

**REQUEST FOR BOARD ACTION**

**HENDERSON COUNTY  
BOARD OF COMMISSIONERS**

**MEETING DATE:** November 17, 2010  
**SUBJECT:** Revisions to 2009 Solid Waste Management Plan  
**ATTACHMENTS:** Yes

**SUMMARY OF REQUEST:**

This agenda item is an additional revision to the 2009 Update to the Solid Waste Management Plan. These revisions include changes to the sections of Household Hazardous Waste and Electronics Collections. The revision to the Electronics Collection section is necessary to obtain funds and grants from the North Carolina Department of Natural Resources' Division of Environmental Assistance and Outreach.

**BOARD ACTION REQUESTED:**

This item is for information only. No Board action is necessary.

**Suggested Motion(s):**

*No motion suggested.*



# Henderson County Ten Year Solid Waste Management Plan

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## Update

Henderson County Solid Waste Division  
800 Stoney Mountain Road  
Hendersonville, North Carolina 28791

**Henderson**  
 **County**  
 **Recycles** 

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# Revisions to 2009 Henderson County 10 Year Solid Waste Management Plan

## *Executive Summary*

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An effective Solid Waste Department is essential to providing a quality standard of living to the Citizens of Henderson County. Without it, we risk health challenges, unmanageable costs, and harm to our environment. Effective solid waste management is a very important part of growth management. Henderson County Solid Waste is providing this service through a focus on the following: value, compliance and environmental stewardship. The 2008 Ten Year Vision for solid waste outlines the solutions to continue and improve on the department's focus.

The solution to moving forward over the next ten years is not a new revolutionary process, but is our current process with a new perspective. Our current operation needs to be refined to create greater efficiencies and cost savings. There is no new technology on the solid waste horizon that is both feasible and proven. Furthermore, the challenges grow every year. We face increasing costs in operation from unstable fuel costs to more aggressive regulation from the State. However, we must still provide excellent customer service and value to our customers and the citizens of Henderson County. The two greatest opportunities lie with the county's private haulers and recycling.

Henderson County Solid Waste is an enterprise fund separate from the general fund and property taxes. The Solid Waste Capital Improvement Plan developed last year indicates that is possible to continue into the future as a self-supported county function. This is not the case for many solid waste operations and the significant difference between Henderson County and the others is our partnership with the existing network of private haulers. The county's solid waste collection is done largely by private entrepreneurs providing weekly collection service, available to residents as an alternative to transporting their waste to the county facility. Collection of solid waste is expensive and private enterprise and the laws of supply and demand are a potential way to control costs. We need to continue this partnership and help the collection network when possible.

In addition to the private haulers, the most potential for overcoming increasing cost and achieving compliance is recycling. Recycling is no longer just an environmental stewardship opportunity, it is a process that removes material from our waste stream, reduces disposal costs and generates revenue. While the recycling markets fluctuate, there is notable indication recycling will continue to provide an effective means of reducing disposal costs and generating revenue. The recycling markets and number of

end users for recycled products disposal have grown into a strong industry. Furthermore, effective recycling efforts are continuing to be a necessary tool in maintaining compliance with current and new State regulations. Henderson County has established a 40% solid waste reduction goal for FY 2019 through improvements to recycling and other programs. An intermediate reduction goal of 20% is established for FY 2014.

## *Henderson County Solid Waste Vision*

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The County's Strategic Plan in Strategy 4.4 (Address solid waste management issues including recycling and upcoming pertinent solid waste legislation) and under the leadership of Katie Breckheimer, chairperson, the Solid Waste Advisory Committee and staff have developed the twenty year vision for Henderson County Solid Waste. The plan details the importance of investing and developing recycling in Henderson County and developing the partnership with the County's permitted private haulers. While the challenges ahead for Solid Waste are significant, the plan provides a path that meets the challenges and maintains Solid Waste operations as an enterprise fund separate from the general fund.

## *Henderson County Solid Waste Program Overview*

Henderson County does not provide any collection services and does not control collection of solid waste. The City of Hendersonville and Town of Fletcher operate waste collection services for their residents. The Town of Laurel provides the same service through a contractor. All three municipalities contract for the weekly curbside collection of recyclables to all residents.

