

Watauga County Government Solid Waste Management Plan Update



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INTRODUCTION

In June 1997, the Watauga County Board of Commissioners adopted a Solid Waste Management Plan in accordance with NC General Statute 130-A-309.09A. The plan covered all aspects of solid waste management in Watauga County, including the Towns of Blowing Rock, Boone, Beech Mountain and Seven Devils for the ten year planning period (FY 1996/97 through FY 2005/06). Updates were adopted in 2000, 2003, and 2006. This update covers the same geographic area for the period FY 2010/11 through FY 2021/22. The update outlines Watauga County's intended solid waste management and reduction programs, and addresses waste reduction goals. All data included in this report is from FY 2010/11.

Watauga County closed its Solid Waste Landfill in 1994, and completed construction of its ten staffed convenience centers in 1998. Watauga County completed the construction of a new transfer station in September 2005 and the old transfer station was converted into a state-of-the-art recycling center the same year. The County has no current plans for construction of a new landfill or more convenience centers, and will focus its waste reduction efforts on reduction, reuse and recycling.

UPDATE DEVELOPMENT & PUBLIC PARTICIPATION

The update was developed by members of the Watauga County Sanitation Department and Watauga County Administration, with assistance from the High Country Council of Governments. A draft of the update was presented to the Towns of Boone, Blowing Rock, Beech Mountain, and Seven Devils. Copies of the draft were made available to the public for review, and a public meeting was held to gather citizen input on the draft update.

GENERAL GOALS & OBJECTIVES

1. To meet the County's waste reduction goals.
2. To provide everyone in the community with efficient and cost-effective waste collection services and waste reduction opportunities.
3. To increase the efficiency and cost effectiveness of the solid waste program.
4. To provide educational materials to businesses and communities wishing to increase the effectiveness of their solid waste reduction programs.
5. To protect public health and the environment.

GEOGRAPHIC AREA & ECONOMIC CHARACTERISTICS

The Solid Waste Management Plan Update covers Watauga County and its four incorporated municipalities: Boone, Beech Mountain, Blowing Rock, and Seven Devils. Watauga County is located in the northeast corner of North Carolina in the Blue Ridge Mountains. The majority of

Watauga County's residents live in the rural unincorporated areas. The County's 2010 population was 51,079. With a land area of 313 square miles, the population density is approximately 163 persons per square mile. The majority of the County is experiencing moderate, steady growth with an emphasis on second-home construction. The Town of Boone is Watauga County's largest town, and is also the County seat. The average elevation of Watauga County is 3,266 feet above sea level.

Tourism creates many jobs in the County with 2,390 jobs being directly attributable to travel and tourism (2010). Appalachian State University, one of the largest employers in the County is vital to the economic pulse of the area. It has an enrollment of approximately 17,344 students (fall enrollment, 2011). Watauga Medical Center is also a major employer in the County. It offers advanced healthcare not only to the residents of Watauga County, but to the surrounding counties as well. Manufacturing makes up a small sector of the County's workforce with 4%. The two largest manufacturers in the County are IRC and Hospitality Mints. While Christmas tree harvesting constitutes the bulk of the County's agricultural industry, a very small percentage of the work force is employed in this sector. According to the U.S. Census, the County's median household income was \$31,967 (2006-2010).

Seasonal residents increase the amount of solid waste generated during the summer months of May through September. In addition to seasonal residents, a significant number of tourists visit the County each year and, in a similar manner, generate a significant amount of solid waste but are not counted in the County's official population figures. The County has experienced steady increases in tourism. Tourism revenues rose from \$130.23 million in 1998 to \$189.77 million in 2010.

WASTE REDUCTION GOALS

The Watauga County Solid Waste Management Plan Update 1997-2007 set the following waste reduction goals:

30% waste stream reduction by June 30, 2001.

40% waste stream reduction by June 30, 2006.

These reduction figures were based on a 1991 baseline per capita disposal rate of 0.99 tons/year (provided by NCDENR, Division of Waste Management Solid Waste Section). With a per capita disposal rate of 1.048 (6% increase) in FY 1998/99, the County established a goal of reducing the waste reduction goals to 6% by 2006 and 12% by 2010 in the Solid Waste Management Plan Update for 2000. In FY 2001/02, the per capita rate exhibited an even greater increase from the baseline year: 1.15 or a 16% by 2006 and 12% by 2010. FY 2004/05 saw another increase in the per capita rate, to 1.32%. In FY 2007/08, the County's per capita rate declined to 1.20, a decrease of 9% from FY 2004/05 - but still higher than the baseline rate. In FY 2010/11, Watauga County's per capita rate declined to 0.78, below the 1991 baseline rate of 0.99.

While the County has achieved significant reductions in the per capita rate, Watauga County must continue this effort. Waste reduction goals may be difficult to achieve consistently over the long term due to many factors, including:

- Steady increases in tourism which generate large amounts of solid waste, and adds to the per capita rate because it does not reflect a population increase.
- Steady increases in second-home construction which generates substantial C&D waste, and adds to the per capita rate because it does not reflect a population increase.

The new goal for FY 2021122 will be 2%.

WASTE STREAM ANALYSIS

Please refer to the Appendix for the County's Waste Stream Summary.

PLANNING ELEMENTS

The following solid waste management planning elements were analyzed during development of this update. Analysis of the elements included examination of current programs and feasibility of additional programs/efforts.

1. Reduction

Individual counties, especially rural counties, are somewhat limited in the amount of solid waste reduction that can be realized, regardless of programs that could be implemented. Packaging by manufacturers and national consumer preferences for convenience determine a great deal of waste stream in any county. Even the most conscientious efforts to reduce waste are limited by the fact that many goods can be obtained only in wasteful packaging. Rural counties (such as Watauga) do not have a sufficient number of businesses and industries to effectively promote waste exchanges, financial incentives, or other programs that would result in a significant source reduction.

The County currently is addressing waste reduction by providing community and school education programs, press releases and information on the County website. Waste reduction information also is sent to e-mail lists, included with County tax bills and is given to residents at the convenience centers.

2. Collection

Since development of the Watauga County Solid Waste Management Plan Update 1997-2007, the County has constructed two additional convenience centers. There are now ten convenience centers, all of which are secured and staffed. The convenience centers accept residential waste and recyclables. Residential waste and recyclables are also accepted at the transfer station. The convenience centers are located throughout the County at the following locations: Green Valley, 421 West, 321/AHO, Foscoe, Deep Gap, Valle Crucis, 221 South, Triplett, Bethel, and Transfer Station/Old Landfill. The table below lists monthly solid waste tonnages collected at the Watauga County Transfer Station for FY 2010/11.

<u>FY 2010/2011</u>	<u>Tons of Solid Waste</u>
July	4028
August	3962
September	3420
October	3180
November	2959
December	2412
January	2634
February	2887
March	3798
April	3184
May	3353
June	3921
Total Tonnage:	39,738

The impacts of tourism can be felt in Watauga County throughout the entire year. Although it seems that the summer months show the greatest fluctuation of solid waste collected. Solid waste collection was also up in October because the beautiful fall foliage attracts many visitors to the area. Seasonal variations in solid waste collections create an obstacle for reducing the amount of waste disposed.

Solid waste collection is also handled by the Town of Beech Mountain, the Town of Blowing Rock, Appalachian State University, and private collection companies. The towns of Beech Mountain and Blowing Rock operate curbside collection programs, and the Town of Boone contracts directly with Garbage Disposal Services, Inc., for curbside collection. The Town of Seven Devils does not provide for solid waste disposal collection for its citizens.

The County will continue to collect solid waste and recyclables at its ten convenience centers and transfer station.

The total cost of solid waste collection for Watauga County during FY 2010/11 was \$551,000. This cost figure includes operation of the convenience centers and transport of solid waste to the transfer station.

3. Recycling & Reuse

Watauga County hired a full-time Recycling Coordinator in September 2007 to develop and implement waste reduction and recycling programs in the County, provide educational programs and materials, monitor markets for recyclables and facilitate improvements to convenience centers.

