

**Air Quality Management Division
Division Director Staff Report
Board Meeting Date: August 22, 2024**

DATE: August 5, 2024

TO: District Board of Health

FROM: Francisco Vega, P.E., Division Director
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SUBJECT: **Air Quality Management** - Research Shows Wildfire Smoke “Greatly Raises” Risk of Dementia, EPA Finds That Agencies Did Not Regulate Synthetic Minor Sources Appropriately, Calls for FEMA to Make Smoke Events Eligible for Disaster Relief Funds, June 2024 EPA Small Business Newsletter, Divisional Update, Program Reports, Monitoring and Planning, Permitting and Compliance

1. Program Update

a. Research Shows Wildfire Smoke “Greatly Raises” Risk of Dementia

Research presented this week at the Alzheimer’s Association International Conference in Philadelphia shows wildfire smoke may be “particularly hazardous” to brain health, increasing the risk of being diagnosed with dementia more than other forms of air pollution. Based on a 10-year study of 1.2 million residents of southern California, researchers found “the risk of exposure to fine particulate matter (PM2.5) air pollution is much more pronounced when the source is wildfire smoke than when it comes from other sources, such as motor vehicles and factories.” According to Joan A. Casey, Ph.D., senior author of the study and Assistant Professor in the Department of Environmental and Occupational Health Sciences at the University of Washington, Seattle, “The findings appeared most pronounced among individuals from racially and ethnically minoritized groups and in high poverty areas. These findings underscore that clinical and health policies seeking to prevent dementia-associated disparities should include efforts to reduce exposure to long-term wildfire and non-wildfire PM2.5.” In addition, the researchers advise that risk can be reduced if home air filtration systems are updated and people stay inside when the air quality is unhealthy and wear an N95 mask outside when the Air Quality Index reaches 100.



Residents of Washoe County are encouraged to visit the “Be Smoke Smart” page (<https://www.nnph.org/programs-and-services/air-quality/be-smoke-smart.php>) for critical information on how to protect your health during wildfire events.

For additional information on the study, please visit the link below.
<https://aaic.alz.org/releases-2024/exposure-wildfire-smoke-raises-dementia-risk.asp>

b. EPA Finds That Agencies Did Not Regulate Synthetic Minor Sources Appropriately
Environmental Protection Agency's (EPA) Office of Inspector General (OIG) found that from at least 2006 through 2021, EPA did not ensure that the Texas Commission on Environmental Quality (TCEQ) and California's South Coast Air Quality Management District identified a subset of high-emitting synthetic minor sources, known as SM-80s.



The conclusion is the result of an audit launched by OIG in November 2021 to determine whether EPA's oversight has ensured that state and local agencies with large compliance-monitoring programs identified SM-80s in accordance with EPA's Clean Air Act Stationary Source Compliance Monitoring Strategy. The audit focused on Texas and California (particularly South Coast), which

have the two largest compliance-monitoring programs in the country. The report faults EPA Regions 6, 9 and the Office of Enforcement and Compliance Assurance (OECA) for “oversight deficiencies” that potentially increased the public's risk of exposure from air pollution. OIG made nine recommendations to improve EPA oversight of state and local air agencies. The recommendations include the following:

- Develop a plan to ensure state and local agencies are audited a minimum of once every five years.
- Communicate to state and local agencies the steps the EPA will take, if any, to periodically identify and inspect SM-80s if these entities do not meet such expectations.
- Clearly define SM-80 sources.
- Confirm state and local agencies list of SM-80 sources is complete and accurate and ensure that the agencies report SM-80 data in the EPA's data systems by August 2025.
- Collect and review state and local agencies Clean Air Act Stationary Source Compliance Monitoring Strategy plan and ensure that each plan includes a list of SM-80 sources along with an expected inspection date.

