Reuse Explorations Guide Innovative Programs and Strategies







Written by Athena Lee Bradley and Mary Ann Remolador Northeast Recycling Council, Inc. (NERC)

> With funding from the Rural Utility Services, United States Department of Agriculture

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August 2016

Acknowledgements

The Northeast Recycling Council, Inc. (NERC) is a nonprofit organization that conducts projects in the eleven Northeast states, as well as around the country. Its mission is to promote sustainable materials management by supporting traditional and innovative solid waste best practices, focusing on waste prevention, toxics reduction, reuse, recycling and organics recovery. NERC received a grant from the United States Department of Agriculture, Rural Utility Services for "Innovative Strategies & Best Management Practices for Implementing Reuse Programs in Rural Communities in New York State & the St. Regis Mohawk Nation." Through the project NERC provided webinars, trainings, resources, and technical assistance.

The following individuals and organizations provided invaluable and generous assistance in the development and implementation of the project. NERC would like to extend its appreciation to and acknowledge the following people who worked with NERC on reuse:

- Jan M. Oatman, Regional Recycling Coordinator, Development Authority of the North Country
- St. Lawrence County Reuse Partnership: John Tenbusch, St. Lawrence County Environmental Management Council; Larry Legault, Operations/Recycling Manager, St. Lawrence County Solid Waste Operations; Chelle Lindahl, Co-Coordinator, Local Living Venture; and, Jennifer Lauzon, New York Department of Environmental Conservation, Region 6
- Larry Thompson, Recycling Coordinator, Saint Regis Mohawk Tribe (Akwesasne)
- Catherine (Katie) Liendecker & others with Lyons Falls, New York and Lyons Falls Alive
- MaryEllen Etienne, The Reuse Institute
- Diane Cohen, Executive Director, Finger Lakes ReUse, Inc.
- Forest Finds Thrift Shop
- Massachusetts Department of Environmental Protection
- Department of Public Works, Northampton, Massachusetts
- Lynn Rubinstein, Executive Director and Robert Kropp, Office Manager/Bookkeeper, NERC for their input and editing of this guide
- Those who responded to NERC's initial inquiry seeking examples of reuse programs in action
- United States Department of Agriculture, Rural Utilities Services, without whose support and funding this guide and NERC's reuse project would not have been possible.

This material is based upon work supported under a grant from the Utilities Programs, United States Department of Agriculture. Any opinions, findings, and conclusions or recommendations expressed in this material are solely the responsibility of the authors and do not necessarily represent the official view of the Utilities Programs.

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Reuse Explorations Guide: Innovative Programs and Strategies

EXPLORING THE GUIDE

The *Reuse Explorations Guide* is intended to benefit a wide range of people—state, tribal, municipal, and community leaders; materials managers; economic development specialists; citizen activists; reuse businesses; charity/nonprofit representatives; and others who desire to expand reuse in their communities. The document offers particular insights for small and tribal communities; however, it is designed to assist communities of all sizes and demographics.

The *Guide* is designed for electronic viewing. It contains both a "Table of Contents" with links to all document sections, along with hyperlinks throughout the document to additional resources and program examples. Document sections explore the various types of reuse; each section contains specific "how to" guidance and program examples. "Take Away" and "Tips" provide insights into implementation strategies. Appendices offer more detailed information, such as case studies, additional "how to" material, a resource list, and promotional examples.

Some reuse strategies, including food recovery, textiles, and reuse events, are explored more thoroughly. Both food recovery and textile diversion are growing in popularity, as food scraps and textiles still comprise significant percentages of the waste stream. Reuse events deserve more consideration as they offer communities a relatively low cost way to explore and introduce reuse and its many benefits to mainstream audiences.

We recommend that you start your reuse journey in the <u>Table of Contents</u>. From there, each type of reuse, as well as strategies and program examples, can be easily found and explored.

DISCOVER REUSE

Something for Everyone!

The world of reuse is vast! The practice is as old as humanity. There is traditional reuse which is common to everyone, such as shopping at thrift stores; or using more durable and refillable items, such as metal coffee mugs and water bottles. New forms and definitions of reuse, from upcycling to the sharing economy, are becoming increasingly common. The evolving reuse landscape is indeed exciting.

Reuse is generally defined as the "use of a product more than once in its same form for the same or similar purpose." The Reuse Institute adds to this definition: "Reuse involves extending the life of a product, packaging or resource by 1) using it more than once with little to no processing (same or new function), 2) repairing it so it can be used longer, 3) sharing/renting it, or 4) selling or donating it to another party." ²

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¹ http://www.calrecycle.ca.gov/reducewaste/define.htm#Reuse

www.reuseinstitute.org/resources/

Discovering the Benefits of Reuse

A Path to Sustainability

In materials management, reuse was often ignored or viewed as insignificant, even though reuse is at the top of the waste management hierarchy along with source reduction. However, beyond some basic "reuse promotion," it is frequently excluded from solid waste management plans and program development.

Before items can be recycled, they must first be sorted, broken down into their material components and further processed (crushed, melted, etc.) before manufactured into new products. Reuse doesn't require a transformation of the item to extend its usefulness.



Businesses and public agencies are developing an increased interest in and focus on environmental and economic sustainability, and reuse can play a pivotal role in bringing us closer to these goals.

Incorporating reuse into a materials or waste management program assists communities in protecting their environment and reducing waste, while saving money and creating local jobs. By returning products and materials back into the economy it benefits society. Reuse provides an environmentally preferred alternative to other waste management methods, as it typically requires fewer resources and less energy compared to recycling and disposal. Added to these environmental benefits, of course, are reduced greenhouse gas emissions.

Reuse conserves resources by extending product lifecycles. It offers exciting and innovative business models that benefit the social good. Reuse also plays an invaluable role in providing low cost items—food, clothing, building materials, business equipment, medical supplies, and more—to disadvantaged populations.

Embracing reuse can bring us closer to a circular economy. Incorporating reuse into product design can make goods easier to repair and more durable.

Reuse is the foundation for the "sharing economy" in which our goods and services can be shared or leased.

Circular Economy

A circular economy is one that is restorative and regenerative by design, and which aims to keep products, components and materials at their highest utility and value at all times, distinguishing between technical and biological cycles.

- Ellen MacArthur Foundation

Environmental Benefits

Waste is not just created when items are disposed. Waste is generated throughout the lifecycle of a product; from the extraction of raw materials, to transportation and processing ("upstream"), and to its use and eventual disposal. Through reuse, less air, water and land pollution is generated since it reduces the need for new natural resources, such as timber, petroleum, metals, fibers, and other materials, in the manufacture of new products.

By reusing and salvaging items, substantial decreases in solid waste generation, greenhouse gases, energy and water consumption, and pollution can be achieved. For example, one kilogram (kg = 2.2046 pounds) of clothes donated saves 6,000 liters of water, 300 grams of fertilizers and 13 milliliter of pesticides.³

The Take Away—Advantages of Reuse

- Conserves energy & raw materials by purchasing reused items instead of new ones
- Reduces disposal needs & costs
- Reuse, repair, & refurbishment support job training & job creation
- Provides cost savings for consumers as reused items are typically less expensive than similar products purchased new

Economic and Social Benefits

Reusing a product (either as is, refurbished, repaired, or repurposed) provides many economic and social benefits to a community. Reuse allows the value of materials to stay within the community.

More isolated small and tribal communities can particularly gain by expanding reuse. Recycling businesses are often located in more populated areas or near transportation nodes to achieve economies of scale and transportation of recyclables from isolated communities can be costly. Furthermore, when recycling markets are down, all communities can benefit by increasing the practice of reuse. In an otherwise slow-growth economy, reuse businesses often thrive.

Reuse fosters innovative, low cost, flexible, and local solutions to materials management. Communities benefit from avoided landfilling and transportation costs associated with shipping waste or recyclables out of the area. Reduced waste and transportation costs also translate into reduced pollution and traffic noise.

Any community gains from keeping reusable resources local and supporting reuse businesses. Some reusable items, including textiles, are sold to regional or export markets. The monies earned from these transactions may also return to the local economy. Reuse, remanufacturing, repair, and refurbishment are economically beneficial for industry as well, providing low cost equipment and parts and extending the longevity of existing equipment.

According to the Association of Resale Professionals, resale is a multi-billion dollar a year industry, with more than 25,000 resale, consignment and nonprofit shops in the United States.⁴ In the automotive world, 26 million more used cars than new ones were sold in 2013.⁵ And the textile recovery industry, according to its international trade association, the <u>Secondary Materials and Recycled Textiles Association</u> (SMART) is another billion dollar industry.⁶

³ http://teximateam.com/donate/

⁴ www.narts.org/i4a/pages/index.cfm?pageid=3285

www.Autonews.com

www.smartasn.org

There are over 3 million repair and reuse professionals in the US.⁷ The United States International Trade Commission reports that remanufacturing is an important and growing activity in many industrial sectors and supports at least 180,000 jobs throughout the United States.⁸

The Take Away—Reuse Creates Jobs

- Reusing 10,000 tons of goods creates 41-216 jobs
- Incinerating or landfilling 10,000 tons of waste creates just 6 jobs

The Houston-Galveston Area Council (H-GAC) conducted a study to assess the economic and employment benefits of recycling, reuse, and remanufacturing in the region. The <u>study</u> found that there was an estimated 3,704 "direct" jobs in reuse and remanufacturing, another 436 "indirect," and 645 "induced," for a total of 4,784. Industrial Output (gross sales) amounted to an estimated \$229,697,727 directly resulting from business activity, and an estimated \$387,881,913 including indirect/induced; estimated "Value Added" totaled in at \$238,546,170 and estimated Labor Income at \$154,579,321. Business types considered in the study included: electronics refurbishers/reusers, used motor vehicle parts dealers, tire retreaders, wood reuse or pallet rebuilders, used merchandise retailers, and "other."

A Minnesota Pollution Control Agency's 2011 report, <u>A Study of the Economic Activity of Minnesota's Reuse</u>, <u>Repair and Rental Sectors</u>, found that the State's reuse sector directly employs almost 46,000 people and generates at least \$4 billion in gross sales annually. The numbers represent 1.8% of employed people in the state, and 1.6% of the state's gross domestic product. The study also found that the reuse sector pays approximately \$1 billion in wages annually and an estimated \$159 million in state business, individual income, and sales taxes.

The "ripple" effects from the 46,000 direct reuse jobs are estimated to generate another 4,600 jobs in supporting industries. Furthermore, the personal spending of reuse sector employees supports 8,300 jobs in unrelated industries. Minnesota's three largest thrift store operations generated \$53 million in annual sales and diverted at least 11,000 tons from landfills. These operations also reported 154,000 annual volunteer hours, which equates to an additional \$1.1 million to \$1.5 million in economic benefits depending on the value of a volunteer hour.

A milestone study indeed; however, it undoubtedly underestimates the full economic impact of reuse, as it measured only three activities: used product sales; repairs; and rental services. Experts interviewed for the study did agree that reuse

keeps money local, thus keeping any value added through reuse within the State.

The Take Away

Studies such as those conducted by H-GAC and Minnesota can be a valuable undertaking by local, regional, state, and tribal agencies to demonstrate the economic and employment benefits reuse and remanufacturing afford and to point to areas where additional investment and policy changes can be beneficial.

Going beyond diversion potential, such studies measure real economic and job growth opportunity.

Reuse is definitely on the move! Millennials now comprise more than 30% of the labor force and they are embracing reuse. Participation in the sharing or collaborative economy nearly doubled between 2013 and 2014. With the latest apps for Airbnb, Zip Car, and others on their smartphones, Millennials are a driving force in the sharing economy. Reuse and the sharing economy can indeed harness the entrepreneurial spirit of people of all ages and walks of life!

⁷Announcing: The Repair Association

⁸ https://www.usitc.gov/publications/332/pub4356.pdf

⁹ www.salesforce.com/blog/2014/11/collaborative-economy-dreamforce-gp.html

Reuse—It's Within Reach

Government and tribal agencies, as well as nonprofit organizations, institutions, and businesses, can help to expand reuse in their communities by sponsoring ongoing reuse programs, such as repair cafés or reuse sheds. Special events, including toy and "kid's stuff" swaps, community-wide tag sales, textile drives, sports equipment exchanges, and similar events bring numerous social and economic benefits to residents.

Creating a local working group on reuse (or reuse committee) can jumpstart a dialogue between stakeholders to expand reuse efforts, promote the sharing economy, and more. Such a group could explore the environmental and economic opportunities of reuse models and programs, regulatory barriers and potential changes that can be made to foster reuse, and incentives for reuse entrepreneurs and businesses.

Communities can also help to promote reuse by developing listings of ongoing reuse activities, thrift stores, and building reuse stores (e.g., "ReStores") in their region. The simple act of promoting the use of durables, leading by example by going to meetings with refillable water bottles and coffee cups, and offering reusable items (such as shopping bags) as promotional items, sends a positive reuse message. Switching to reusable serviceware in our schools and corporate cafeterias is another positive step for advancing reuse.

Government and community support through education, information exchange, and volunteerism can help nurture reuse and grow reuse businesses and organizations. Governments and tribal agencies can set an example by establishing a materials exchange service and incorporating reuse and recovery in technical assistance offered to businesses.

Used goods are commonly available to industries, businesses, institutions, and individual consumers. "Secondhand" markets for manufacturing facilities—from textiles to chemical production—provide access to usable equipment and materials. Used industrial, construction, and medical equipment are also readily available.

For individuals, virtually all consumer products—cars, clothes, books, furniture, household items, sports equipment, musical instruments, and more—are available secondhand or refurbished. Sources of used goods include online auctions or peer-to-peer exchange platforms, secondhand stores, building material reuse stores, classified advertisements, reuse centers, estate sales, auctions, rummage sales, yard sales, salvage yards, materials exchanges, and more.

Exploring Reuse Metrics

Measuring the metrics of reuse can present a challenge. We know how much is recycled and the costs and the benefits can be easily calculated. With reuse, the costs for organizing an event or setting up a program can be determined, but calculating diversion amounts through reuse is often a guessing game. However, with some forethought, there are ways of measuring the positive environmental, economic and social impact data reuse has in our communities.

By surveying event participants and monitoring and tracking items exchanged in reuse programs, diversion estimates can be made. Communicating with reuse centers, textile collection box providers, and others in the reuse sector and providing them with an easy reporting system can help communities gain diversion numbers.

Take Away— A Sampling of Reuse Metrics

- Number of tons diverted from the landfill/incinerator
- Greenhouse gas reductions
- Avoided disposal costs (donor/seller)
- Avoided purchase costs (recipient/buyer)
- · Value of materials donated (donor)
- Revenues earned (donor/seller)
- Jobs created or retained in reuse businesses
- Number of families, individuals, &/or organizations assisted

Emphasizing reuse in materials/waste management plans can elevate the importance of reuse as a diversion effort and set the stage for including metrics achieved through reuse in reaching waste diversion goals.

Calculators, including the U.S. Environmental Protection Agency's <u>WARM</u> Tool and <u>EPA Electronics</u> <u>Environmental Benefits Calculator</u> can be used to determine environmental benefits. Check <u>Attachment A</u>, Resource List for other metrics tools.

<u>ReUSE Minnesota</u> is developing a tracking system to measure reuse diversion. Using standard weights for furniture, housewares, clothing, etc., the system will utilize an online tracking system so that thrift stores and other reuse centers can report their tonnage diverted through reuse.

THE REUSE JOURNEY STARTS HERE

Starting with a look at reuse opportunities and challenges will provide insights for program development.

For many people, the very term "reuse" denotes something only for "those in need" or products which are "inferior." There is often an information or perception barrier for consumers, manufacturers, and businesses to be addressed before reuse becomes more acceptable in the mainstream. An emphasis on the value, functionality, and quality of durable, repaired, and reused items, along with highlighting the benefits of reuse, can help increase consumer confidence.

On the macro level, standards and specifications for designing for durability, reuse, and repair are needed for manufacturers. Reuse procurement standards are also essential, including procurement policies at all levels of government and tribal entities that emphasize product reuse and leasing.

Some examples of procurement policies which include preferences for reusable or refillable items include: <u>San Mateo County, California</u>; <u>Spokane, Washington</u>; and <u>Seattle, Washington</u>. Other innovative reuse support strategies include streamlined permitting processes for reuse businesses; low- or no-cost permitting and

licensing fees; and establishing "reuse and recycling hubs." Seattle, for example, promotes <u>deconstruction</u> (over demolition, when appropriate) through reduced permit fees and fast tracking the permit process.

