

An aerial photograph of a solid waste management site. The image shows a large, open field with a dirt road curving through it. In the background, there is a large building with a white roof, surrounded by trees. The overall scene is a mix of natural and man-made elements.

SOLID WASTE PROGRAM

Date: 03/28/2011

Executive Summary 09

History-Landfill

- Begin as a private property dump site in the late 1950's.
- Established as a county owned landfill in 1975 by use of donated property. (John W. Bowman **67.8 acres**)
- Additional **100** acres donated IMCO in 1988
- Highway Department operated landfill from 1975-1994
- Landfill operated by Santek from 1994 to 1997



History-Landfill

- By resolution the Solid Waste Authority was created in 1994
 - Members of the Solid Waste Authority: Chairman
 - E.B. Pemberton, Eddie Owings (Secretary), Tom Hamby, Sam Davis, Tim Neal, Bob Thomas, John Thompson, W.F. Ferguson, L.P. Malmquist
- **Landfill closed** on September 30, **1997**
- J. Hicks Construction contracted by Roane County to do post closure work.

History-Recycling/Collections

- Solid Waste Coordinators:
 - Dena Rue (1994 – 2000)
 - Pat Guettner (2000 – 2001)
 - Margaret Hughes (2001-2005)
 - Ralph Stewart (2006 – Present)

Solid Waste

- Solid Waste Advisory Committee (2011)
 - **Chairman:** Benny East
 - **Committee Members:** Stanley Moore, Randy Ellis, Ron Berry, Ray Cantrell

Solid Waste at Landfill Site

- Plant operations (Midtown) include:
 - Equipment
 - Scale and scale house
 - 2 Compactors
 - (1) 5 yard large item compactor
 - (1) 2 yard household trash compactor
 - 3 Mack roll-off trucks (2007, 2006 & 1997)
 - 1 GMC front load garbage truck (1994)
 - 1 GMC ¾ ton dually 4x4 (1999)
 - 1 Chevrolet 1/2 ton pick-up truck (2003)
 - (4) 40 yard roll-off containers
 - Bobcat skid steer loader
 - Personnel
 - 4 full-time and 2 part-time

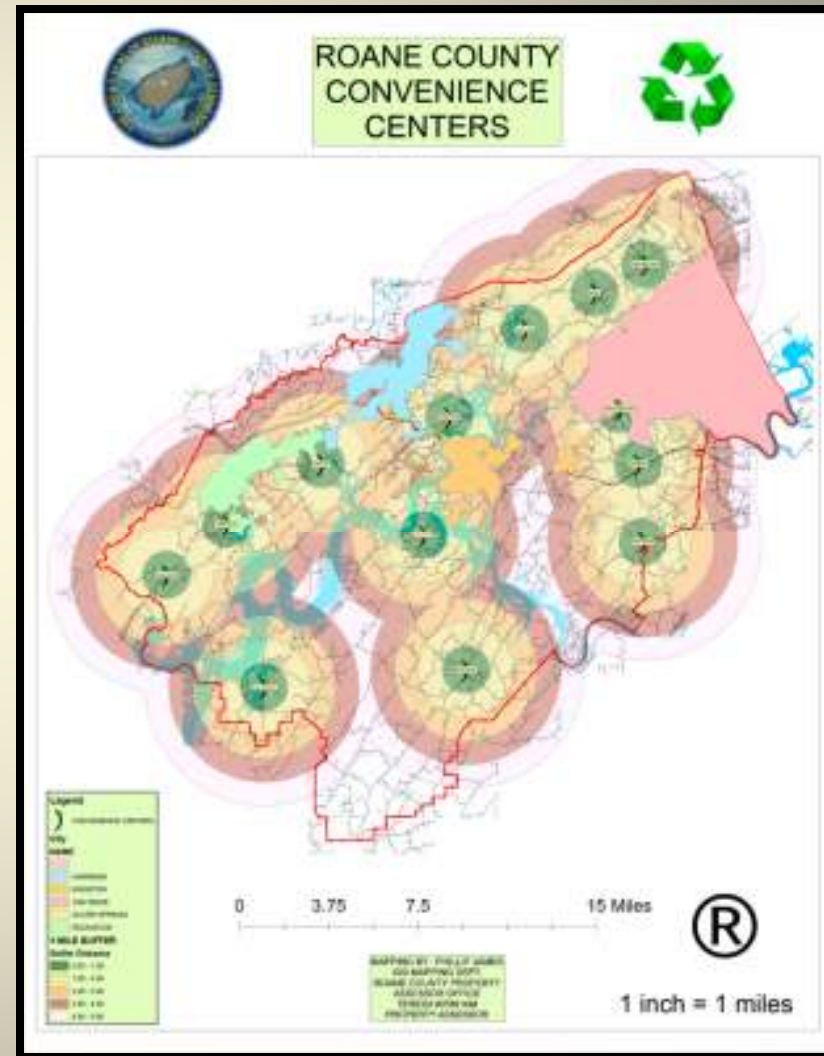


Convenience Centers

- First offsite disposal commonly known as a “Green Box” site was at the entrance of Roane County Park.
- First convenience centers opened in mid-eighties based on TVA study approximately **seven (7)** initial sites.

