



From the AIR PROGRAM

Smoke & Wildfire Season 2020 Continued

The impacts of wildfire smoke on our local air quality were lost on no-one during the beginning of the 2020 wildfire season (which now extends into fall). The Air program coordinates with Tribal Staff, NFS Fire Air Resource Advisors, KBPT Radio, other Owens Valley tribes' air quality programs, and GBUAPCD during the wildfire seasons, focusing on concentration data, air web cam photos, smoke forecasts, and other updates. Below is a summary of daily AQI levels, based primarily on (Tribal monitoring station) PM2.5 and also on PM10 where relevant, for August through October so far. It can be read as compared to a monthly calendar, i.e. day 1 of week 1 is the 1st.

	Day 1	2	3	4	5	6	7
Week - AUGUST							
1	G	G	G	G	G	G	G
2	G	G	G	G	G	G	G
3	G	G	M	G	M	U	USG
4	M	M	M	M	M	M	M
5	G	M	USG				
Week - SEPTEMBER							
1	M	G	G	G	M	U	U
2	U	G	G	U	USG	M	U
3	H	H	H	U	USG	USG	VU
4	U	VU	VU	VU	U	G	G
5	G	USG					
Week - OCTOBER							
1	M	G	M	U	U	U	U
2	U	USG	U	M	M	U	U
3	G	16th	17th	18th	19th	20th	21st
4	22nd	23rd	24th	25th	26th	27th	28th
5	29th	30th	31st				

- ⇒ The AQI is an index divided into six categories. Each category corresponds to a different level of health concern. The categories' AQI numbers are unitless; however, they correspond to breakpoints of pollutions in actual units measured. The categories are: **GOOD**, **MODERATE**, **UNHEALTHY SENSITIVE GROUPS**, **UNHEALTHY ALL**, **VERY UNHEALTHY**, **HAZARDOUS**. AQI level thresholds are lower for PM2.5 than for PM10 because of health effects.
- ⇒ See <https://www.airnow.gov/aqi/aqi-basics/> for more info. Also, contact the Air Program for more info (760-784-9308) or you can visit <http://bishoptribeemo.com/monitoring.htm>. You can also go to the Tribal home page, navigate to the Environmental page, then click the tab for Air, then the tab for Monitoring. Also find BPT's air quality data at www.QREST.net
- ⇒ The calendar chart values were obtained using BPT's monitoring data and the EPA AQI Calculator <https://www.airnow.gov/aqi/aqi-calculator/>

Photos: The winds at the Reservation monitor station from 8/20 to 10/9 are profiled in the wind rose to the right. Using maximum gust speeds in miles per hour, distributed across 10-sector wind directions, it's evident that inversions, which brought much Creek Fire smoke into the valley, are primarily represented in the NW sector. The highest gust speeds came from the prevailing SE direction or from the North. The wind patterns are in part determined by the topography of the Owens Valley. This fall season, the persistence of warm, stagnant conditions well into October and nighttime inversions contributed to smoke levels.

The chart below shows PM10 levels between 9/7 and 9/28, in rolling 5 minute averages (green) and rolling hourly averages (black). The monitor hit the upper limit of its recording ability on 9/8.