This is another example of how EPA continues to turn their focus to minor sources. The Air Quality Management Division (AQMD) has made it a top priority to ensure that all facilities in Washoe County are accurately permitted and report our understanding of these sources to the EPA. This undertaking has been a challenge when it is taken into account that Washoe County has approximately 1,300 to 1,400 minor sources with historically incorrect emission inventories. To this point, the AQMD has assessed approximately 10% of the sources and has already identified eight (8) sources that were incorrectly permitted.

To review the report, please visit the link below.

https://www.epaioig.gov/sites/default/files/reports/2024-07/full_report_-_24-p-0049.pdf

c. Calls for FEMA to Make Smoke Events Eligible for Disaster Relief Funds

Thirteen state attorneys general (AG) and their counterpart in Washington, D.C. have sent a letter to the Federal Emergency Management Agency (FEMA) supporting calls for the agency to take regulatory action to make extreme heat and wildfire smoke events eligible for major disaster declarations. On June 17, 2024, a coalition of unions and public interest groups petitioned FEMA to expand its regulatory definition of "major disasters" to include heat and smoke, thereby making the agency's funds and resources available to communities that face high dangerous temperatures and smoke from wildfires. In the letter, the AGs highlight the need for grant funding to address wildfire smoke health impacts by providing HEPA air filtration devices and other equipment, supplies and services to vulnerable communities.



For additional information and to read the letter, please visit the link below.

<https://www.azag.gov/sites/default/files/2024-07/FEMA%20Petition%20Letter%20of%20Support%20-%20Final%20-%207%2016%2024.pdf>

d. June 2024 EPA Small Business Newsletter

Please visit the link below to view the June 2024 EPA small business monthly newsletter which highlights environmental regulation, compliance assistance, resources, and upcoming events. Contact asbo@epa.gov to subscribe to the newsletter. For more information about small business resources and Small Business Environmental Assistance Programs (SBEAPs), visit <https://www.epa.gov/resources-small-businesses>.