A City Leading the Way

Austin's <u>Zero Waste Master Plan</u> calls for a 90 percent reduction of waste from disposal to productive reuse and recycling by 2040. Two City departments, Austin Resource Recovery and the Economic Development Department, have joined forces to launch the <u>Recycling Economic Development Program</u>. The program provides:

- One-on-One Business Assistance to assist companies interested in starting up and expanding their recycling, repair and reuse activities in Austin.
- Austin [re]Manufacturing Hub: The City is opening an eco-industrial park for reuse and recycling manufacturing industries.
- The <u>Austin Materials Marketplace</u> connects businesses with unwanted materials to businesses that can use that waste in their own processes.
- Local Zero Waste Business Promotion: Businesses can advertise their products, repair items or services for free on LocallyAustin.org.
- Access to Capital: Assistance is provided for accessing financing tools available to recycling & reuse companies, including the <u>Bond Financing Program</u> and the <u>Family</u> <u>Business Loan Program</u>. The City sponsored a <u>Recycling Innovations Investment Forum</u> and also offers innovation prizes (cash award) for reuse entrepreneurs.
- The City also provides <u>repair resources</u> and other reuse information for residents.

Nuts and Bolts

Often just knowing where to start can be difficult. Established reuse businesses recommend that stakeholders and strategic partners meet to explore and plan the type of reuse opportunity that will be most successful and beneficial for a particular community. Inviting the community to participate, or at least surveying community members, can foster an understanding of "reuse needs" and existing "reuse assets", encourage greater interest, and develop a pool of volunteers. For example, if the community has a number of thrift stores, but no reuse building supply stores, perhaps this is where the greatest need will be.

Looking at *successful models* provides concrete insights, which can then be used to develop a business or marketing plan for a new reuse business or program. Linking up with an established reuse business, such as combining a thrift store and a building reuse center, is also worth exploring for start-up enterprises. Bringing multiple stakeholders together to explore economic development grants and opportunities for planning and developing a reuse program or enterprise can be a route to success.

Reuse businesses require *low cost space* for their materials, whether they're building materials, housewares, or art supplies. Sorting and receiving donations, and stocking and displaying items, can require a significant amount of space. Another challenge is locating a convenient and accessible location, along with adequate parking and accommodations for a range of vehicle types. Maximizing efficiencies in receiving, processing, and selling items can help provide at least temporary reprieve in overcoming space limitations. Also, designing the business and inventory to address community wants and needs helps ensure product turnover. Government and tribal entities can help by providing donated or reduced-cost public space or real estate for reuse enterprises.

Staffing can be a challenge for both reuse businesses and for communities hosting reuse programs and events. Charity and nonprofit reuse operations have a long and successful history of gaining volunteer support. As mentioned above, one important first step to enhance reuse is to set up a volunteer "reuse committee" to discuss the types of program or events that will best meet the needs of the community.

The committee could also decide upon program design and the types of items to be collected, as well as address liability concerns, budgeting, staffing, etc. A reuse committee also

Adopting a "reuse" entrepreneurial spirit is essential. Building partnerships and a supportive community can help overcome resource limitations (money, but also people and space) and help expand the impact of reuse. Applying a business-based approach and utilizing available resources efficiently and building upon them can lead to success.

provides a ready pool of volunteers for staffing a permanent collection center and/or one-time events.

As with any program, *promotion and marketing* are crucial. Reuse lends itself well to today's social media opportunities. For relatively low cost and limited time expenditure, communities, businesses, and nonprofits can promote reuse by establishing a social media presence on Facebook, Twitter, Pinterest, and other platforms.

Before embarking on establishing a reuse center, repair café, tool lending library, reuse event, or other reuse program discussed in this Guide, *consult with an attorney* about any necessary liability insurance, hold harmless agreements, and other legal precautions that should be undertaken.

Tracking data—number of customers, participants, sales, materials diverted, greenhouse gas emissions reductions—are all important for showing results, whether the organization is a nonprofit, business, or public agency. Demonstrating and documenting the benefits and solutions provided to the community will help shore up support, whether it's for funding or community involvement.

Taking the Lead

Direct financial support from government and tribal entities, such as low cost financing, tax abatements, and other incentives, can help reuse businesses get established. Use of targeted funding for capital projects or programming can help reuse establishments get off the ground or expand. Eliminating or reducing permitting and licensing fees can also be helpful.

There are many low cost ways for governments and tribal entities to support reuse. Providing technical assistance and business guidance to help in development or improvement of business plans, navigating local regulations, locating potential funding and other resources, and even helping with recruiting and training employees, can assist reuse businesses. Sponsoring business incubator programs, job fairs, and/or trade shows with a focus on reuse can be innovative and effective.

A key role public agencies can play is fostering collaborations and partnerships in support of reuse. Creation of reuse and recycling "hubs" or zones within a community can provide opportunities for collaboration, including resource sharing and promotion. Simply providing forums for those interested in promoting reuse can be beneficial, especially if economic development monies or other funding, and potential sponsors, can be explored. Creating public awareness campaigns are also beneficial.

Even if funding is limited, government and tribal entities can take the lead in fostering reuse activities and enterprises. Evaluating waste streams with reuse in mind is important for providing an analysis of what reusable items may be available for capture. Establishing beneficial initiatives—from "pay as you throw" and

zero waste to job development—can spur reuse. Collaboration between reuse enterprises and solid waste and recycling facilities can provide reusable material streams to be harnessed by reuse enterprises.

Looking at reuse as an economic and/or community driver can be a nexus for partnership building as well as developing alternative funding sources. Grant funding may be available from state and national economic development agencies and foundations.

Communities can also gauge the potential for leveraging funds and potential partners or sponsors by assessing the impacts of projects which may enhance tourism, arts, or entertainment. Specific reuse programs and community support for reuse may also serve to attract entrepreneurs, teachers, artists, and others, further contributing to economic and community development.

Basic Steps

As with any program or new enterprise, numerous initial steps are required:

- Planning is an obvious first step—setting goals and prioritizing tasks to be undertaken.
- As noted above, a business plan is an essential component. Even nonprofits and public agencies can benefit from undertaking the process of developing a business plan.
- Compile a budget.
- Conduct staffing and/or volunteer recruitment and assign tasks.
- Develop a marketing plan.
- Determine an implementation timeline.
- Remember to incorporate measures of success and metrics.

These essential steps will vary widely depending on the type of program to be undertaken and the scale and scope of the program. More in-depth information will be provided throughout this document and included in Attachments, including the Resource List. An in-depth discussion for establishing a reuse center or business is beyond the scope of this Guide; additional resources, such as business plan development guides, should be consulted. Finger Lakes ReUse, for example, offers a wealth of business plan development resources valuable for communities, nonprofits, and businesses.



REUSE PROGRAMS ABOUND

Ongoing or "permanent" reuse programs, such as a reuse shed textile collections, can be provided by municipal or tribal entities. Other permanent enterprises, including reuse centers, teacher supply depots, and charitable donation retail stores, are more commonly established by nonprofit organizations.

Reuse stores and building materials reuse stores can also be established by for-profit businesses. Schools and institutions may establish material or "waste" exchanges. Partnerships are often integral to ongoing reuse efforts such as textile recovery programs. The partnerships often include public agencies, nonprofit/charity organizations, and private companies. Creative reuse centers and building reuse centers can also evolve from partnerships.

Ongoing programs may be of any size, and may be operated by paid staff, volunteers, or a combination. Reuse programs may start out as smaller projects, or single events such as a repair café or toy exchange event, before becoming permanent undertakings.

Examples of ongoing reuse programs

- Reuse shed, Swap Shop, swap table
- Reuse Centers
- Restores (reused building supply stores)
- Textile drives
- Community reuse guide or webbased searchable database
- Repair Cafés or Fix-It Clinics/Fixer Collectives
- Tool Lending Library
- Food Recovery
- Bicycle repair/reuse
- Materials exchange
- Reusable bag promotion
- Reuse education—libraries, schools
- Recraft shops
- Teacher/school supply exchanges
- Household goods exchanges
- Peer-to-peer sharing platforms

Adaptive Reuse

- ". . . Re-use of buildings is one of the most pure forms of sustainability."
- Derek Latham, British architect & urban designer

Adaptive reuse refers to the process of reusing an old site or building for a purpose other than that for which it was initially built or designed. Also termed building repurposing or readaptation, adaptive reuse can extend the "period from cradle-to-grave" of a building by retaining its structural system, along with other features, such as cladding, glass, and interior partitions.

Adaptive reuse allows buildings to maintain their cultural contribution. Throughout human history, stone and masonry structures which have outlived their original purpose have been frequently adapted for new uses. Preservation of historical buildings has grown in importance both as a means of honoring cultural heritage and as a strategy for extending the life of the materials used in the original structure. Old warehouses, mills, institutions, and churches frequently offer sturdy and structurally sound opportunities for building repurposing.

¹⁰ https://en.wikipedia.org/wiki/Adaptive reuse

Adaptive Reuse Benefits:

- Helps control costs by reducing the need to purchase new building materials.
- Eliminates the need to purchase new land.
- Eliminates or reduces demolition costs.
- Old buildings can often be purchased at lower prices.
- Building adaptation is labor-intensive, offering job opportunities.
- Adaptation often takes less time than new construction and renovation can be done in phases.
- Federal, state, and local funding may be available for rehabilitation; tax advantages may also apply.
- As with other forms of reuse, it conserves resources.



Massachusetts Museum of Contemporary Art

Exploring Building Adaption?

Consider the following 11:

- Does the building have historic or archeological significance?
- Is the structure visually appealing? Is its style regionally or culturally valued by the community?
- Will preserving the building offer economic benefits to the community? Buildings can be adapted for a
 wide range of activities, including retail shops and museums. Tourists are frequently drawn to historic
 structures and districts.
- Does the building provide functional value? Can it be adapted to provide positive opportunity for the community? Are there suitable uses for the building or structure?
- Does it hold psychological significance to the region? Is there a historical or popular appeal to the structure?

Of course, not all buildings are suitable for adaptation. Some older buildings or structures may not be appropriate for repurposing due to disrepair or decay. Cost considerations may also be prohibitive for adaptation. Removing toxic materials that may have been stored in the structure (brownfield redevelopment, for example) or used in its construction (such as lead paint or asbestos), may be expensive. HVAC retrofits, thermal improvements, energy efficient lighting, and other improvements may also be needed.

Expanding the concept of adaptive reuse to include deconstruction and building materials reuse (see below) allows for historical structures that cannot be repurposed in entirety to be deconstructed for new uses.

Leading the Way

• The Environmental Department of the Pinoleville Pomo Nation in Ukiah, California has found new uses for abandoned trailers, transforming them into tool sheds. The sheds use tin from the trailers for the walls and reused wire fencing to hold the tools. The only purchased material is the roofing material. Other "trash-transformation" projects the tribe is exploring include constructing a ramp out of abandoned tires; building a greenhouse using abandoned trailer trusses; and using recovered bathtubs and sinks to hold potting soil and plants in a greenhouse.



¹¹ Adapted from Derek Latham, "The Creative Re-Use of Buildings" (2000); see also, http://www.useful-community-development.org/recycling-buildings.html.

- The Massachusetts Museum of Contemporary Art (MASS MoCA) is located in a converted factory building complex located in North Adams, Massachusetts. It is one of the largest centers for contemporary visual art and performing arts in the United States. The Museum encompass a vast complex of 19th-century mill buildings, including bridges, viaducts, elevated walkways, and red brick facades. Built in 1860, the structure first housed the print works O. Arnold and Company for printing cloth; in 1942 Sprague Electric Company took over the complex. Mass MoCA opened its doors in 1999.
- McMenamins has developed several popular venues around Oregon and Washington, serving handcrafted beer, wine, and spirits and offering a range of entertainment in its spectacularly renovated structures. Its "reused" venues include old schools and hotels. Edgefield, originally built in 1911 as the county poor farm in Troutdale, Oregon, has restored original buildings, with beautifully painted walls and interiors by local artists, organic gardens, a winery, brewery, and distillery, a movie theater, and more.
- <u>Schools</u> are often converted for new purposes. In Haddam, Kansas, there is now a honey packaging plant in the cafeteria of the old elementary school; in Cuba, Kansas, the gymnasium in the old high school is now a manufacturing center; and in Fairfield, Vermont, a local abandoned school became a center for "cradle to grave" services, including a health clinic, the town's Senior Citizen program, after-school and summer programs for children, adult basic education classes, and several other programs.
- Silo Point, built within a 1923 grain silo, offers one of Baltimore's most unique waterfront residences.
- <u>Useful Community Development</u> offers a fabulous look at the potential for building adaptation and reuse. The website contains resources for community planners and more.



McMenamins Edgefield

Building Materials Reuse

Reusing building materials offers communities a sustainable opportunity to repurpose materials generated from the built environment. Building materials reuse centers or supply stores are sometimes known as "ReStores." Some stores accept donations of used building materials for resale; others may also purchase usable building supplies.



Some building material reuse centers offer deconstruction services. Deconstruction presents an alternative to conventional building demolition, either to supplement or replace typical demolition. Builders and do-it-yourselfers may salvage materials for reuse, or donate or sell them to used building supply stores. Many reuse centers also provide job-training programs.

Reusing building materials presents many environmental and social benefits, including: reducing the need for new building resources in renovation and construction projects; reducing landfill/incinerator disposal; creating value-added materials for reuse; helping to create job opportunities; and providing comparatively low cost building supplies.

Finger Lakes ReUse offers a free <u>Community ReUse Center Template</u> to help communities, nonprofits, and businesses learn how to start a reuse center. The online program allows users to develop a business plan. It also includes helpful resources and tips.

"Deconstruction is the process of selectively dismantling a building into its components so that materials can be reused and/or recycled. It differs from demolition, where reuse and recycling are not taken into consideration."

Reuse Institute

Some building material reuse stores, such as Habitat ReStores, affiliated with Habitat for Humanity, sell used building materials, along with home furnishings, appliances, lighting, and tools. Proceeds from Habitat ReStore sales help fund the construction of Habitat houses in the region in which they are located. Other building material reuse stores use proceeds to reinvest and grow their operation; some use proceeds for funding causes, such as social services, job skills, and, youth training programs. See the "Leading the way" section below for some model examples.

Used building materials may also be "reclaimed" or repurposed and transformed into new products. One common practice is to collect old barn wood, re-plane or refinish it, and turn it into flooring, tables, or other products.

Path to Success

- Community engagement in the mission development process.
- For a nonprofit organization: use a business-based approach, offering convenience, quality, and affordability; articulate the community benefits; and develop productive collaborations.
- Separating operations into several affordable locations can help control costs.
- Working with builders to determine a grading system for used lumber and materials standards.
- Public agency support in the form of contracts which provide salvage rights at a waste transfer stations.
- Public agency support in providing free or reduced rent, or rental assistance, to a start-up companies.
- Regulatory support for differentiating permit applications between demolition and deconstruction, reducing requirements to better accommodate deconstruction and providing deconstruction permits at lower costs and with quicker turnarounds.
- Municipal support by awarding points for deconstruction and reuse activities in bids for public projects, restricting C&D debris from landfills, requiring pre-demolition salvage periods, and/or requiring construction waste management plans for all demolition permits.



Photo Credit: Finger Lakes Reuse Center

- The <u>Building Materials Reuse Association</u> (BMRA) is a nonprofit educational and research organization
 whose mission is to advance the recovery, reuse and recycling of building materials. BMRA has an online
 directory of its member organizations.
- BRING, a nonprofit located in Eugene, Oregon was started in 1971. Its Planet Improvement Center is
 Oregon's first combination reuse store/conservation learning center. The Center accepts donated building
 materials for resale, along with examples of green building and creative reuse. BRING provides
 conservation education to area schools and its RE:think program offers businesses free, confidential advice
 and support on practical ways to reduce waste and save money.
- <u>EcoBuilding Bargains</u>, located in Springfield, Massachusetts, is an enterprise of the Center for EcoTechnology. Ecobuilding Bargains accepts donations of used and surplus building materials from remodeling projects and sells items at low cost.
- Finger Lakes ReUse, Inc. in Ithaca, New York incorporated as a nonprofit organization in 2007. It was launched with a pooled investment of \$700 and partnerships with Tompkins County Solid Waste, Cornell Cooperative Extension, Ithaca College, Cornell University, and others. Today the operation has over 20 employees and an annual operating budget of \$850,000, including \$440,399 in merchandise sales and \$50,700 in service fees (deconstruction, computer repair, and delivery). Since its inception, it has diverted more than 1,400 tons of material. Its triple bottom line mission is to enhance community, economy, and environment through its reuse operations which include: two ReUse Centers retailing building materials, furniture, computers/electronics, and housewares; deconstruction services; an eCenter Computer Refurbishing Program; the Ithaca Fixers Collective, and, ReSET Job Training Program.
- Habitat for Humanity ReStores are nonprofit home improvement stores and donation centers that sell new
 and gently used furniture, appliances, home accessories, building materials and more to the public at
 below retail price. ReStores are independently owned and operated by local Habitat for Humanity
 organizations. Proceeds are used to help build strength, stability, self-reliance and shelter in local
 communities and around the world.

