

**WAC 296-820-860 Appendix B: Calculating the Air Quality Index for PM<sub>2.5</sub> (nonmandatory).** The Air Quality Index (AQI) for PM<sub>2.5</sub> is calculated as follows:

$$I_{PM2.5} = \frac{I_{Hi} - I_{Lo}}{BP_{Hi} - BP_{Lo}} (C_p - BP_{Lo}) + I_{Lo}$$

Where:

- $I_{PM2.5}$  is the Air Quality Index value for PM<sub>2.5</sub>
- $C_p$  is the concentration of PM<sub>2.5</sub> in µg/m<sup>3</sup> truncated to 1 decimal place
- $BP_{Hi}$  is the concentration breakpoint that is greater than or equal to  $C_p$
- $BP_{Lo}$  is the concentration breakpoint that is less than or equal to  $C_p$
- $I_{Hi}$  is the AQI value corresponding to  $BP_{Hi}$
- $I_{Lo}$  is the AQI value corresponding to  $BP_{Lo}$

PM <sub>2.5</sub> THRESHOLDS <sup>1</sup>	AQI <sup>1</sup>	AQI CATEGORY <sup>1</sup>	WA DOH HEALTH MESSAGING <sup>2</sup>
0.0-12.0	0-50	Good	It is a great day to be active outside and a good time to make a plan if worse air quality is in the forecast.
12.1-35.4	51-100	Moderate	Some people are especially sensitive to lower levels of particle pollution and should reduce exposure. For example, limit time outside and avoid strenuous outdoor activity. All sensitive groups should watch for symptoms.
35.5-55.4	101-150	Unhealthy for sensitive groups	Sensitive groups should take steps to reduce exposure. Limit time outside, avoid strenuous outdoor activity, and follow tips for cleaner indoor air. Everyone should watch for symptoms as a sign to reduce exposure.
55.5-150.4	151-200	Unhealthy	Everyone should reduce exposure. Limit time outside, avoid strenuous outdoor activity, and follow tips for cleaner indoor air.
150.5-250.4	201-300	Very unhealthy	Everyone should reduce exposure. Stay inside and filter indoor air to keep it cleaner. Go elsewhere for cleaner air, if needed.
250.5-350.4	301-400	Hazardous	Everyone should reduce exposure. Stay inside and filter indoor air to keep it cleaner. Go elsewhere for cleaner air, if needed.
350.5-500.4	401-500	Hazardous	Everyone should reduce exposure. Stay inside and filter indoor air to keep it cleaner. Go elsewhere for cleaner air, if needed.
> 500.4	Beyond the AQI	Hazardous (beyond the AQI)	

<sup>1</sup> U.S. EPA. September 2018. Technical Assistance Document for the Reporting of Daily Air Quality – The Air Quality Index (AQI). EPA 454/B-18-007. Research Triangle Park, North Carolina.

<sup>2</sup> Washington Department of Health. April 2022, accessed April 2023. Washington Air Quality Guide for Particle Pollution: <https://doh.wa.gov/sites/default/files/legacy/Documents/4300/waqa%20infographic%5fEnglish.pdf?uid=64384c71c8715>

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060, and chapter 49.17 RCW. WSR 24-01-070, § 296-820-860, filed 12/14/23, effective 1/15/24.]