Air Quality Priorities and Actions

Ashley Featherstone

Permits and Inspections: Air Quality Division

History

- City of Asheville (COA) Smoke Abatement Program – 1947-1967
- Multi-Jurisdictional Agencies -1967-2026
  - Buncombe, COA, Henderson, Haywood, Transylvania
  - 3 different agencies
- Buncombe County-2026



What does the Local Air Quality Program do?

- **Measures** air quality – operates three monitoring stations that are used to determine if Buncombe County is in compliance with the National Ambient Air Quality Standards.
- **Permits and inspects** industrial facilities, gas stations, dry cleaners, building demolitions and asbestos removal.
- **Responds** to your air quality complaints. This includes complaints about open burning, dust, and odors.
- Provides **education and outreach** services about air quality
- We also offer **free Radon test kits** in January!

Air Quality Monitoring Network

- PM 2.5 (fine particles)– Board of Education Building
- Ground-level Ozone – Bent Creek and AB Tech*
- Air Toxics – AB Tech

*Pending





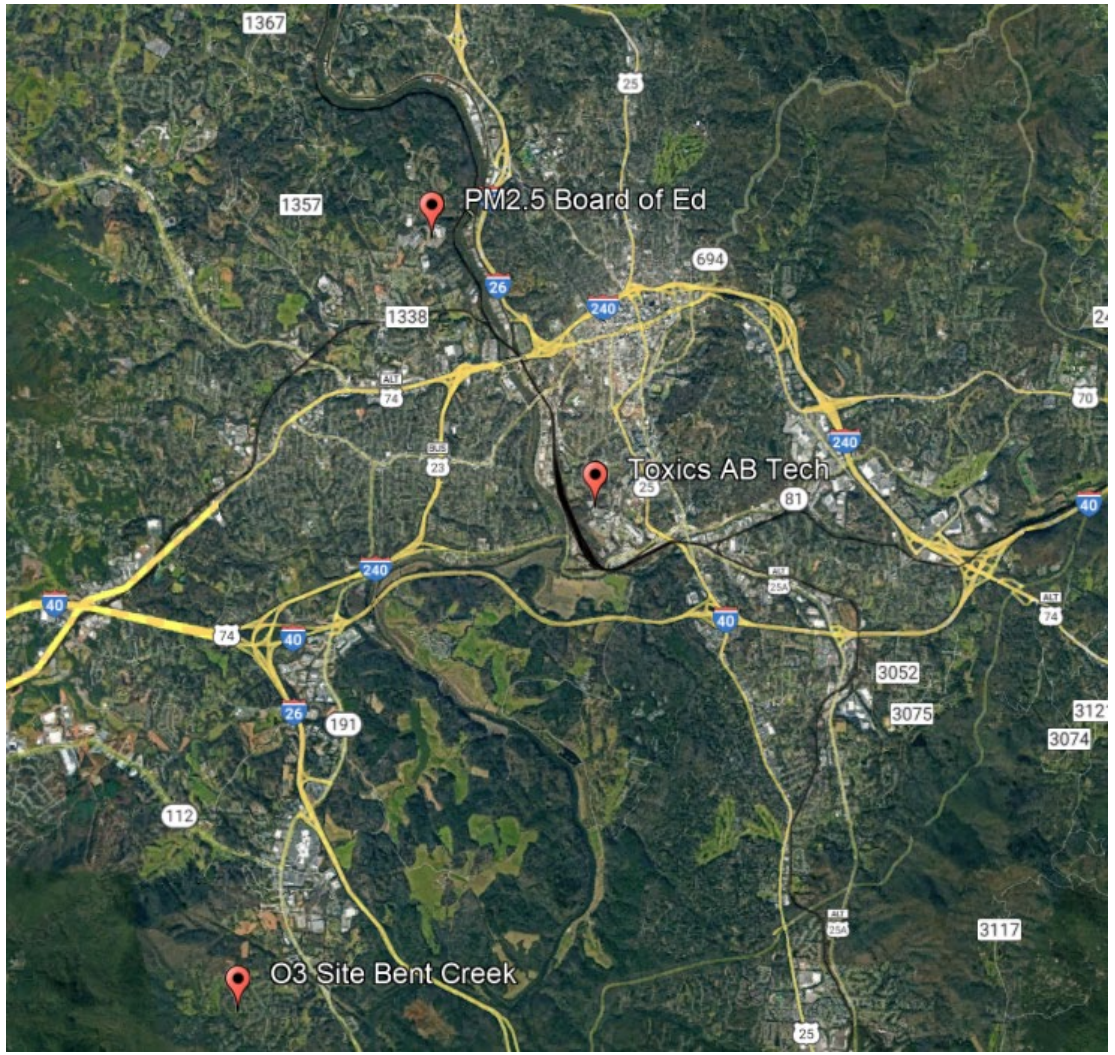


Compliance and Enforcement

- Open Burning
  - 70-100 Complaints Annually
- Dust, Odor, Facility/Industrial Emissions
- Area Sources: Drycleaners, Risk Management Plan Facilities, Stage 1 (gas stations)