SMALLBIZ@EPA

EPA's Asbestos and Small Business Ombudsman Program

A MONTHLY NEWSLETTER FOR THE REGULATED SMALL BUSINESS COMMUNITY

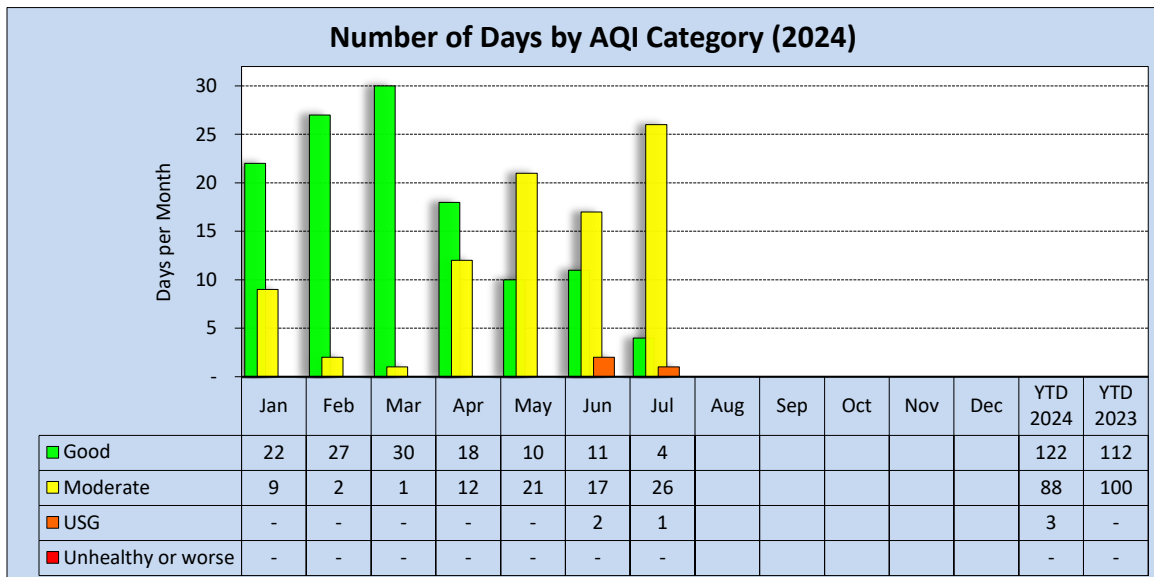
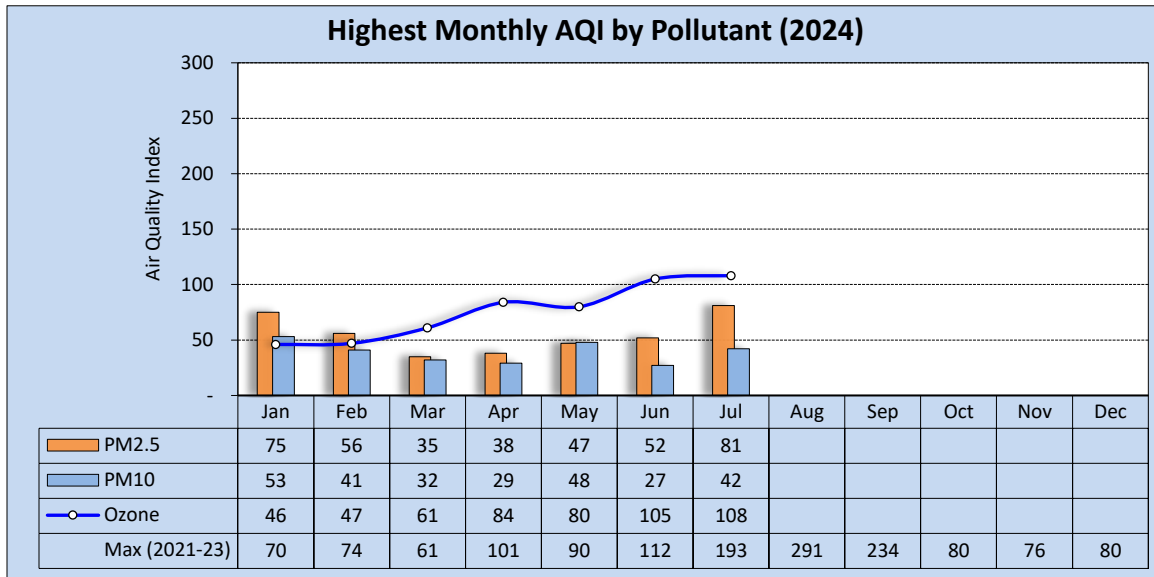
June Newsletter

<https://www.epa.gov/system/files/documents/2024-07/asbo-june-2024-smallbiz-final.pdf>

Francisco Vega, P.E., MBA
Division Director

2. Divisional Update

- a. Below are two charts detailing the most recent ambient air monitoring data. The top chart indicates the highest AQI by pollutant and includes the highest AQI from the previous three (3) years in the data table, for comparison. The bottom chart indicates the number of days by AQI category and includes the previous year to date for comparison.



Ambient air monitoring data in these charts represent midnight to midnight concentrations to illustrate comparisons to the NAAQS. These data are neither fully verified nor validated and should be considered PRELIMINARY. As such, the data should not be used to formulate or support regulation, guidance, or any other governmental or public decision.

3. Program Reports

a. **Monitoring and Planning**

July Air Quality: There was one exceedance of the ozone and no exceedance of the PM₁₀ and PM_{2.5} National Ambient Air Quality Standards (NAAQS). The highest ozone, PM_{2.5}, and PM₁₀ concentrations for the month are listed in the table below.