Watauga County collects recyclables at its transfer station and ten convenience centers. Materials accepted at all convenience centers include brown, green and clear glass, aluminum and tin cans, plastics, corrugated cardboard, paper (*includes newspaper and inserts, office paper, junk mail, magazines, books and pasteboard*), household batteries (*added 2008*), compact fluorescent lights (*added 2008*), and rigid plastics (*added 2010*).

Materials accepted for recycling at the transfer station location include brush, and "special waste" (tires, used oil, white goods, lead-acid batteries, electronics (*added 2008*) and used oil filters (*added 2009*). *See section on "special waste" collection.* The County bales and directly markets its recyclables. Brush also is collected at the transfer station, is chipped into mulch and offered back to the public at no charge.

In May of 2002, Watauga County opened a solid waste Swap Shop. The project was funded through a grant from the North Carolina Division of Pollution Prevention and Environmental Assistance. The Swap Shop consists of a 14' x 24' prefabricated building and is located at the transfer station. The Swap Shop is a centralized location where County residents can drop off unwanted items that someone else may find use for. The following items are accepted at the Swap Shop: appliances, hand tools, toys, small power tools, lawn mowers, small furniture, household accessories, computers, books, wheels, and bikes. The Swap Shop helps raise the awareness of the need for waste reduction and demonstrates how many items can be reused.

In December 2007, Watauga County partnered with Habitat for Humanity's ReStore to provide an outlet for recycling and reusing construction and building materials that previously were headed to the landfill. More than 58 tons of materials have been diverted from the landfill since the program began operation. The ReStore's collection site is located right before the scale house when entering the Watauga County Transfer Station and a ReStore employee assists customers with identification of materials in their load that can be donated to the Restore. It is open Mon. - Fri. from 9:00 a.m. - 4:00 p.m.

The construction of the new transfer station was completed in September of 2005. The new facility has allowed for a larger storage area for recyclables and has improved the overall efficiency of the recycling process for the County.

The Town of Boone contracts with Garbage Disposal Services, Inc. (GDS) to operate a curbside recycling program inside the corporate town limits. Recyclables collected include all colored and clear glass, #1 and #2 plastics, steel and aluminum cans, newspapers with inserts, catalogs, magazines, telephone books, office/school paper, junk mail and pasteboard(ex: Cereal boxes, etc.). There is an apartment/condo complex route with the collection of all colors of glass, steel and aluminum cans, #1 and #2 plastics, newspapers with inserts, catalogs, magazines, telephone books, office/school paper, junk mail and pasteboard (ex. Cereal boxes, etc.). Recyclables collected on the business route are virtually all colors of office paper, sticky notes, message pads, mail, newspapers, magazines, catalogs, phone books, adding machine tape, pasteboard (ex: time cards, file folders, etc.), #1 and #2 plastics and aluminum cans. Businesses can participate in a weekly corrugated cardboard pick-up by contacting GDS, Inc. Blue 18-gallon containers are provided for residential and business curbside recycling participation.

Available to all citizens is the Town of Boone Recycling Center located on Horn in the West Drive near the Daniel Boone Native Gardens. The center includes containers for the collection of all the above mentioned items and is unmanned and open 24/7. The Town of Boone Public Works Center at 321 East King Street (Hours: 7:30-5:00) is a drop-site for the following recyclable items: household batteries, compact fluorescent lights (CFL's), corrugated cardboard, paper (newsprint with inserts, magazines, catalogs, phone books and paperback books. The Boone Public Works Center also accepts used oil filters and motor oil which is used for heating purposes in the town garage. The Town of Boone provides curbside pickups for special collections such as miscellaneous junk, yard waste, rigid plastics, electronics, appliances, tires, etc. to be hauled to the Watauga County Transfer Station/Recycling Center.

The Town of Blowing Rock contracted with GDS beginning in August of 2010 to implement curbside recycling. We distributed 18-gallon recycling containers to all of our residents. We closed drop-off sites once curbside collection began. The Town of Blowing Rock collected a total of 191 tons of recyclables during Fiscal Year 2010/11.

The Town of Beech Mountain operates a staffed recycling collection center. Materials collected include glass (three colors), aluminum, ferrous metal, plastics, cardboard, and mixed paper. There are also five mini-recycling centers at various multi-family complexes. The town also accepts used motor oil and antifreeze. The Town of Beech Mountain collected a total of 42 tons of recyclables for FY 2010/11

The Town of Seven Devils contracted with GDS for operation of an unstaffed recycling center until 1998. Due to the high incidence of solid waste being left at the recycling center, and the new County convenience center being opened in the nearby Foscoe Community, the town closed its recycling center.

Private haulers offer recycling services to Watauga County residents and businesses under individual contracts. The market for recyclables varies significantly over short periods of time. Watauga County may add/expand recycling program as the market dictates.

In FY 2010/11, Watauga County collected a total tonnage of 4,038 and generated \$492,564 from the sale of recyclables.

Recycled Material	Tons Collected FY 10/11
Clear Glass	226
Brown Glass	412
Green Glass	174
Mixed Plastic	234
Steel Cans	54
Aluminum Cans	28
White Goods	111
Other Metal	315
Mixed Paper	664
Cardboard	1759
Rigid Plastic	17
Electronics	44
TOTAL	4038

4. Composting & Mulching

Watauga County does not currently operate any composting programs. Stumps, limbs, and untreated wood is stockpiled and ground with a rental tub grinder two times per year. Mulch is offered to County residents free of charge. In FY 2010/11, 10,283 tons of materials were ground, and the total program cost was \$124,248.

The Town of Boone provides brush, debris, leaf and junk pickup to all residents on a call-in basis. White goods are taken to the Watauga County Landfill as well as brush and leaves are taken to the landfill for mulching. The town provides compost bins for town residents who may pick up one at the Public Works Department.

The Town of Beech Mountain operates a composting facility at its wastewater treatment plant (WWTP) site. The site processes solids from its WWTP, chipped limbs, and collected leaves. The mulch is used by the town for landscaping projects, and given to town residents free of charge.

The Town of Blowing Rock operates a yard waste program. Grinding occurs in the spring and in the fall. Grinding takes place on the residence property and mulch is offered to town residents free of charge.

5. Incineration with Energy Recovery

Due to the volume of solid waste produced in Watauga County, the air quality issues associated with incineration facilities and the high capital costs of implementing a solid waste incineration facility, incineration is not a viable option for the County.

6. Incineration without Energy Recovery

Due to the volume of solid waste produced in Watauga County, the air quality issues associated with incineration facilities and the high capital costs of implementing a solid waste incineration facility, incineration is not a viable option for the County.

7. Transfer Outside Geographic Area

Watauga County currently contracts with Foothills Environmental for transfer and disposal of solid waste. Waste Management collects solid waste at the Watauga County transfer station, and transports it to Lenoir, NC. The Foothills Landfill has a projected lifespan of over 22 years. The distance from the Watauga County transfer station to the landfill is approximately 33 miles. The County has a five-year contract with Foothills Environmental for this transfer/disposal service, at a rate of \$38.00 per ton. The average load weighs 19 tons. The contract expires 2014.

In FY 2010/11, 39,738 tons of solid waste was transferred out of Watauga County for disposal outside the County. Based upon population projections, Watauga County's population will grow 18.2% from 51,079 in 2010 to 60,395 in 2022. An 18.2% increase in solid waste will result in 46,970 tons of solid waste to be transferred in 2022.

8. Disposal

There was a total of 39,748 tons of solid waste managed at the transfer station. Solid waste generated in Watauga County is disposed of under contract by Foothills Environmental at its Landfill facility in Lenoir, NC. The contract with Foothills Environmental includes transfer and disposal for a fee of \$38.00 per ton. The contract expires in 2014.

Watauga County operates a permitted LCID landfill located adjacent to the County's closed MSWLF site and transfer station. The LCID landfill was opened in June 1999, and had a construction cost of \$53,680. County residents are charged a fee of \$49 per ton for disposal of LCID waste. In FY 2010/11, the cost of operation of the LCID was \$28,200.

