Asheville-Buncombe
Air Quality Agency

Hurricane Helene Air Quality Response Recovery

June 4, 2025

EPA Region 4 Grants and Planning Meeting

Topics

- Brief Intro-Local Agency
- Helene: NC DAQ and AB Air Quality Initial Response and Recovery
- Storm Debris: Open Burning and Air Curtain Incinerators
- Non-Regulatory Temporary Monitors and Sensors-Air Awareness
- Demolition Permits and Asbestos Requirements
- Challenges Going Forward

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History

- One of Three Local Programs in North Carolina
- City of Asheville Smoke Abatement Program – 1947-1967
- Multi-County Agency
  - 1967-1970 Buncombe, Haywood, Henderson, Transylvania
  - 1970-2000 Buncombe and Haywood
  - 2000-Buncombe County and City of Asheville



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AB Air Quality Permitting & Inspection Program

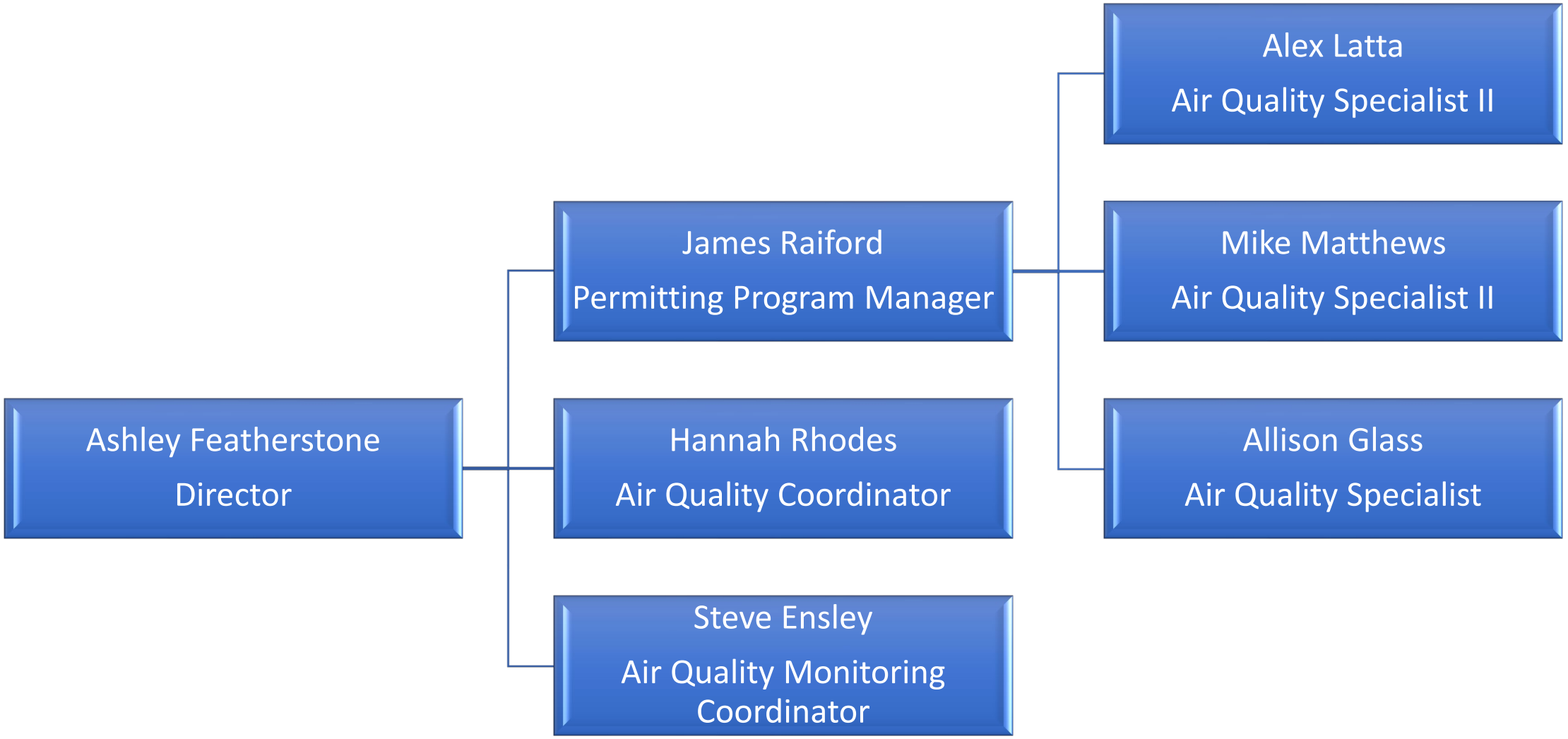
- 7 Title V Facilities
- 10 Synthetic Minor Facilities
- 56 Small Facilities
- 150 Stage I Vapor Recovery Facilities
- 2 112r facilities, 7 dry cleaners