Monitoring Site Locations



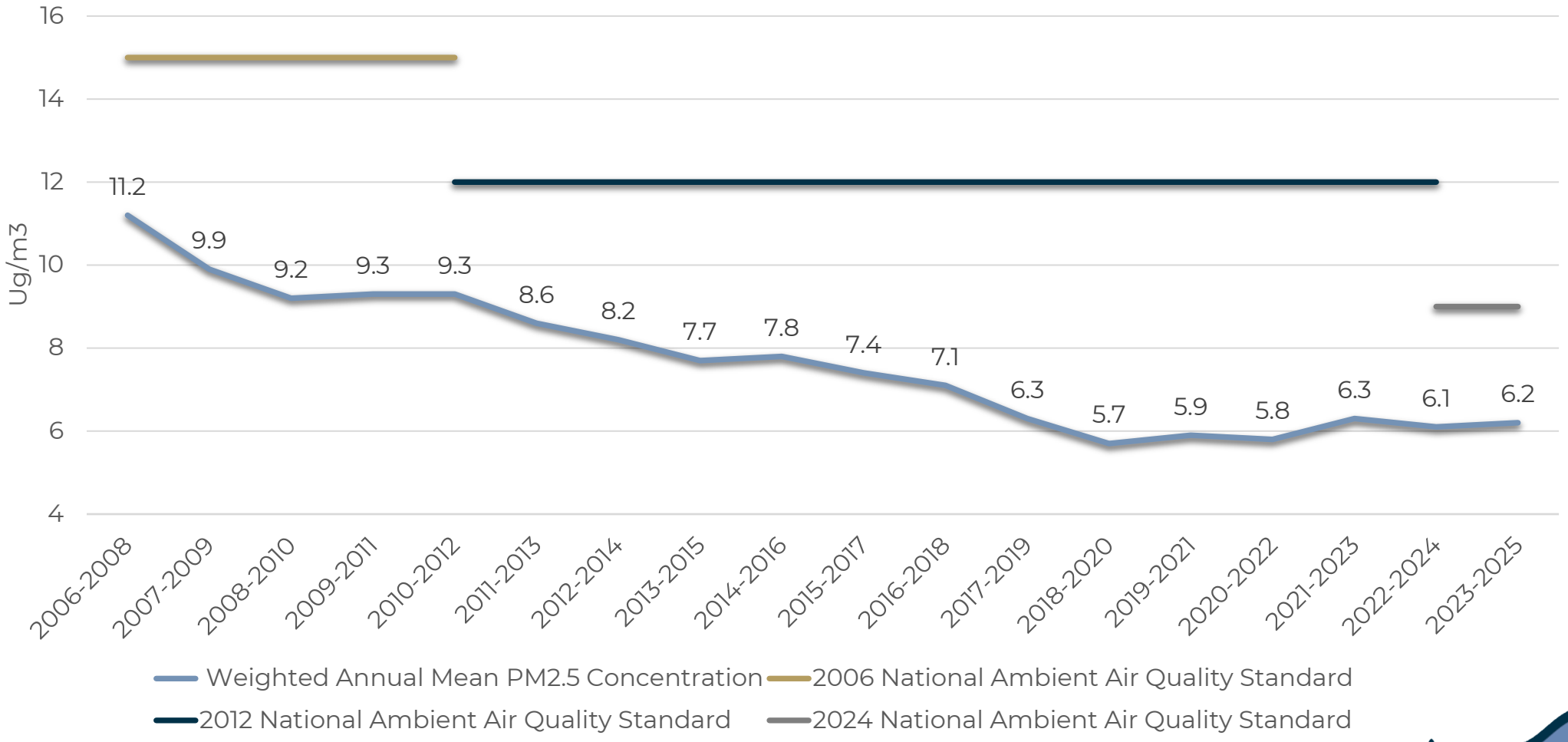
Citizen Sensor Shelter



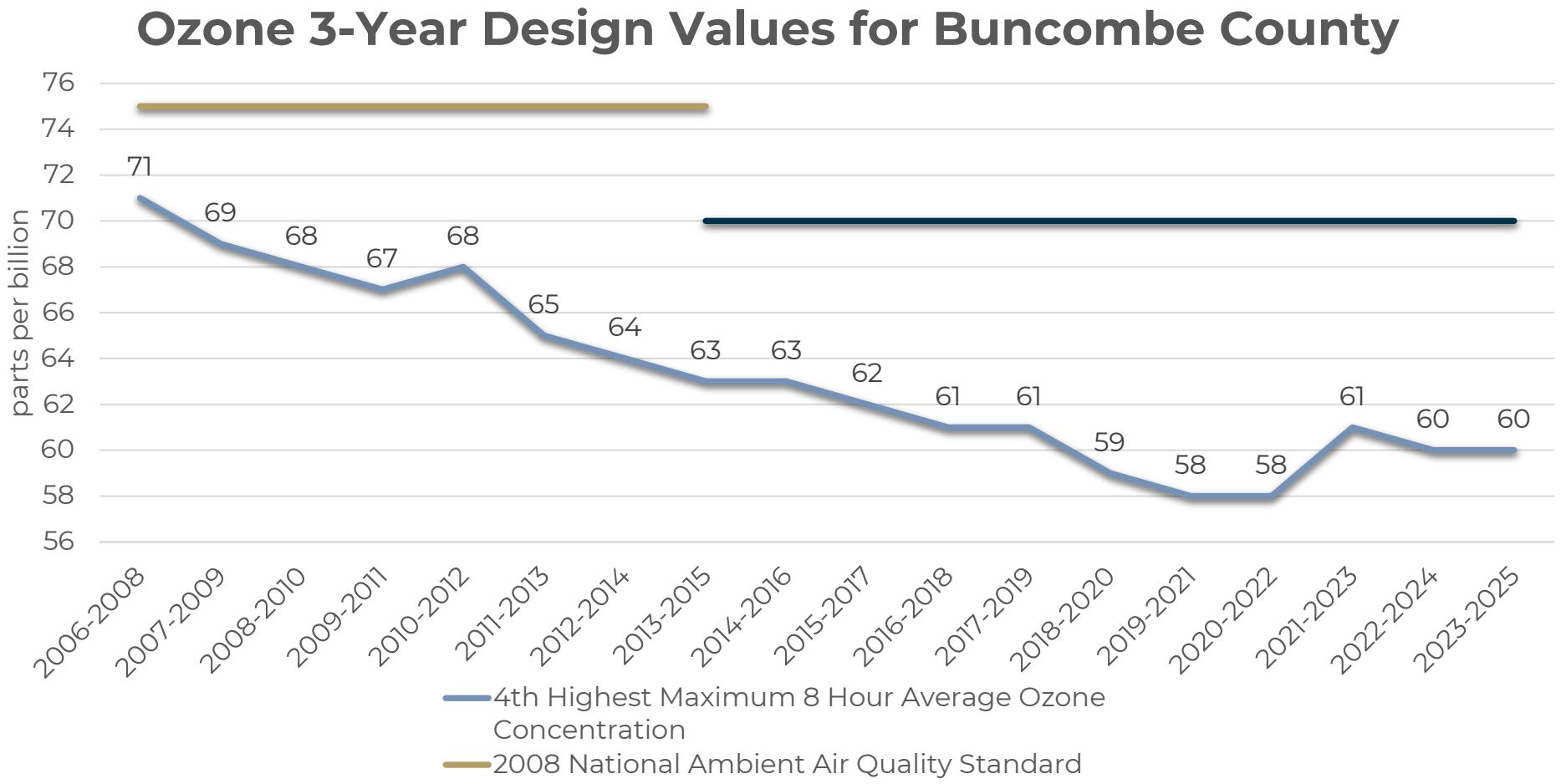


PM2.5 Trends

PM2.5 3-Year Design Values for Buncombe County