- The Material Reuse Program is a part of the College of Environment + Design and Facilities and Management Division at the University of Georgia. The program diverts construction and demolition materials from sites on the UGA campus and within the Athens region and reuses the collected materials on community-based and student projects. Students learn the value of reuse by utilizing reclaimed materials in hands-on landscape construction projects.
- Resource Household Goods & Building Material Stores in Vermont provide job and life-skills training, as well as essential household items to families and individuals in crisis, while preventing tons of material from ending up in our landfills each year. These stores also find new homes for used building materials, major appliances, computers, electronics, furniture, and industrial surplus materials.
- The mission of the <u>ReUse It Center</u> in McPherson, Kansas is to collect and sell new and used donated building materials, promote reuse and save landfill space, and build relationships with donors, customers, volunteers and those who benefit from nonprofit proceeds. The center's proceeds support those living on the margins, both locally in McPherson County and globally through the Mennonite Central Committee.



- <u>The Loading Dock, Inc.</u>, located in Baltimore, is one of the nation's oldest, self-sufficient, nonprofit building materials reuse center, selling new and used items and architectural salvage. The organization's website has a national directory of building material reuse centers and other resources.
- The New Paltz, New York Reuse and Recycling Center accepts donations of arts and craft supplies, office supplies, fabrics, building materials, and home décor that are in good usable condition. Located in a 2,000 square foot building, the Center sells commodities up to 90% less than the retail value; there is a "free bin" as well. The goal is to promote sustainability, reduce waste, and keep materials cycling throughout society. The Center also hosts a Repair Cafe, Zero Waste Days, Textile Collection Days, Tool Shares, and a ReUse Sculpture Park.



• <u>The Reuse People of America</u> (TRP) is a national nonprofit network of building deconstruction enterprises that operate as joint ventures with both for profit and nonprofit companies serving communities in some 15 states. TRP offers a Certified Deconstruction Contractor Training course for contractors, builders, and others in the techniques of deconstruction and building materials salvage.



• In Berkeley, California, <u>Urban Ore</u> is a for-profit salvage and retail enterprise with a social mission. The company's founder, Dr. Daniel Knapp, is well-known for his entrepreneurial vision and dedication to waste salvaging. Established in 1981, this highly successful operation is fully self-sufficient and financially sustainable, earning some \$2.6 million in revenues in 2013. Its Ecopark Store, consisting of a 30,000 square-foot warehouse and a 3-acre outdoor sales lot, contains a range of building materials and household items. Around 75% of its inventory is obtained through donations from builders, junk haulers, residents, and others. Other material is sourced through a contract the company holds to haul materials from the City of Berkeley's transfer station.

College "Move out Days"

College students accumulate a lot of stuff—lamps, couches, desks, clothing, electronics, refrigerators, food, and more—during the course of the school year. And, many either can't or won't take it with them when they leave. "Move out" events are great ways for colleges and universities to reduce waste, help students see the value of reuse and recycling, and do something which benefits the local community.

In some "move out" events, organizers work with local nonprofits that accept items for resale or redistribution within the community. At other events, collected items are stored for resale (or as giveaways) to returning students in the fall. Still others do a combination of immediate resale or donation, and storage/resale in the fall.



Take it or Leave it Event, Clarkson University

Getting Started

Step 1: Decide preliminary program design Start small and build!
Options:

- Work with local nonprofits that will accept items for resale or redistribution within the community.
 Partnering with a church to hold a rummage sale is another option. Program examples: Chuck It for Charity; Spring Move Out Project (SMOP); Dump & Run Reuse Collection.
- Hold a "Take it or Leave it" event where students can "shop" for items they want, and leave items they
 don't want. At the end of the collection period remaining items can be donated to charity. Program
 example: <u>Clarkson University Take it or Leave it</u>.
- Set up a temporary "restore" on campus or hold a community tag sale, and invite students and the community to take items at low or no cost. Program example: Re*Use Market.
- Store collected items for resale (and/or as giveaways) to returning students in the fall; alternatively, do a combination of immediate resale or donation (such as food items) and storage/resale in the fall. Program example: Reuse Initiative and Barn Good Thrift Store.

Step 2: Determine materials to collect

Based upon the program design, determine materials to collect. What can be collected is also contingent on material outlets (e.g., off-campus reuse stores). Textile collections through off-campus providers can, for example, include worn or stained clothing and other items that may not be suitable for reuse, but can be recycled.

Step 3: Determine logistics

Logistics include: set up of collection points, determining dates to run the event, staffing, triage, storage needs, centralized collection specifics, and transportation.

1. Drop-off collection points—"Drop Zones"

- Typical points of collection include residence halls, student centers, and other convenient locations.
- Factors to consider: staffing/volunteers available to sort/triage collected items; moving items from collection points to central locations for sale/storage/donation.
- Be prepared to have containers, boxes, and/or a taped-off area in place at the start of the move out event.

2. Move Out Dates

- Typically 1-3 weeks prior to the end of final exams.
- Factors to consider: staffing/volunteers available to sort/triage collected items; collection dates and opportunities to best meet the needs of students.

3. Staffing

- Options Student workers/volunteers, college staff, community volunteers, or temporary staff.
- Solicit student environmental club activists, honors program students, and residence hall monitors.
- Set-up a sign-up on: Volunteer SignUp.org; SignUpGenius.com
- Check with faculty to see if they will provide extra credit for students who volunteer.
- Work with college environmental or sustainability programs to see if there is available staff to assist.
- Work with college administration to see if funding is available for temporary staff.
- Promote the event as a charitable, service-learning undertaking.
- Check to see if staff from donation outlets (if used) may be available to transport items from collection points or centralized locations.

4. Triage/Sorting

- Plan on going through materials to determine usability and to sort according to program design.
- If food is collected, these items will need to be donated right away to local charities. Be sure to have donation recipients in place and a schedule for pickup/drop-off of collected items.
- Sort out college property (library books, cafeteria serviceware, lamps, furniture, etc.) and return appropriately.
- Textiles, shoes, linens, etc. will need to be sorted for reuse if usable, or recycling if available (arrange in advance).
- Usable electronics for resale/donation, and nonworking electronics for recycling be sure to arrange recycling and proper disposal for these items.
- Usable household items furniture, dishes, beds, lamps, etc. Be sure to have outlets, or plan for onsite (student and/or community) resale/donation.

5. Onsite Storage

Depending on the event and items collected, at least some temporary storage will be needed. The area must be managed to prevent illegal dumping or scavenging of materials. If the move out event is held for a shorter period and a student "take it or leave it," "remarket" or "free store" is set up on campus for resale/donation, storage can be temporary—an area inside a campus building, a tent, or storage container. Alternatively, if local nonprofits/churches will accept some or all of the collected items, storage needs can be reduced or eliminated.

Storage can include rented "shipping" style containers, covered (clean) dumpsters, or an unused campus building. Storage needs to be dry and out of the elements. If the resale/donation is to occur in the fall for new students, storage will need to be secured in order to hold collected items for several months.

6. Centralized Collection Area(s)

Collected items will need to be moved from the student drop-off areas to storage and/or points for consolidation for students and/or charities to pick-up.

- A truck or motorized cart will be needed to haul collected items from the drop-off areas to the centralized collection area.
- Recycling bins can be located in the centralized collection area for items not suitable for reuse.
- The centralized collection area(s) will need to have ready access to both the student drop-off areas and road access for hauling off campus, and/or for transport to onsite campus storage for later distribution/resale.
- The centralized area should be a tent, room, or other covered area to protect items from the weather. Items not removed by the end of the day will need to be secured.



Clarkson University
Take it or Leave it Tent

Clean and covered "reuse" bins can be used for temporary centralized storage.

Step 4: Move Out Event Promotion

Design event promotion similar to promotion for other campus events.

1. Decide on a slogan

- "Move Out Days," "Ditch the Dumpster," "Take it or Leave it"
- Consider designing a logo.

2. Tactics

- Develop posters, signs, fliers—consider a half-sheet flier that can be used as a handout and a poster in order to hold down costs.
- Set up a <u>Facebook page</u> or use an existing college Facebook page; use Twitter feeds and other social media.
- Place clear, simple, concise signage at collection points so that students know: 1) What's acceptable; 2) What goes where in specified containers, collection boxes, taped-off area, etc.; 3) What should be recycled (nonworking electronics, CFLs); and, 4) What should be disposed of as trash.
- Post fliers on school bulletin boards, webpages, etc.
- Advertise in the school newspaper.
- Utilize common promotional avenues used by residence halls—be sure to work with residence hall monitors to determine the most effective tactics.



Post information on college website – sustainability webpages, student move in/move out information,
 YouTube videos, etc.

Step 5: Metrics

Use of metrics will help build excitement for continuing the "move out" event in subsequent years.

- Use a "people counter" to tally students and/or individuals entering the "student swap or remarket area."
- Have a scale on the collection truck for use during campus collection.
- Count the number of electronic, household, etc. items donated.
- Reduction in waste disposal costs/amounts during the month of collection, as compared to previous years.
- Ask reuse stores who benefited from the goods to report the estimated value/benefit of the donated items.

Future Expansion

Move out events can be initiated with minimal effort on a pilot basis – collecting only items that can be redistributed through the college to students and to local thrift stores, for example or collecting just one item, such as textiles. These events lend themselves to being "scalable" with multiple solutions and potential for future growth. With initial success, plans can be made to expand the program to include a campus "free store" or redistribution to incoming students in the fall and/or collecting more items.

At this stage it will be important to get the college/university administration firmly behind the program. Plan to submit a proposal and budget to administrators. If campus storage is limited, consider partnering with local nonprofit thrift stores to expand the event in the coming academic year.

Speak with appropriate administrators, facilities management, operations, student council, resident halls, and school boards about appropriate channels. Be sure to present all of the costs and benefits—student and community benefits; promotional opportunities; reduction in trash disposal; instilling environmental awareness and accountability around campus, etc. Factor in all needs for the program to be effective—hiring temporary staff, storage locations/trailers, transportation for collection from drop-off locations, involvement of campus residence halls, a plan for how collected materials will be redistributed, etc. Try to design the plan to fit within the school's existing infrastructure.

While it is important to provide inexpensive items to students through "Take it Or Leave it" and other move out events, the concepts of charity and donation are also essential to instill in students. Service learning is a key concept taught at institutes of higher learning. Tapping into this as a foundation for development of tomorrow's leaders and responsible citizens will help generate support for move out events, voluntarism, and the notion of donating usable items that would otherwise end up in the garbage.

"Integration of Town and Gown" is also an important component of many colleges and universities around the nation. Involving community nonprofits as recipients of some or all of the usable items collected can foster a greater awareness among students of the importance of giving. It will also serve to promote the college as a fundamental participant in the community.

Building the Move out Team!

Planning will need to start early in order to make the program effective and sustainable. Get a team onboard as early in the new academic year as possible. Build the college/university community to back the move out event with team spirit, promotion, caring—for the campus, community, and environment. For long term sustainability, a diverse "stakeholder" team will need to be involved—facilities, custodial, sustainability student organizations, university housing, charity/donation partners, and the community.

"Close the Loop" by redistributing collected items on campus and in the larger community. Being flexible, adaptive, and creative will ensure a successful effort.

Leading the Way

- <u>Dump & Run Reuse Collection</u>, Youngstown State University, started in 2002. Since then, more than 30 tons of reusable items have been donated to the Rescue Mission, a local charity. Collection bins are placed in the residence halls a couple weeks prior to the last day of finals. The YSU Recycling crew, with help from cleaning staff and volunteers, collect items for pick-up by the Rescue Mission. According to the YSU Recycling Program Manager, the Dump & Run program doesn't cost the school any money, other than paying for student staff (4 6 students). The University saves money by not having to provide a special trash dumpster during the spring move out period.
- <u>Pack It Up and Pass It On</u>, Texas State University, allows students to donate clean clothes and linens, toiletries, kitchen items, stuffed animals, small appliances, and electronics. Donation barrels are set up in residence hall and campus apartment lobbies in April. A "Free Shopping Day" is open to local residents.



• Reuse Initiative and Barn Good Thrift Store, St. Lawrence University, New York, has been operating for more than thirteen years. Students are hired to assist with sorting and moving collected items. Collection areas are set up in all residence halls and other strategic locations. Students can drop-off textiles, household goods, electronics, furniture, food, and more. Items are "triaged" for immediate donation, resale, or storage. Collected food, University property, and some textiles are donated immediately to community organizations. Other items are checked for usability and placed in storage. Nonworking electronics are sent to an electronics recycler. Stored items are sold or given away to new students. Items are also sold at the University's Barn Good Thrift Store.



- <u>Re*Use Market</u> at the University of Cincinnati, was founded in 2008 by students who saw the need to reduce waste being sent to the landfill, when items could be reused by others. Furniture, household goods, non-perishable food, electronics, books, clothing, sporting goods, etc. are accepted. Donations are placed in the Re*Use Market and anyone from UC or the Greater Cincinnati community can take items. The Re*Use Market is open for one week; at the end of the week, remaining items are given to local charities.
- <u>Spring Move Out Project (SMOP)</u>, University of Vermont, is a collaborative effort by the City of Burlington, the University of Vermont, Chittenden Solid Waste District, ReSOURCE, Champlain College, Burlington neighborhood groups and landlords, Casella Waste Systems, and Myers Container. Items not claimed by students during the event are donated to local charities, including ReSOURCE, Vermont Refugee Resettlement Program, and the Chittenden Emergency Food Shelf, among others.

Creative Reuse

Creative Reuse (a.k.a. upcycling, repurposing) is when the addition of innovation/creativity brings a new function to unwanted materials (e.g. furniture made of old sign posts, jewelry made of scrap materials. - Reuse Institute

Creative reuse embraces a multitude of possibilities, from creative reuse centers to upcycling ideas posted on platforms such as Pinterest. Through <u>upcycling or creative reuse</u> by-products, waste materials, or unwanted items are transformed into new materials or products to improve their quality or value and give these items a "second life" and new function. Creative reuse offers communities the opportunity to divert waste and support educators, local artists, nonprofit organizations, and the community at large.

Creative reuse centers, also known as scrap stores or teacher resource centers, collect and distribute unwanted industrial, commercial, and residential items, for use by teachers, artists, families, nonprofit organizations, and others. Creative reuse centers can be found in communities across the nation and around the world.

There are numerous models for creative reuse centers. Many reuse centers are nonprofit organizations and operate independently. Others are affiliated with schools, nonprofit networks, artist collectives, or public agencies. Some are for-profit establishments often focusing on the sale of upcycled items and offering crafting courses. Many creative reuse centers have been in operation for decades.

Creative reuse ventures can start out as "pop-up" shops, upcycling or creative reuse events, or even with a table or booth at a craft show to gain support for establishing a creative reuse center. Creative reuse centers can be multi-faceted operations, offering classes, events, selling supplemental retail supplies (educational guides, crafting supplies, crafting kits, etc.), and selling handmade crafts. Some have large warehouse facilities, while others operate out of small store fronts or a room in a school building.

The Scrap Exchange - a Model for Creative Reuse

- Artist Marketplace: Handcrafted artwork & gifts displayed from local artists and makers
- Vintage Village: Donate or shop for vintage, antique, collectible or otherwise uber-cool items
- Crafts: Donate or shop for supplies at 50%-75% less than big box craft stores; craft books, scrapbook supplies, rubber stamps, art supplies, kids crafts, etc.
- Containers: Shop for or donate plastic containers, cardboard boxes, gift boxes, wood boxes, wicker baskets, tins, etc.
- Paper: Donate or shop for new paper, scrap paper, reclaimed paper— \$1/pound
- Office Supplies: Donate or shop for envelopes, manila folders, and other items
- Sewing & Fabric: Donate or shop for zippers, yarn, ribbons & trims, fabric scraps
- AV &Electronics: Donate or shop for used albums, CDs, DVDs, & equipment

Path to Success

- Partnership or support from public agencies, such as
 Departments of Cultural Affairs, Arts, Economic Development,
 Sanitation, and Education.
- Collaboration between manufacturers, retailers, art communities, and schools to ensure that useful discards are collected and sourced for reuse.
- Promoting the organization through the local arts community, schools, public agencies, senior centers, hospitals, manufacturers, corporations, and other potential stakeholders.
- Community organizers working to establish a reuse center should start by raising funds and recruiting supporters for the cause. Form a committee to gauge community interest and support.
- To ensure returning customers and avoid having to dispose of unwanted items, it's vital to maintain a steady-stream of indemand material by setting high-standards. Set clear policies on acceptable materials. Maintain direct contact with donors and utilize a high level of quality control. Use a database to track materials, donors, participating organizations, and places to distribute unwanted items (such as clothes and items that do not move).





Pittsburgh Center for Creative Reuse

- The <u>Art of Recycle</u> is a nonprofit community art center located in downtown Ephrata, Pennsylvania. It presents a broad definition of art supplies, accepting donations of everything from scrap metal to motors, board games and more. Its Community Art Center houses a Thrifty Craft Store, providing affordable art supplies for artists and crafters, as well as a "Craft Castle," a free crafting area for people to explore the world of creative reuse. They also offer workshops, craft parties, and "meet-ups."
- The goal of the <u>BagShare project</u> is to eliminate single-use checkout bags.
 Volunteers sew or re-purpose reusable bags for markets, thrift stores, and libraries in the central Pioneer Valley of Western Massachusetts. The bags are free for shoppers. The reusable bags are sewn from malt bags donated by a local brewery.