Henderson County closed its municipal solid waste (MSW) landfill at the end of 1997 and began the transfer of MSW to a private out-of-state landfill owned and operated by Waste Management, Inc. in Spartanburg, SC. The county operates one solid waste transfer station located on Stoney Mountain Road in the central part of the county. The Solid Waste Transfer Station receives MSW, Construction & Demolition (C&D) Waste, White Goods (Scrap Metals), Scrap Tires, Wood & Yard Waste, and household recyclables. All solid waste materials are transferred to other facilities. The county also operates a Solid Waste Enforcement program and one recycling center for household recyclables. A description of each of the waste streams and method of operation follows:

**MSW** - The MSW is transferred to the Palmetto Landfill by contract with Waste Management, Inc. The current contract is through 2010 and Waste Management has informed the county that they would be able to serve the county at the Palmetto Landfill or other Waste Management Landfills for an additional 10 years (See Capacity letter, Appendix). The Palmetto Landfill will be available for about another 5 years, and Waste Management is developing a new landfill just South of Spartanburg S.C. to replace the Palmetto facility. Current tipping fee for MSW is \$52 per ton and cost for transportation and disposal at the Palmetto Landfill is \$33.47/ton. 63,862 tons of MSW were processed through the Henderson County Solid Waste Transfer Station for FY 2007-08 and 22,783 tons of C&D waste were disposed at the Henderson County C&D Landfill.

**C&D** - On June 30, 2008 the county closed the C&D Landfill at the Stoney Mountain Road Solid Waste Facility. Since the closure of the C&D Landfill, this waste stream has been transferred out of the county as a part of the disposal contract with Waste Management, Inc.

**White Goods** - White Goods (appliances) and scrap metal are accepted at Stoney Mountain at no charge. During FY 2007-08 approximately 1,459 tons were collected. County staff manages the white goods area, stockpiling the material until it is ready for shipment. Those appliances which potentially contain Freon are segregated. The county hires a scrap processing contractor to remove the Freon and then haul all the metal to a regional market. Currently the county receives revenue from the sale of this material based on market values.

**Tires** - The county received 1,802 tons of scrap tires in FY 2008. This is approximately 180,200 tires. Tires are manually loaded into transport trailers belonging to US Tire, Inc. US Tire ships the scrap tires to their facility in Concord, N.C for processing and disposal.

A disposal tax is collected on the sale of new tires in North Carolina. The tax is collected at the point of sale and managed by the NC Department of Revenue. Proceeds from the tax are distributed to the counties to pay for the scrap tire disposal program. The tire tax does not cover the entire cost; specifically the tax does not cover the cost to manually load tires into trailers for shipment. This results in the tire program having to be supplemented from tipping fees collected for other waste streams.

Wood & Yard Waste - Wood & Yard Waste is received at the transfer station at approximately 849 tons/year. The current tipping fee for this material is \$52 per ton. A local contractor is hired semiannually for the grinding of this material to mulch. The mulch is given to the public at no charge for use as landscape material.

Household Recyclables - The county operates one recycling center for household recyclables, waste oil, and antifreeze. The current program allows citizens to drop off recyclables and an equal amount of MSW at no charge. The recyclables include containers (glass, metal, and plastic (bottles, jars and jugs)) and fiber (cardboard, news paper, and mixed paper). Approximately 515 tons of containers and 1,348 tons of fiber were collected during FY 2007-08. Also 9,626 gallons of waste oil and 10,000 gallons of antifreeze were collected. Containers and fiber are shipped to Greenville, S.C. to a material recovery facility (MRF) operated by American Recycling, LLC. The county pays for the transportation of the material to the MRF and receives market value upon delivery. In the first four months of FY 2008 the market rates were sufficient for the county to receive \$80,000, the budgeted income for the year. This period was followed immediately by a downturn in the recycling commodity markets that reflected the decline in the larger world economy. During the preparation of this document, prices were so depressed that fiber sold near zero and mixed containers arrive at the market with a price to unload of approximately \$20 per ton. While short term fluctuations in commodity markets make budgeting difficult, the secular trend indicates a continued strengthening of the value of the recovered materials.

