

# The Element

October 2024



## HURRICANE HELENE RELIEF ►

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## ELECTRIC LEAF BLOWERS TAKE CHARGE THIS FALL ►

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## RESPONSIBLE TAILINGS MANAGEMENT PLAN ►

The proposed Kings Mountain Mine project plans to adopt industry-leading tailings management practices that can reduce water usage, limit environmental impact and support the well-being of local communities.

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# Albemarle's Commitment to Community Support in the Aftermath of Hurricane Helene

Hurricane Helene caused widespread damage across the Southeast, with western North Carolina being among the most heavily impacted regions.

In response to the devastation, Albemarle and the Albemarle Foundation have initiated several relief efforts to assist the communities in Cleveland County and the broader western North Carolina area. We've partnered with local organizations, including the Kings Mountain Family YMCA, the City of Kings Mountain and the Grover Volunteer Fire Department, to offer generator use and distribute essentials. The Kings Mountain Family YMCA opened its doors to more than 600 people over three days, offering hot showers, coffee, phone charging stations and childcare. Residents from surrounding areas, including Asheville and Morganton, have been welcomed.

**“YMCA extends heartfelt gratitude to Albemarle for their incredible support of our community through volunteering, donations and engagement throughout the year. The moment our YMCA regained power and reopened, they reached out to see what we needed.”**

**—KEVIN OSBORNE**  
vice president of Cleveland County Family YMCA

In addition, Albemarle's employees in Charlotte conducted canned food drives for the Kings Mountain Crisis Ministry, as well as supply and blood drives to support residents across western North Carolina. To date, over 300 pounds of canned good items were donated. Albemarle is matching employee donations to charities providing relief efforts and raised \$11,000 in the first three weeks.



Albemarle is also proud to announce that we have joined the [American Red Cross Disaster Responder Program](#), a select group of leading corporations that provide the highest level of support to American Red Cross preparedness and relief efforts. Through the Disaster Responder Program, Albemarle is helping the Red Cross be ready before disasters strike, enabling the organization to spring into action with much needed assistance to help individuals and families in their times of greatest need. The American Red Cross has nearly 1200 disaster workers on the ground helping victims of Hurricane Helene.

“As extreme weather events increase in frequency and intensity, we continue to count on forward-thinking disaster responder members like Albemarle to help power our preparedness and relief efforts,” said Anne McKeough, chief development officer at the American Red Cross.

Additionally, Albemarle continues to offer emergency financial assistance to employees impacted by disasters or personal hardships through a fund.

We are proud to stand alongside the City of Kings Mountain and our non-profit partners as we work together to support the community during this challenging time. Through collaboration and the strength of our shared efforts, we remain confident that our resilient community will emerge stronger than ever.

# Blown Away by Lithium Power:

## *Electric Leaf Blowers Take Charge This Fall*



As fall settles in, it's time for pumpkin spice everything, crisp autumn air and the vibrant colors of changing leaves. But with those beautiful leaves comes the inevitable task of cleaning them up. For many, this means gearing up for leaf blowing season.

From the 1980s through the early 2000s, American homeowners had two primary choices when it came to leaf blowers—powerful but heavy gas blowers or lightweight, corded electric models limited by their range. Early battery-operated blowers, while appealing, couldn't match the power of gas models and were weighed down by bulky batteries.

Gas-powered leaf blowers have their downsides. According to Monica Cardoza of [Audubon Magazine](#), "Some produce more than 100 decibels of low-frequency, wall-penetrating sound — as much noise as a plane taking off." According to the [Harvard School of Public Health](#), people within 50 feet of a gas-powered leaf blower with long-term exposure may suffer adverse auditory effects such as tinnitus and hearing loss.

Beyond noise, gas-powered leaf blowers emit pollutants like particulate matter, which may be linked to health risks for the operator and those nearby.

In addition to their loudness and risk to the user's health, gas-powered leaf blowers can be a larger source of harmful emissions than many realize. According to a study by [Edmunds](#), the average gasoline-powered leaf blower coughs up more pollutants than an average pickup truck. The study compares how blowing leaves around your yard for half an hour with a two-stroke leaf blower would emit roughly the same number of hydrocarbons as driving that pickup from Texas to Alaska.

Fortunately, technology has advanced. Thanks to improvements in lithium-ion batteries, cordless leaf blowers have become lighter, more powerful and more affordable. According to the [California Air Resources Board](#), electric leaf blowers can be nearly four times quieter than gas models. None of the lithium-ion electric models emit direct exhaust emissions.

If you walked down the aisle of any major home improvement store ten years ago, you might have seen a handful of electric leaf blowers. Last year, the North Carolina-based retailer Lowe's reported that 60% of its outdoor power equipment sales use battery-powered electric technology, excluding riding lawn mowers.

With major retailers like Lowe's reporting a growing demand for battery-powered leaf blowers, this movement may even outlast pumpkin spice. When tackling fall yard work this season, it might be time to leave the gas can behind and embrace the power of lithium.