Convenience Centers

- There are currently **14 convenience centers** (the map does **not** include the landfill site).



Solid Waste Fund 116 (Convenience Centers)

• Property Tax 5 cent (rural rate)-	\$366,000
• Rural Sales Tax-	350,000
• TVA Revenue Sharing-	<u>415,000</u>
• Total Revenue-	\$1,131,000
• Convenience Centers-	\$1,042,000
• Transfers Out-	<u>119,000</u>
• Total Appropriations-	\$1,161,000

Convenience Center

- **Collection tonnage:** Approximately 30 tons of household garbage collected each week from convenience centers.
- **Operational hours:** Monday, Tuesday, Thursday, Friday and Saturday from 7:30 am to 5:30 pm
- **Operators:** 2 Full-time, 24 Part-time (does not include landfill site) with 1 full-time foreman/maintenance employee for all centers



Convenience Center

- “Going **Green**”
 - Solar powered garbage compactor at Orchard View (pilot program)
 - Waste oil used for heating at the Midtown Recycling Center
 - Supply waste oil for heating to the Highway Department and Animal Shelter.



Recycling Fund 123

- 2 cent county wide property tax- \$260,000
- Collection charges- \$127,000
- Sale of Recyclables- \$207,000
- Grants- \$39,000
- **Total Revenue-** **\$670,000**
- Recycling Center- \$602,000
- Post-closure Care- \$76,000
- **Total Appropriation-** **\$678,000**

Recycle Program

- Recycle Program established in 1998.
- The reason for recycle program: environmental issue, regulatory requirements, reduce cost per ton, recover cost of recycle material and reduce amount of waste in landfill
- Recycling began with:
 - cardboard
 - paper
 - aluminum



Recycle Program

- Current recycled items are:
 - Cardboard: 20 tons per week
 - Paper: 20 tons bi-monthly
 - Aluminum: 1 ton every 3 months
 - Steel:
 - Electronics
 - Batteries
 - Oil
 - Paint
 - Plastic #1 and #2
 - Antifreeze
 - Tires



Recycle Program

- Plant operations include:
 - Equipment
 - General purpose bailer (cardboard, paper and plastic)
 - Aluminum bailer
 - Separating equipment
 - Specialty vehicles
 - Containers
 - Oil filter crusher
 - Personnel
 - Michael Dunn work program – low cost
 - Community service program – no cost
 - 2 full-time and 1 part-time county employees



Annual Household Hazardous Waste Day

- Takes place each May
- Household hazardous waste includes:

From Workbench	From Garage	From the House	From the Yard
Degreaser	Antifreeze	Art/Craft Supplies	Fertilizer
Paint Thinner	Gasoline	Moth Balls	No-pest Strips
Stain Remover	Brake Fluid	Floor Cleaners	Rodent Killer
Oil-Based Paint	Engine Degreaser	Rechargeable Batteries	Herbicides
Sealant	Carburetor Cleaner	Drain Cleaner	Pool Chemicals
Wood Stripper	Kerosene	Photo Chemicals	Muriatic Acids
Solvents		Chemistry Sets	Pesticides
Rust/Wood Preservatives		Medicine/Drugs	Insect Spray
		Metal/Furniture Polish	

Future Opportunities

- Updated facility for packaging/shipping cardboard
- Contract with county schools for recycling of cardboard, plastic and paper
- Continue to upgrade from front load boxes at convenience centers to compactors
- Additional solar energy compactors
- Converting methane gas from landfill to energy efficient use
- Wood chip production for bio-reactor fuel

Land Use Opportunities

- Future land fill operations (asset on hold)
- E.O.D. detonation range for known or suspected explosives found in Roane County. (Resolution)
- Roane County Sheriff's Department firing range. (Resolution)
- Expanding recycle production (Capital Budget)
- Central locations for building sites, warehousing emergency response operations and response vehicles. (Capital Budget)
- Recreational use (Resolution)

Projects Standardization

- Replace/repair some current buildings
- Modify existing sites



Potential Projects

- “The Good, the Bad and the Ugly”



Potential Projects

- Possible Environmental Issue at a Convenience Center



Potential Projects

- For safety and aesthetics, move some centers back from the road



Ideas from Other Solid Waste Centers



Open box drop off site

Covered compactor



Summary

- Enhance and use our assets:
 - Use of landfill (recreation and law enforcement)
 - Use of landfill for Office of Emergency Services
 - Improvements and expansion of recycling center and landfill convenience center function and aesthetics
 - Improvements of existing convenience center locations and aesthetics