9. Education with the Community & Through the Schools

The Watauga County Board of Education currently incorporates waste reduction education in its curriculum for grades K-8. The curriculum was developed in conjunction with the NC State

Office of Waste Reduction. The County recycling coordinator regularly conducts student tours for groups from Appalachian State University and schools throughout Watauga County.

The recycling office has developed a puppet show, "Jason's Dream", about recycling and waste reduction in conjunction with the Elkland Arts Center that is presented to third grade classes, at the public library and at festivals throughout the County. A power point presentation about the County recycling program also was developed and is presented to civic, church and other groups.

The recycling office produced "Guidelines for Recycling" - easy-to-read instructions for the County recycling program that is given to residents at convenience centers, with recycling bins and during education programs. It is available on the Watauga County web site and is inserted in the County tax bills every other year.

The recycling office works with local newspaper, radio and television to provide ongoing information and education about additions to the recycling program, waste reduction tips and special waste collection and displays are set up during local events and festivals.

The County received a grant from the North Carolina Department of Environment and Natural Resources in 2008 to purchase 18-gallon recycling bins to give to residents and to purchase recycling containers that were placed at County recreational facilities in the spring of 2009. The Recycling Office is working with the County Maintenance and Recreation Departments for the collection of these recycled materials and to educate participants about the program.

The County also received 40 event-type beverage recycling bins through a grant from Coca-Cola that can be "checked out" and used at local events and festivals. They have been used for all of Blowing Rock's "Art in the Park" events, at the Cove Creek Children's Festival and at numerous music events throughout the year.

The recycling office purchased reusable shopping bags to promote using fewer plastic bags that are given out during presentations and when residents pick up recycling bins.

The County received a grant from the North Carolina Department of Environment and Natural Resources in 2010 purchase recycling bins, perform Jason's Dream educational puppet show and provide education materials for all of Watauga County Schools.

10. Special Wastes

Tires are collected free of charge at the Watauga County Transfer Station. They are currently being transferred by the County to U.S. Tire Recycling Facility in Concord, NC for disposal. The cost of tire disposal for FY 2010/11 was \$39,613. Watauga County received \$53,692 as reimbursement from the State Tire Tax in FY 2010/11.

White goods are collected free of charge at the Watauga County Transfer Station. Freon is removed from refrigerators, freezers, and air conditioners and the materials are transferred to Atlantic Scrap and sold as scrap metal. The cost of white goods disposal for FY 2010/11 was \$44,637.00. Watauga County received \$13,480 as reimbursement from the State White Goods Tax in FY 2010/11, and generated \$119,075 from the sale of scrap metal.

Watauga County collects **lead acid batteries** at the transfer station. In FY 2010/11, 122 lead-acid batteries were collected. Batteries collected are transferred and sold to a broker. The County received \$778 from the sale of lead-acid batteries.

The County also accepts **used motor and cooking oils** and **used oil filters**.

Watauga County has designated two days during the year for the collection of **household hazardous waste** at no charge. The estimated cost of this program for FY 2010/11 was \$56,143.

Beverage containers

Beverage containers have been banned from the County transfer station.

Recyclable rigid plastic containers

Receptacles for recycling plastic containers #1-7 are available at all of the County convenience centers. Our facility developed a public awareness program addressing the landfill bans on plastic containers.

Wooden pallets

Wood pallets are ground into mulch, placed in the brush pile as clean wood, and/or given away to County residents. Pallets are also used to ship used electronics to recycling providers.

Computer equipment and televisions

The County currently provides recycling service for these items. Some of the wood pallets received by the County as waste are used to ship computer equipment and televisions to contractors for recycling.

Abandoned manufactured homes

- The County plans to identify abandoned manufactured homes upon request of the homeowner only. A list of abandoned manufactured homes will be available at the Department of Planning & Inspections. The number of homes to be deconstructed will be determined by the amount of funding that is available from the Abandoned Manufactured Homes Grant Program.

- The County will hire a licensed and insured contractor to deconstruct the manufactured homes on-site. Roll-off containers will be delivered to the home site by the County where the Contractor will separate the materials into the containers. The County will pick up the containers and properly dispose of the materials at the Landfill.
- All recyclables will be removed by the contractor and placed in separate roll-off containers for reuse and recycling, including mercury switches from thermostats, in which County employees will dispose of properly at the Landfill.
- If perhaps we receive a mobile home at the landfill that has not been deconstructed, we have adequate space to receive one at a time and plan to deconstruct, properly separate, and dispose of material. We plan to revise our Ops plan to include deconstruction of abandoned manufactured homes.

ELECTRONICS RECYCLING PLAN (ADDENDUM 10/12/2010)

Collection

As defined in Session Law 2010-67, computer equipment and televisions banned from landfills, as well as other electronics such as fax machines, stereo equipment, DVD/VCR players, phones, etc., will be collected at the Watauga County Recycling Center located at the Sanitation Department on Landfill Road, Monday- Friday from 8:00 a.m. to 4:00 p.m. and on Saturday from 8:00 a.m. to 12:00 p.m.

Collection of electronic waste began in May 2008. Residents and businesses bring electronic waste across the scales and either the weight goes against the annual 2000 pound allotment for homeowners or, non-homeowners and businesses are charged \$49/ton for electronic waste. Electronics are dropped off at the Recycling Center where staff separate, stack and wrap electronic equipment on pallets and load the pallets with a fork lift onto a staged trailer. Watauga County contracts with an electronics recycling vendor to switch out the loaded trailer and haul the electronic waste to their recycling facility.

Education

Information regarding recycling of computer equipment and televisions will be publicized (options)

- via signage at convenience centers and the transfer station
- with press releases
- in recycling information handouts
- in County tax bills
- on the County website
- with posted notices at prominent locations such as public buildings
- others

Tonnage Reporting

The County's contract with the electronics recycler will include a requirement for the vendor to track the tonnage collected, and report these figures to the County.

Other Local Governments

At this time no other local governments (towns, other counties) will be involved in the County's electronic waste management program. The Towns of Blowing Rock, Boone, Seven Devils, and Beech Mountain may, at their discretion, direct their citizens to the County program.

Accounting

A separate account will be established for state electronics funds received by the County. These funds will be used to establish and operate the electronics recycling program. The receipt and expenditure of these funds will be tracked separately from other County budget items.

11. Illegal Disposal/Litter

All local governments in Watauga County have anti-litter ordinances in effect. Lack of enforcement personnel and the rural nature of the County make enforcement of the ordinances difficult. Enforcement in the County is handled by County Solid Waste Enforcement Officer. When a private landowner cleans up an illegal dump site, the County waives its tipping fee. A copy of the Solid Waste ordinance is included in this update.

12. Purchasing Recycled Products

Watauga County purchases recycled products whenever practical.

13. Disaster Response

The Watauga County Emergency Management Office coordinates resources for emergency services in Watauga County. This office also conducts searches for missing persons, handles hazardous materials incidents, conducts emergency preparedness programs/training, and acts as liaison for Watauga County to the State Division of Emergency Management during times of disaster. In addition to the response phase the Emergency Management Office is responsible for plans pertaining to disasters and emergency response. The Office of Emergency Management is responsible for all phases of an emergency: preparedness, mitigation response, and recovery.

In coming months, the County will contact the Division of Waste Management in order to have a potential disaster debris site approved. Upon approval of the disaster debris site, the County will rent a tub grinder to process the trees and clean wood, and will transfer the remainder of the material for proper disposal. In the event of a natural disaster, Watauga County anticipates

excess volumes of LCID and C&D materials (trees, metal, building materials, etc.). The County has adequate space at its transfer station site (22 acres) to temporarily store materials.

Given the rural nature of the County, the majority of the storm debris will have a few adverse effects on the residents. The majority of the fallen trees will be cut up and used for firewood. Therefore, the County feels the area at the transfer station provides a more than adequate site for any storm debris that may be collected.

The County's farms are overwhelmingly used for food/crop (Christmas trees) production and are not engaged in large animal farming/breeding activities. In the unlikely event of a mass animal mortality incident, the County will respond by following the procedures outlined in the Watauga County Emergency Management Plan.