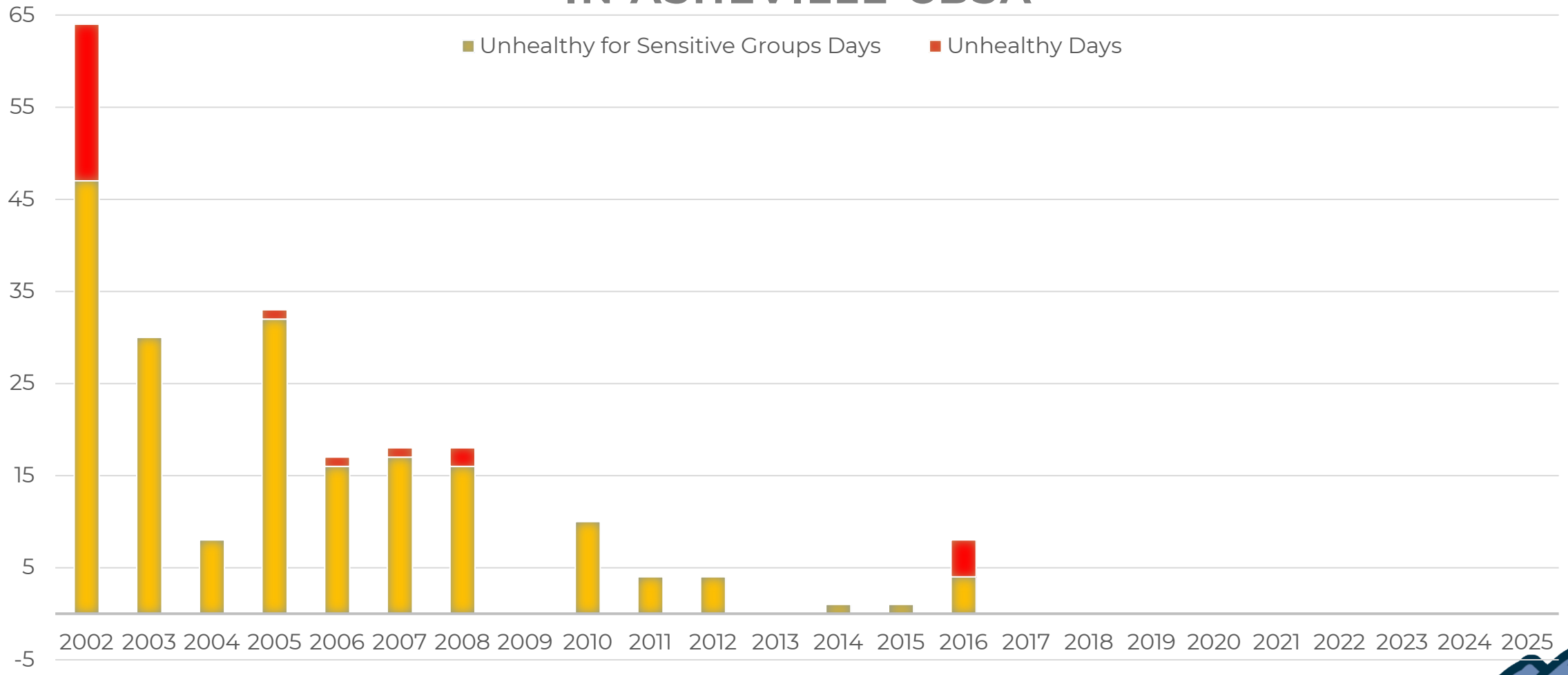


Ground Level Ozone Trends



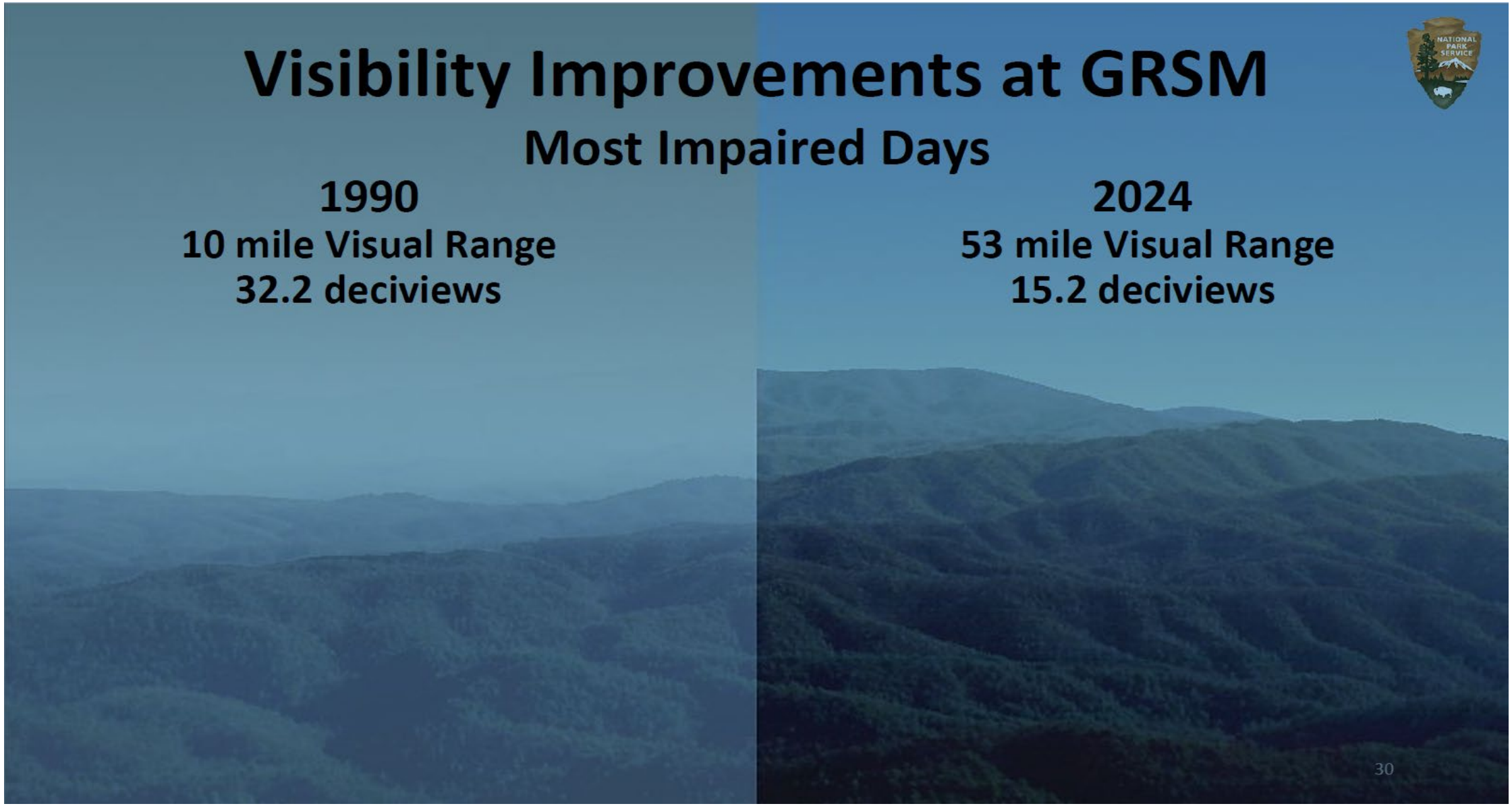
Unhealthy Air Quality Days

NUMBER OF PM2.5 / O3 UNHEALTHY DAYS PER YEAR IN ASHEVILLE CBSA