There is an undocumented incentive program at the Stoney Mountain recycling collection center where a bag of waste may be deposited free with an accompanying bag of recyclables diverted from disposal. The free MSW disposal allowed in the recycling center is costing the county in excess of \$250,000 per year. The program is subject to frequent abuse and enforcement is difficult. As waste and recycling are usually delivered in different container types, the determination of "bag for bag" becomes subjective. A reconsideration of the value of the incentive is needed.

Some of the private waste hauling companies also offer curbside recycling to their customers. Most of this material is transported by the collector to a recovery facility in Woodfin, NC operated by Curbside Management. Since this material is being transferred out of the county and does not come through the Henderson County facility, Henderson County is not reporting this volume of recyclables on reports to the NC Department of Environment and Natural Resources. Hence, Henderson County's recycling rate is slightly better than indicated in the state annual reports.



The Henderson County Engineering Department, as directed by the Board of Commissioners, is preparing a plan to improve recycling collection. Proposed improvements to the collection center will be designed in late 2009. A central portion of the plan will be a facility that accepts source separated, mixed and single stream recyclable materials from private local haulers, allowing their trucks a mechanism by which to collect and deposit single stream material. The implementation of this plan, combined with an effort to develop a partnership with the private haulers will result in improved efficiency and, most importantly, will make recycling collection available to all households in Henderson County.

## MUNICIPAL RECYCLING PROGRAMS

The municipalities in the county run various recycling programs. These are as follows:

### **City of Hendersonville**

Hendersonville currently contracts with Curbside Management out of Asheville to collect household recyclables including glass, plastic, metal cans & containers, mixed paper, cardboard and newsprint. During FY 2007-08 the city collected 1,021 tons of materials. Curbside operates their own MRF and markets their materials. There are no known plans to change this system. Current cost to operate this program is \$167.09/ton.

### **Town of Fletcher**

Fletcher also contracts with Curbside Management out of Asheville to collect household recyclables including glass, plastic, metal cans & containers, and newsprint. During FY 2007-08 the town collected 303 tons of materials. Curbside operates their own MRF and markets their materials. There are no known plans to change this system. Current cost to operate this program is \$180/ton. Beginning March 1, 2009 Fletcher Public Works ceased to accept corrugated cardboard in the weekly MSW collection. An increase in recycling participation resulted.

### **Town of Laurel Park**

The Town of Laurel Park contracts with GDS to collect household recyclables including glass, plastic, metal containers, newsprint and magazines. GDS contracts with Curbside Management out of Asheville for processing these recyclables. During FY 2007-08 GDS collected 96 tons of material. There are no known plans to change this system. Current cost to operate this program is \$147/ton.

### **Village of Flat Rock and Town of Mills River**

The Village of Flat Rock and Town Mills River do not operate solid waste collection programs. Individuals contract with any waste hauling company.

### **Waste Hauling Companies**

Some of the private waste collection companies, locally referred to as private haulers, offer recycling services to their customers in the unincorporated areas of the county. These recyclables do not come through the Henderson County Solid Waste Transfer Station but are hauled directly to Curbside Management in Buncombe County. The private haulers currently pay Curbside Management \$23/ton to process these materials plus the cost of transporting.

## ***OTHER PROGRAMS***

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### **Enforcement**

The county handles enforcement of its Solid Waste Ordinance with two enforcement officers. One officer works off site handling approximately 200 complaints per year. The county also uses jail labor to assist with litter control at the transfer station and along highways. The Henderson County state prison located adjacent to the Stoney Mountain transfer station has been closed. This has resulted in the loss of prison labor, which has adversely affected the litter and roadside cleanup programs.

### **Solid Waste Collection**

The collection of solid waste is performed by private haulers or municipal public works departments. The county does not provide any collection services.

### **Enterprise Fund**

The Henderson County Solid Waste Department is operated as an Enterprise Fund. The fund receives revenue from tipping fees, sale of scrap metal, white goods tax, and tire tax. There is no revenue from the county general fund (property taxes or sales taxes) provided to the enterprise fund. This being the case, the revenues are highly dependent on the Solid Waste Facility receiving sufficient solid waste, which generates revenue through the tipping fees. Three private haulers provide recycling services to the extra-municipal households in addition to the county's recycling center. Hendersonville, Fletcher, and Laurel Park also offer recycling services through an independent contractor. All of these recycling programs along with the county's white goods, wood & yard waste, and tire programs will contribute to the county's previously established 5% solid waste reduction goal. In recent years this goal has not been met. The following is a summary of the tons disposed, population, disposal rates, percent reduction and lbs./person/day for Henderson County.