14. Landfill Gas Project

Watauga County owns a 22-acre landfill containing approximately 500,000 tons of municipal solid waste, yard waste, and construction and demolition waste. The landfill operated between the early 1970's and 1994. The landfill was capped with an artificial membrane covered by a clay cap in 1994.

The cap design includes a series of 22 vent structures which were topped by individual solar flares. In 2005 an active landfill gas collection system was installed which included 22 adjustable well heads and underground hdpe collection and header pipes leading to a blower/flare and a flow meter. A gravity leachate interception system has also been constructed, leading to two underground leachate collection tanks. This collection system has been operating since December of 2005 and has been producing landfill gas of about 50% methane at a flow averaging about 100 standard cubic feet per minute (scfm).

Beginning in January 2012, the methane gas produced from Watauga County's closed landfill is being used to generate renewable energy, saving the County money on its electricity bills and providing a source of income to the County. The County worked with partners from the Blue Ridge Electric Membership Corporation and the Appalachian Energy Center at Appalachian State University on a pilot landfill gas project to make use of the energy collected by the existing methane gas collection system. Today, there are two modified automotive engine generators, with a combined nameplate generation capacity of 190 kW, installed at the landfill facility that uses methane gas from the landfill to produce electricity.

The engines generate an estimated 900,000 kWh of electricity per year, which is enough electricity to power about 60 average North Carolina households. Nearly all the power needs of the landfill facility will be met using green power from the project, and surplus electricity will be sold to Duke Energy Carolinas. The County also will earn an additional income by selling renewable energy certificates to N.C. Green Power.

The projected annual gain to the County is \$72,220 per year, including savings of about \$30,000 on electrical bills and sales of about \$42,220 per year. The rate of return considering the County's \$245,000 investment in the project is approximately four years. The project also received nearly \$41,000 in grant funds from the N.C. Department of Commerce's State Energy Office.

COST ANALYSIS

Watauga County finances its solid waste management program through a combination of household fees, tipping fees, and state tax reimbursements. Every household is charged a user fee of \$60. Residents residing outside of the towns, except for Seven Devils residents, must pay a \$25 green box user fee. These fees allow households unlimited disposal at the convenience centers, and 2,000 pounds of disposal per year at the transfer station. Customers are charged a tipping fee of \$49 per ton for all waste brought to the transfer station exceeding the initial 2,000 pounds. LCID waste is accepted at the transfer station site at a rate of \$49 per ton and land clearing (brush and yard waste) is \$42 per ton. Other revenues include sale of recyclables, sale of scrap metal, and reimbursements from the State Tire Tax and State White Goods Tax funds.

Costs associated with the County's solid waste management programs include contracted expenses for transfer and disposal, operation of the LCID landfill, operation of the transfer station, and operation of the ten convenience centers.

In FY 2010/2011, Watauga County's total cost of solid waste management was \$3,893,074.00. During the same period, the County collected fees and other revenues for solid waste management in the amount of \$4,703,231.00. Below is a breakout of costs and revenues for Watauga County's solid waste management program for FY 2010/2011.

Revenues FY 2010/11

Household and Green Box Fees	\$ 2,354,699.00
Tipping Fees	\$ 1,463,209.00
Sale of Recyclables	\$ 503,680.00
State Tire Tax Reimbursement	\$ 48,772.00
White Goods Tax Reimbursement	\$ 16,726.00
Interest Earned on Solid Waste Fund	\$ 96,492.00
Tire grants	\$ 0
Loan proceeds	\$ 135,290.00
Dumpsters	\$ 6,353.00
Schools	\$ 16,842.00
Residential Tire Disposal	\$ 4370.00
Sale of Fixed Assets	\$ 31,605.00
Sold Waste Disposal Tax	\$ 25,193.00

Total Revenues: \$4,703,231

Transfer from General Fund: \$0.00

Expenditures FY 2010/11

Transfer/Disposal Fees to Waste Management	\$	1,330,991
Salaries and Administrative Cost	\$	1,205,887
Maintenance, Equipment, Depreciation Cost	\$	234,755
Capital Outlay	\$	566,040
Professional Services	\$	65,556
Debt Service	\$	113,536
Other Expense	\$	376,309

Total Expenditures: \$ 3,893,074

Watauga County

	Solid Waste Collection	Solid Waste Disposal	Reduction, Reuse, & Recycling	Mulching, Composting & Other Programs	Total Cost
Program Cost	\$2,324,417	\$1,330,991	\$113,418	\$124,248	\$3,893,074
Cost per Household					
Cost per Ton	\$42.96	\$47.22	\$103.02	\$25.73	\$97.95

Source: Watauga County Solid Waste Management Annual Report FY '10-11.

Town of Boone

	Solid Waste Collection	Solid Waste Disposal	Reduction, Reuse, & Recycling	Mulching, Composting & Other Programs	Total Cost
Program Cost	\$71,133	\$71,133	\$166,843	\$28,283	\$337,392
Cost per Household	\$28.46	\$28.46	\$66.74	\$11.32	\$134.90
Cost per Ton					

Source: Town of Boone Solid Waste Management Annual Report FY '10/11.

Town of Blowing Rock

	Solid Waste Collection	Solid Waste Disposal	Reduction, Reuse, & Recycling	Mulching, Composting & Other Programs	Total Cost
Program Cost	\$187,539				\$269,667
Cost per Household					\$132.84
Cost per Ton					\$129.90

Source: Town of Blowing Rock Solid Waste Management Annual Report FY '10/11.

Town of Beech Mountain

	Solid Waste Collection	Solid Waste Disposal	Reduction, Reuse, & Recycling	Mulching, Composting & Other Programs	Total Cost
Program Cost	\$253,270	\$12,499			\$265,769
Cost per Household					
Cost per Ton					261.59

Source: Town of Beech Mountain Solid Waste Management Annual Report FY '10/11.

EXECUTIVE SUMMARY

Watauga County has adjusted the waste reduction goal through the next ten-year planning period. The County has set a waste reduction goal of 2% by FY 2021/22. Efforts will be focused mostly on residential and construction/demolition. A 2% reduction goal requires the County to divert 14,495 tons from the waste stream by the year 2022. The current per capita disposal rate is 0.77 tons per person annually which must be decreased to a 0.75 disposal rate in order to achieve the 2% waste reduction goal. Tourism will make this goal harder to achieve because it generates large amounts of solid waste, and adds to the per capita rate, but does not reflect a population increase.

The staff at the landfill site will continue to encourage building contractors to dispose of untreated wood at the mulching staging area. Stumps, brush, and untreated wood will be ground up into mulch and made available to the public.