Pollutant	Concentration	Date(s)	Site(s)	Notes
Ozone (8-hour)	0.073 ppm	7/11	Spanish Springs	Fire influence due to Royal Fire
PM _{2.5} (24-hour)	25.1 µg/m ³	7/31	Reno4	Smoke from Park Fire
PM ₁₀ (24-hour)	45 µg/m ³	7/31	Sparks	Smoke from Park Fire

Emergency Episode: On Tuesday, July 30, the Health Officer for Northern Nevada Public Health issued a Stage 1 Emergency Episode. The air quality index (AQI) for PM_{2.5} was forecasted to Unhealthy for Sensitive Groups (USG) to Unhealthy at times on Wednesday, July 31 and Thursday, August 1. As forecasted, smoke from the Park Fire, burning near Chico in Northern California, traveled to the area overnight and settled into the valleys leading to the elevated AQI. Numerous scientific studies have linked particle pollution exposure to a variety of problems, including irritation of the airways, coughing, difficulty breathing, decreased lung function, aggravated asthma, development of chronic bronchitis, irregular heartbeat, nonfatal heart attacks, and premature death in people with heart or lung disease. On Friday, August 2, the emergency episode was rescinded as air quality improved.

Heat and Smoke Project: NNPH has partnered with Desert Research Institute (DRI) on a project to support household health adaptation to the compound events of extreme heat and wildfire smoke in Washoe County. When extreme heat and wildfire smoke occur simultaneously, many households face serious challenges for mitigating vulnerability due to the lack of or inability to operate a central air-conditioning (AC) system, the primary tool for limiting exposure. Recruitment has begun for a sample of 25 households (20 without and 5 with central AC) to participate in the project. Heat and air quality data, physical and mental health data, and protective action decision-making data corresponding to each household will be collected before and during compound events. All data types will be correlated, analyzed, and summarized at both the individual household and collective household levels and used to inform compound events education and risk communication materials for the community.

Craig A. Petersen
Supervisor, Monitoring and Planning

b. Permitting and Compliance

July

Staff reviewed forty-six (46) sets of plans submitted to the Reno, Sparks, or Washoe County Building Departments to assure the activities complied with Air Quality requirements.

In July 2024, staff conducted fifty-four (54) stationary source inspections and one (1) initial compliance inspection. Staff were assigned seven (7) new asbestos abatement projects – monitoring the removal of approximately twenty-five thousand nine hundred forty-two (25,942) square feet and twenty (20) linear feet of asbestos containing materials. Staff received four (4) facility demolition projects to monitor. Further, there were eight (8) new construction/dust projects comprising an additional forty-four (44) acres of disturbance. Staff documented thirty-nine (39) construction site inspections. During the month, compliance staff also responded to twenty (20) complaints.

Type of Permit	2024		2023	
	July	YTD	July	Annual Total
Renewal of Existing Air Permits	102	710	101	1,079
New Authorities to Construct	1 (New and Major Modifications)	29	2 (New and Major Modifications)	42
Dust Control Permits	8 (44 acres)	104 (1,321 acres)	12 (110 acres)	193 (2,386 acres)
Wood Stove (WS) Certificates	19	145	21	242
WS Dealers Affidavit of Sale	7 (2 replacement)	51 (20 replacements)	3 (1 replacements)	124 (56 replacements)
WS Notice of Exemptions	611 (3 stoves removed)	3,969 (35 stoves removed)	669 (5 stoves removed)	6,495 (57 stoves removed)
Asbestos Assessments	61	416	46	731
Asbestos Demo and Removal (NESHAP)	11	88	12	196



Complaints	2024		2023	
	July	YTD	July	Annual Total
Asbestos	0	7	1	12
Diesel Idling	0	1	0	2
Dust	11	57	14	96
Nuisance Odor	1	9	1	7
Permit to Operate	0	0	0	0
Burn Code	1	2	1	4
General	7	18	2	40
TOTAL	20	94	19	161
Enforcement	July	YTD	July	Annual Total
Warnings	5	31	1	26
Notice of Violations	0	18	3	20
TOTAL	5	49	4	46

Joshua C. Restori
 Supervisor, Permitting & Compliance