- The <u>Institute for Self Active Education</u> is a nonprofit charitable organization established in 1980 to promote "self-active" play as a tool for fostering the creative potential in children, teachers, and parents. It offers numerous resources for incorporating reusable items for play and crafting.
- Materials for the Arts (MFTA) was the first creative reuse center in New York City and remains one of the
 largest reuse centers in the country. MFTA accepts donations of surplus arts and theater supplies, as well
 as office furniture and supplies, and makes them available to nonprofit organizations, government
 agencies, and public schools. Resident artists, with studio space at MFTA's warehouse, demonstrate and
 inspire others to create artwork from reusable items.

- Pinterest ECO reuse, repair & upcycle has numerous postings and ideas for reuse, repair, and upcycling.
- The <u>Pittsburgh Center for Creative Reuse</u> provides a shop where artists, teachers and everyone else can get the materials they need for their creative projects. The Center also offers hands-on creative programs both at the Center and throughout the region, including workshops for educators.
- With five locations throughout the United States, <u>repurposedMATERIALS</u> serves as a middleman, reselling
 a wide variety of materials for different purposes after they have reached the end of their original life. The
 company uses the acronym A.C.E. (Attributes, Characteristics, Engineering) to describe the qualities of a
 used material and help identify potential repurposes for it.
- Resource Area for Teaching has a mission to engage and educate children through hands-on teaching. It has multiple locations offering reused supplies and education kits. Its idea and tip sheets are available through its online store.
- The <u>Scrap Exchange</u>, located in Durham, North Carolina, is another noteworthy creative reuse center that's been in existence for 24 years. The Exchange accepts reusable items from residents and manufacturers. The nonprofit supports itself through retail sales of reusable items, fee-for-service programs (services and space for art creation, upcycled products, and educational activities), and external donations. The Exchange has developed extensive partnerships with the local arts community, the public school system, county government, senior centers, hospitals, manufacturers, and corporations. Its "<u>Boot Camp</u>" program is based on more than two decades of experience as a national model and leader in the creative reuse center industry.
- <u>Scrap USA</u> operates a network of creative reuse centers around the United States, providing administration services for member centers. The organization also sells a guide to starting a reuse center.
- Spare Parts provides art education and activities to schools around San Antonio, Texas incorporating used scrap materials and spreading a message of zero waste. The organization accepts donations of surplus craft supplies, fabric, paper, office supplies, markers, and more to use in its school outreach activities. It also sponsors an Annual Fine Arts Fair promoting reuse in the arts.
- By recycling and repurposing military surplus with a fashionable touch <u>Sword & Plough</u> creates sturdy and stylish products. The company's goals are to empower veterans, reduce waste, and strengthen civil-military understanding. Veterans are involved in all stages of the business, as designers, managers, sewers, quality control experts and even models. Products include a range of bags, from backpacks to totes, and other accessories. The company also donates 10% of profits back to veteran organizations.



• The <u>Teacher Supply Depot</u> in Jacksonville, Florida is a joint effort between the Duval County Public Schools' Community Involvement Office, Warehousing Division and The Duval County Council of PTAs/PTSAs. Since its opening in September 1996: 950 contributors have donated materials, \$20.5 million worth of supplies have been received, 63 give-away days have been held, and, 20,500+ teacher, principal and PTA president visits have been logged.

- <u>The Upcycle Exchange</u> in St. Louis, Missouri offers an open-source model for establishing creative reuse centers. The operations of upcycle exchange stores are independent, and vary depending on the needs of the community in which they are established.
- The Colville Confederated Tribes sponsored a <u>Tribal Program Upcycling Competition</u> during their 7th annual Earth Day celebration.
- <u>Upcycle That</u> provides upcycling ideas, inspiration, and tutorials with the goal of showcasing discarded items as resources to be creatively repurposed and reused.

A Public Agency Leading the Way

The Montgomery County Material Reuse Facility (McMRF) in Dayton, Ohio is a unique operation that collects and warehouses usable, unwanted materials from individuals and businesses. The McMRF accepts donations of art and school supplies, office supplies & furniture, building materials, working electronics, and more. Located in a 5,000 square foot warehouse outfitted with numerous shelving units, the facility is operated by Montgomery County Environmental Services. Local art, education, community, and other nonprofit organizations, including schools and churches, can become members of the McMRF at no charge.



Community Reuse Directories

A community reuse directory is a listing of reuse opportunities in a local area. Typically web-based, reuse directories can be sponsored on municipal or tribal websites or by nonprofit organizations. Some directories focus on one item—such as textiles—or one type of reuse—such as thrift stores.

There are many examples, including the web-based guide (sampled below) from <u>Chittenden Solid Waste</u> <u>District</u> in Vermont.

here are many stores and charities in Chittenden County which are interested in buying or accepting used items in cool condition. For a list of names and phone numbers, please click on a category below:*		
Appliances	Construction and demolition materials	
Architectural/building materials	Household goods/furniture	
Automobiles/vehicle parts	Paint	
Books	Sporting goods	
Clothing	Toys	
Computers	Yarn	

- <u>Town of Bethlehem</u>, New York, has a webpage listing of donation opportunities, along with a
 downloadable brochure.
- Eugene, Oregon, has a web-based searchable <u>facility locator</u> for building construction/demolition materials reuse.
- Get Your GreenBack Tompkins and Cornell Cooperative Extension of Tompkins County created an online directory of "secondhand shopping" to showcase the wealth of reuse, resale and thrift stores in Ithaca and Tompkins County.
- County of Hawai'i Department of Environmental Management Solid Waste Division & Recycling Section has a webpage devoted to reuse, with a listing of area reuse opportunities.
- Hennepin County in Minnesota has an interactive web-based <u>"Choose to Reuse" Directory</u>. Users may search the directory by business name, item name, city, or zip code.
- The Local Living Venture is a nonprofit organization working to inspire and enable people to adopt more healthy, local and sustainable ways of living. Located in New York State's North Country, it hosts a regional thrift store listing and map locator.

- The New York State Association for Reduction, Reuse and Recycling's (NYSAR³) Re-Clothe NY Textile Recovery Campaign offers an online directory of <u>textile recovery locations</u> around the state.
- The Nonprofit Community Art Center in Ephrata, Pennsylvania, has an <u>online directory</u> of scrap stores and creative reuse centers around the world.
- Reuse Minnesota offers a listing of reuse opportunities around the state.

Corporate Reuse

As corporations embrace sustainability and zero waste, many are also incorporating reuse into their business operations. Manufacturers are finding new uses for byproducts—from "waste" materials to packaging. Others are implementing new ways to reuse their products or components. Reusable containers and pallets can not only reduce waste, but also save businesses money.

In larger companies, internal materials exchanges can allow divisions with excess equipment or supplies to share with other divisions that may need these items, such as office



Photo courtesy of Casella Resource Solutions

supplies or excess packing material. Chemicals which are no longer useful in one division may be suitable in another. Businesses in industrial parks can establish materials exchanges with other companies within the complex. Partnerships with waste haulers, nonprofit organizations, public agencies, and business associations can help to expand corporate reuse.

- In conjunction with its customer Hypertherm Inc., Casella Resource Solutions developed a material for reuse and recycling. Cable reels are just one example. Hypertherm procures materials for its manufacturing by resale of the reels. One option would be to chip these back into a commodity plastic and recycle them. However, Casella and Hypertherm were able to find a higher alternative, reuse, by sourcing another local manufacturer who buys these reels and reuses them to supply finished product to its customers.
- <u>Full Belly Farm</u>, a certified organic farm in California, reduced costs and labor when it replaced 8,330 waxed cardboard boxes with 2,000 reusable plastic totes with attached lids for its farm operation.
- At <u>Patagonia's</u> Portland, Oregon store, the clothing manufacturer sells used Patagonia clothing through an
 innovative trade-in program. The company also posts on its website a number of repair guides for its
 products, created in partnership with iFixit.
- As part of its <u>materials management program</u>, Texas Instruments (TI), a global semiconductor design and manufacturing company, has a goal to prolong the life of its manufacturing equipment and keep it in active commerce, either by using it elsewhere within our own operations or by selling it for continued use.
- In 2015, with the production of its new model Subaru Outback and Legacy vehicles, <u>Subaru of Indiana</u> eliminated an additional 28,000 tons of cardboard and achieved its goal of using reusable packaging for 95% of direct ship parts, and saved \$16 million by avoiding the purchase of new packaging.

- In 2013, as part of its initiative focused on end-of-life vehicles, <u>Toyota</u> began using batteries from end-of-life hybrid vehicles as stationary storage batteries in its dealerships.
- The <u>United States Materials Marketplace</u> is a project from the US Business Council for Sustainable
 Development, World Business Council for Sustainable Development, and Corporate Eco Forum. The
 marketplace is a regional and national platform to facilitate company-to-company industrial reuse.
 Through the cloud-based platform, traditional and non-traditional industrial waste streams are matched
 with new product and revenue opportunities. Ultimately the goal is to help foster the shift to a circular,
 closed-loop economy.

Corporate Reuse—a Tribal Business Leads the Way

The <u>Chumash Casino Resort</u>, in California, has created a number of programs designed to reduce and reuse items which are no longer needed. The Resort donates furniture to tribal community members, local charities, and businesses. Sectional carpeting with recycled content is installed on the casino floor to reduce carpet purchase and disposal. Replaced sections can be reused or recycled by a local trash contractor. Paper towel dispensers are being replaced with Dyson Air Blade hand dryers, reducing paper towel replacement and maintenance. The Resort has switched to in-house furniture upholstering which allows the tribe to reuse most casino chairs, minimizing chair replacement costs and reducing waste. Disposable dishware and silverware are no longer used. They have partnered with Clean the World Foundation to provide minimally used soap products to impoverished people around the world. Staff "Hydration Stations" have been installed for filling reusable water bottles, reducing bottled water use.

Durables and Refillables

More and more people are realizing the benefits of using durable and refillable products—from coffee cups to lunch boxes. Schools and institutions around the country are making the switch from disposable serviceware and utensils to reusable and washable ones. Farmers' markets and other community events are switching to reusable dishware as well.

Ceramic, glass, metal, and durable plastic can be washed and reused over and over again. Durables present a better environmental option compared to disposables. Reusable dishware offers far more in energy and resource savings over its lifetime than its disposable equivalent. Reusables reduce waste and pollution associated with many disposable products. And switching to reusables offers cost savings over the long run. 12



Portland Farmers Market

Refillable bottles were once the preferred glass beverage packaging, but since the 1980s the use of refillables declined to near extinction. Some larger dairies continue to refill milk bottles, and dairies marketing refillables to natural foods and coop stores are on the rise. But the craft brewing industry, by selling beer in refillable "growlers", may turn out to be the savior of the refillable bottle. Refillables are environmentally friendly and cost-efficient for both the producer and the consumer.

¹² https://www.portlandoregon.gov/sustainabilityatwork/?c=66068&a=507480

Reusable packaging includes reusable pallets, racks, bulk containers, hand-held containers and dunnage that are designed to move products efficiently and safely throughout the supply chain. As more and more businesses adopt sustainable packaging policies and strive to "green" their supply chains, the use of reusable packaging continues to grow. Constructed of durable materials such as metal, plastic, or wood, reusable packaging is designed to withstand the rough handling of a typical logistics system.



- The California-based ChicoBag was founded by Andrew Keller in 2004. Seeing discarded single-use plastic bags everywhere, he "vowed to stop using single-use bags for good...I dropped a few bucks on a secondhand sewing machine and began sewing what would ultimately become the first ChicoBag brand reusable bag." The certified B Corp now creates bags for a number of purposes, all manufactured from single-use plastic bags. In its operations and workplace environment, ChicoBag declares its allegiance to a zero waste ethic.
- Flood Brook School in Londonderry, Vermont, uses washable trays and silverware for meal service. Under the direction of its Food Service Director, Kelly Foster, the school has made a commitment to both reducing waste and controlling costs through bulk food purchasing. The school uses bulk dispensers for all condiments and salad dressings. Students use a large spoon to dish up applesauce and similar items directly onto their trays, thus eliminating the use of disposable containers or single-serve packaging common at schools.



- <u>Kleen Kanteen</u> promotes reuse and environmental awareness through sales of its refillable water bottles and other containers. The company sponsors a #BringYourOwn social media campaign and provides free filter water stations at special events.
- Farmers markets around the country have switched to washable utensils and dishware. The Portland,
 Oregon's Farmers Market has started a "<u>Durable Dining</u>" initiative, switching to reusable dishware (from
 paper) at several of the city's farmers markets. Market-goers return used dishware to specially marked
 bins at the "dirty dish stations." Dishes are sorted by market staff and returned to vendors each week for
 washing and sanitizing.
- The City of Portland, Oregon's <u>Sustainability at Work</u> website presents the benefits of using reusables in the office place.
- The <u>Reusable Packaging Association</u> sponsors a directory of providers of reusable packaging, along with
 insights and tips, including its <u>"Guidelines and Best Practices for the Safe Use of Returnable Containers in</u>
 Food Supply Chains."
- Many universities, including <u>Williams College</u> in Williamston, Massachusetts, have started <u>reusable takeout</u> <u>container</u> programs in their school cafeterias.

Food Recovery

Food Donation

The United States spends an estimated \$218 billion a year growing, processing, transporting, and disposing of food that is never eaten. Each year some 52 million tons of food is disposed, plus another 10 million tons discarded or left unharvested on farms. ¹³

Food "waste" is often not "waste", but discarded food that is nutritional and safe to use. In 2014, an estimated 14% of American households were food insecure at least some time during the year, meaning they lacked access to enough food for an active, healthy life for all household members. 14



Food recovery offers a solution to help reduce discarded food and to meet the needs of food insecure households. Promotion of food donation is one way that communities can work to reduce and better manage food discards, while also providing social benefits for the community. Businesses benefit from food donation through reduced disposal costs and opportunities for potential tax benefits.

A food bank is typically a charitable organization that solicits and warehouses donated food and other items. Collected food is distributed to community agencies which serve people in need, often servicing hundreds of community-based organizations in large geographic areas. Food banks will usually accept foods that are packaged or can be stored for a period of time. Many also collect and redistribute perishable foods including fresh produce and prepared food from grocers, caterers, restaurants, and cafeterias.

Farm Gleaning

An opportunity to reduce farm discards and assist those in need is a "farm gleaning" program. Crops that have been left in fields after harvest, whether because they are not economically profitable to harvest or were left unsold, are gathered ("gleaned"). Organizations work with farmers to establish distribution of "gleaned" crops to local food distribution networks or organizations.

¹³ http://www.refed.com/?sort=economic-value-per-ton

¹⁴ http://www.feedingamerica.org/hunger-in-am<u>erica/impact-of-hunger/hunger-and-poverty/hunger-and-poverty-fact-sheet.html</u>

Food to Animals

Food that is no longer safe for people to eat may be of use as livestock feed. "Food to animal" opportunities particularly benefit rural, agricultural areas. Food processing facilities, supermarkets, and restaurants can reduce food waste by sending it to farms for use as livestock feed, thus reducing disposal needs. Livestock producers can benefit by saving money on feed costs.

Farms will typically offer collection services or contract with a local hauler to offer these services. In some states, most or all food scraps are acceptable, including post-consumer scraps. However, some states prohibit meat products from being used as livestock feed. Regulations in some states or municipalities require food scraps to be cooked before being fed to livestock, to eliminate the potential for harmful bacteria.



Path to Success

- Successful community action on food recovery focuses on promotion and education. Promoting food
 donation can help raise awareness of the benefits of participation for commercial food waste generators,
 as well as households.
- Before promoting food donation or food to animals programs, check local and state regulations.
 - Food donation is covered by the Federal <u>Good Samaritan Act</u>, but there are important health and safety guidelines that must be included in any outreach on food recovery.
- Conduct outreach to food recovery agencies to find out the services they offer (e.g., pick-up), the types of acceptable food items, storage requirements, and other specifications.
 - Keep in mind that for rural areas, these organizations may be regional or even statewide.
- Work with businesses to conduct waste assessments, set goals for food scrap reduction and increase awareness of food recovery opportunities.
- Outreach to farmers, petting zoos, and similar operations to determine "food to animals" opportunities, acceptable food, collection options, and storage and processing requirements.
 - Check with the state agricultural agency for acceptable food and processing requirements.