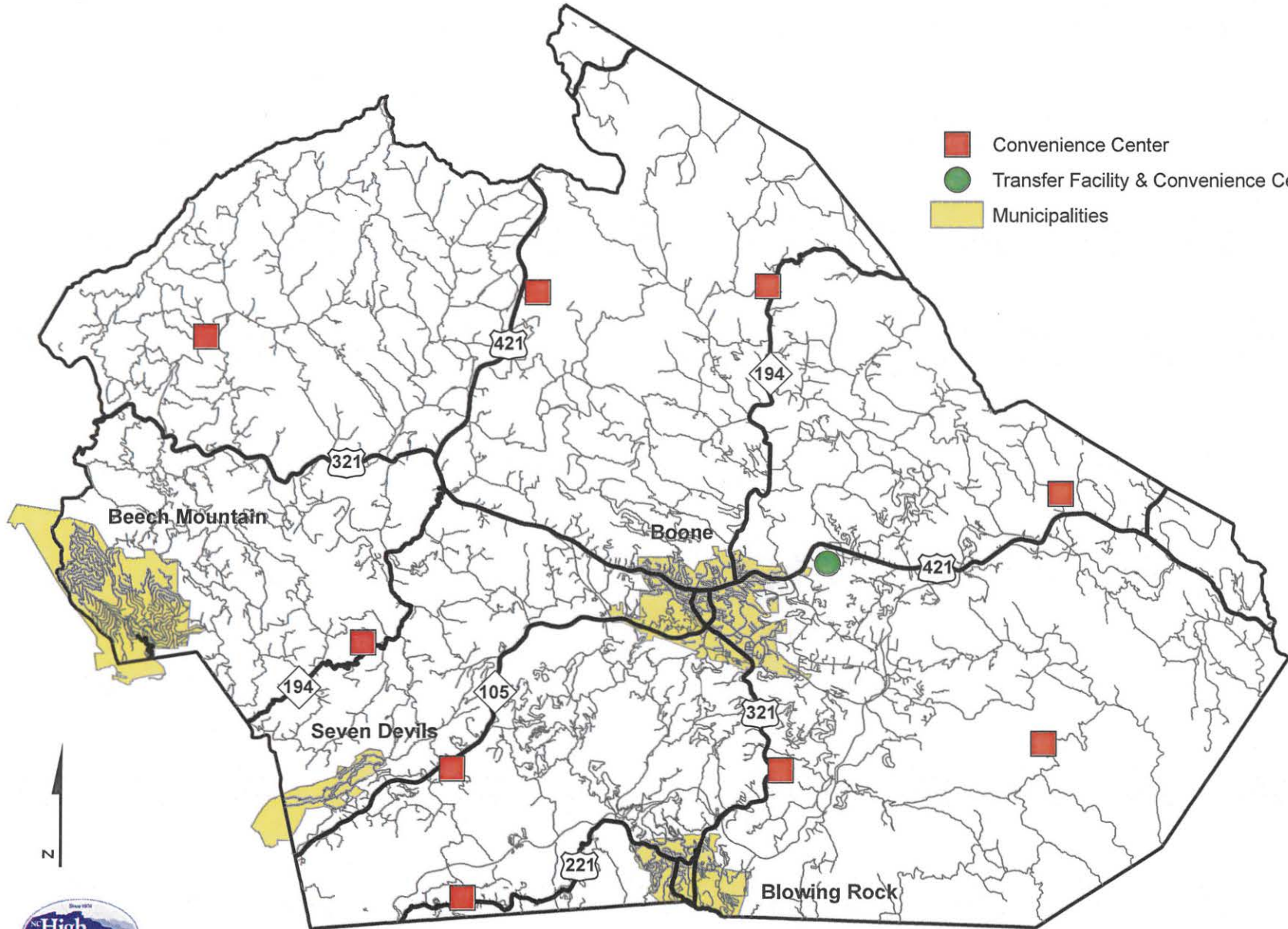
Collection at the County's ten staffed convenient centers will largely remain the same. The construction of the new transfer station was completed in September of 2005. The former transfer site will be converted into the main recycling center and will allow for a larger storage and processing area. This renovation project will begin in the near future.

Special wastes will continue to be collected on a regular or scheduled basis. Tires, white goods, lead acid batteries, oil and oil filters will be collected at the transfer station. Household hazardous waste will continue to be collected twice a year.

APPENDIX

Watauga County Solid Waste Facilities

- Convenience Center
- Transfer Facility & Convenience Center
- Municipalities



0 1.25 2.5 5 Miles

Waste Stream Summary

<u>Element</u>	<u>Tonnage</u>	<u>Percent of Total</u>
Clear Glass	226	0.57
Brown Glass	412	1.04
Green Glass	174	0.44
Mixed Plastic	234	0.59
Steel Cans	54	0.14
Aluminum Cans	28	0.07
White Goods	111	0.28
Other Metal	315	0.79
Mixed Paper	664	1.67
Cardboard	1,759	4.43
Rigid Plastic	17	0.04
Electronics	44	0.11
Subtotal	4,038	
Grand Total	<u>39,738</u>	

WASTE REDUCTION GOAL SHEET
NC LOCAL GOVERNMENT TEN YEAR SOLID WASTE MANAGEMENT PLAN

Local Government Name: Watauga County

Previously established waste reduction goal: 4 %

After considering your government's current and projected solid waste activities, resources, population, and economic growth have you reached your previously established goal? Yes No

Establish a new waste reduction goal: 2 %

WASTE REDUCTION CALCULATION

To provide 10 years of solid waste management planning, as per G.S. 130A-309.09A(b), waste reduction goals need to be updated. Use the following chart to determine the tonnage needed to be diverted from landfills in order to reach the new waste reduction goal.

CALCULATION	FY 2021-22
1. Baseline year per capita disposal rate <i>(FY 1991-1992 unless alternate approved by Section)</i>	0.99
2. Percent waste reduction goal	2 %
3. Targeted per capita disposal rate <i>(Subtract line 2 from 1.0 and multiply result by line 1)</i>	0.75
4. Estimated population in the new waste reduction goal year <i>(Available at Office of State Budget and Management website: Projected Annual County Population Totals 2010-2019)</i>	60,395
5. Projected tonnage for disposal at baseline disposal rate <i>(Multiply line 1 by line 4)</i>	59,791
6. Targeted annual tonnage for disposal <i>(Multiply line 3 by line 4)</i>	45,296
7. Targeted annual tonnage to reduce <i>(Subtract line 6 from line 5)</i>	14,495

Population Link: http://www.osbm.state.nc.us/ncosbm/facts_and_figures/socioeconomic_data/population_estimates/demog/cpa2010p.html

WASTE REDUCTION PLAN

Given the targeted annual tonnage amount to be reduced, explain how you plan to reach the goal:

While the County has made significant progress in reaching the baseline year, Watauga County must continue this effort. Waste reduction goals will be difficult to consistently achieve over the long term due to many factors, including steady increases in tourism. Tourists generate large amounts of solid waste, and add to the per capita rate (because tourists do not represent an actual increase in the County's population); and steady increases in second-home construction--which generates substantial C&D waste, and adds to the per capita rate yet does not reflect a population increase either.

STATE OF NORTH CAROLINA

COUNTY OF WATAUGA

SOLID WASTE ORDINANCE

ARTICLE I. AUTHORITY AND PURPOSE

Be it ordered by the Watauga County Board of Commissioners that the following Ordinance and Regulations for the protection of the public health and safety are hereby adopted pursuant to authority granted by Chapter 153A, Sections 121, 122, 123, 132.1, 136 and 292 of the North Carolina General Statutes, and shall, among other things:

Provide for regulation in the most economically feasible, cost-effective and environmentally-safe manner, the storage, collection, transportation, separation, processing, recycling, and disposal of solid waste, to include hazardous waste (to the extent permitted by law) and medical waste, in order to protect the public health, safety and welfare;

Enhance the environment for the citizens and the residents of Watauga County and recover resources which have the potential for further usefulness, all in accordance with the authority, purposes, policies and goals enunciated in the laws and regulations of the State of North Carolina pertaining to solid waste management;

Deter unlawful disposal of solid waste;

Abate illegal dump sites; and

Encourage reporting of littering and illegal dumping.

ARTICLE II. JURISDICTION AND APPLICABILITY OF FEDERAL AND STATE LAWS

Pursuant to NCGS 153A-122, this ordinance shall apply to all areas of unincorporated Watauga County which are not within the corporate limits of any municipalities. All municipalities and their respective corporate limits shall be exempted from the ordinance, unless they choose to adopt this ordinance or some form thereof.

The intent of this ordinance is to promote and encourage proper and lawful solid waste management including but not limited to waste reduction, reuse, recycling, and disposal.

The provisions of this Ordinance are intended, and shall be interpreted, to be consistent with and supplementary to the North Carolina General Statutes, State rules, and any county ordinance, regarding solid waste. To insure such intent and interpretation,

and in the event of ambiguity between the provisions of this Ordinance and other laws, rules, or ordinances, the stricter of the provisions shall apply. Any violation of such provisions shall also be a violation of this Ordinance.

ARTICLE III. ADMINISTRATION AND ENFORCEMENT

The Watauga County Board of Commissioners authorizes the administration and enforcement of this Ordinance. The administration and enforcement of this ordinance shall be vested with the Sheriff's Department.

