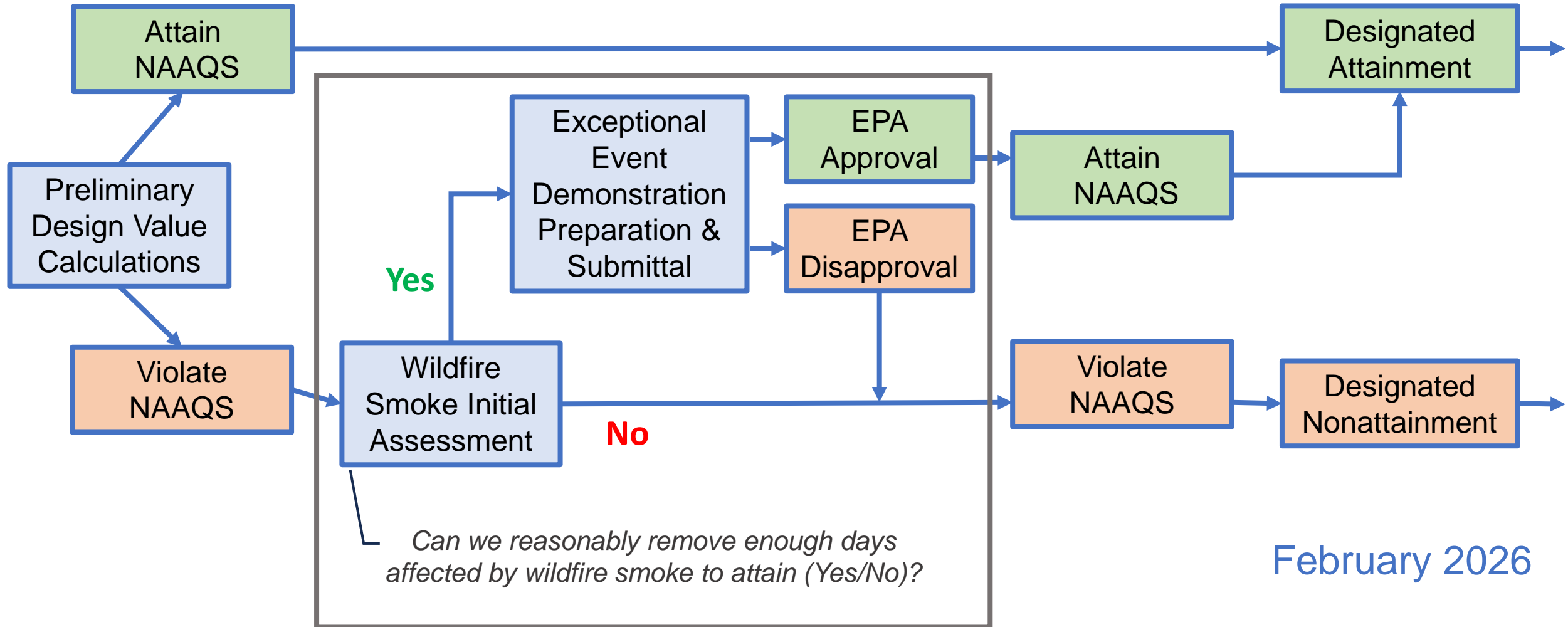


- EPA determines which areas are attaining or not attaining the NAAQS within two years of a final revised (or new) NAAQS
- States submit recommendations to EPA on attainment status
- EPA considers the state recommendation as well as five factors in their technical analysis: air quality, emissions, meteorology, geography & topography, and jurisdictional boundaries
- The air quality factor is based on long-term ambient air quality monitoring performed by State, Local, and Tribal agencies