Visibility Improvements at GRSM

Most Impaired Days

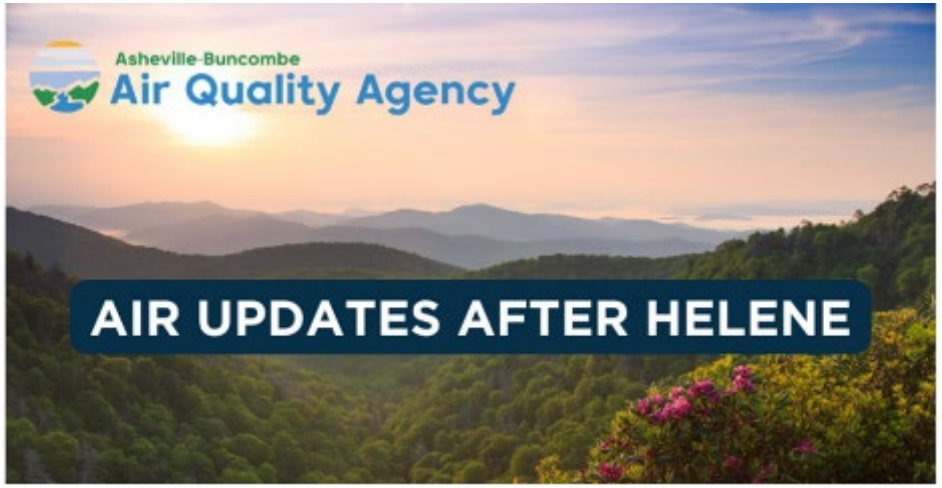


*Courtesy GSMNP

Helene-AB Air Quality Response

- Initial Response: AQ monitoring sites, EOC, Technical Assistance
- WNC Post Helene Monitoring Program
- Air Curtain Incinerators/Open Burning of Storm Debris
- Guidance Documents
- Demolition and Asbestos Removal Permits
- Recovery Resources





