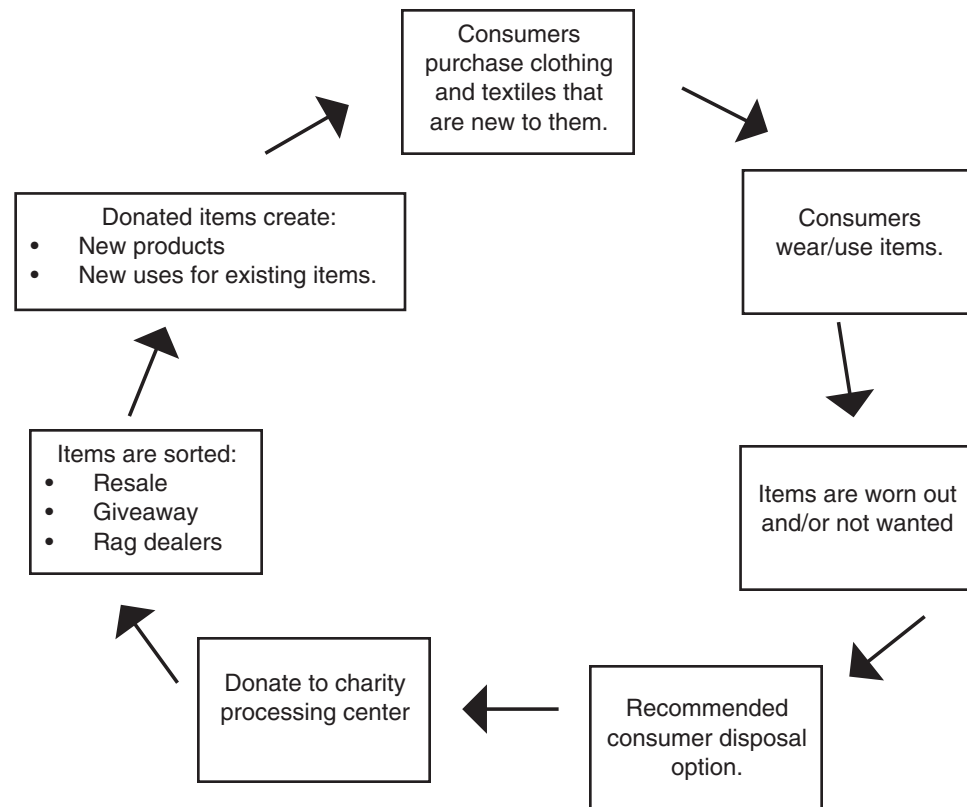




Recycled Household Textiles and Clothing



This model represents the basic recycling process for an unwanted textile or clothing item. Whether an item is sold unchanged as secondhand clothing or it is reprocessed into an entirely new item, it follows this cycle of reuse. When the item completes the cycle and begins anew, it is considered recycled.

References:

Carpet America Recovery Effort (2008). CARE Homepage. Retrieved June 4, 2010, from <http://www.carpetrecovery.org/index.php>

¹City of Tulsa. (2010). Recycling. Retrieved June 17, 2010, from <http://www.cityoftulsa.org/environmental-programs/recycling.aspx>

Hawley, J. (2006). Digging for diamonds: A conceptual framework for understanding reclaimed textile products. *Clothing & Textiles Research Journal*, 24(3), 262-275.

Hawley, J. (2008). Economic impact of textile and clothing recycling. In J. Hethorn & C. Ulasewicz (Eds.), *Sustainable fashion: Why now?* (pp. 207-230). New York, NY: Fairchild Books.

Helms, M. M., & Hervani, A. A. (2006). Reverse logistics for recycling: Challenges facing the carpet industry. In J. Sarkis (Ed.), *Greening the supply chain* (pp. 117-135). London: Springer-Verlag.

³Internal Revenue Service (2010). Publication 561: Determining the value of donated property. Retrieved March 31, 2010, from <http://www.irs.gov/publications/p561/index.html>

Lund, H. F. (Ed.). (2000). *The McGraw-Hill recycling handbook* (2 ed.). New York, NY: The McGraw-Hill Companies, Inc.

Secondary Materials and Recycled Textiles Association (2009). Welcome to SMART. Retrieved March 31, 2010, from www.smartasn.org

²U.S. Environmental Protection Agency (2009). Textiles. Retrieved March 31, 2010, from www.epa.gov/osw/conserves/materials/textiles.htm

⁴U.S. Environmental Protection Agency (2010). Greening your purchase of carpet: A guide for federal purchasers. Retrieved June 2, 2010, from <http://www.epa.gov/epp/pubs/carpet2.htm>

Oklahoma State University, in compliance with Title VI and VII of the Civil Rights Act of 1964, Executive Order 11246 as amended, Title IX of the Education Amendments of 1972, Americans with Disabilities Act of 1990, and other federal laws and regulations, does not discriminate on the basis of race, color, national origin, gender, age, religion, disability, or status as a veteran in any of its policies, practices, or procedures. This includes but is not limited to admissions, employment, financial aid, and educational services.

Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Robert E. Whitson, Director of Cooperative Extension Service, Oklahoma State University, Stillwater, Oklahoma. This publication is printed and issued by Oklahoma State University as authorized by the Vice President, Dean, and Director of the Division of Agricultural Sciences and Natural Resources and has been prepared and distributed at a cost of 20 cents per copy. 0309

Celia Stall-Meadows, Ed.D.
 Visiting Assistant Professor, Department of Design, Housing and Merchandising, Oklahoma State University

Gina Peek, Ph.D.
 Assistant Professor & Oklahoma Cooperative Extension Service Housing and Consumer Issues Specialist

Oklahoma Cooperative Extension Fact Sheets are also available on our website at: <http://osufacts.okstate.edu>

Almost 100 percent of household textiles and clothing can be recycled, regardless of quality or condition. Recycling clothing and textiles benefits charities, reduces solid waste, and provides employment to Oklahomans.

Global Benefits of Recycling

When Oklahomans recycle their unwanted clothing and textiles, it provides three main benefits: funds charitable programs, reduces solid waste, and provides economic stimulus and employment. Specific benefits include:

- Contributes to charities and serves as a deduction on income taxes.
- Funds charitable work, such as drug and alcohol rehabilitation or clothing for the needy.
- Aids disaster relief for people affected by hurricanes, tornadoes, floods, etc.
- Reduces solid waste in landfills.
- Demonstrates sustainability and environmentalism, and reduces carbon footprint.
- Creates economic development around the world.
- Converts waste products into value-added products.
- Provides employment to semi-skilled or marginally employable U.S. workers.

Recycling in Oklahoma

Recycling other types of household waste is well-established in many Oklahoma communities. Most state recycling facilities accept aluminum, cardboard, glass, junk mail, magazines, newspaper, office paper and plastics. Some larger recycling facilities accept antifreeze, batteries, cooking oil, motor oil, paint, phone books and eye glasses.

Case Study

Tulsa, a major metropolitan area, offers an optional bi-weekly curbside recycling pickup for an extra two dollars on residents' monthly utility bill. From 2008 to 2009, the number of voluntary curbside recyclers in Tulsa increased more than 29 percent. Each household has an average of 193 pounds of recycling collected each year¹.

Case Study

In another major metropolitan area, Oklahoma City, residents can fill a recycling bin and leave it beside their regular trash container for recycling pickup at no additional charge.

Case Study

Some smaller communities in Oklahoma may not offer curbside pickup, but many offer recycling drop-off locations. Smaller facilities might accept fewer items. Most accept the basics: aluminum, cardboard, glass, paper and plastic.

While Oklahomans are familiar with packaging recycling, they may be less likely to understand the value of recycling all unwanted clothing and household textiles.

Consumers should not dispose of any unwanted textiles or clothing in the garbage because almost 100 percent of it can be recycled. Yet consumers in the U.S. place almost half of their unwanted textiles and clothing in the trash, accounting for almost five percent of the solid waste stream².

Many consumers lack awareness of the need for clothing and textile recycling and the options for disposing of these items.

Tax Deductible Donations to Charities

Charitable donations are the most recommended method for disposing of good to excellent condition unwanted clothing



and household textiles. Charity shop resale generates the greatest revenue with the least amount of labor. The donor receives a tax deduction for the value of the item, according to the Internal Revenue Service (IRS) valuation system. The charity is able to resell the item after sorting, hanging, and pricing. Charities use sales revenue to fund programs such as purchasing new clothing for needy school-aged children or teenage mothers, or funding local drug and alcohol rehabilitation programs.

The type of garment and condition of the used clothing affect the tax-deductible amount and the resale value of the item—both of which are based on the fair market value. The IRS defines fair market value as the price that good or excellent condition clothing would sell for on the open market, with both the buyer and the seller having a reasonable amount of knowledge about the item³. Table 1 reveals the following retail prices for good condition, used merchandise at a Tulsa, Okla. charity resale shop.

Table 1. Average Resale Shop Clothing Prices.

Donated Clothing Item	Thrift Store Average Price Tag
Men's jeans	\$10.00
Men's woven shirt	\$4.00
Women's knit tops	\$3.00
Bridal Dress	\$100.00
Children's shorts or tops	\$2.00
Girl's dress	\$4.00

Consumer Options for Disposing Unwanted Clothing and Household Textiles

Not recommended

- **Landfills**
 - Avoid throwing out any textiles, since even those that might be considered rags may have some use and value



Figure 1. A steel baler with a deep pit compacts unwanted textiles into bales.