<b>YEAR</b>	<b>TONS DISPOSED</b>	<b>POPULATION</b>	<b>PER CAPITA DISPOSAL RATE</b>	<b>% REDUCTION</b>	<b>LBS/PERSON PER DAY</b>
91/92	81,498	71,185	1.14		6.54
92/93	77,761	72,252	1.08	6%	6.15
93/94	71,570	73,356	0.98	15%	5.58
94/95	75,896	75,096	1.01	12%	5.78
95/96	68,950	76,250	0.90	21%	5.17
96/97	87,522	77,558	1.13	1%	6.45
97/98	95,125	79,148	1.20	-5%	6.87
98/99	87,636	80,562	1.09	5%	6.22
99/00	94,280	82,396	1.14	0%	6.54
00/01	95,443	89,173	1.07	7%	6.12
01/02	97,650	91,544	1.07	7%	6.10
02/03	104,249	92,988	1.12	2%	6.41
03/04	116,840	94,496	1.24	-8%	7.07
04/05	119,866	96,124	1.25	-9%	7.13
05/06	133,618	97,792	1.37	-19%	7.81
06/07	123,284	100,107	1.23	-8%	7.04
07/08	116,850	102,142	1.14	0%	6.54
<b>YEAR</b>	<b>PROJECTED</b>	<b>PROJECTED</b>	<b>PROJECTED</b>		<b>PROJECTED</b>
13/14	124,329	114,589	0.91	20%	5.23
18/19	134,533	123,993	0.68	40%	3.92

## **Reduction**

Henderson County promotes source reduction through backyard composting. Information about setting up and operating home composting is available from the Solid Waste Division. Home compost units are available for sale at the Stoney Mountain Activity Center. Columns in the Hendersonville Times News featuring how to set up home composting are published each spring.

Henderson County Engineering Department employs a full time Sustainability Coordinator. The coordinator directs a public education program which encourages waste reduction, reuse and recycling. Among the services provided by this office, the coordinator, working with the Waste Reduction Partners, visits businesses and organizations providing technical support for the development of internal programs leading to waste reduction.

## **Collection**

Hendersonville and Fletcher each operate residential waste collection, providing weekly service to all residential units. Laurel Park contracts with GDS for the same service.

In the unincorporated areas of the county and in the areas incorporated into Mills River and Flat Rock, a group of private haulers make residential waste collection services available. There are approximately eighteen firms providing residential service in Henderson County.

Many haulers compete for customers in the same neighborhoods, sometimes resulting in inefficient routes for the haulers.

An annual forum has been established with the operators of local residential waste collection companies. The SWAC is working toward establishing a network with the existing haulers that is efficient and provides waste and recycling collection services to the community. The committee is identifying and evaluating different approaches for improvements in the residential collection. A local consulting firm has been employed for support on this project. A final report is expected in late 2009.

Henderson County operates a waste collection center at the Stoney Mountain facility. Residents and businesses may bring waste to this center, should they choose not to hire a private hauler's services. An average of 450 cars per day uses the collection center for waste and recycling.

Commercial collection is handled entirely in the private sector. Approximately twenty local firms are permitted by the Henderson County Engineering Department for commercial waste collection.

## **Recycling and Reuse**

Henderson County Engineering Department employs a full time Sustainability Coordinator. The coordinator directs a public education program which encourages waste reduction, reuse and recycling.

Planning for process center to accept single stream materials is in development. Implementation is expected in FY 2011.

Making recycling collection available county wide working through the network of private haulers is a goal for the SWAC set forth in the Solid Waste Vision adopted by the Board of Commissioners in May 2008. The committee is working with the private haulers and a consultant to develop methodology which can meet this goal.

## **Composting and Mulching**

The Solid Waste Division is promoting home composting through education and distribution, at cost, of home units designed for residential composting.

