

## **What is WAQA?**

WAQA stands for “Washington Air Quality Advisory.” It is the Washington State Department of Ecology’s tool for informing people about the health effects of air pollution. The pollutants included in WAQA are ground-level ozone, fine particle pollution (PM<sub>2.5</sub>), carbon monoxide, sulfur dioxide, and nitrogen dioxide.

WAQA is very similar to the Environmental Protection Agency’s (EPA’s) national information tool, the Air Quality Index (AQI). Both use color-coded categories to show when air quality is good, moderate or unhealthy. The difference is that WAQA shows the health effects of PM<sub>2.5</sub> at lower levels than the AQI does. In other words, WAQA shows that air quality is unhealthy earlier – when there is less PM<sub>2.5</sub> in the air. Some examples of PM<sub>2.5</sub> are smoke and dust.

## **Why did Ecology develop the WAQA?**

Ecology believes the WAQA better protects public health. There is new information about health risks from PM<sub>2.5</sub>. Studies show that levels of PM<sub>2.5</sub> in the air that we previously believed to be safe can cause illness and death. In fact, studies have not been able to identify any level of PM<sub>2.5</sub> that is completely healthy – that is, that has no health effects at all.

As a result of this new information, EPA changed its health standard so that air quality is now considered unhealthy when there is less PM<sub>2.5</sub> in the air. However, EPA has not yet changed the AQI to inform people about the new information on PM<sub>2.5</sub> health risks. EPA does not expect to update the AQI until sometime in 2008. In the meantime, the AQI is not showing accurate information about health risks.

Therefore, Ecology developed WAQA to tell people that PM<sub>2.5</sub> can affect their health at lower levels than the AQI shows.

## **How did Ecology decide on the air quality levels in WAQA?**

Ecology looked at many health studies, considered recommendations from EPA staff and EPA’s Clean Air Scientific Advisory Committee, and examined Canada’s PM<sub>2.5</sub> standards. Based on this information, Ecology set a goal to keep PM<sub>2.5</sub> 24-hour concentrations below 20 micrograms per cubic meter. The pollution levels in WAQA’s color-coded categories are based on this Ecology goal, the new federal PM<sub>2.5</sub> standard, and recommendations from scientific and health professionals.

## **WAQA looks very similar to the AQI. How is it different?**

WAQA looks the same as the AQI because it uses the same color-coded air quality categories. Only the breakpoints for these categories are different.

The table below shows WAQA’s breakpoints on the left and AQI’s on the right. The numbers are micrograms per cubic meter.

Category	WAQA	AQI
Good	0 to 13.4	0 to 15.4
Moderate	13.5 to 20.4	15.5 to 40.4
Unhealthy for Sensitive Groups	20.5 to 35.4	40.5 to 65.4
Unhealthy	35.5 to 80.4	65.5 to 150.4
Very Unhealthy	80.5 to 135.4	150.5 to 250.4
Hazardous	>135.4	>250.4

As you can see, when air quality is good, WAQA and AQI are either the same or very similar. But when air pollution levels begin to rise, WAQA shows air quality becoming unhealthy sooner than AQI does. Ecology believes this provides more accurate information about air pollution to the public so that those who are at risk can take action to better protect their health.