



Peekskill, New York, the Wheelabrator Westchester waste-to-energy facility

## **Where Does Bronxville's Garbage Go?**

By Ellen Edwards

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Bronxville is served by a sophisticated, state-of-the-art waste disposal system, a partnership of private and public enterprise.

In 1982 the federal government mandated that Westchester county close the Croton Point landfill because its proximity to the Croton watershed threatened the safety of that water supply. As a result, 26 towns—including Bronxville--joined together to form one district that would handle its waste. In 1988 state legislation that required municipalities to provide plans for the management of solid waste emphasized this mantra: reduce, reuse, and recycle.

It all begins when curbside trash, recyclables and yard waste are picked up by trucks hired via an Inter-Municipal Agreement with Eastchester and the county. Commercial enterprises in town hire private waste haulers.

Experts disagree whether landfill or combustion is the better choice for dealing with waste. Westchester chose combustion and in 1984 it completed construction of the Charles Point Resource Recovery Facility in Peekskill. Bronxville's trash is brought to one of three county-owned transfer stations; ours is the Westchester County Thruway Transfer Station on Stew Leonard Road in Yonkers. At these stations, the garbage is compacted and loaded onto tractor-trailer trucks, then driven 30 miles north to the Charles Point plant.

Operated by the private company Wheelabrator Westchester, the enclosed Charles Point plant handles 2,250 tons of waste each day and is able to process 710,000 tons a year. It now services 36 county municipalities, and 90% of Westchester county's population. Monday through Friday, Charles Point receives residential, commercial, and special waste from which recyclable material has already been removed. Waste is transported to a tipping floor where it is visually inspected to identify and remove

any material that shouldn't be sent to the burner. Cranes transfer the material to a hopper that controls the flow of material into the boiler. Metal grates slowly move the trash through the heating process, which exceeds 2000 degrees Fahrenheit, and massive fans blow air into the boiler to create a negative pressure that prevents dust and odors from escaping.

As hot combustion gases pass through boiler tubes filled with water they create pressurized steam. The steam in turn drives turbine generators that produce electricity for sale to Con Edison. The plant produces 60,000 kilowatts of "clean" electricity an hour, or enough to supply 88,000 homes. Ten percent of the electricity generated is used to run the plant. Remaining steam is condensed to purified water and returned to the system for more energy production.

As the combustion gas leaves the boiler, it is treated with powdered carbon to remove mercury and trace organic compounds. It then passes through a "spray dryer absorber" (or dry scrubber) where lime is combined with the gas to neutralize the acidic gases (including sulfur dioxide and hydrogen chloride). As a final step, the material passes through a fabric filter (an electrostatic precipitator) to remove particulates. After additional monitoring and data collection, the clean gas is then cooled with water from the Hudson River and released through a smoke stack; the white plume that's often visible consists mostly of water vapor. For this cooling process, fifty-five million gallons of water are taken from the Hudson River each day and released back into it at a maximum temperature of 105 degrees Fahrenheit.

The ash that results from the combustion process is rich in metals such as iron, steel, copper, and aluminum, which are extracted and sold for recycling. An average of 6,000 tons is recovered each year. The remaining toxic ash, which in 2014 amounted to 5% of the volume of waste that originally arrived at the plant, goes into landfills.

Westchester recycles about 50% of its waste—a much better record than most of the country. Plastics labeled 1 through 7, glass, metal cans, and paper are taken to the Daniele P. Thomas Material Recovery Facility (called an MRF) on Stew Leonard Road in Yonkers, where they are separated, sorted, and prepared for sale to third party manufacturers. According to a 2014 county report, such sales generated revenue of over \$5.5 million and recycling overall saved the county \$11.5 million. As part of its efforts to educate consumers, the county welcomes visitors to the Yonkers MRF. Go to [westchestergov.com](http://westchestergov.com) for details.

Yard waste comprises a substantial 15-20% of all waste in the county and must be collected separately. You can help the town save money, and improve your soil, by leaving your grass clippings where they fall, and chop up the leaves with a mulching mower.

A fourth part of the county's waste recovery system is the Household Materials Recovery Facility in Grasslands Reservation in Valhalla. Here, by appointment, you can bring hazardous, bulky, and otherwise hard-to-dispose of waste, where it will be either recycled or disposed of in a safe manner. And keep an eye out, too, for Bronxville Take Back Days, sponsored fall and spring by the town's Green Committee, when you can bring to the Town Hall paper for shredding, electronics for recycling, and other items for donation.

*The Green Committee welcomes volunteers. For more information, contact Ellen Edwards at [bvillegreencommittee@gmail.com](mailto:bvillegreencommittee@gmail.com)*