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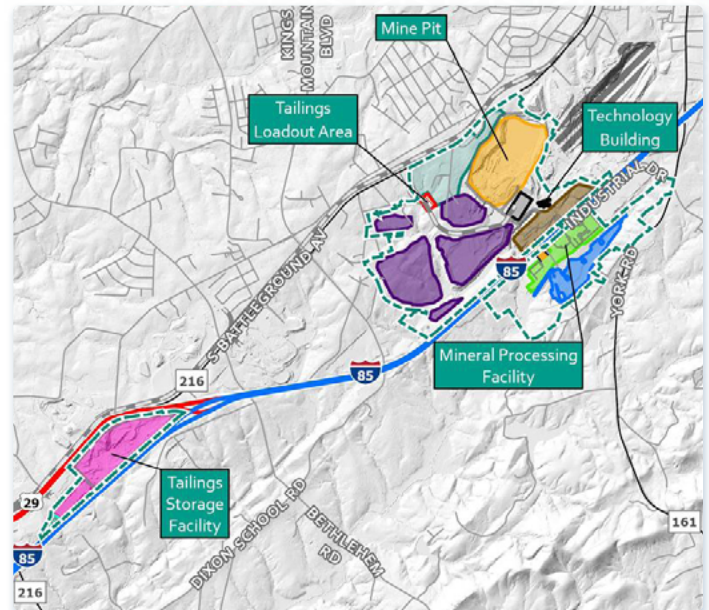
# Responsible Tailings Management

At Albemarle, implementing environmental protection measures is a key priority in every project. As part of the proposed Kings Mountain Mine project, we are taking significant steps to promote the long-term safety and environmental stewardship of the site. One critical aspect of this is the management of mine tailings—the material left behind after extracting valuable minerals from the earth. Through innovative solutions like “dry stacking,” the project plans to adopt industry-leading practices that can reduce water usage, limit environmental impact and support the well-being of local communities.

Most mines mix tailings with water to form a slurry, which is then pumped to the tailings storage facility (TSF). This results in significant water usage, water ponds on top of the TSF, and increased seepage of water through the facility, which can potentially compromise its stability and impact the environment. Alternatively, Albemarle has chosen to design what is known as a dry stack facility, where the tailings pass through a filtration process designed to remove most of the water within the material until it resembles moist beach sand. This technique is possible because the throughput of the proposed Kings Mountain mine is small relative to many other open pit mines.

Tailings management is a priority, according to Keith Viles, senior manager of geotechnical governance at Albemarle, “Part of that is ensuring that what we leave behind is safe and won’t be a problem for anyone that comes after us.”

The Kings Mountain site already has tailings from previous mining activity. Geochemical testing has been conducted on this existing legacy material to confirm its relationship to the environment, and its chemical makeup has remained consistent and safe since mining ceased at the site in the early 1990s. In fact, the project team has been able to use these existing tailings to devise a field-scale trial that has been useful in the design of the proposed TSF. This opportunity is unique for the industry, “Not a lot of mines get that luxury,” said Viles.

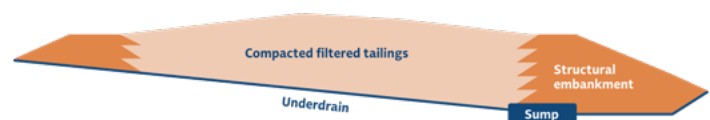


The proposed tailings storage facility is located about three miles southwest of the Kings Mountain site. Much of the 131-acre property was previously used for mica mining activities.

The facility would be located about three miles southwest of the proposed mine. Much of the property was previously used for mica mining activities. Once constructed, Albemarle plans to monitor the facility regularly with drones, surveys and through periodic inspections by independent engineers.

Albemarle is working hard to reduce the amount of material that must be stored at the mine. A strategic taskforce is finding innovative ways to re-use this material in multiple industries so less will need to be stored.

“Finding sustainable outlets for our co-products is not only beneficial to Albemarle but also our partners and communities,” says Christine Stroh, Albemarle’s global tailings business manager. “We want to enable a circular economy for tailings through innovative and creative upcycling.”



Albemarle plans to store its tailings within an engineered solid and/or rock structure called a Tailings Storage Facility.

# Community Events

## Upcoming Events



### Halloween Events

On Oct. 31, the downtown project center will join the City of Kings Mountain for the annual Great Pumpkin Halloween Parade. Trick-or-treaters will be given sweet treats as they parade from downtown to the gazebo at Patriots Park for a morning of spooky fun!

Albemarle is also excited to participate in the first Life Enrichment Center Trunk-or-Treat on Oct. 31. Program participants will enjoy a morning of howling good fun and treats galore!

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## Community Table Thanksgiving Meal

Feeding Kids Cleveland County and Albemarle invite everyone to come and enjoy a Thanksgiving meal on Nov. 27 at 4:00 p.m. The event takes place at six different locations simultaneously and aims to unify Cleveland County through food and fellowship. For more information, visit [Feeding Kids Cleveland County](#).



Past Events ▶



**CLEVELAND COUNTY FAIR**

Albemarle was the presenting sponsor for the 100th anniversary of the Cleveland County Fair. The community relations team, Cleveland Community College representatives and Albemarle volunteers enjoyed speaking with visitors of all ages.



**FORE A PURPOSE**

Albemarle was a proud silver sponsor of The United Way of Cleveland County's 23rd annual charity golf tournament. Players enjoyed spinning the prize wheel and chatting with the community relations team while giving back to the community.



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Albemarle is a global leader transforming essential resources into critical ingredients for mobility, energy, connectivity and health. We partner to pioneer new ways to move, power, connect and protect with people and planet in mind, enabling a more resilient world. Our global headquarters is approximately 35 miles from Kings Mountain in Charlotte, NC.

For more information visit [albemarlekingmountain.com](http://albemarlekingmountain.com)

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