Development of a composting project at the Stoney Mountain facility is currently under consideration. This project will target the composting of select materials, specifically leaves and grass clippings. Start up is projected in 2010.

## **Incineration**

Not under consideration in this planning period.

## **Transfer outside Geographic Area**

The transfer of MSW to an out of county landfill will continue through the planning period of ten years. Waste Management has provided documents indicating available capacity through the planning period and beyond. As a step in the renewal of the contract with the company providing disposal, currently Waste Management, the county may consider proposals from other entities.

## **Disposal**

No plans to develop a county landfill.

## **Education with the Community and through the Schools**

In 2008 Henderson County hired a full time Sustainability Coordinator, whose responsibilities include community education. The coordinator has contacts with each of the 22 schools in the Henderson County Public School system. Working with each

designated contact the coordinator assists in developing in school recycling and providing curriculum and presentations in the schools. The Mobile Environmental Learning Center, a regional educational resource, is used frequently by the coordinator in presenting recycling background and participation at the school level.

## **Special Waste**

### **Oil**

Used motor oil is collected at the Stoney Mountain Collection Center.

### **Oil filters**

Oil filter collection began as a pilot in February 2008 at the Stoney Mountain collection center. The success of this program leads the Solid Waste Division to improve the collection devices in early FY 2010 by providing clean, fiberglass, attractive units designed specifically for the collection and secure storage of used oil filters. By North Carolina statute, the disposal of used motor oil filters by landfilling will be prohibited after October 1, 2009. The division's improved devices will be in place prior to the deadline.

### **HHW**

Henderson County received funding from the North Carolina Division of Pollution Prevention and Environmental Assistance for funding to support the establishment of a permanent facility for the collection of Household Hazardous Waste products. The facility is currently available to Henderson County residents for their home generated products on a monthly basis during daylight savings time.

### **Paint**

Liquid paint is not accepted at the Stoney Mountain transfer station. Citizens are instructed to dry paint, using cat litter, clay absorbent, or sawdust. Dried paint is accepted in the normal solid waste stream. Paint may also be accepted during Household Hazardous Waste events for a fee.

### **Electronics**

Effective September 2009, Henderson County implemented a recycling program for all electronic waste. Material recycled includes, but is not limited to; cathode ray tube monitors (CRT), televisions, hard drives, scanners, fax machines, copiers, and other miscellaneous electronic equipment. Henderson County works with an electronics recycling company that has received all certifications in compliance with the requirements of the State of North Carolina.

The Henderson County electronics collection site is located at the Stoney Mountain transfer station. This site is maintained by county staff. eCycleSecure, the electronics

recycling company, is currently providing a trailer for collection. County staff palletizes, shrink wraps, and loads the equipment onto the trailer. eCycleSecure picks up the electronic equipment and transports it to their facility for recycling and further disposal.

Henderson County will use flyers to inform citizens of the Henderson County electronic collection site at the Transfer Station. Signs will be posted at the transfer station explaining the new landfill ban, effective January 1, 2011, for computer equipment and televisions. Articles in the local newspaper will inform citizens of the new law, its requirements, and the options Henderson County has established.

After collection of electronic waste, eCycleSecure will send to Henderson County a statement that lists the tonnage of material disposed broken down by computer equipment, televisions, and other electronic material. eCycleSecure will, also, have this statement in its files as a record of material collected and disposed by each unit of local government.

#### Antifreeze

Antifreeze is collected for recycling at the Stoney Mountain Collection Center.

#### Cooking oil

Cooking oil collection was initiated in February of 2009 at the Stoney Mountain Collection center.

#### Wooden pallets

Wooden pallets are separated from other waste and stored in a special area near the Stoney Mountain wood grinding. These pallets are available for reuse. Those pallets that are not claimed for reuse are ground into wood chips for use as mulch or boiler fuel.

#### Plastic bottles

Recycling collection is provided for plastic bottles at the Stoney Mountain collection center. Plastic bottles, other than those used for motor oil, are banned from landfill disposal by NC General Statute, effective October 1, 2009. The Sustainability Coordinator will prepare and release a public education program explaining the ban in August and September 2009.