- Demolition and Asbestos Removal Permits – 200+ per year
- City of Asheville and Buncombe County Permit Reviews – 300 per year

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Organizational Chart



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Hurricane Helene





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Hurricane Helene





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Hurricane Helene Statistics

- 1,000 year flood event in several counties
- $59.6 Billion in damages
- Power and communications out for weeks in some areas
- Asheville/Buncombe no potable water for 2 months
- 107 confirmed fatalities in NC-43 in Buncombe County
- 25 counties declared federal disaster areas affecting 4.6 million-more that 40% of the state's population
- Estimated 10 million cubic yards of debris that will need to be collected and disposed in Buncombe County – update April 2025-950,000 cubic yards.

Helene-AB Air Quality Response

- Initial Response: staff check ins, restarting monitoring network
- EOC, wellness checks, damage assessments, community care stations/distribution warehouses
- Worked with DAQ and EPA to deploy additional non-regulatory PM2.5 monitors and sensors
- Air Curtain Incinerators/Open Burning of Storm Debris
- Guidance Documents on website
- Demolition and Asbestos Removal Permits
- Neighborhood and Built Environment Workgroup





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Title V Permitting for Air Curtain Incinerators

- EPA Rulemaking required Title V Permits for OSWI and CISWI ACI Units
- North Carolina DAQ and AB Air Quality instituted General Title V Permitting Procedures for both OSWI and CISWI ACI units
- Our Agency has only issued one General Title V Permit which is no longer active, North Carolina DAQ has several General Title V Permits
- EPA removed the requirement for OSWI units to obtain a Title V Permit on April 17, 2024. This is only for units that have a daily throughput less than 35 tons per day (state and local rules have not been updated to reflect this change)

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Helene Regulatory Relief for ACIs

- On October 10, 2024, the General Assembly of North Carolina passed House Bill 149, also known as the Disaster Recovery Act of 2024, in response to Hurricane Helene.
- The Act stated that owners and operators of permanent and temporary OSWI units shall not be required to obtain a General Title V Operating Permit (to reflect the EPA's updated rule).
- On November 15, 2024, the North Carolina Division of Air Quality requested regulatory relief from the EPA regarding the use of ACIs in North Carolina to handle disaster debris, including waiver of the Title V permitting requirement for CISWI ACIs.
- OSWI Rule already had provisions for burning disaster debris, allows eight weeks of operation with an additional eight-week extension before having to comply with the rule