ARTICLE IV. DEFINITIONS

The following words, terms and phrases, when used in this Ordinance, shall have the meanings ascribed to them in this Article, except where the context clearly indicates a different meaning:

1. Board: Board of Commissioners of Watauga County.
2. Bulky waste: Large man-made items of solid waste such as furniture, large auto parts, and other oversized wastes whose large size precludes or complicates their handling by normal solid waste collection, processing, or disposal methods.
3. Collection: The act of removing solid waste (or materials that have been separated for the purpose of recycling) to a transfer station, processing facility, or disposal facility.
4. Commercial solid waste: All types of solid waste generated by stores, offices, restaurants, warehouses, and other non-manufacturing activities, excluding residential and industrial waste; provided, that the definition of commercial solid waste is also applicable to places of residence having three or more dwelling units such as apartment buildings and mobile home courts.
5. Commercial Solid Waste Collector: Any person, firm, corporation, or other entity, engaged in whole or part, in the collection, transportation, delivery, or disposal of solid waste generated within the service area, including any such entity engaged in such activities with respect to solid waste generated by others for profit and/or hire.
6. Construction and Demolition Waste: Solid waste resulting solely from construction, remodeling, repair, or demolition operations on buildings, or other structures, but does not include inert debris, land-clearing debris, yard debris, brick, uncontaminated soil, sand, gravel, rock, concrete, or concrete block.
7. Department: The Department of Environment and Natural Resources.

8. Disposal: The discharge, deposit, injection, dumping, spilling, leaking or placing of any solid waste into or on any land or water so that the solid waste or any constituent part of the solid waste may enter the environment or be emitted into the air or discharged into any waters, including ground waters.

9. Division: The Director of the Division of Solid Waste Management of the North Carolina Department of Environment and Natural Resources, or the Director's authorized representative.

10. Enforcement Officer: A deputy employed by the Watauga County Sheriff's Department as appointed by the Watauga County Sheriff whose duties primarily are the enforcement of this ordinance.

11. Farming: Activities related or incidental to production of crops, fruits, vegetables, ornamental and flowering plants, dairy, livestock, poultry, and all other forms of agricultural products having a domestic or foreign market.

12. Garbage: All putrescible waste, including animal offal and carcasses, and recognizable industrial by-products, but excluding sewage and human waste.

13. Hazardous waste: A solid waste, or combination of solid wastes, which because of its quantity, concentration or physical, chemical or infectious characteristics may:

a. Cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness; or

b. Pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of or otherwise managed.

Provided, however, that nothing herein shall be construed to authorize the County to regulate hazardous waste in any manner prohibited by or pre-empted by the applicable North Carolina General Statutes and State rules and regulations.

14. Industrial process waste: Solid waste resulting from an industrial or manufacturing process which may be disposed of at the county landfill after demonstrating its non-hazardous status through analysis, or by other means. Includes, but is not limited to sandblasting grit, contaminated food products, ash and dust.

15. Industrial solid waste: Solid waste generated by manufacturing or industrial processes that is not hazardous waste.
16. Inert debris: Solid waste, which consists solely of material that, is virtually inert and that is likely to retain its physical and chemical structure under expected conditions of disposal.
17. Infectious waste: Solid waste capable of producing an infectious disease. The types of waste designated as infectious are: microbiological waste, pathological waste, blood products and sharps.
18. Institutional Solid Waste: Solid waste generated by educational, correctional, and other institutional facilities.
19. Land-clearing debris: Solid waste which is generated solely from land-clearing activities.
20. Landfill: A disposal facility or part of a disposal facility where waste is placed in or on land and which is not a land treatment facility, a surface impoundment, an injection well, a hazardous waste long-term storage facility or a surface storage facility.
21. Medical waste: Any solid waste which is generated in the diagnosis, treatment, or immunization of human beings or animals, in research pertaining thereto, or in the production or testing of biologicals, but does not include any hazardous waste identified or listed pursuant to this Ordinance, radioactive waste, or household waste as defined in 40 CFR §261.4(b)(1) in effect on 1 July 1989, or those substances excluded from the definition of "solid waste" in this Ordinance.
22. Municipal solid waste: Any solid waste resulting from the operation of residential, commercial, industrial, governmental, or institutional establishments that would normally be collected, processed and disposed of through a public or private solid waste management service. Municipal solid waste does not include hazardous waste, sludge, or industrial waste managed in a solid waste management facility owned and operated by the generator of the industrial waste for management of that waste, or solid waste from mining or agricultural operations.
23. Open dump: Any facility or site where solid waste is disposed of that is not a sanitary landfill and that is not a facility for the disposal of hazardous waste, specifically including a solid waste disposal site that does not have a permit, and/or does not comply with the rules set forth in the North Carolina Solid Waste

Management Rules, 15A N.C.A.C. 13b.

24. Pathological waste: Human tissues, organs, and body parts, and the carcasses and body parts of any animals that were known to have been exposed to pathogens that are potentially dangerous to humans during research, were used in the production of biologicals or in vivo testing of pharmaceuticals, or that died with a known or suspected disease transmissible to humans.

25. Person: Any individual, firm, corporation, company, association, partnership, unit of local government, State agency, federal agency or other legal entity.

26. Premises: A definite portion of real estate including its appurtenance, a building, or part of a building.

27. Processing: Any technique designed to change the physical, chemical, or biological character or composition of any solid waste so as to render it safe for transport; amendable to recovery, storage or recycling; safe for disposal; or reduced in volume or concentration.

28. Putrescible: Solid waste capable of being decomposed by microorganisms with sufficient rapidity as to cause nuisances from odors and gases, such as kitchen wastes, offal, and animal carcasses.

29. Radioactive waste: Waste containing any material, whether solid, liquid, or gas that emits ionizing radiation spontaneously.

30. Recyclable material: Those materials which are capable of being recycled and which would otherwise be processed or disposed of as solid waste.

31. Recycling: Any process by which solid waste, or materials which would otherwise become solid waste, are collected, separated, or processed, and reused or returned to the use in the form of raw materials or products.

32. Refuse: All nonputrescible wastes. Solid waste, other than garbage and ashes, from residences, commercial establishments, and institutions.

33. Regulated medical waste: Blood and body fluids in individual containers in volumes greater than 20ml, microbiological waste, and pathological waste that has not been treated pursuant to state rules.

34. Residential waste: Solid waste originating from private households (private single-family homes and apartments, condominiums, etc., not institutional residential facilities). Solid waste from a place of residences having three or more dwelling units is defined as commercial solid waste.

35. Sanitary Landfill: A facility for disposal of solid waste on land in sanitary manner in accordance with rules concerning sanitary landfill adopted under Article 9 Chapter 130A as defined in NCGS §130A-290.

36. Scrap tire: (Whole scrap tires are banned from disposal at the landfill) A tire that is no longer suitable for its original, intended purpose because of wear, damage, or defect.

37. Sharps: Needles, syringes, and scalpel blades.

38. Sludge: Any solid, semisolid, or liquid waste generated from a municipal, commercial, institutional, or industrial wastewater treatment plant, or air pollution control facility, or any other waste having similar characteristics and effects.

39. Solid Waste: Any hazardous or non-hazardous garbage, refuse or sludge from a waste treatment plant, water supply treatment plant or air pollution control facility, domestic sewage and sludges generated by the treatment thereof in sanitary sewage collection, treatment and disposal systems, and other material that is either discarded or is being accumulated, stored or treated prior to being discarded, or has served its original intended use and is generally discarded, including solid, liquid, semisolid or contained gaseous material resulting from industrial, institutional, commercial and agricultural operations, and from community activities. Solid waste does not include:

a. Fecal waste from fowls and animals other than humans.

b. Solid or dissolved material in:

1. Domestic sewage and sludge generated by treatment thereof in sanitary sewage collection, treatment and disposal systems which are designed to discharge effluents to the surface waters.