- Elementary schools and businesses in Anoka County and the Twin Cities metropolitan area in Minnesota send food scraps to <u>Barthold Farms</u>, located in St. Francis. The program saves the school district and businesses money by reducing garbage waste and collection fees, while providing food for animals. See the <u>Pigs Aren't Picky</u> video for more information.
- <u>Black Dirt Farm</u> provides food scrap collection services to businesses
 and transfer stations in Vermont's Northeast Kingdom. The food
 scraps are first fed to the farm's chickens. Once the chickens are done
 munching, the remaining scraps are mixed into piles to compost and
 then to feed worms in the farm's vermicompost system.
- The <u>Food Bank of Central and Eastern North Carolina</u> serves 34 counties throughout North Carolina. Their Mobile Food Pantry program works with local partners to bring three million pounds of food to rural communities every year.



- The <u>Food Waste Reduction Alliance</u> (FWRA) is an initiative of the Grocery Manufacturers Association (representing food and beverage companies), the Food Marketing Institute (representing food retailers), and the National Restaurant Association (representing the foodservice industry). Working collaboratively across sectors, FWRA's goals are: reduce wasted food, increase donations of safe, nutritious food, and recycle unavoidable food waste, diverting it from landfills.
- Mohegan Sun Casino and Resort, Uncasville, Connecticut, conducted a waste stream audit and found that 37.5% of its waste stream was food scraps. The casino now collects more than 600 tons/year of food scraps and sends them to a local pig farm.
- Neighborhood Friendship Network (FDN) Food Hubs presents a great model for communities, neighborhood activists, community gardeners, and others to be involved in donations of fresh produce and fruit. Through the "food hubs," residents donate excess produce from gardens or CSAs (community supported agriculture). Volunteers working with FDN place a cooler on their porch for neighborhood donors to drop-off their excess produce. Community gardens, farm stands, farmers' markets, community centers, and even public libraries also participate in the program by hosting hub collection points.



- <u>Rockland County (New York) Food Recovery Task</u> is working to identify ways to reduce and recover food
 waste for the benefit of hungry neighbors, taxpayers, local businesses and the environment.
- The <u>Second Harvest of South Georgia</u> serves rural communities throughout southern Georgia. Programs include "Kid's Café," which provides needy children with evening meals. The organization effectively leverages the food recovery options of urban areas to meet the service needs of rural and small towns.
- Nearly 100% of <u>Sierra Nevada Brewing Company's</u> solid waste is diverted from the landfill through reuse, recycling, and composting. The beer company sends spent brewing ingredients as feed to local cattle and dairy farms. At its Mill River brewery, biogas produced from the wastewater treatment process is recovered and used to fuel boiler microturbines.
- Society of Saint Andrew national network connects volunteers with farms to glean produce that has been
 left unpicked after a harvest. The Society distributes the gleaned produce to food banks and other
 organizations serving marginalized communities, both urban and rural.
- Tripoli, in Bremer County, Iowa, is part of a network of anti-hunger agencies and volunteers using mobile pantries to provide food to rural residents in Northeast Iowa.
- The <u>Vermont Foodbank Gleaning Program</u> organizes groups of volunteers to harvest and gather excess
 produce or "seconds" from farms. This type of food rescue enables the Foodbank to provide delicious,
 healthy food to those who might not otherwise have access to local produce. Each year, approximately
 400,000 pounds of fresh, local produce is donated to 225 food shelves, meal sites, and senior centers
 throughout Vermont.

Materials Exchanges

Materials Exchange (a.k.a. waste exchange) is a service that facilitates the exchange of goods from individuals and/or organizations that have reusable goods they no longer need, to others that can use them. These exchanges can be done through a material 'broker', an online interface, or a combination of both. – Reuse Institute

A materials exchange works to connect those with unwanted items or materials with others who are looking for the same type of item or material. Typically exchanges operate by providing a newsletter, catalog, or online listing of "materials available" or "materials wanted". Materials exchanges usually do not directly handle the material, but instead serve as a contact point or broker.

Exchanges may be member-based or open to anyone. Some will have a fee structure for each exchange: either a set fee per transaction, or a fee based on a percentage of the net value of the material. Other exchanges operate free of charge. Materials exchanges often operate for businesses and industries, although there are also exchanges which allow nonprofit organizations and even residents to participate.

Materials exchanges typically cover large geographic areas—statewide, across several counties, or within a solid waste district. Smaller "swap sites" can be listings which are more local in scope. Businesses, industrial parks, institutions, and schools can set up internal material exchanges via a webpage or even postings on a bulletin board to list available equipment or supplies which other departments may need.

Turn trash into your next revenue stream.

austin materials marketplace

New types of materials exchanges have sprouted up in recent years via Internet platforms, including Craigslist and The Free Cycle Network. These online platforms facilitate exchanges between members or people who have unwanted items to post or want to purchase items. The platforms and mobile apps are serving to spur a new generation of materials exchanges.

- 2GOOD2TOSS is a listing of online materials exchanges around Washington state.
- The <u>Austin Materials Marketplace</u> helps businesses with unwanted materials connect to businesses that
 can use that waste in their own processes. The goal of the Marketplace is to bring together businesses of
 all sizes and entrepreneurs in the City of Austin and Travis County, to create closed-loop systems within
 which one company's waste is another company's raw material.
- <u>Craigslist</u> is a website containing classified advertisements, including items for sale and items wanted. There are listings for cities and communities around the world.

- <u>Educational Assistance, Ltd.</u> (EAL) is a nonprofit organization which creates college scholarships for needy students from donated excess inventory. The organization accepts donations of new and used items and places the donations with accredited U.S. colleges and universities in its network. In return, schools create scholarships for college students with demonstrated financial need. Since 1982, more than 10,000 needy and low-income college students have received scholarships created from inventory donations.
- The purpose of Yale University's <u>Eli Surplus Exchange</u> Program is to encourage the reuse and recycling of University resources, which reduces procurement costs and helps the University's sustainability efforts by reducing waste. Any Yale employee can post and/or purchase items on behalf of their department.
- The <u>Freecycle Network™</u> is made up of more than 5,000 groups with more than nine million members across the globe. It's a grassroots and entirely nonprofit movement of people who are giving (and getting) stuff for free in their own communities and thus keeping usable items out of landfills.
- Get AT Stuff is a website-based listing of Assistive Technology devices for sale or for free. The goal of Get
 AT Stuff is to help get Assistive Technology devices that are no longer being used into the hands of people
 who need and can benefit from them.
- IRN The Reuse Network connects those in need with those who have surplus. IRN arranges for collection of surplus furnishings and equipment from schools, universities, corporations and other large organizations and provides needed items to 150 nonprofit recipient organizations around the world.
- The Maine Building Materials Exchange benefits low-income homeowners and the environment by providing new and re-usable building materials at an affordable price and by educating people about home repairs. The exchange accepts donations for resale through its warehouse and sponsors a Materials Swap "BLOG" for distribution of low-cost, usable building materials around the state.
- The Minnesota Materials Exchange hosts "waste-not" classifieds for Minnesota businesses, nonprofits, and institutions. It is a free service that links businesses and organizations that have reusable goods they no longer need to those who can use them. The program is operated as part of the Minnesota Technical Assistance Program (MnTAP) at the University of Minnesota.
- NYC Materials Exchange Development Program (NYC MEDP) strives to strengthen New York's materials
 exchange and reuse sector by researching, connecting, supporting and promoting reuse organizations
 around the City. In addition to these services, NYC MEDP also operates its own FREE online materials
 exchange and referral service for businesses and nonprofits, NYC WasteMatch.
- Keep Santa Fe Beautiful hosts a web-based materials exchange, <u>OTRA VEZ "Trash to Treasures"</u>. Items
 wanted or available can be posted for free.
- The <u>Pennsylvania Material Trader</u> is a free service of the Pennsylvania SBDC Environmental Management
 Assistance Program (EMAP), a statewide university based program providing free and confidential
 environmental and energy assistance to small businesses in Pennsylvania.
- The <u>Western/Central New York Materials Exchange</u>, managed by the GLOW Region Solid Waste Management Committee, serves eleven counties of Western/Central New York State.

Refurbish/Reconditioning

Refurbishing is when used products have either been tested and verified to function properly as-is, and/or when defects have been found and repaired ensuring they function properly (e.g. refurbished electronics). – Reuse Institute

Repainting, repairing, and reupholstering can bring new life to tables, chairs, and other old furnishings. While repairing and refurbishing small motors and electronics remains relatively low, refurbishing these items is gaining in popularity with the increase of these devices in our everyday lives.

Certified refurbished products, including phones or electronics, are different than most used products, as they have been tested and verified to function properly, and are thus certified free of defects. Certified refurbished items have been returned to an authorized factory repair facility for testing, inspection, and repair, or have been repaired by certified technicians. Used products may or may not be defective and are usually sold "as is."

Refurbishing can denote restoration of an item through repair and restoration. A professional company that offers repaired or refurbished items should offer product certification and often a warranty.

A product is "reconditioned" by replacing worn components, and testing to confirm that the product is fully functioning. Through reconditioning, product parts that commonly need to be updated are replaced. "Factory authorized" reconditioning is done by the factory itself, or by a certified outsource firm which reconditions the products to company standards for resale. "Reseller reconditioned"



TechSoup

products are purchased from the original company and reconditioned by someone who is typically not certified or trained by the original manufacturer. ¹⁵

Leading the Way

- Many original manufacturers, from <u>HP</u>, <u>Dell</u>, <u>Apple</u>, <u>Cisco</u>, and other manufacturers—from electronics to housewares (<u>Vitamix</u>, for example) offer certified refurbished devices.
- <u>PC Rebuilders & Recyclers</u> was founded in 2000. The company strives to bridge the digital divide and support environmental responsibility through the refurbishing of prematurely retired computer systems. PCRR refurbishes and upgrades equipment with genuine Microsoft® software, keeping current with technology standards.
- <u>Tech Dump</u>, is a division of the Jobs Foundation, a 501(c)(3) nonprofit providing job training and practical experience for adults facing barriers to employment, to prepare them to be more valuable employees with an expanding future. It provides secure, responsible, and free electronics recycling, along with refurbishing services. Its resale store, Tech Discounts, offers quality used desktops and laptops.

<u>TechSoup</u> offers a range of products, resources, and services, including a <u>product donation program</u>, which
provides eligible organizations with discounted software, hardware, services, and training. Its <u>Refurbished</u>
<u>Computer Initiative program</u> connects top computer refurbishers with nonprofits, charities, and libraries
across the country.

Remanufacturing

Remanufacturing is a comprehensive and rigorous industrial process by which a previously sold, worn, or non-functional product or component is returned to a "like-new" or "better-than-new" condition and warranted in performance level and quality. - Remanufacturing Industries Council

According to the Remanufacturing Industries Council, the United States is the world's largest producer, consumer, and exporter of remanufactured or "reman" products. Businesses, as well as government and tribal entities, can benefit significantly by purchasing reman components, as they often cost 40% to 60% less than a similar new product¹⁶. Purchasing remanufactured products also helps businesses to meet their sustainability goals.

Commonly remanufactured product categories include:

- Aircraft components
- Automotive parts
- Electrical and electronic equipment
- Engines and components
- Medical equipment
- Office furniture
- Printing equipment
- Restaurant and food-service equipment
- Toner cartridges

"Remanufacturing is more efficient than recycling because only a small portion of the part needs to be remade instead of the entire thing." - Jason Jones, CEO, Hybrid Manufacturing Technologies

As with other forms of repair, remanufacturing offers a number of environmental benefits, including energy conservation and air pollution reduction. Since many components and parts are made of metal, if discarded these would be re-smelted. Raw material conservation, such as iron, aluminum, copper, is also achieved through reducing the need to manufacture new products by extending the life of existing parts, components, and equipment. And of course, disposal is reduced. According to Automotive Parts Remanufacturers
Association (APRA), rebuilt engines require 50% of the energy and 67% of the labor that is necessary to produce new engines. 17

Remanufacturers take a product and break it down into its individual components. Each individual component is then inspected to determine if it can be salvaged. Components that cannot be salvaged are replaced. Components that wear easily, such as gaskets, O-rings, and washers, are also replaced.

17 https://apra.org/?page=Remanufacturing

¹⁶ http://www.truckinginfo.com/article/story/2015/03/reman-past-present-and-future.aspx

According to Motor & Equipment Remanufacturers Association, remanufacturing is a "standardized industrial process" which is done according to "technical specifications", including "engineering quality and testing standards to field fully warranted products."

Because remanufactured components and products are used in trucking and other industries where product failure can have significant consequences, it is important for customers to purchase remanufactured products

from a reputable remanufacturer. Remanufacturers who follow original equipment manufacturer (OEM) policies, specifications, and replacement criteria during the reman process will offer the highest level of quality assurance. 18

APRA states that a "properly rebuilt" automotive part is the functional equivalent of a new part and is essentially indistinguishable from a new part. The Federal Trade Commission (FTC), however, requires rebuilt parts to be labeled as such. Rebuilding or remanufacturing automotive parts is similar to assembling new parts except that components are



OEM Remanufacturing

taken from used parts, especially the housing. In remanufacturing automotive parts, the part is completely disassembled, cleaned, and inspected for wear and damage. Any worn out, missing, or non-functioning components are replaced with new or rebuilt components. Electrical parts often need rewinding or rewiring. The final step in the "rebuilding" process is to reassemble the part and test it for compliance with performance specifications.

Auto parts stores and warehouses always stock a choice of new or rebuilt parts. According to APRA, however, the majority of parts in stock are rebuilt because a rebuilt part normally costs 50% to 75% of the cost of a comparable new one and typically carries the same warranty. ¹⁹ For parts that can be rebuilt, the market has increased steadily due to the reliability and lower cost.

Remanufacturing is a growth industry and has the potential to expand to a wider range of products. If more manufacturers embrace the concept of <a>Design For Remanufacturing™ virtually all products could be repaired, remanufactured, and/or contain rebuilt parts and components. Environmental concerns, lower costs, and interest in the sharing economy will be drivers in ensuring that remanufacturing continues its growth.

Leading the Way

- AERA Engine Builders Association is a network of professional engine builders, rebuilders, and installers providing expertise, resources, and networking opportunities.
- Automotive Parts Remanufacturers Association (APRA) was founded in 1941 and now has some 1,000 member companies worldwide. APRA supports a nation-wide policy – DESIGN FOR REMANUFACTURING™ - to increase public awareness of the necessity and the benefits of the design and manufacture of automotive parts that can be safely and efficiently remanufactured. APRA has studies and additional information on remanufacturing on its website.
- Depot International provides closed-loop processes and empties collection programs. The company collects and remanufactures maintenance kits, fusers, and small electronics.

¹⁸ Ibid.

¹⁹ https://apra.org/?page=Remanufacturing

- <u>Metrofuser</u> reclaims and refurbishes a wide-range of printers and printing components, including HP Laser Printers, HP Copiers, and HP and Lexmark Fusers.
- There are many remanufacturing companies in the United States and elsewhere. While not a
 comprehensive list, the <u>Motor & Equipment Remanufacturers Association</u> has a <u>directory</u> of their
 remanufacturing members.
- <u>PRC Industries</u> provides returned product management and return center services, and remanufacturing, reprocessing, repairing and recycling of returned industrial and consumer products.

Repair

There is another form of reuse that's gaining popularity and promotes a way of thinking common to generations before us—fixing broken items instead of throwing them out and buying new ones. Repair is used to restore a product, device, equipment, or part which is broken, damaged, or not working correctly back into good condition and working order. Do-it-yourselfers are often adept at repair.

Historically, repair of equipment and consumer items was common place. Today, many of us don't know how to fix broken lamps, sharpen tools, or mend torn clothing. Of course, vehicle repair is still common. Large appliance repair service is still available for washers, refrigerators, and dishwashers. Some electronics, primarily computers, are also commonly repairable. Repair of many consumer items, including televisions and stereos, was once common, but is now nearly nonexistent.



Many common consumer items have become so inexpensive to purchase that it is frequently less expensive to buy new products instead of fixing the old ones. Household appliances, electronics, and other products are also more commonly manufactured with plastic, making repair even more difficult, as casings or components cannot be easily opened, disassembled, or repaired. Often component parts are not available for purchase. Increasing use of microprocessors in everyday household products may also limit the ability for repair. Repair instructions may not be available.

However, there is increasing interest in moving away from our "throwaway" culture and embracing repair of mobile phones, lamps, mixers, blenders, and other everyday household items. And, there are many people in our communities who have the skills to repair such items and can be resourceful in sharing their knowledge with the rest of us. Organizations such as Ifixit are leading the way by providing repair manuals and other resources.

Today's method of presenting the "old school way" of repair is via *repair or fix-it cafés*. These are events where skilled people volunteer their time to coach people on fixing broken items. Repair cafés are popping up around the U.S. and Europe, bringing together people to fix broken housewares, including small appliances, lamps, and furniture; mend torn clothing, stuffed animals, and dolls; repair and sharpen tools; and more.

Repair Cafés

Repair cafés are volunteer-run community service organizations or gatherings, dedicated to encouraging the repair and reuse of goods rather than disposing of them. On the day of a repair café event, people bring items for assessment, disassembly, and possible repair. Small electronics, small kitchen appliances, bikes and gear, clothing, and toys are common items brought to repair cafés.