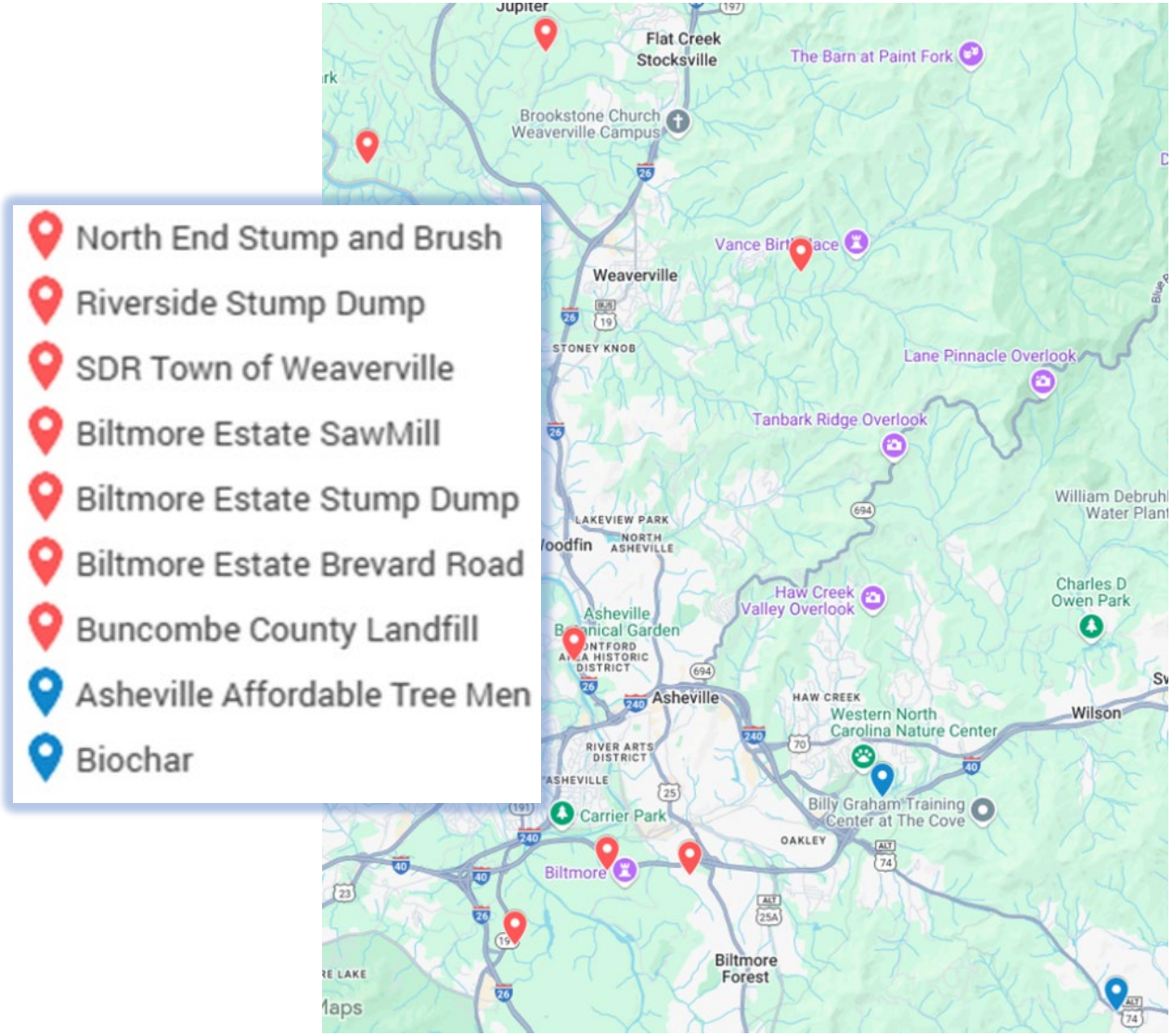
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EPA No Action Assurance Letter

- Issued on November 21, 2024. Extension March-2025
- Allows ACIs with capacity greater than 35 tons per day to operate in North Carolina without first obtaining a Title V Permit through September 1, 2025 provided that:
  - The owner/operator notifies the EPA Region 4 (see below for notification contact) prior to initiation of the use of a new ACI subject to the Title V permitting under CISWI
  - Owners/operators comply with all other applicable CISWI requirements, including opacity limits, monitoring, testing, and recordkeeping and reporting.
  - Owners/operators comply with all conditions imposed by State or local authorities on these emergency operations.