Two-year Timeline for EPA Designations



Designations Scenarios



February 2026

Exceptional Events



- Long-standing EPA policy based on the Clean Air Act defining the use of monitoring data affected by emissions that are outside the control of State, Local, and Tribal agencies
- Does not allow agencies to get out of controlling local sources of air pollution or from activities to protect public health during high pollution episodes
- Agencies may request that EPA set aside certain days affected by exceptional events when calculating design values
- EPA only uses design values without exceptional event data for specific regulatory actions



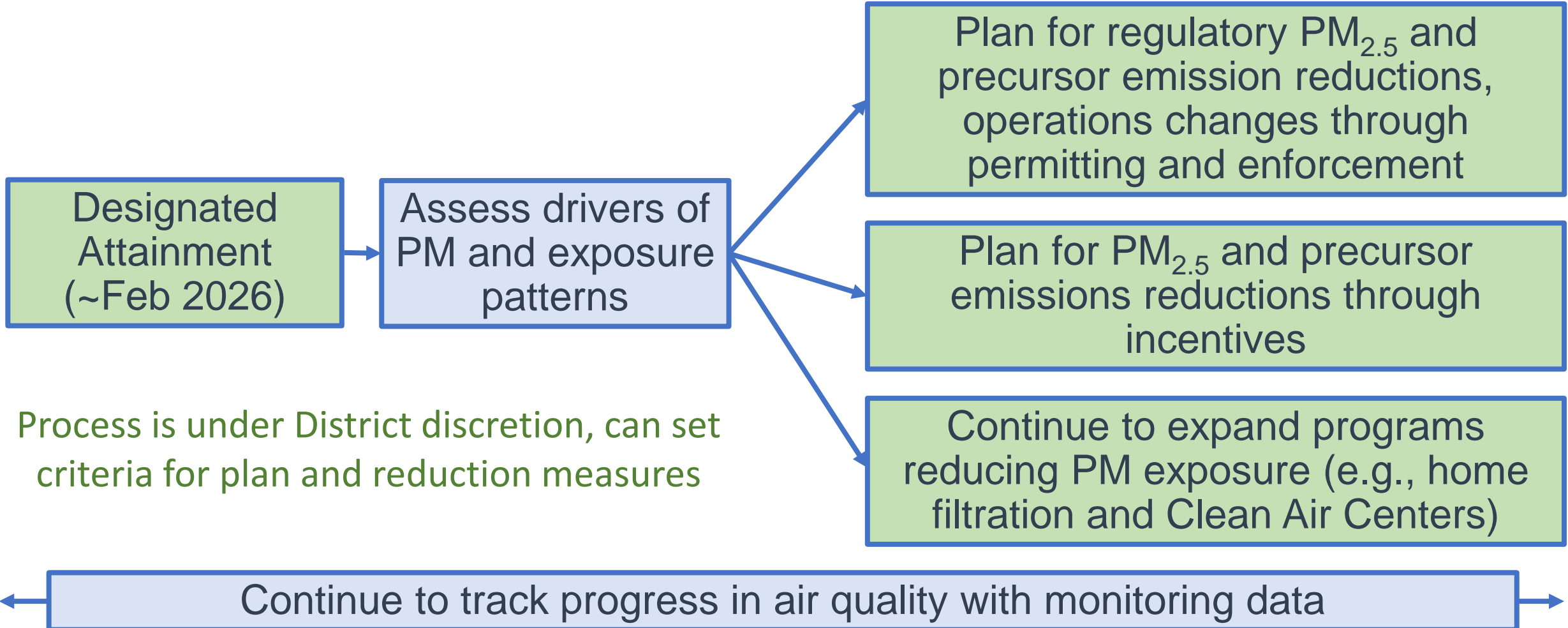
Wildfire Smoke Impacts and Annual PM_{2.5} Designations