- Textiles, even biodegradable natural fibers, do not easily degrade under landfill conditions due to lack of sunlight and oxygen
- *Incineration: Contributes to air pollution*

Recommended

- *Garage sales: Good market for used clothing*
- *Resale shops*
 - Good market for unique used items.
 - Resale shops may buy the item outright or offer a consignment plan.
- *Charities*
 - Best choice for clothing donations and it is tax deductible (get receipt).
 - Avoid contributing excessive amounts of textiles and clothing during disasters.
 - Make a plan to donate regularly.
 - During disasters, Oklahoma relief agencies may be overwhelmed with donations and unable to process the vast quantity due to time constraints, transportation logistics, and personnel shortages needed to sort, clean and distribute.
 - Best to limit donations to non-disaster times.
 - Donated clothing must remain dry to prevent mildew and ruin.
- *Composting*
 - Zippers, buttons, etc. must be removed; it may be better to donate these items.
 - Recommended with natural fibers (cotton, linen, wool, silk).

Processing Damaged Clothing and Household Textiles

Consumers are encouraged to donate unwanted clothing and textiles, regardless of the condition; although the IRS does not allow for tax deductions on any donated clothing or textiles other than good or excellent condition items.

When consumers donate stained, faded, or damaged clothing and textiles, charity thrift stores may choose not to



resell it. The charity can give it to the local needy, or compact it into 600-pound to 1,600-pound bales and sell it to rag dealers for about 15 cents to 20 cents per pound. A donation processing facility may sell a 1,600-pound bale of discarded textiles and clothing for about \$250. Although this method does not generate as much sales revenue as reselling the individual items through a thrift store, it still provides additional income to the charity to fund its programs.

When rag dealers buy the bales, they first sort for vintage and collectible clothing that can be extracted and sold at a good profit. Then they separate the assortment of baled items by fiber content, such as all cotton items in one pile and synthetics in another pile. These may be shredded for use as industrial wipers and absorbent textiles, to clean water-based or oily spills. Blended fabrics, such as polyester and cotton, also may be shredded into shoddy and used for stuffing and padding, or fabricated into entirely new products, such as insulation for homes or composite fence posts.

Rag dealers may transport the bales of unsorted clothing to port cities to be sorted, rebaled in a plastic wrapper, loaded into large containers and shipped overseas. Foreign dealers sort through the items for the most desirable and valuable in their market.

Recycling Carpet

Carpet recycling and sustainability

According to the U.S. Environmental Protection Agency, each year more than 4 billion pounds of carpet go into the solid waste stream⁴. Recycling unwanted household textiles is one way to increase sustainability. Most carpets are not biodegradable, so discarded carpets remain in landfills. Fortunately, household carpets are made from durable and recyclable materials (nylon, polyester and olefin) that manufacturers can use to produce new products. Rugs made from natural fibers, such as wool, may be shredded and the fibers reused. Considering replacing your brown shag carpeting from the 70s? Try to recycle it!



Figure 2. Baled textiles awaiting pickup by rag dealer.

Types of products made from recycled carpet

Old carpet is recycled to create new, raw materials for products such as:

- New carpeting, carpet backing, carpet padding and other types of flooring.
- Soft textiles, including pillow stuffing.
- Hard plastic automobile parts.
- Reusable, geotextile “hay” bales to control soil erosion at construction sites.

Carpet recycling in Oklahoma is still developing. The closest carpet collection points are in Dallas, Kansas City, Springfield and Albuquerque. Three companies—Shaw Floors, Mohawk and InterfaceFLOOR—are helping consumers recycle large quantities of carpet. For example, Shaw Floors will help consumers recycle 5,000 square yards or more of carpeting, as long as the carpet is replaced with a Shaw Floors product.

As public-private partnerships such as the CarpetAmerica Recovery Effort (CARE) gain momentum, the infrastructure necessary for carpet recycling will develop. Check back with local government and retail stores periodically. It is only a matter of time before household textiles recycling becomes more accessible to Oklahomans.

Alternatives to Over-consuming Household Textiles and Clothing

Clothing

- Consider borrowing clothing from a friend for a one-time event.
- Avoid impulse buying and choose classic styles that will last for several seasons.
- Buy higher quality clothing that will last for more than one season.
- Be creative! Learn to mix and match with existing clothing items.

Household Textiles

- Choose household textiles with a longer life span.
- Choose sheets with a higher yarn (or thread) count.
- Choose carpet with a higher density and a tighter twist construction.
- Choose carpet tiles for easy replacement of damaged sections.
- Consider having furniture recovered in new fabric rather than buying a new piece.

Good Practices

- Shop at a charity resale shop that donates the proceeds to a worthy cause.
- Overcome the belief that used clothing is somehow inferior to new clothing.
- Shop your favorite resale shop on a regular basis for the best finds.
- Buy from companies that are committed to sustainable practices.