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ACIs Proposed/Operating in Buncombe County



- Six ACIs in Buncombe County to be operated at eight sites (Biochar is a test site)
- Only one ACI is an OSWI unit
- Three units have asked to keep the ACIs permanently and will require permits once hurricane debris is removed

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CAT
M30-6
678-855 1723
BurnDebris.com




AirBurners





ACIs Rated at Less than 35 tons per day – Title V Permit Not Required



24 Tons Per Day



251 Tons Per Day

Out of the ashes: Contraption could turn Helene debris into useful product

By Andrew Marshall andrew@themountaineer.com May 21, 2025 0



MORE THAN A BYPRODUCT — The Tigercat 6040 Carbonizer could turn forest debris into valuable biochar, which in turn could help revitalize agricultural fields damaged by Helene.

Andrew Marshall

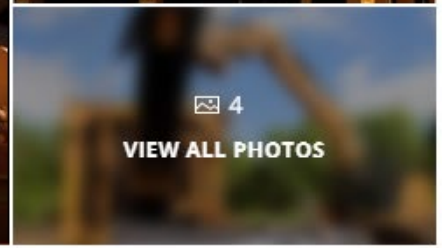
New machine transforms wood debris into biochar, aiding local farmers in Helene recovery

by Ed DiOrio | Tue, May 6th 2025 at 6:07 PM
Updated Tue, May 6th 2025 at 7:00 PM





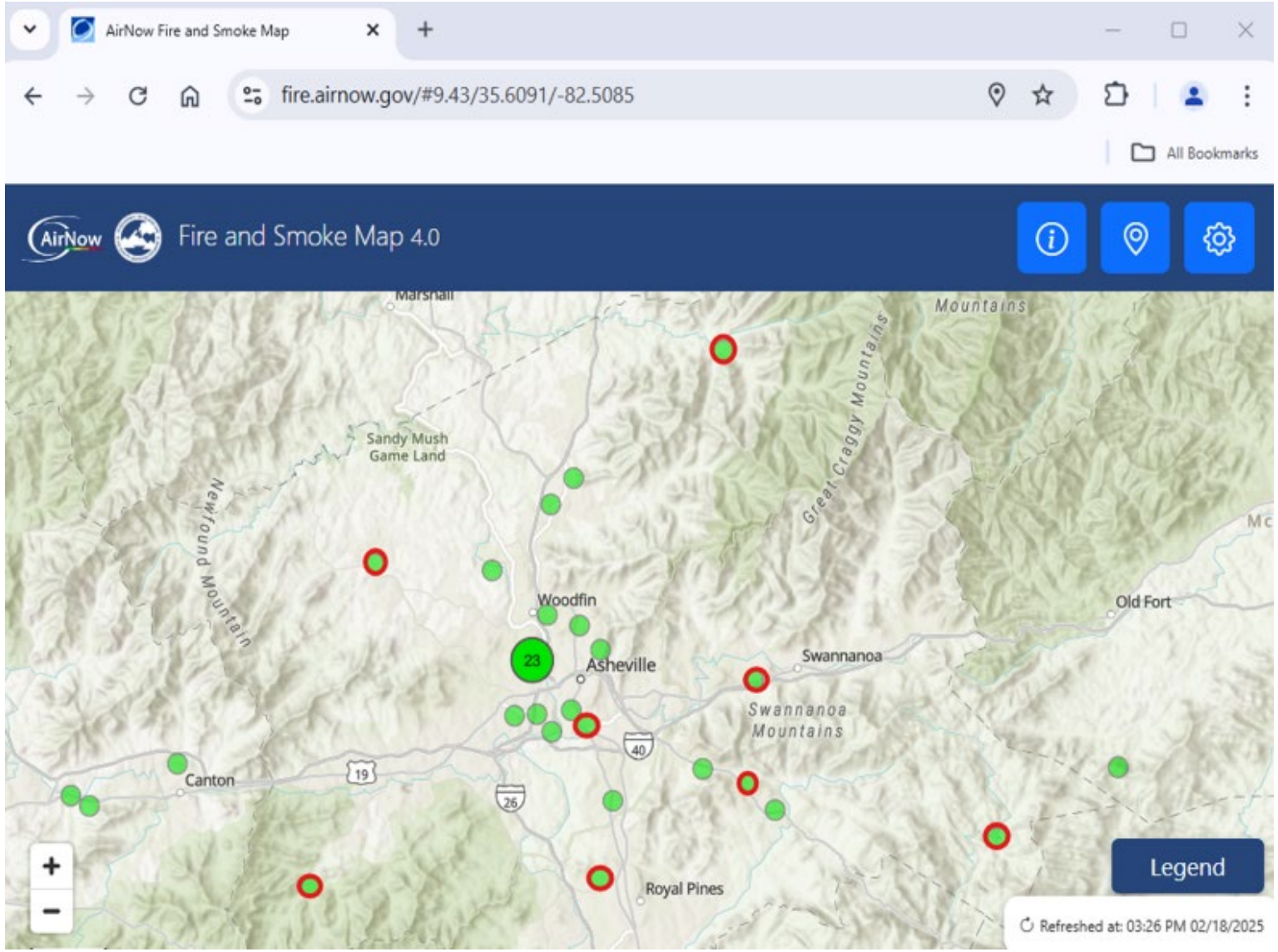




MAY 6, 2025 - This new machine takes debris and burns it into biochar, aiding with recovery after Hurricane Helene. (Photo credit: WLOS Staff)

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



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

Sensors and 2 additional monitors Provided by NCDAQ and EPA

EBAMs



Fairview Elementary



ARO

Purple Airs cont.

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Skyland Library



Broad River FD

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Demolition Permits and Asbestos Requirements

- Demolition/Asbestos Permits-Residential and Commercial
  - 364 applications since Helene (up from 296 over previous year)
  - Currently processing 140 demolition permits with FEMA/USACE/County