A workspace and specialty tools are provided by event organizers. Volunteer fixers offer guidance and assistance to help disassemble and troubleshoot each item. People with items needing repair are asked to provide any necessary parts. Some repair cafés also ask that labor be paid through "time credits."

Fixit Clinics

<u>Fixit Clinics</u> are "pop up" repair events in locations interested in reuse and repair. Fixit Clinics have been held in California, Colorado, Minnesota, Ohio, and Oregon. The Fixit Clinic mission: "Education, entertainment, empowerment, elucidation, and, ultimately, enlightenment through guided disassembly of your broken stuff."

Keep your eye out for a Repair Café or Fixit Clinic in your community and fix something!

Supplies for Repair Cafés

- Tools (usually brought by volunteers)
- Electrical cords, extension cords, power strips
- Waivers, surveys
- Trays for holding screws, small components
- Canned air, tape, batteries (various sizes), rubbing alcohol
- Laptop computer and wifi access, if possible
- Snacks & drinks
- Tables & chairs
- A scale

Path to Success 20

Repair cafés and fixit clinics, can be initiated by local governments or tribal associations, reuse centers, nonprofit organizations, or community activists. Involving a range of stakeholders interested in promoting reuse will greater success.

Volunteers

Volunteers are crucial for long-term sustainability of a repair café.

- "Repair expert" volunteers need to have the skills to be able to repair items, but they also must have the patience to be able to teach others how to disassemble the items and assist with repair.
- Volunteers are also needed to help with logistics, promotion, staffing the "greeting table," handing out surveys, and helping with metrics.

Location

A location needs to be secured, preferably one that has easy access, sufficient parking, and can be used as a long-term host of events. Churches, libraries, and community centers offer potential locations for hosting repair events.

- The location will need to be large enough for a number of tables and chairs.
- Wi-Fi access is essential to research repair resources and guides, product specifications, etc.
- A television is handy for testing repaired DVD and VHS players.
- Adequate lighting and electrical outlets is also necessary.



Hudson Valley Repair Café

²⁰ This *Path to Success* section is adapted from Hennepin County Fix-It Clinic's <u>"How to start your own!"</u> PowerPoint presentation.

Promotion

Promote the repair events through local media, calendar postings, café organizer websites, and of course social media.

• Consider establishing "repair café" Facebook, Twitter, Instagram, and other social media platform pages. If possible print posters or fliers to display around the community and at the host site.

Legal Issues and Insurance

Address legal and liability issues by first consulting with an attorney. Most likely a "hold harmless" notation should be put on a sign for posting during the operation of the repair café. Repair café rules should be determined and posted. Participants should be asked to sign a waiver or disclaimer form, which would include the repair café rules and hold harmless language.

House rules would include such things as:

- Visitors offering broken items for repair do so at their own risk.
- Volunteer experts making repairs make no guarantees and are not liable for the condition of the items worked on.

For an example of house rules consult the Repair Café website.

Insurance

Insurance coverage should be discussed with an attorney and the organizer's insurance provider.

- Public liability insurance may cover events provided that volunteers do not try to fix items they are unsure about and also that disclaimers are signed by all participants.
- Insurance companies vary in how they handle these events.
- Consult with an attorney and insurance providers to ensure that both the organizer of the event, volunteer experts/repairers, and participants would be covered through the organizers insurance.

A properly operated repair café is a relatively low risk activity. These events are becoming very common around the United States. Consult with other repair cafés if legal concerns and/or insurance coverage become an issue. Other experienced organizers may provide a solution.

Check-in/Survey/Metrics

Having a check-in table staffed by volunteers is a good way to welcome people, keep track of items brought in, whether the item was repaired and how, and distribute waivers and surveys.

- Post house rules at the check-in table. Waivers can also be distributed at the check-in table.
- Consider conducting a survey of participants to determine why they are there, were they happy with the process, etc.
- Also, items can be weighed in order to track disposal diversion through repair.
- Metrics can include: items fixed vs. number of items brought in and weight of fixed items.

Repair cafés can be fun, family oriented events. Kids and adults of all ages can enjoy assisting, learning how to disassemble items, and even repair. These events are great ways to bring neighborhoods and communities together.

Leading the Way

- The <u>Better Bike Share Partnership</u> is a collaboration funded by The JPB Foundation to build equitable and replicable bike share systems. The partners include The City of Philadelphia, Bicycle Coalition of Greater Philadelphia, the National Association of City Transportation Officials (NACTO) and the PeopleForBikes Foundation.
- <u>Fixit Clinic</u> offers resources on how to start a "Fixit Clinic," recommends tools and supplies, and provides downloadable logos and graphics.
- <u>Furniture Medic</u>, headquartered in Memphis, Tennessee, provides in-home furniture repair and restoration services, scratch repair, touch-ups, upholstery repair, and more.
- The <u>Hudson Valley Repair Cafés</u> are good examples of the sharing economy, repair, reducing waste, and saving money. The communities of Gardiner, Kingston, New Paltz, Poughkeepsie, Rhinebeck, and Rosendale, New York all hold Repair Cafés that are open to the public.
- <u>ifixit</u> is a global community of people who work to foster repair. The company offers repair manuals, parts, tools, and guidance for repairing anything from laptops to mobile phones.
- The Ithaca Fixers Collective is organized by Finger Lakes Reuse, a comprehensive reuse center. It's a weekly event that involves many volunteers from the community helping residents fix their lamps, mixers, knitted sweaters, computers, etc.
- Repair Café provides resources, including a starter kit, for communities wanting to establish a Repair Café. The first Repair Café was held in Amsterdam in 2009, and now there are more than a thousand worldwide. The website also hosts a directory of Repair Cafés around the world.
- Some other examples of repair events are the <u>Fix-it Café</u> offered by the Repurpose Project—a creative reuse center in Gainesville, Florida; and the <u>Cambridge Repair Café</u> organized by the Cambridge, Massachusetts Department of Public Works.
- <u>Recycle-A-Bicycle (RAB)</u> is a New York City-based nonprofit organization that utilizes the bicycle as a resource to foster youth development, environmental education, community engagement, and healthy living.
- The <u>Repair Association</u> (previously the Digital Right to Repair Coalition) was formed in 2013. The Association represents everyone involved in repair of technology—from DIY hobbyists and independent repair technicians, to environmental organizations and the aftermarket.
- Repair PDX formed to organize Repair Cafés around the Portland metro area. Its website hosts a calendar
 of repair events around the region.

Reuse Sheds

Visiting a waste disposal facility affords new meaning to the saying "One person's trash is another person's treasure." Furniture, bikes, dishes, clothing, and books are among the most common "treasures" found in trash.

To help keep useful items from being disposed, many communities set up reuse or swap sheds, "swap shops," or

Keep in mind . . .

Due to safety standards and concerns, some items should not be collected at reuse sheds, including: child car seats, booster seats, baby cribs, tires, & food.

"Take-it or Leave it" areas. The goal, whether an actual shed, a table, or shelf, is to foster reuse by providing a physical exchange site for residents to bring usable unwanted items, and/or take items at no charge. A reuse shed presents a relatively low cost way for communities to divert materials from disposal and promote greater reuse.

More informal "drop and swap" areas can be effective at promoting reuse. These areas work well in limited space or where staffing is a concern. Items left at the end of the day are often disposed of to leave room for new items. A more formal and organized shed maintained by an attendant or dedicated volunteers will foster more diversion. A monitored shed can be better kept clean and organized, and promote turnover of items.

Reuse sheds can be set up for exchanging kitchen and household items, games, tools, toys, and most other useable items in reasonably good condition. Or, they can be for specific items, such as books. Reuse sheds for paint and useable household cleaners and similar products can also be established, often in conjunction with household hazardous waste collections.

When designing the reuse shed, it is important to consider the goals of the program and the needs of the community. Consider setting up a volunteer "reuse committee" to discuss the items to collect at the reuse shed, a layout plan and design for the structure, and to solicit volunteers to work on getting the program started and potentially provide ongoing staffing.

Getting Started 21

Location, housing, and budget

- Where is the best location to host a reuse shed? The transfer station? Recycling center? Public Works building? Other public location?
- Is there an existing structure suitable for the reuse shed? Or, does a structure need to be purchased or built?
- What funding is available for renovation or purchase?
- If it's a new structure, where will it be placed? What type of structure?
- If a building is not available can a table or area be designated at the local transfer station or recycling center?
- What's the proposed budget? Budget items to consider—prefabricated structure or constructed building;
 concrete pad; shelving; signs, bulletin board, and other supplies.

²¹ Some of this section is adapted from <u>Designing Your Reuse Shed-- Workbook Questions</u>, Zender Environmental Health and Research Group, <u>www.zendergroup.org</u>. See their complete *Household Hazardous Waste Reuse Shed* document in Attachment < >.

Acceptable materials, policies, and general design

- What materials are targeted? Is the shed to include all reusable items? Only specified items, such as books?
- How will acceptable items be determined? Who will monitor to ensure unacceptable items are not left?
- What policies should govern the shed? What items will not be accepted?
- Will small businesses be allowed to drop off acceptable items?
- What kind of design (floor plan, shelving, etc.) makes most sense, given the space available, materials to be accepted, etc.?
- How will shelving, tables, signage, etc. be obtained and installed?
- How will shelves and tables be labeled?



Amherst, Massachusetts Book Swap Shed

Ongoing maintenance, staffing, hours of operation, etc.

- Who will staff the shed? Are volunteers available?
- What hours will the shed be open? Will the hours be the same as the transfer station (or host location)?
 Or, will hours be more limited?
- How will products be tracked to ensure items move?
- Who is responsible for building maintenance? Ensuring that the shed is locked at the end of the day?
- Who will be responsible for keeping the reuse shed clean and orderly?

Legal questions, liabilities, etc.

- Is reuse permitted under existing transfer station or recycling center operating permits?
- What sort of liability release will you have? Will signage suffice, or is a written form to be required?
- If the shed is for paint and other potentially hazardous items, how will the usability of items be determined? How will proper labeling of products be ensured? Will potentially hazardous materials be accepted in corroded containers? How will these be handled?
- If the shed is not specifically designed to accept and store hazardous materials such as paints, glues, automotive fluids, cleaners, fuels, etc., residents should be informed about proper disposal options for them.
- Will there be a sign-in required?

Other issues

- Will other recordkeeping be required? Who will be responsible?
- If staffing for the reuse shed is done by volunteers or an additional staff person, is there a chair available for them? Other accommodations?
- If the shed is a multi-use shed, for non-hazardous and hazardous items, how will hazardous items be kept separate from non-hazardous?

Signage, promotion, and management tips
Effective reuse sheds have clear signage about
what's acceptable and what's not—"NO broken
items, only usable items should be left, no tires, no
electronics, etc." Signs or labels on shelves will
serve to keep the shed orderly—"sporting goods,"
"toys and games," "household items," etc.

Reuse shed signage and handouts should clearly denote policies, such as item s are available "first come, first served." Measures should be in place on how to handle disputes over items.

A clear declaration that the municipality, town, tribal entity, or other operator does not accept any responsibility for items should also be posted.



Lee, New Hampshire

Contact your county/city/tribal attorney for assistance in developing appropriate language.

The time needed for monitoring and maintaining the shed should be minimal, if it is initially set up in an orderly manner. However, removing things that don't move is important to ensure customer return. Every week or two items that have not moved should be removed. An orderly and clean shop is far more likely to be used and to foster an attitude of pride for the community.

If items are nicely displayed, participants will be more likely to only leave things that are working, clean, etc. Even if the shed can only be open once per week due to limited attendant or volunteer availability, this will work better than having an unmonitored shed. Having an attendant or volunteer "prescreen" items will help ensure that only usable, acceptable items are left. A regular cleaning of the shed should also be scheduled for wiping down shelves, sweeping floors, etc.

Be sure to train volunteers about what's acceptable and other pertinent policies.

Some swap shops limit the number of items individuals can take per day. This is intended to discourage people from taking higher quality items for personal resale.

Collection of electronics should only be done if there is an electronics scrap recycling program in place at the facility. Electronics drop-off should be closely watched to ensure they are working and not too old to be appropriate for use. CRT monitors and televisions should not be collected for reuse or swap.

Similarly, household hazardous materials for exchange should only be collected in conjunction with a permanent disposal option or collection event. See <u>Attachment F</u> for guidance on establishing a household hazardous material collection shed.

Design

Reuse sheds can be small prefabricated "utility" buildings, existing or newly constructed, or even just three-sided sheds with a roof. Structures can range from 100 square feet to a larger space of 400 square feet, depending on a community's needs, funding, and available space. A concrete pad is best to ensure solid footing for users and to protect items from the elements. Shelving and hooks can often be donated by local stores or businesses that have excess.

Additional tips

To help with item turnover, charity groups can be invited to "shop" at the reuse shed once a week to remove items. Such partnerships will benefit these groups, while helping move collected items. If clothing is collected at the shed, inviting a charity to remove these items will help promote turnover.

As an alternative to hosting a reuse shed, some transfer and recycling centers invite school or nonprofit/charity groups to place collection boxes for textiles, books, school supplies, and other items.

Posting an exchange board for people to post notes about available items that are too big for the shed will help to promote reuse of these items.

If monitoring is limited, consider posting a camera in the shed, with a sign "smile you are on camera," in order to discourage people from leaving inappropriate items.

Hosting "swap events" such as "paint swaps" or "toy exchanges" also promote reuse for communities that do not want to host a permanent reuse shed. Events can be a fun and positive way to rally a community around reuse and divert materials from disposal.

Reuse rooms or designated areas can also be established at institutions and businesses using the same concept.

Leading the Way

- Chatham County, North Carolina has Swap Shops at all twelve of its solid waste convenience centers (transfer stations). The Swap Shops are three-sided, roofed structures with racks for items. The shops sit on concrete pads and measure 10 feet x 13 feet. Collection center attendees are responsible for maintaining the sites, spending an estimated 5% of their time monitoring and maintaining the shops. The County's attorney developed liability waiver language which is posted on signs at all shops. The local PTA thrift store or a local mission remove items after they have remained for longer than two weeks. The county included language in its solid waste ordinance in support of the swap shops.
- Chittenden Solid Waste District (CSWD) in Vermont provides areas known as ReUse Zones at all of their Drop-Off Centers. Anything that is considered safe and in good or repairable condition can be placed in the designated Reuse Zone area, with the approval of the Drop-Off Center Operator, and if there is space for it. CSWD staff help keep the ReUse Zone tidy and periodically weed out unwanted items. Although there is no fee to take items from the ReUse Zone, customers who add items may be charged regular disposal fees to ensure that costs are covered if these items are not taken and end up going into the trash.
- The Juneau, Alaska Waste Management Department offers a
 HazBin exchange program for usable household hazardous products. Juneau households and small quantity business/agencies generators are eligible to participate in the free program. The program has resulted in reduced costs for shipping and disposal of household hazardous wastes collected by the Department.



Household cleaning, home improvement, automotive, and similar usable products can be left (or taken)
free of charge at the Lawrence Waste Reduction and Recycling Division's <u>Product Reuse Facility</u> in
Lawrence, Kansas.

- The Pueblo of Santa Ana <u>Swap Shop & HHW Re-Use Shop</u> houses both a regular "swap" shop for usable housewares, children's toys, baby items, bicycles, and clothing, along with a Household Hazardous Waste (HHW) drop-off area for such items as paints, stains, pesticides, motor oil and other hazardous materials. See <u>Attachment B</u> for a case study on the Swap Shop.
- Many small town transfer stations have "Swap Sheds" including the <u>Shaftsbury Transfer Station</u> and the <u>Pownal Transfer Station</u>, both in Southern Vermont.
- Through Chandler, Arizona's <u>Trash to Treasure</u> residents can drop off usable (working) items at the Recycling Solid Waste Collection Center. Trash to Treasure accepts the following: Large Household Items (appliances, furniture, exercise equipment); Small Household Items (toys, home decor, small appliances); Personal Items (clothing accessories, linens); and, Construction (Remodeling) Material (cabinets, sinks, fixtures, tools, etc.). The program's nonprofit partners rotate collecting the items.

Secondhand Markets

Secondhand markets are what many of us think of when we consider traditional reuse. Virtually every community around the world has some sort of secondhand market, from flea markets to antique stores.

Thrift stores or secondhand stores sell (and sometimes donate) "as-is" used items. Items range from housewares and clothing to furniture and books. Many thrift stores are operated by charities. Donating items rather than throwing them away can support local charity efforts to sustain job training and self-sufficiency programs for people with disabilities and other life challenges.



Chickasaw Nation ReUse Center

People donating items to charity-run thrift stores can receive a tax-deductible receipt based on the estimated value of the donated items. Goodwill and Salvation Army are nationally recognized examples of thrift stores. There are many locally or regionally operated thrift stores as well.

Reuse centers can be operated by government or tribal agencies or nonprofit organizations. Usable items are accepted at no cost and either given away for free to residents or a low cost. Reuse Centers are larger than swap or reuse sheds and staffed to ensure items left are appropriate.

