

This is KPTZ 91.9 FM in Port Townsend. I'm Jim Burke, with your local news and commentary for Tuesday, August 22, 2023.

The weather, the smoke! Over this past weekend we had smoky air here in Jefferson County and in western Washington generally. The number now is 20. Vox (not Fox) – an online news source – had this to say about the Air Quality Index (AQI) – and what those numbers mean: It's not enough to trust the senses to know when it's a bad air day. Well before you can see or smell smoke, it can start wreaking havoc on the lungs. That haze you can see and smell on a particularly polluted day is made of ozone and fine particulate matter. Fine particulate matter, known as PM2.5 (2.5 microns describes its size – 30 times smaller than the width of a human hair) can embed in the cells of the lung and the bloodstream, aggravating inflammation, asthma, heart disease, and mental health. And ozone causes similar damage. In the stratosphere, ozone blocks ultraviolet radiation from the sun, but at ground level it can cause shortness of breath and damage to respiratory tissue. Both pollutants can affect the entire body in all stages of life: young and old, and even the developing fetus. They come from sources as varied as the tailpipe of a truck, your neighbor's barbecue, coal plant, or an incinerator. PM2.5 is capable of traveling thousands of miles across the world on the wind – taking, for instance, about five days to reach the US from China.

The AQI set by the Environmental Protection Agency is your guide to how bad the air quality is outdoors. The data that goes into the Air Quality Index comes from 5,000 air monitors across the country, including local, state, tribal, and federal reporting. There are actually two AQIs for air quality – one for particulate matter and one for ozone – but when you see just one AQI, you're looking at whatever pollutant is the higher of the two. You can find the latest AQI on the EPA's AirNow website (<https://www.airnow.gov/>) or by downloading its AirNow app.

There are some important drawbacks to the AQI. It tries to distill a lot of information into one datapoint, and it depends on air monitors often placed near cities and not close to industrial polluters. Since air pollution can vary widely even over short distances – think a busy highway versus a quiet, tree-lined road – the air could be worse if you're near a pollution source.

The Vox article goes on to say: Communities of color are systematically exposed to more pollution from industrial sources and transportation, and the AQI doesn't do a good job capturing that disparity. The EPA breaks the Air Quality Index into a few categories with different recommendations.

- Green (0-50): The air is safe to breathe.
- Yellow (51-100): The air quality is considered moderate except for the most sensitive groups. We got up to that level over this weekend.
- Orange (101-150): Sensitive groups should reduce heavy exertion outside or take more breaks, and people with asthma and heart disease should watch for symptoms. The rest of the population may be fine.
- Red (151-200): The air is unhealthy for everyone. Sensitive groups should avoid being active outdoors, while everyone else should reduce their time outdoors.
- Purple (201-300): The air is very unhealthy for everyone. Everyone should consider moving their activities inside.
- Maroon (301 and above): This is the highest level – hazardous – and anyone can be at risk. Everyone should avoid physical activity outdoors, and if you're sensitive, you should remain indoors.

Doctors and public health experts urge people to monitor any symptoms as pollution levels climb, especially once the AQI is in the orange and red range. The symptoms to watch for can vary. A surefire sign to take it easy (limiting activity outdoors and potentially seeking medical help) is shortness of breath. Coughing, discomfort, and tightness of the chest can all signal issues with breathing. Other symptoms can be less obvious: throat

irritation, fatigue, a stuffy nose, or a headache. One EPA expert explained she feels a side stitch when exercising on a bad air day. (I know I don't care for that, especially if I am also having a bad *hair* day...)

I will be speaking With Chief Black of East Jefferson Fire Rescue tomorrow and that interview will air on Labor Day along with an interview with Karyn Stillwell, Instructor of yoga and the Wim Hof Method of breathing and cold water immersion. You can join Karyn and a merry band of cold plungers at the Fort Worden Beach Tuesdays and Thursdays at 5pm.

KPTZ 91.9 FM brings you local news Monday through Friday at noon and 5pm and at noon on Saturday. This is Jim Burke. Thanks for listening and please be careful out there.