

**Headroom is much more limited – insufficient for typical projects -- with proposed lowering of the PM NAAQS in 2024 than it was back in 2012**

- In 2012-13, when the PM standard was lowered from 15.0  $\mu\text{g}/\text{m}^3$  to 12.0  $\mu\text{g}/\text{m}^3$ , the mean U.S. background concentrations ([based on EPA trends data](#)) was above 9  $\mu\text{g}/\text{m}^3$ , so the headroom shrank from greater than 5 to about 3  $\mu\text{g}/\text{m}^3$ .
  - The average background concentration helps track air quality trends and whether projects will have enough headroom (i.e., difference between NAAQS and background) to get permitted.
  - A typical PSD modeling analysis of a well-controlled project comes out between 1 and 3  $\mu\text{g}/\text{m}^3$  which is verified by a review of three dozen recent PDS projects that modeled at 2.6  $\mu\text{g}/\text{m}^3$ .
  - The headroom has improved only slightly (roughly 1  $\mu\text{g}/\text{m}^3$ ) as air quality improvements have leveled off (see chart).
- If the NAAQS is lowered to 9.0 or 10.0  $\mu\text{g}/\text{m}^3$  and average background remains close to 8  $\mu\text{g}/\text{m}^3$  then the headroom is just 1 to 2  $\mu\text{g}/\text{m}^3$  which is less than the 3  $\mu\text{g}/\text{m}^3$  needed for a typical project.
  - Headroom of 1 to 2  $\mu\text{g}/\text{m}^3$  (relative to the US average) is far less than at any time since the 12.0  $\mu\text{g}/\text{m}^3$  NAAQS was implemented.
  - If EPA lowered the NAAQS to 11.0  $\mu\text{g}/\text{m}^3$ , there would be 3  $\mu\text{g}/\text{m}^3$  of headroom on average.

Figure 1. Depiction of U.S. nationwide annual average mean PM<sub>2.5</sub> concentration as measured at 361 trends sites relative to effective annual NAAQS. EPA, Particulate Matter (PM<sub>2.5</sub>) Trends (<https://www.epa.gov/air-trends/particulate-matter-pm25-trends>).