Demolition Permits and Asbestos Requirements

- Demolition/Asbestos Permits- Residential and Commercial
- Asbestos NESHAP (40 CFR Part 61 Subpart M)
  - Coordinating with USACE, FEMA, County to ensure requirements are met
- Recommend survey on all structures prior to demolition/renovation




AirBurners



Emergency Monitors



Fairview Elementary



ARO-Swannanoa

Low-Cost Sensors-Purple Airs

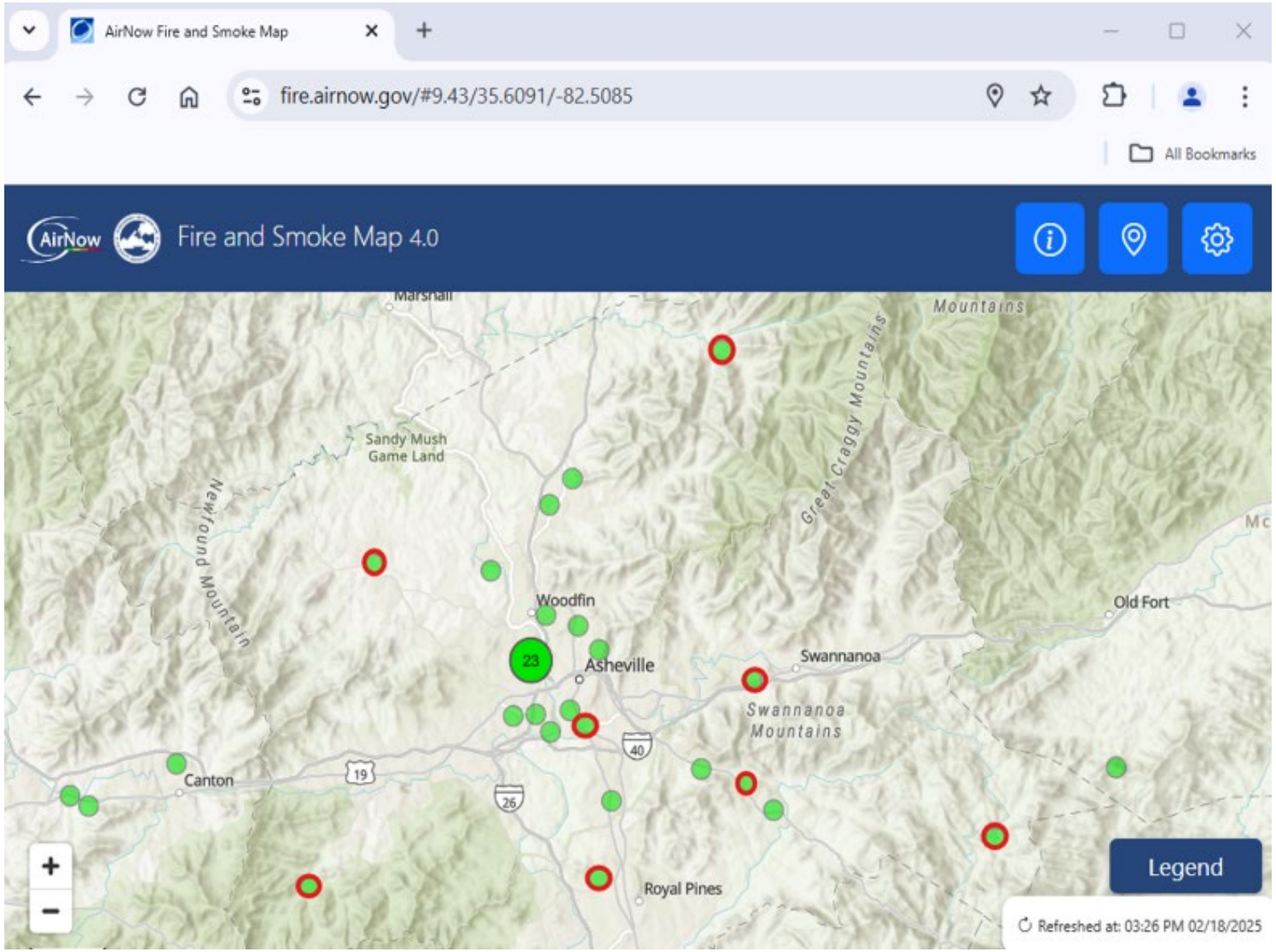


Skyland Library



Broad River FD

Check EPA Fire and Smoke Map (fire.airnow.gov) for real-time air quality conditions.