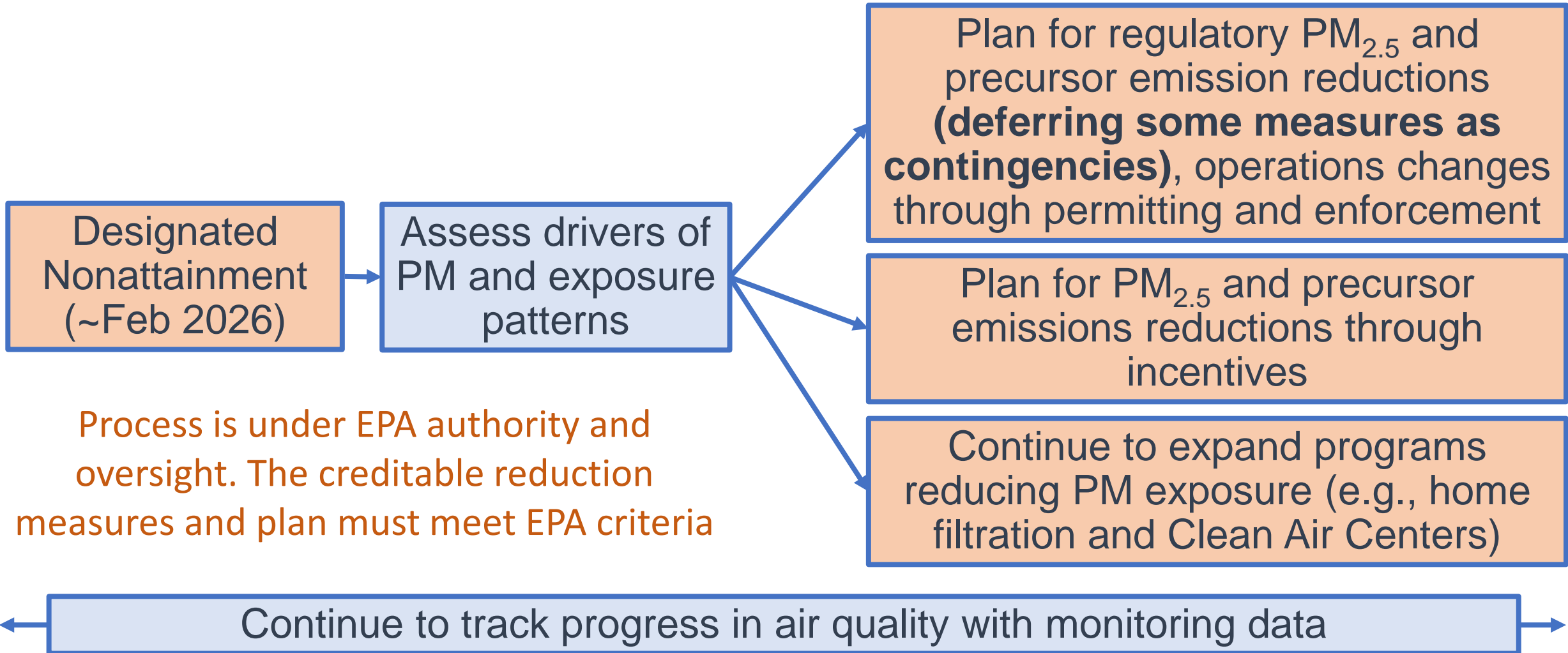
Will air quality impacts from wildfire smoke affect our designation?

- Days where wildfire smoke causes a NAAQS violation are eligible exceptional events
- Removing wildfire smoke days may only change a site's annual design value by approximately 0.5 $\mu\text{g}/\text{m}^3$, and could require demonstrations for over 50 days from 2021 – 2023
- Wildfires in 2024 and 2025 may also affect final designation

Scenario 1: Designated Attainment



Scenario 2: Designated Nonattainment



Next Steps



- Review the final NAAQS and forthcoming designations guidance
- Prepare data and exceptional events for CARB recommendation
- Upcoming conversations include
 - Update on exceptional events and expected CARB recommendation
 - Share updated technical information about the drivers of PM_{2.5} levels and our path to meeting air quality goals

Feedback Requested/Questions



- Questions and Comments