#### **Illegal Disposal/Litter**

There is an aggressive program at the transfer station to enforce the county ordinance requiring all loads transported to be secured.



Any loads presenting that are not covered with a secure tarp are refused access, given information on the legal recourse for littering, and directed to a local store where tarps are for sale.

### **Tarp day**

Working with NC DOT on the annual tarp day in October, HCSW distributes free tarps at the entrance to the to the transfer station. The tarps are given to customers who have tarped their load, but the tarp is showing age. For those loads failing to have made any attempt to cover, a citation is given by the HC Sheriff Department.

Division annual participation the NC DOT litter sweep.

Henderson County employs a full time code enforcement officer with the responsibility of illegal dumping, theft of service issues relating to waste management, and assists in enforcement of the county's trap requirements.

### **Purchasing Recycled Products**

County has no program.

### **Animals**

The Stoney Mountain Transfer Station accepts animal carcasses from non agriculture sources.

### **Disaster Response**

In the event of a severe natural disaster, such as flooding or wind and/or ice damage, the designated staging area for waste generated in the disaster cleanup is located at the Stoney Mountain Solid Waste Facility. The existing yard waste/white goods area is the identified area to use in the event of an emergency. Additionally, the old fairgrounds off Hwy 176 are available as a backup for use in extreme situations. Solid Waste Division staff will operate the staging area, screening loads for unacceptable materials and directing material separation for maximum recovery. Wood waste will be diverted to the county mulching program. Masonry waste will be ground for aggregate. MSW will be prepared for shipment to the contracted disposal facility as a first priority. Metals may be extracted for recycling if possible without impeding the shipment of the MSW.

### **Abandoned Mobile Homes**

(1) Identification Method

Henderson County began enforcement of a Public Health Nuisance Ordinance in September 2006. This ordinance prohibits abandoned manufactured homes as defined: (**Abandoned Manufactured Home** means a manufactured home that has not had legal power or was not properly connected to a permitted septic system and water supply in the last 6 months, not to be interpreted to include a manufactured home stored or parked in accordance with a valid zoning permit.) This ordinance is complaint driven and we give the violation the opportunity to permit the home to a livable condition or remove the home. There was a windshield survey performed in 2002 and approximately 80 abandoned manufactured homes were documented. An estimated 40 homes have been demolished in the two years that this ordinance has been in place. In that time there have been more homes that have become uninhabitable. There are at least 50 abandoned manufacture homes currently in Henderson County.

Once a complaint is received concerning an abandoned manufacture homes, the Code Enforcement Services Department investigates the complaint. If there is a home which has not been properly connected to utilities in the last six months, the property owner is issued a Notice of Violation (NOV). This violation allows the owner 30 days to permit the home or begin removal. If the property owner wishes to appeal the right to appeal is spelled out in the ordinance as stated below:

**126-7.01 Right of Appeal.** When a public nuisance is declared, an owner and/or an occupant of the affected property may appeal the declaration, including an order for abatement or remediation from the Department, by filing a written request with the Henderson County Zoning Board of Adjustment for an administrative hearing within ten calendar days of the date of service under sections 5.01. In the event of an unknown or absent property owner, the appeal must be requested within ten calendar days of the day of posting of the notice under section 5.02.

Manufactured homeowners or other responsible parties may request designation of their home as an abandoned manufacture homes by calling or writing our office with that request. We have previously received several calls from property owners who had abandoned homes who were seeking assistance in removing those homes.

(2) Deconstruction Plan

Henderson County will conduct a Request for Proposal to find qualified demolition companies who can properly dispose of abandoned manufactured homes. There are currently two local companies who have provided this service on a private basis to homeowners and charged them directly. Either company would be able to provide this service at a reasonable cost. There may be other companies able to provide this service once we advertise for proposals. Code Enforcement staff will identify abandoned manufacture homes by complaint or request. Staff will inspect the home for contents and remove thermostats for mercury switches. The thermostats will be housed at the Henderson County Landfill and disposed with household hazardous waste. The private company would either demolish the home on site or transport to a specific location for demolition. Each company would be responsible for recycling any available metal (outer sheeting, frame, axles, white goods, panel boxes, and accessible wiring) and properly disposing of non-recyclable items at our transfer station or other approved locations.