Low-cost sensors installed after Helene by BC Air Quality highlighted in RED

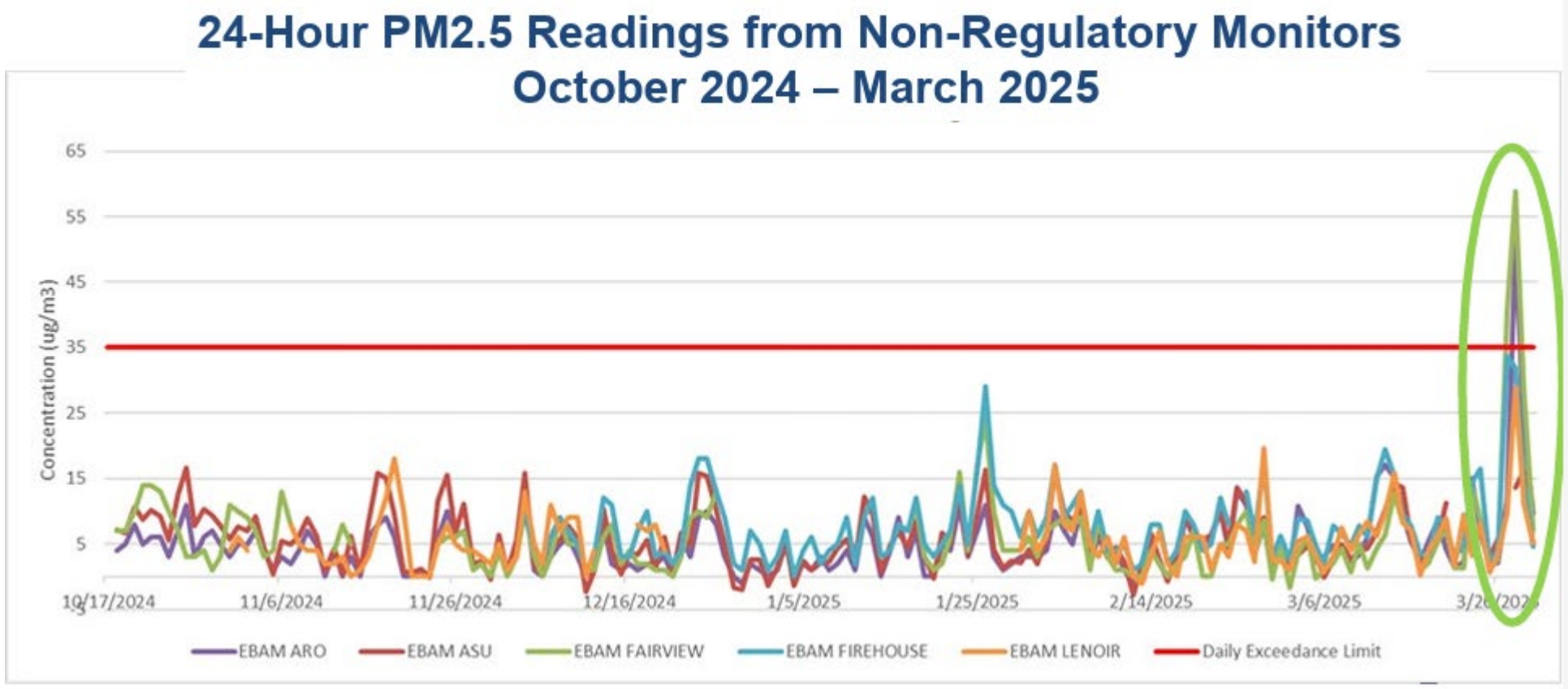
Sensors and 2 additional monitors Provided by NCDAQ and EPA

Recent Wildfires in North and South Carolina



Source: NC DEQ

Recent Wildfires in North and South Carolina



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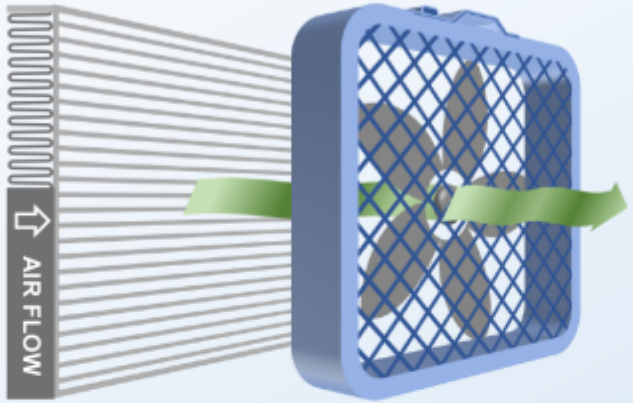
Resources for Recovery