2. Irrigation return flows.

3. Wastewater discharges and the sludges incidental to and generated by treatment which are point sources subject to permits granted under Section

402 of the Water Pollution Control Act, as amended (P.L. 92-500), and permits granted under G.S. 143-215.1 by the Environmental Management Commission. However, any sludge that meet the criteria for hazardous waste under RCRA shall also be a solid waste for the purposes of this Article.

c. Oils and other liquid hydrocarbons controlled under Article 21A of Chapter 143 of the General Statutes. However, any oils or other liquid hydrocarbons that meet the criteria for hazardous waste under RCRA shall also be a solid waste for the purposes of this Article.

d. Any source, special nuclear or byproduct material as defined by the Atomic Energy Act of 1954, as amended (42 U.S.C. §2011).

e. Mining refuse covered by the North Carolina Mining Act, G.S. 74-46 through 74-68 and regulated by the North Carolina Mining Commission (as defined under G.S. 143B-290). However, any specific mining waste that meets the criteria for hazardous waste under RCRA shall also be a solid waste for the purposes of this Article.

f. Recyclable material.

g. Hazardous waste excluded pursuant to G.S. 153A-136 and G.S. 153A-294.

40. Solid Waste Rules: The regulations governing solid waste management adopted by the Solid Waste Section of the Department of Environment and Natural Resources in accordance with EPA guidelines and other Federal Regulations.

41. Used oil: any oil which has been refined from crude oil or synthetic oil and, as a result of use, storage, or handling, has become unsuitable for its original purpose.

42. White goods: Includes refrigerators, ranges, water heaters, freezers, unit air conditioners, washing machines, dishwashers, clothes dryers, and other similar domestic and commercial large appliances.

43. The definitions set forth in NCGS §130A-290 which are not expressly set forth in this ordinance shall apply to and are hereby incorporated herein by reference to this ordinance.

ARTICLE V. STORAGE AND DISPOSAL

1. No person, owner, occupant, tenant, or lessee of any property may deposit, store or permit to accumulate any solid waste on property owned or occupied by the person, owner, occupant, tenant, or lessee that is not stored or disposed of as required by this Ordinance.

2. The owner, occupant, tenant, or lessee of any property shall remove or cause to be removed all solid waste from his property at such reasonable intervals as will prevent a nuisance from arising which causes or creates the likelihood of injury to the health, safety, or welfare of another person or the likelihood of injury to adjoining property.

3. Garbage and refuse shall be stored and/or sorted in a manner that will resist harborage to rodents and vermin and will not create a fire hazard.

4. No owner, occupant, tenant, or lessee of any building or dwelling may place or leave, or cause to be placed or left, outside the building or dwelling any bulky waste for longer than ninety (90) days. Provided that the storage of junk vehicles in compliance with other Watauga County Ordinances shall not constitute a violation of this Solid Waste Management Ordinance.

5. No owner, occupant, tenant, or lessee of any building or dwelling may leave outside the building or dwelling, in a place accessible to children, any abandoned or unattended icebox, refrigerator, freezer, or other item or piece of equipment that has a door or cover that cannot be opened from the inside, without first removing the door.

6. Solid waste may be disposed of only in one of the following ways:

(a) In a landfill, transfer facility, or other disposal facility duly authorized and permitted by the Division;

(b) In an incinerator that has obtained and possesses all required local, state and federal control permits;

(c) By any other method, including recycling and resource recovery, that has been approved by the Division;

(d) At a container-site or convenience center operated by Watauga County, and transported to a landfill or other disposal facility duly authorized and permitted by the Division; or

(e) As otherwise authorized by the Watauga County Solid Waste Operations Ordinance.

7. No person may discard, dispose of, leave, or dump any solid waste on or along any street or Highway or on public or private property unless such solid waste is placed in a receptacle or at locations properly permitted for the deposit of solid waste.

8. No person shall throw, scatter, spill, place, cause, or allow to be blown, scattered, spilled, thrown or placed, or otherwise dispose of any litter upon any public property or private property not owned by said violator within Watauga County or into the waters of Watauga County including, but not limited to, upon any public highway, public park, lake, river, stream, campground, forest land, recreational area, mobile home park, highway, road, street or alley; the occurrence of any of the foregoing acts resulting from transporting solid waste in a vehicle shall constitute a violation.

9. No person shall intentionally and willfully dump or deposit any solid waste material on the property owned by the violator or the property of another with or without the *written* consent of the property owner which is inconsistent with proper and lawful solid waste management and disposal practices.

10. No person shall burn solid waste except as permitted by existing fire codes and state laws.

11. Nothing in this Ordinance is intended to authorize the disposal of solid waste in any manner prohibited by federal or state laws or regulations.

12. Construction and Demolition waste as defined herein must only be disposed of at disposal sites approved and permitted by the Division.

13. Regulated medical, hazardous, and radioactive waste must be disposed of according to written procedures approved by the Division.

14. All sharps shall be placed in a sealed, puncture-proof container prior to disposal.

15. A person operating or having operated an open dump for disposal of solid waste or a person who owns land on which such an open dump is or has been operating shall immediately close the site in accordance with 15A NCAC 13B §.0502.

16. No person shall bury solid waste in earth or submerge solid

waste in water unless expressly permitted by this Ordinance or applicable federal and state law and regulations.

17. Pursuant to G.S. 153A-136 and G.S. 153A-294, no person shall dispose of hazardous waste within any Watauga County solid waste disposal facility.

ARTICLE VI. DEFINITION AND ABATEMENT OF SOLID WASTE NUISANCES

1. By the authority of the provisions of N.C. Gen. Stat. §153A-140 of the North Carolina General Statutes, the storage, accumulation or presence of solid waste on public or private property in the area of jurisdiction of this Ordinance which is:

- (a) A breeding ground or harbor for mosquitoes or other insects, snakes, rats, or other pests; or
- (b) A point of collection for pools or ponds of water; or
- (c) A point of concentration of gasoline, oil, or other flammable, toxic or explosive materials; or
- (d) So located that there is a danger of falling, sliding or turning over; or
- (e) A source of danger for children through entrapment in areas of confinement that cannot be opened from the inside or from exposed surfaces or metal, glass, or other rigid materials

is hereby proclaimed and declared to be unlawful and a public nuisance. Such public nuisance shall be subject to abatement as provided in this Ordinance.

2. Upon reasonable cause to believe that a public nuisance as defined above exists, the Enforcement Officer or his designee, and upon not less than ten (10) days' notice to the occupant and owner of the property on which the alleged nuisance is located, shall make a determination of whether or not such nuisance does, in fact, exist. If the Enforcement Officer makes a determination that a public nuisance exists, he shall enter and serve upon the owner and occupant an order to remove, abate or remedy the nuisance within a reasonable period of time, but not more than ninety (90) days. Such

order may be appealed by the owner or occupant to the Board of County Commissioners as provided in ARTICLE VII of this ordinance.

3. Upon failure of the owner or occupant of the property, or of the person responsible for placing such solid waste on the property to remove, abate or remedy the nuisance within the period the officer has allowed, pursuant to N.C. General Statute 153A-140 an Enforcement Officer shall remove, abate or remedy the nuisance as provided in the order and charge the cost thereof to the owner and occupant. If such expense is not paid by the owner or occupant within ten (10) business days, it shall be a lien upon the land or on premises where the nuisance arose and shall be collected as unpaid taxes.

ARTICLE VII. ENFORCEMENT MEASURES AND REMEDIES

The Watauga County Sheriff shall designate the Enforcement Officer(s) from the Sheriff's Department sworn staff, who shall have the authority and duty to perform inspections, issue citations, assess penalties and take enforcement actions. Also, the other departments of the County may accompany the Enforcement Officer to assist in administration and enforcement.

Watauga County may exercise remedies for violation of any provision of this ordinance as allowed and authorized by the North Carolina General Statutes, including but not limited to civil penalties, equitable remedies, and criminal prosecution.

In addition, whenever the Enforcement Officer receives a proper, non-anonymous, written complaint alleging a violation of this ordinance, he shall investigate the complaint, take whatever action is warranted (including, in his or her discretion, any appropriate informal measures deemed helpful toward procuring compliance with this Ordinance). The Enforcement Officer shall inform the complainant in writing what actions have been or will be taken.