A consignment store is a shop that sells used goods on behalf of their owners. The owner retains ownership of the item until it is sold. Once sold, the owner receives the money from the sale minus a commission fee charged by the consignment store operator.

A flea market (or swap meet) is a type of marketplace that rents space to people who want to sell or barter merchandise. Flea market vendors often sell used items, including vintage clothing, collectibles and antiques. Flea markets are often a rallying place for people to gather. Flea markets can be held indoors or outdoors and may be held annually, semi-annually, and even weekly or daily during the summer months. Community or tribal-wide swap meets (discussed under Reuse Events in this guide) are growing in popularity.

Garage sales (also known as a yard sale, tag sale, or moving sale) are another common type of secondhand market, where used goods are sold by private individuals. Garage sale sellers are not required to obtain

business licenses or collect sales tax, although some jurisdictions may require a permit. Neighbors or neighborhoods may often join together to host garage sales on the same day to appeal to more shoppers.

Community garage sales or tailgate tag sales (discussed under Reuse Events in this guide) offer a low cost way for residents to sell or barter used items. Some communities host a "garage sale day" and promote the event by distributing garage sale signs to participants and providing promotion for the sales.

Classified ads in local papers or online are also a type of secondhand market, offering an alternative to standard thrift stores or consignment shops. Similar to traditional classified ads, online marketplaces like Craigslist, Amazon, autotrader, and eBay have grown dramatically in popularity in recent years. These sites offer easy access listing services and reputable purchasing options, benefiting both sellers and buyers.

Leading the Way

- The 47 year old <u>ARC Thrift Store</u> chain operates 24 stores in Colorado. Through its stores, ARC not only
 raises funds for advocacy and support for children and adults with intellectual/developmental disabilities,
 it is one of the largest integrated employers of people with disabilities in Colorado. The thrift stores divert
 more than 20 million pounds of goods from Colorado landfills and reuse or repurpose an average of
 202,000 pounds of clothing alone each week.
- Proceeds from the <u>Casa de los Niños Thrift Store</u> in Tucson, Arizona go to support child well-being and family stability in the Tucson community.
- The <u>Chickasaw Nation ReUse Center</u> in Ada, Oklahoma helps keep reusable items out of landfills and gives
 price-conscious customers a way to find unique items for personal use. The center accepts new and gently
 used items for reuse. It is free of charge to drop off or pick up items at the center and all services are open
 to the public.
- ERC (Eastern Rensselaer County) Community Warehouse, located in Melrose, New York, is a nonprofit reuse center established to divert reusable goods from waste disposal. The organization accepts donations of reusable goods from individuals, businesses and institutions. Those materials are re-sold, at low cost, to those who need them.



- York. The shop sorts all of the clothing received; cleans, fixes, and categorizes the toys by age level; does a great job in displaying all of the available items in an appealing way; supports more than 15 community organizations/efforts; and donates its revenues to support the Forest Presbyterian Church's Deacons. The store is operated by one part-time store manager and more than 50 volunteers.
- The <u>Furniture Bank</u> provides essential household furniture to individuals and families in need. Donations of
 gently used furniture are accepted from individuals, companies, and organizations. The Furniture Bank
 works with over 300 agencies to refer clients in need of furniture. In partnership with the United Way of
 Greater Atlanta, the Furniture Bank also trains and prepares previously-homeless Veterans for careers in
 the warehouse or truck driving industry.

- Housing Works operates a number of thrift stores in New York City with proceeds going to provide
 housing, medical care, job training and other supportive services for people living with and affected by
 HIV/AIDS. At its unique "Buy the Bag shop!" customers pay \$25 and get a bag to fill up with contemporary,
 designer and vintage apparel.
- Krrb (pronounced 'curb') is a web-based classifieds platform. Listings include: Secondhand, used and
 refurnished items; Vintage Treasures 20 years or older; Sales Flea markets, estate sales, garage sales
 and the like; and more. The website provides a means to search for items locally or around the world;
 messaging to sellers can be done via the website; and payment is made through the website's secure
 platform.
- The Madison County Department of Solid Waste and the Rescue Mission Alliance of Syracuse (New York) formed a partnership that includes the operation of the Reuse Store. Located next to the Madison County Landfill Transfer Station, the store accepts donations of houseware items, including pots, pans, and dishes, tools, toys, bikes, and lawn and household furniture. The Reuse Store is operated by the Rescue Mission. Some items are sold on site at low cost to cover operation expenses and support the Rescue Mission's efforts to assist those in need. Other items are sold at one of the Rescue Mission's Thrifty Shopper stores.



- <u>TheThriftShopper.Com</u> hosts an online, searchable National Charity Resale, Secondhand, Vintage and Consignment Shops Directory.
- The <u>Waccamaw Daycare Thrift Store</u> in southeastern North Carolina is operated by the Waccamaw Siouan Daycare. All proceeds go to support the Daycare.



Kidz Kloset, Potsdam, New York

Sharing Economy

Sharing Economy or collaborative consumption is an economic model based on the reuse (sharing, swapping, trading, renting) of goods and services, thereby encouraging access to goods over ownership of goods. In a shared economy, items may be shared and/or rented among a group of users (e.g. Zip Car, Tool Banks). — Reuse Institute

According to the Institute for Sustainable Development and International Relations (IDDRI), a nonprofit policy research institute based in Paris), "shareable" goods—clothing, vehicles, furniture, telephones, televisions, toys, sporting goods, and home improvement and gardening tools—account for about a quarter of household expenditures and a third of household waste.²²

Sharing, swapping, lending, or renting consumer products is obviously not a new concept. Through sharing, the optimal use of goods can be reached. The sharing economy embraces all manner of sharing, from time to goods; it places emphasis on how we value goods, time, etc. For purposes of this guide we'll focus on goods. When it comes to "the stuff" or goods we value or want, the questions are: How can they best be obtained and managed? And, what is required to obtain the goods? There are multiple options: money or currency; gifting; developing points to exchange for goods; renting or leasing; bartering; and/or, swapping. The sharing economy promotes refocused attention to access and experiences, instead of consumption and ownership.

The "digital revolution" has propelled the sharing economy²³ to new heights. Technology and social media have become the new tools to promote the sharing and reusing of assets between individuals, associations, public entities, and private enterprises, with or without the exchange of money. Digital search, exchanges, and payments are conveniently made through mobile apps.

Using "peer-to-peer" and business-to-customer services to rent or share items is becoming increasingly popular around the world. Enterprises involved in the sharing economy usually have a rating or review system, promoting a more trusting environment for people on both sides of a transaction. The growing popularity of these services allows more and more people to rent or share items they do not need on a regular basis. Sharing platforms allow for a more secure environment, convenience, and availability of shared items, vehicles, lodging, or services at lower costs.

Shared mobility through car sharing or carpooling is typically associated with urban environments. Nonetheless, it presents opportunities for smaller communities as well, including college campuses, tourist areas, and even commuters, as vehicles in any size community often spend much of their time parked. The shared economy, in fact, can benefit all communities—rural, suburban, and urban, since no matter where we live many common items—vehicles, tools, equipment set idle for long periods of time.

As with other types of reuse, the advantages and benefits of the sharing economy can be fostered by public agencies, through promotional campaigns and opportunities for community dialogue. Providing funding or incubator assistance for entrepreneurial projects, technical assistance, and adoption of regulations, policies, and practices to encourage new and innovative models, also help support sharing entrepreneurs.

²² http://www.iddri.org/Evenements/Interventions/ST0314 DD ASN sharing economy.pdf

²³ Some people make a distinction between sharing and short-term rental. "Sharing" is based on the view that assets such as cars and tools, for example, often sit idle for long periods of time resulting in "slack capacity." Peer-to-peer car sharing platforms, such as Getaround, provide an opportunity to put these "idle assets" to use. Businesses such as Zipcar, on the other hand, own a fleet of vehicles for short-term car rental. While the "sharing" models are different, they are included together in this section.

Public entities and private enterprises can also lead, by elevating the shared economy into their daily practices in a number of ways: the adoption of carpooling/car sharing platforms; contracts that promote long-term renting; leasing instead of purchasing; and establishing in-house or community tool lending libraries and similar sharing opportunities, are but some examples.

Public entities also have an important role in shaping the sharing economy to benefit the social good. They can encourage the development of projects that promote the exchange of goods that are durable, repairable, and ultimately recyclable, for example. Local adoption and promotion of the sharing economy helps to limit the distances goods will travel to better benefit the environment. The opportunities are there to shape the sharing economy, not just to be one about money, but also sustainability.

The sharing economy is a huge growth opportunity for reuse. While not without its controversies—Uber vs. traditional taxi drivers, and Airbnb vs. traditional hotels, to name two prominent examples—the sharing economy moves us closer to the essence of reuse and sustainability, by promoting the value of renting or sharing instead of owning. Leadership is needed now to ensure that the sharing models we embrace benefit everyone in society. The impact of Airbnb, for example, goes beyond competition with more traditional models of short-term lodgings. The rise of Airbnb accommodations in popular tourist destinations is having an impact on residential neighborhoods through increased car and foot traffic.

Fairness in permitting and taxation, in order to account for the impact of "sharing" businesses on their more traditional counterparts, must be addressed if acceptance of peer-to-peer enterprises is to grow. Our regulatory environment must adapt more rapidly to embrace entrepreneurial efforts, while also protecting the health and safety of consumers, societal norms, and fair economic practices. Accounting for lost revenue sources for local, regional, and state governments must also be considered. This includes addressing corporate taxation for companies which are largely internet-based, and often headquartered elsewhere. How to tax and regulate individual participants who do not report their revenue from participating in these web-based sharing and peer-to-peer enterprises must be resolved, as well.

Entrepreneur and author Lisa Gansky calls peer-to-peer and sharing economy businesses "the Mesh." State's Gansky, "Mesh companies create, share and use social media, wireless networks, and data crunched from every available source to provide people with goods and services at the exact moment they need them, without the burden and expense of owning them outright." Gansky goes further to say that the Mesh is fundamentally changing how consumers shop and it is the "future of business."

Leading the Way

- Through <u>Airbnb</u>, houses, apartments, or rooms can be rented for any period of time, often at lower prices than hotels or vacation rentals. The experience can also offer an opportunity to meet new people and share in different cultures, perhaps more readily than through traditional travel arrangements.
- <u>Collaborative Consumption</u> hosts a directory of sharing economy platforms, as well as presentations, research, and other information on collaborative consumption.
- There's even a dog boarding business, similar to Airbnb, called <u>DogVacay</u>. Less expensive than a kennel, and likely to make dogs happier!

- <u>Getaround</u> is a car sharing platform that allows users to list vehicles they have to share or rent. The website's free registration allows users to search for available vehicles, either in their region or where they are traveling to. Drivers are screened to ensure their driving record is good. Getaround trips are insured through the company's own primary insurance policy, and drivers are covered by 24/7 roadside assistance. Vehicle "sharers" are paid rental fees.
- <u>Little Free Libraries</u> promote literacy and book sharing. There are nearly 40,000 book swaps around the
 world sharing millions of books annually.
- Mesh provides a directory of peer-to-peer and sharing economy businesses and other resources.
- <u>Peerby</u> is a search platform and app that allows users to search for a wide range of items, including tools, trailers, barbeques, tents, and other items that others in their community are willing to share. Users can list items they have available for sharing, or search for available items nearby.
- Shareable is an online sharing platform which includes both resources and events.
- <u>SnapGoods</u> is a platform for lending and borrowing high-end household items, such as cameras, kitchenware or musical instruments. Transactions on the site are typically local or through common networks.
- The Seattle-based B Corp, <u>Stuffstr</u>, has developed an app for posting items that people no longer want. The app then returns item-specific matches for places nearby that reuse or recycle. Users can also alert members of their networks about the availability of the items they post.
- Programs like <u>TaskRabbit</u> offers a way for people who need quick repairs, or help with moving or similar tasks, to connect with a qualified person to assist them.
- thredUp is a clothing resale website for consumers to buy and sell secondhand clothing.
- <u>Time Trade</u> programs promote skill-trading.
- <u>Turo</u> is a car sharing platform geared toward meeting the needs of travelers. Similar to Getaround, it offers insurance, driver screening, and other amenities, including vehicle delivery.
- The mission of the San Francisco- based benefit corporation <u>Yerdle</u> is to reduce the number of new things
 that consumers purchase by 25%. To that end, the company operates an online swap shop where people
 can post items they no longer want and search for items they need. The company states that more than
 600,000 items have been posted on its site to date.

Textile Recovery

Setting up collection programs for used clothing and other textiles is a strategy that more and more communities are implementing to decrease the volume of their trash and to save money on disposal fees. The U.S. has a robust infrastructure to collect and distribute recovered textiles for reuse and recycling. The diverted textiles are reused as clothing, upcycled to make different pieces of clothing, cut into industrial rags, or recycled into insulation materials.

According to the U.S. EPA, every person in the country generates approximately 82 pounds of textiles per year. EPA estimates that only 15% of the textiles generated nationwide get collected for reuse or recycling. This means that 85% of used textiles are thrown away in landfills or burned in incinerators. By discarding these unwanted resources, communities pay for their disposal, unnecessarily.

To figure out how much your community pays for trashing textiles, plug in your community's numbers in place of the **XXs** in the table below.

Calculate the Amount Your Community Spends on Textiles

82 lbs. of textiles/person x XX people in community = XX lbs. of textiles generated/year XX lbs. x 85% (estimated rate being disposed) = XX lbs. of textiles being thrown out XX lbs./2,000 lbs. = XX tons of textiles

XX tons x \$XX/ton tipping fee = \$XX/year

Environmental impacts of textiles reuse and recycling

In addition to reducing disposal costs, the reuse and recycling of textiles reduce impacts on the environment. It decreases the need to grow and harvest cotton, to transform the picked cotton into thread and then into fabric, and to manufacture the fabric into a finished product.

- For each ton of reused or recycled textiles, approximately 11 cubic yards of landfill space are saved.
- For each ton of reused textiles, more than 3 million gallons of water, 1,318 pounds of fertilizer, and 391 ounces of pesticides are saved.²⁶

Existing Textiles Collection Infrastructure

Many communities are familiar with some level of textiles collection by nonprofit organizations or small businesses. Some of the most common collection programs include box collection systems or secondhand/thrift/consignment stores. In more rural areas textiles collection may be done at community special events, swap shops, or as a stand-alone event.



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²⁴ EPA Municipal Solid Waste in The United States, 2013 Facts & Figures

http://www.mass.gov/eea/docs/dep/recycle/approvals/dsconv.pdf; http://www.epa.gov/osw/conserve/tools/recmeas/docs/guide_b.pdf

²⁶ www.teximateam.com

Box Collection System – Many are familiar with these large metal collection boxes on the side of the road that say something like "Drop Used Clothes Here." This type of textiles collection has been used for many years and conveniently allows individuals to drop off filled bags of textiles on their way to work or when running errands. The boxes have commonly been owned and managed by charitable organizations. Due to the growing volume of used textiles in the U.S. over the past 10 years, the markets have grown accordingly and for-profit companies are also collecting textiles in roadside boxes.



Secondhand Stores – Secondhand stores, thrift stores, and consignment shops sell a variety of used items and textiles are a significant part of their inventory. Resale stores may be privately owned and operated or run by charitable organizations.

Textile Reuse and Recycling Markets

According to the Council for Textile Recycling 27 (CTR) and the Secondary Materials & Recycling Textiles Association (SMART), 28 45% of the collected textiles in the U.S. are sold and reused as secondhand apparel, 30% become wiping and polishing cloths, 20% are recycled into insulation fiber, and 5% are unusable. Of the collected used clothing, only 2-4% is sold in this country and the rest is sold overseas by charitable organizations and businesses.

Factors Influencing Used Clothing Markets

- · Strength of the world economy,
- International policies about accepting used clothing imports,
- · Strength of the U.S. dollar, and
- Price of virgin material prices.

The growth of the overseas markets for used U.S. clothing has developed over the last twenty-five years. Many developing countries have established infrastructures for repairing, modifying, and selling used clothing. According to Eric Stubin, President of CTR and CEO of Trans-Americas, his company "currently ships to more than 45 countries on six continents." And "approximately 60% of the exported used clothing they wholesale is sold to Africa."

From 2014 – 2016, the textiles reuse industry has experienced a more significant downturn in the markets than U.S. industry leaders have previously seen. This was due to a decline in China's raw materials purchases from countries in Africa and South America. The decline in revenue for these countries decreased their purchasing power for used textiles. The markets were further impacted by the increase in the value of the U.S. dollar, which increased the cost of textiles being exported. In addition, several of the used textile purchasing countries changed their trade policies and now restrict the import of used clothing.

