

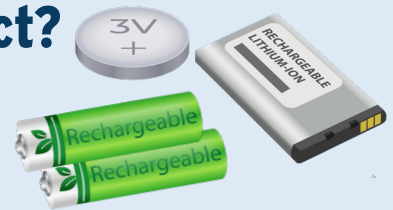


LITHIUM-ION BATTERY COLLECTION PROGRAMS: CHATHAM COUNTY RECYCLING CASE STUDY

Chatham County is a mostly rural county in the North Carolina Piedmont with a population of more than 85,000.

What batteries does Chatham County collect?

Chatham County collects most types of batteries from residents using a combination of County-run drop-off sites and household hazardous waste (HHW) events. Accepted batteries include lithium-ion, lithium, lead-acid, alkaline, cadmium, and nickel.



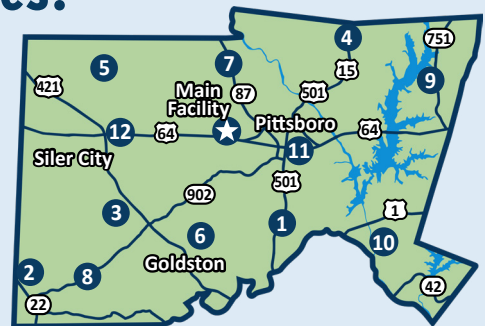
How do residents learn about collection options?

Battery types accepted at county facilities are listed on the [Chatham County's Safe Battery Disposal website](#). Residents also learn about battery recycling options through an annual HHW event flyer mailed by Chatham County each year. Chatham's website tells residents how to properly dispose of batteries. Batteries should not be placed with traditional household trash or recycling because they can cause fires when mixed with other materials. They must be handled separately for the safety of sanitation workers and the public.

Where can residents bring their batteries?

Chatham County collects residents' batteries at its [12 collection centers](#), the main solid waste facility, and HHW events. Residents hand batteries to the site attendant to sort by type and chemistry. Once lithium-ion batteries are separated, their terminals are taped to prevent sparking and reduce the risk of fire during storage and transportation.

Residents can also bring batteries to participating retail take-back [locations](#), including Lowe's, Best Buy, and Home Depot.



Who can bring batteries to the collection centers?

Only county residents with a solid waste decal may bring batteries and other HHW items to the collection centers. Decals are issued for a single property and are nontransferable.

Businesses cannot use the collection centers, and the County recommends that businesses contact private companies listed on Chatham County's [Hazardous Waste from Businesses](#) page.

Battery collection at HHW collection events

At the annual [HHW events](#), the County's vendor takes batteries from residents and sorts them into buckets based on their chemistry and type, taping the terminals of lithium-ion batteries. County residents use decals to access HHW events, but residents of Cary, Pittsboro, and Siler City can also access these events because these towns signed memorandums of agreement with the County.

Chatham County mails residents their collection center decal along with a flier advertising the annual HHW events each year. Also, the County posts a roadside banner advertising the event dates.

Only 15% of the total batteries collected come from HHW events, with the majority collected at the 12 County collection sites during normal operating hours.

Battery storage at Chatham County

Kitty litter buckets, rescued from disposal, are used for short term battery storage at the Collection Centers. Every other week, a box truck picks up the batteries and brings them to the Main Solid Waste Facility for consolidation. For transportation to processing facilities, smaller batteries are placed in metal 55-gallon drums, and the county fits two of these drums on one pallet. Lead-acid batteries are palletized for efficient and safe transportation.



How often are collected batteries shipped to a processor?

The County typically ships three truckloads of batteries a year. They place a pick-up call with their vendor once they have 12 pallets of consolidated batteries. Their vendor delivers the pallets to a battery processor which breaks the batteries down into their component parts to recover the rare earth metals. The recovered metals, called "black mass," are used to manufacture new batteries.

Key takeaways for other local governments

1. Convenience is key. In order to ensure residents do not create fire hazards by placing batteries in their household trash or recycling, provide convenient locations or events for them to drop off old batteries.
2. Contact an HHW or electronics recycling vendor (recyclingmarkets.deq.nc.gov). Most HHW and electronics recyclers will provide guidance on how to safely handle batteries, and they will pick them up when a customer has collected enough.
3. Educate the public. It is important to let residents know about the danger that lithium-ion batteries pose to sanitation workers. Find free outreach materials at batterysafe.nc.gov.

FOR MORE INFORMATION on setting up a collection program, procedures for safe storage and handling, or receiving outreach materials and grants, visit batterysafe.nc.gov or email recycleright@deq.nc.gov.



The N.C. Division of Environmental Assistance and Customer Service (DEACS) is a non-regulatory division of N.C. DEQ offering technical and financial assistance to businesses, manufacturers, local governments, institutions, economic developers, and citizens in environmental management. For questions, call 1-877-623-6748.