A warning may be issued by the Enforcement Officer without fine when the officer is of the opinion that a violation of this ordinance may be remedied without the necessity of prosecution; however, a warning citation may not be issued in the case where public health and/ or safety are endangered.

Waiver of enforcement by the county of any provision of this Ordinance shall not prejudice the enforcement of remaining portions of this Ordinance.

1. Civil Enforcement and Penalties:

(A.) Notice of violation. The Enforcement Officer may issue a notice of violation to any person who fails to comply with any provision of this Ordinance. The notice of violation shall contain a description of the violation, the date of inspection, a description of the action necessary for correction of the violation and the date (no more than ten (10) business days from the date of the notice) that compliance is required. The notice shall also specify the amount of civil penalty that may be imposed should the violator fail to take corrective action within the time frame set forth for compliance with the ordinance. The notice shall be hand delivered or mailed by certified or registered mail, return receipt requested, to the person or persons alleged to be in non-compliance. The Enforcement Officer shall sign a statement for his file of the date, time and manner of delivery. The failure to comply with the notice of violation by taking corrective action may result in any of the civil or criminal remedies set forth in this section.

(B.) Civil penalties and remedies. Civil remedies and penalties are as follows:

(1.) Pursuant to the provisions of G.S. 153A-123(a), any person violating any provision of this Ordinance is subject to a civil penalty in the amount of \$100.00. Each day said condition continues to exist shall constitute a separate and distinct violation.

(2.) Pursuant to G.S. 153A-123(c), the county may file a civil action to recover the civil penalty provided for in Section F subsection (b)(1) of this section, if the offender does not pay the penalty within the prescribed period as set forth in the notice of violation.

(3.) Pursuant to G.S. 153A-123(d), the county may seek any appropriate equitable relief that it deems necessary to ensure the health, safety and welfare of the citizens or the natural resources of the county.

(4.) Pursuant to G.S. 153A-123(a), the county may seek an injunction when the non-compliance or violation is creating an imminent hazard to the health, safety and welfare of the public.

(C.) Appeal. Any person who receives a notice of violation, or order to remove, abate, or remedy a nuisance may, within ten business days of the day the notice was received, submit a written appeal to the Board of County Commissioners. The appeal notice shall specifically state the reasons for the appeal with a copy of the notice of violation attached thereto. The County Manager shall schedule a hearing for the next regular Board of County Commissioner's meeting, and notify the appellant, and the Board of County Commissioners upon the hearing shall render a decision upholding, denying or modifying the notice of violation. Accrual and imposition of the civil penalties shall be stayed pending the appeal. However, there will be no stay for equitable remedies available to the County. If the decision of the Solid Waste Enforcement Officer is affirmed, accrual and imposition shall resume. Any appeal not filed within ten (10) business days of the day notice was received shall be considered not timely.

The Board of Commissioners may consider hardship as basis for extending the period for compliance up to six (6) months. In no case shall the Board indefinitely excuse compliance. An extension may be granted upon the appellant meeting two (2) of the four (4) following criteria:

1. appellant is at least sixty-five (65) years of age;
2. health problems documented by appellant's medical record which substantially affect the appellant's ability to comply with the ordinance;
3. severe weather that prevents appellant from complying within the original time frame;
4. taxable income below fifty percent (50%) of the County's current median income, as determined by the US Department of Housing and Urban Development, documented by appellant's latest tax return.

(D.) Appeals of Board Actions. Every decision of the Board shall be subject to review at the instance of any aggrieved party in the Superior Court by proceedings in the nature of a petition for writ of certiorari. Such proceedings in the Superior Court shall be initiated within thirty (30) days of the date the decision is approved in the Board's minutes. Appeals not filed within this thirty (30) day period are not timely. The Superior Court is authorized to stay enforcement of this ordinance during the pendency of an appeal from the decision of the Board of Commissioners upon a hearing and the posting of a bond sufficient to the Court which will adequately protect the interests of the County.

2. Criminal Penalty: Any violation of any provision of this

ordinance shall be a Class 3 misdemeanor, subject to a five hundred dollar (500.00) fine, and punishable pursuant to NCGS §153A-123 and N.C.G.S. 14-4. Each day's continuing violation shall be a separate and distinct offense.

3. This ordinance may also be enforced by equitable remedies, and any unlawful condition which may be in violation of this ordinance may be abated by mandatory or prohibitory injunction in accordance with N.C.G.S. §153A-123.

ARTICLE VIII. EXEMPTION FOR FARMING

This ordinance shall not regulate or be applied to regulate products or by-products of farming, or materials, supplies or equipment used in farming, so long as the generation, handling or disposal of such is not made illegal by other law, ordinance or regulation.

ARTICLE IX. CHANGES IN STATE LAW

Should N.C.G.S. §153A-132.1, N.C.G.S. §153A-136, and N.C.G.S. §153A-292 or any section of the General Statutes of North Carolina incorporated herein by reference or otherwise referred to herein be change or amended, or should such statutes require or mandate a difference procedure or change or impose new, different or additional requirements, then, in that event, this ordinance shall be deemed to have been amended without further action to have complied with such new additional or amended requirements.

ARTICLE X. SEVERABILITY

If any Section, subsection, sentence, phrase or portion of this ordinance is for any reason invalid or unconstitutional as determined by a Court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this ordinance.

ARTICLE XI. CONFLICT WITH OTHER ORDINANCES

Whenever the provisions of this ordinance and any other ordinance impose overlapping or contradictory regulations, the ordinance which is more restrictive or imposes higher standards or requirements shall be controlling.

ARTICLE XII. EFFECTIVE DATE

This ordinance as amended shall become effective on the 1st day of July, 2006.

ADOPTED this the 27th day of June, 2006.

Watauga County's Ordinance Prohibiting Throwing or Depositing Trash on Public or Private Property, adopted 3 May 1971 and Article VI of the Watauga County Solid Waste Ordinance made effective 21 December 1993 are hereby abolished and superceded.

BOARD OF COMMISSIONERS FOR THE
COUNTY OF WATAUGA

ATTEST:

by: _____
James Deal, Jr., Chairman

Anita J. Fogle, Clerk to the Board

APPROVED AS TO FORM:

Anthony di Santi, County Attorney

STATE OF NORTH CAROLINA

COUNTY OF WATAUGA COUNTY

**RESOLUTION ACCEPTING AND ENDORSING THE
SOLID WASTE MANAGEMENT PLAN UPDATE OF 2012 FOR WATAUGA COUNTY**

WHEREAS, it is a priority of this community to protect human health and the environment through safe and effective management of municipal solid waste; and

WHEREAS, the reduction of the amount and toxicity of the local waste stream is a goal of this community; and

WHEREAS, equitable and efficient delivery of solid waste management services is an essential characteristic of the local solid waste management system; and

WHEREAS, it is a goal of the community to maintain and improve its physical appearance and to reduce the adverse effects of illegal disposal and littering; and

WHEREAS, Watauga County recognizes its role in the encouragement of recycling markets by purchasing recycled products; and


WHEREAS, involvement and education of the citizenry is critical to the establishment of, an effective local solid waste program; and

WHEREAS, the State of North Carolina has placed planning responsibility on local government for the management of solid waste; and

WHEREAS, NC General Statute 130A-309.09A(b) requires each unit of local government, either individually or in cooperation with other units of local government, to update the Ten Year Comprehensive Solid Waste Management Plan at least every three years; and

WHEREAS, the Watauga County Solid Waste and Recycling Department has undertaken and completed a long-range planning effort to evaluate the appropriate technologies and strategies available to manage solid waste effectively.

NOW, THEREFORE, BE IT RESOLVED BY THE GOVERNING BOARD OF WATAUGA COUNTY that Watauga County's 2012 Comprehensive Solid Waste Management Plan Update is accepted and endorsed and placed on file with Clerk to the Board on this the 24th day of July, 2012.


Nathan A. Miller, Chairman
Watauga County Board of Commissioners

ATTEST:


Anita J. Fogle, Clerk to the Board