- Air Awareness-Air Now Fire and Smoke Map
- Open Burning/Dust/Odor
- Demolitions and Renovations-Asbestos, lead, mold
- Burn Wise Program
- Fire Wise-Wildfire Prevention



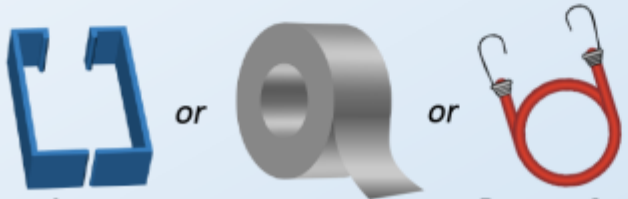
DIY Air Cleaner to Reduce Wildfire Smoke Indoors: Basic Design

Materials



20" X 20" X 1" or 4" air filter
Suggested rating: MERV 13

20" X 20" box fan
Only use certified fans with UL or ETL marking (2012 model or newer)



Clamps *or* Duct Tape *or* Bungee Cords

Assembly

1. Attach the air filter to the back of the box fan using either clamps, duct tape or bungee cords.
2. Check the filter for the direction of the air flow (marked on the side of the filter).
3. Replace filters when dirty.

Learn about box fan safety tips:
https://www.epa.gov/air-research/research-diy-air-cleaners-reduce-wildfire-smoke-indoors#FAQ

Air Quality Index

Air Quality Index	Description of Air Quality
Good	Air quality is satisfactory, and air pollution poses little or no risk.
Moderate	There may be moderate health concerns for people unusually sensitive to air pollution. Consider limiting prolonged or heavy exertion outdoors.
Unhealthy for Sensitive Groups	Older adults, children, active people, and those with heart or lung disease may experience health effects. Limit prolonged or heavy exertion outdoors.
Unhealthy	Older adults, children, active people, and those with heart or lung disease may experience more serious health effects. Everyone may experience health effects. Limit prolonged or heavy exertion outdoors.
Very Unhealthy	Everyone is likely to be affected. Avoid all outdoors exertion.

General Guidance

- If it looks or smells dusty or smoky outside, it's probably not a good time to work in the yard, go for a run, or for kids to play outdoors.
- If you see or smell smoke present, you should:
  - Check Your Current Air Quality at DAQ NC Ambient Information Reporter or EPA AirNow. The EPA Air Now site has a fire and smoke map with data from low-cost Purple Air sensors that also monitor particulate matter at more locations in our area (https://fire.airnow.gov).
  - Air Quality Index and activity guide for fine particles is on the EPA AirNow site under AQI and Health. https://document.airnow.gov/air-quality-guide-for-particle-pollution.pdf
  - Subscribe to Air Quality Forecasting at www.enviroflash.info
  - Learn how to make a DIY air cleaner and about air cleaners and filters in the home.

Health and safety recommendations for air quality action days:

- Stay indoors as much as possible and use an air filtration system if available.
- Keep windows and doors closed to reduce indoor smoke exposure.
- In vehicles, set air conditioning to “re-circulate” mode.
- Avoid outdoor activities, particularly exercise or strenuous work.
- If being outside is necessary for longer periods, consider wearing an N95 respirator mask to help filter harmful particles. Check with your doctor first if you have a medical condition that could be an issue.
- Stay hydrated and monitor for symptoms like coughing, shortness of breath, dizziness, or chest pain. Seek medical care immediately if symptoms become severe.

Get Involved-What Can you Do?

- Know the Air Quality Code
- Volunteer Opportunity-Buncombe County Air Quality Council
- Emergency Preparedness
  - Sign up to Receive Emergency Alerts-Text “BCReady” to 67283 or sign up online
  - Have a Supply Kit and Evacuation Plan
- Wildfire Prevention
  - Understanding our Risks
  - Creating a Defensible Space – Firewise Landscape
- To learn more about emergency preparedness, visit buncombeready.org.
- Buncombe Ready Community Events


Questions?

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Other Resources

- NC DAQ Wildfire and Smoke website (Health, Smoke Maps, Air) : Smoke, Wildfires & Prescribed Burns | NC DEQ
- EPA Smoke Ready Toolkit for Wildfires: Smoke-Ready Toolbox for Wildfires | US EPA

Other health resources:

- Wildfires and Indoor Air Quality
- EPA Health and Air Quality Publications
- EPA: Wildfire Smoke, A Guide for Public Health Officials, 2019
- CDC: Wildfires and Your Safety
- CDC: Wildfire Smoke and Children
- NC DHHS: Public Health Preparedness and Response