- 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



Resources for Recovery

- Neighborhood and Built Environment Group
  - Air Awareness-Air Now Fire and Smoke Map
  - Other Agency Services: Open Burning/Dust/Odor
  - How to make a DIY Air Cleaner
  - Demolitions and Renovations-Asbestos, lead, mold
  - Burn Wise Program



It's Air Quality Awareness Week!
Air quality matters every day, and after Tropical Storm Helene, our region has seen more smoke from burning storm debris and wildfires. We're asking residents to help protect the air we breathe. The Asheville-Buncombe Air Quality Agency and local fire chiefs strongly encourage you to avoid burning storm debris due to the high fire risk and air quality impacts.

✅ Better alternatives include:
- Composting
- Mulching or grinding
- Recycling
- Taking debris to the landfill (fees apply)

You may also see air curtain incinerators around. They look like debris burning in a big metal box or dumpster — but they emit less smoke and pollution than open burning!
Learn more at buncombecounty.org/air
#AirQualityAwareness #BuncombeCounty #AfterTheStorm #CleanAir



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Challenges Moving Forward

- Ensuring that ACI operators are following CISWI rules for opacity, testing, etc.
- Will EPA eliminate Title V Requirements for CISWI ACIs?
- Monitoring – One ACI is Located 1000 feet from our PM 2.5 Monitor
- Permitting – ACIs will likely become a permanent fixture
- Storm Debris-Long Term Situation-Wildfires
- Demolition Permits and Reduce to Rebuild (proposal to decrease fees)
- Workload. Open Burning Complaints and Demolition Permits->50% increase
- Asphalt Plant Odor Complaints
- Increased Outreach for Recovery Resources

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Questions?

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