Textiles—it's not Just Clothing

Today's definition of textiles has dramatically changed from the one used years ago. Instead of only slightly worn clothing being acceptable, today's marketplace allows for a broader definition—new, old, stained, ripped, or torn clothing and leather products, shoes, belts, beddings, draperies and slipcovers, and stuffed animals. See Table 2 for more examples of acceptable textiles.

www.weardonaterecycle.org

http://www.smartasn.org/

Path to Success

The steps below will be useful in establishing a textile collection program.

Step 1. Define the plan – When taking the first steps to developing a community textiles collection program, answering the following questions will help you define the plan:

- Do you want the textiles collection program to be year-round or a special event?
- If year-round, does the community want to be responsible for collecting the textiles or would you rather have an entity provide that service via collection boxes?
- Does your community have an ordinance regarding collection boxes?
- Does it matter to you if the entity collecting the textiles is nonprofit or for-profit?
- Do you expect to gain revenue from the collected textiles?
- Do you expect data on the amount of textiles collected? If so, how frequently?
- How often would you want the collection box emptied?
- Where might you place the collection box so that it is in a well-lit area and easily accessible to residents? And do you have the permission of the property owner or supervisor to place the box at that location?
- Is one box enough for the community? The company supplying the collection box may be helpful in answering this question.
- What organizations, institutions, or groups can you partner with to help spread the word to residents about the importance of diverting textiles to collection boxes, so that the town can save money on disposal and be more environmentally friendly?

Step 2. Identifying Companies or Organizations That Collect Textiles in Your Geographical Area

There are many ways to find the entities that collect textiles in your area. Following are a few strategies to use:

- Search the Internet under "textile collection" or "recycling textiles" for your community.
- Look at websites of well-known textile collection entities (e.g., Goodwill Industries, St. Vincent de Paul Society, Baystate Textiles, etc.).
- Call the recycling coordinator for your community and ask if they know of any companies or organizations collecting textiles. If you are in an area with no recycling coordinator, contact the state Environmental Agency regarding textile collection opportunities in the state.
- In rural areas where there are no textile collections in place, it may take getting the commitments of surrounding towns to also collect textiles. This will provide the vendor with the necessary volume to make collection economically feasible. The details for this is best determined by speaking directly with the

potential vendor.

Acceptable Textiles (new, old, stained, or torn)

Clothing & Accessories

Belts

Boots

Bras

Coats

Dresses

Flip flops (single or in pairs)

Halloween costumes

Hats

Jackets

Jeans

Jerseys (sports)

Pants

Pajamas

Purses

Scarves

Shirts

Shoes (single or in pairs)

Shorts

Skirts

Slippers

Socks (single or in pairs)

Suits

Sweaters

Sweatpants & sweatshirts

Ties

T-shirts

Undergarments

Bedding

Blankets

Comforters

Pillows

Quilts

Sheets & pillow cases

Curtains/Draperies

Decorative pillows

Napkins (cloth)

Slip Covers

Table cloths & runners

Pet beds & clothing

Stuffed animals

Step 3. Conduct Due Diligence on the Potential Vendor(s)

Once you know which entities service your area, it's wise to conduct some due diligence on them before engaging in an agreement. Be sure that they are a reputable operation and that they meet your expectations and requirements, as identified under Step 1.

Strategies for Researching Information on Nonprofit Organizations and For-Profit Companies

- Visit the organization's or company's website and find out what it says it does.
- Research the organization/business on the Internet to find out what others are saying about it.
- Contact the State's Better Business Bureau to inquire if there are any complaints.
- Contact the state environmental regulatory agency and ask if the organization/company is in compliance with State requirements.
- For nonprofit organizations—Go to Charity Navigator and/or Charity Watch and search for the independent rating of the nonprofit you are thinking of working with.

Importance of Vendor Transparency

Over the past several years, there has been unfavorable press about textiles collection operations that are not doing what they say they are with the collected textiles. One way to avoid discrepancies related to your program is to require complete transparency from your vendor up front. You should be able to find out what it does with the collected textiles, where it sells the collected textiles, and if it is partnering with a charity or business (and if so how).

SMART has addressed this issue by requiring each of its members that operate collection bin services to abide by a code of conduct that includes the requirement of complete transparency.

Step 4. Develop & Sign a Contract Agreement with the Selected Vendor

Once you have completed Steps 1-3 and feel confident that you have the information you need, contact the company or nonprofit you are interested in working with. You can then negotiate the details of your agreement with the partner you choose, and schedule the start date for your collection program.

Step 5. Spreading the Word

Some of the compelling messages that can be used to market the program include: it's a money-saving strategy for the community (and taxpayers) and that it supports environmental stewardship via material reuse and resource conservation.

Some low cost outreach strategies are:

- Writing and distributing announcements sent to local newspapers, and local television and radio stations.
- Posting Facebook and Twitter announcements; consider starting a reuse or textile Facebook page for the community.
- Providing outreach to schools, churches, nonprofit organizations, and civic groups. This could include
 meetings with each group and distributing a flier about the program.
- Developing a textiles reuse and recycling webpage on the municipal/tribal website.



Photo courtesy of Wearable Collections www.wearablecollections.com

Leading the Way

- Arlington, Massachusetts promotes textile recovery through a brochure posted on the town website.
- <u>Bra Recyclers</u> collects new and gently used bras for distribution to women and girls who have been victims of domestic violence and human trafficking victims, as well as breast cancer survivors.
- The <u>Greenmarket Clothing Collection</u> in New York City is a program spearheaded by <u>GrowNYC</u>, a nonprofit organization focused on sustainability for the City. It's estimated that each New Yorker throws away 46 pounds of clothing every year, which equals 193,000 tons (nearly 4 million pounds) per year. Since 2007, the Greenmarket Program has diverted nearly 4 million pounds of textiles for reuse and recycling. The textiles are collected at 30 Greenmarkets—farmers' markets—in four of the City's five boroughs. One-day special events are additional opportunities for residents to drop off their unwanted textiles.
- The Massachusetts Department of Environmental Protection (MassDEP) completed a 2009 waste characterization study that identified textiles as 4.9% of the total solid waste generated (230,000 tons/year). This information and the desire to increase the state's recycling rate prompted the MassDEP to sponsor the Massachusetts textiles collection program in 2011. Program implementation included: holding a workshop with SMART and the MassDEP staff; convening a state-wide textiles summit to educate communities; creating a statewide outreach initiative; holding regional workshops with municipal recycling coordinators; reaching out to schools; issuing a joint press release with SMART; providing outreach tools and templates to municipal coordinators; and creating a textile recovery website.
- The State of New York estimates that 1.4 billion pounds of textiles are discarded each year. To capture the unwanted textiles, the State's recycling organization—New York State Association for Reduction, Reuse & Recycling (NYSAR³)—launched the Re-Clothe NY campaign in 2014. NYSAR³ first developed a Textile Recovery Working Group in 2013. Like the MassDEP, NYSAR³ partnered with SMART, as well as the Council for Textile Recycling (CRT). Prior to launching the Campaign, they held two statewide stakeholder summits to discuss the opportunities and barriers to developing a statewide textile recovery program, build the program cohesiveness, and develop methods for capturing metrics. The stakeholders included municipal, public and private sectors, educators, and



students. NYSAR3's Campaign has diverted more than 1 million pounds of textiles since being launched and received EPA Region II's Environmental Champion Award in 2015.

• <u>The North Face: Clothes the Loop program</u> encourages people to drop off unwanted clothing and footwear at North Face retail and outlet stores. Used apparel and footwear (any condition, any brand) are accepted.

• The Rhode Island Resource Recovery Corporation (RIRRC) initiated a statewide textile recovery program in 2015. RIRRC requested that nonprofit organizations and businesses using collection boxes for textiles adopt a common message— "It's not just gently used clothing and shoes." Entities that agreed to adopt RIRRC's strategy became project partners, and pictures of their collection boxes were included in the project's extensive marketing campaign (see below). RIRRC's marketing campaign included developing a website, a radio ad, and web banner ads; research about existing and potential donors; stickers for partner collection bins; and a public kick-off event.



Image Courtesy of RIRRC

- <u>ShoeBox Recycling</u> offers organizations a fundraising opportunity through the collection of usable shoes.
- The <u>Weymouth Public Schools</u> in Weymouth, Massachusetts, have been collecting textiles since 2011. Since then, the twelve schools have collected more than 206 tons of a wide variety of textiles. The schools have partnered with



Baystate Textiles for the collection bins and textiles reuse and recycling services. Weymouth's textiles collection program is managed by Betsy Harris, the Community Relations Liaison of the Weymouth Public Schools. In addition to collecting textiles at the schools, Ms. Harris has also reached out to members of the community, such as real estate agencies and dry cleaners, to divert more textiles from the waste stream. As a result of the different efforts made on behalf of the program, the Weymouth Schools have raised more than \$29,500 from the textiles collected. Weymouth's textile collection program has become a model for other schools throughout Massachusetts and the Northeast region.

• Wholly Rags, located in Taos, New Mexico, maintains a "Community Free Box" for collection of used clothing. The organization uses discarded clothing to make and sell quilts, and it provides relief for the needy and disaster victims who need clothing. Its annual art show, "Arte de Descartes," showcases art made from used and scrap material. The organization also offers tools, materials and workshops to make fabric art including: quilt making, doll making, puppet making, and other creative projects.



Tool Lending Library

Another version of reuse—"tool lending libraries"— also focuses on the sharing economy (see above). Tool libraries or "tool banks" are great examples of access to items without the requirement of ownership.

The tool lending library owns the tools and community members are allowed to borrow them for a limited time for free or rent at a minimal cost. Tool lending libraries are often set up in public libraries—adding new life to these well-established institutions. Lending "shops" can be established in any community building, or associated with a nonprofit organization or business. Other types of



lending or community "rental shops" can be established for handling kitchen goods, sporting goods, or just about anything.

These community sharing opportunities offer many benefits to people who might not want to purchase an item due to cost, have limited storage space, or only need to use the item once in a while. In addition to the tools themselves, the tool libraries often loan "how-to" instructional materials.

Tool lending libraries can play a valuable role in communities and neighborhoods by lending tools for volunteer projects, home and community improvement projects, and facility maintenance and improvement. In addition to residents, local nonprofit organizations, community parks, and special events such as repair cafés (see above), are frequent beneficiaries.

Path to Success

- Staff or volunteers are needed to ensure the timely return of borrowed tools and the long-term viability of the lending library and its inventory.
- A checkout and return system needs to be established, similar to systems in place for book lending.
- "Rules of use" should be established and posted on both the lending library website, and in view of where tools are checked out.
- Policies and a system of compensation for tools returned late, lost tools, and damaged tools may be established.
- A waiver should also be developed and posted.
- Tool and equipment checks, and routine maintenance and repairs on all tools and equipment, should be performed to ensure items remain in good condition and working order. This will not only help extend the lifespan of the inventory, but will also keep "customers" returning to participate in the lending; liability will be limited, as well. Volunteers can typically be enlisted to provide maintenance.

Leading the Way

- Green Lents, a nonprofit based in Portland, Oregon sponsors a neighborhood based tool lending library Community Tool Library (CTL)
- Krrb maintains a Directory to Tool Libraries.
- The Sacramento Public Library launched its <u>Library of Things</u> in 2015. Through the free lending program, patrons can check out a variety of items, including: sewing machines, video game consoles, crafty tools, and technology tools, such as laminators. The public votes on which objects should be made available; items can be borrowed for up to three weeks.
- <u>Local Tools</u> offers tips and services for establishing lending libraries and has a <u>Local Tool Lending Library</u> locator.
- The Mount Rainier Community Tool Shed, in Mount Rainer, Maryland, contains a collection of hand and
 power tools that can be used at no cost by residents, businesses, and community groups of Mount Rainier,
 to improve their properties.
- The Northfield Tool Lending Library in Northfield, Massachusetts, is a community resource dedicated to building community and fostering sustainability by providing residents with tools and the power to use them. See Lending Library's website for sample "rules" and a "waiver."
- The Santa Fe Habitat for Humanity ReStore hosts a tool lending library. To cover costs of the program, an annual membership fee of \$20 is charged.
- The West Seattle Tool Library exemplifies the sharing economy.
 Community members not only organized to start a tool lending library, but also desinged a replicable model for other individuals and organizations to adopt. They developed a <u>Share Starter</u>; host tool library incubator sessions; and a <u>free starter kit.</u>



A Nonprofit Takes the Lead

Rebuilding Together Central Ohio hosts one of the oldest established tool lending libraries in the country. The <u>Tool Library</u>, founded in 1976, is open to Franklin County homeowners, tenants, landlords, and nonprofit partners. The organization loans over 200 types and nearly 4,500 individual hand and power tools to members providing them with the equipment for home repairs and community revitalization. The Tool Library also has free access to a collection of "How To" guides, videos, and tutorials.



Reuse Events—Fast, Flexible, Affordable

Reuse events can be one-time, semi-annual, or annual events. Communities can benefit from pooling promotional resources and holding multiple themed events at the same time. Events can be held any time of the year, and on evenings or weekends. See Attachment C for "Anatomy of a Reuse Event: Holiday Toy Swap."

Many communities combine "reuse" or "swap" events with recycling. For example, at household hazardous waste collections, a "reuse" area can be set up for usable paints, cleaners, and other items that are free for those that may them. Plastic planting pots and trays, rigid plastic toys, and other items can be swapped at a rigid plastics collection event.

Events, such as toy and children's clothing swaps and community or tribal-wide garage sales, can be held inside. Outdoor tailgate swap events are also fun community opportunities. Another option is a "drive-by" reuse event where reuse and charity entities ("vendors") are invited to bring collection trucks to an outside event. Residents drive up in their cars and event staffers and volunteers off-load the reusable items for distribution to the appropriate vendors.

A Sampling of Reuse Events

- Toy Exchange (great for the holidays)
- Kids' Stuff Exchange
- Durable medical equipment collection (can be combined with other events – e.g., sharps collection, unwanted medication collections)
- Community-wide Garage Sale or Community "Tailgate" Tag Sale
- Reuse/Recycled Art Rally
- Combined "exchanges": reusable plastics; usable bikes; plant pot & tray swap/collection
- Halloween Costume Exchange
- Prom dress/tux exchanges at schools
- ReUse Arts Show and Sale
- Community Trunk Sale & Flea Market
- Drop and Swap Event
- · Free piles
- U Price it Sales

Reuse Event Planning in Easy Steps²⁹

Initial Planning

- What type of event will be held?
- When and where will the event be held?
- Who will be responsible for planning, implementing, and staffing?
- Will volunteers be used?
- Will additional services be required, such as hauling services?
- How much will the event cost?
- How will the event be paid for? Will admission, participation, or "permit" fees be charged?
- What will be the measures of success for the event (e.g., quantity of material exchanged or collected (weight or number of items), number of participants, etc.)?



Northampton, Massachusetts Toy Exchange

²⁹ This section is adapted from Massachusetts' <u>Hosting Community Reuse Events Toolkit</u>.

Planning and coordinating an event may take up to three months depending on the lead time necessary for local government approval of the event, the budget process, securing volunteers, etc. Time for obtaining any permits and insurance, as well as other necessary requirements, may add to this. Organizers may be able to be put together annual events in less time. Developing partnerships for organizing events may also help to reduce planning time. Sharing duties, however, requires that roles, funding, and other responsibilities be determined before planning can begin. A reuse committee can also help ensure events run smoothly, get the word out about events, and provide ready volunteers.

Type of Event

Imagination is the only limiting factor when planning reuse events. Looking at the types of materials that the community wants to target is a good place to start. Looking at the community's goals for its reuse program is also important.

In addition to facilitating the exchange of usable items, reuse events are excellent ways to introduce residents, schools and businesses to the world of reuse. Events such as toy swaps; children's clothing exchanges; Halloween costume swaps; and planting supplies, pots, and seed swaps, are just a few options to promote reuse over disposal of common items while helping to meet the needs of community members.

Toys and other children's items are often in good condition since kids outgrow them. These items are also universally needed by disadvantaged families. Sporting goods swaps are also beneficial for both "donors" and "shoppers." College Move-Out events are great ways to significantly reduce the amount of waste disposed when students leave campus for summer breaks, and also benefit charity groups and/or other students.

Event preparation may vary by the type of event. Some, such as toy or costume swaps, require that donations be solicited prior to the event. Items will need to be inspected, cleaned, sorted, and stored until the event. Some events, such as community or tribal-wide garage or tag sales, require advance registration and possibly collection of fees from participants. Most events will require that reuse organizations be contacted in advance to ensure the pickup of collected materials or items remaining after the event is concluded.

Things to consider:

- What are the community goals? Promoting reuse? Diverting targeted materials?
- Should the event be one-time or periodic (annual, semi-annual)?
- Should there be multiple events put in place over a set-timeline?
 Planning two or three events for a year can be beneficial for the community and save on promotion costs by combining promotion for the events.
- Will the event be held inside? Outside? Will it be a car-oriented drop-off event?
- Will the event be part of a larger recycling or community event? For example, a paint swap held in conjunction with an existing household hazardous waste drop-off event. Reusable item swaps can be held in conjunction with other events such as a spring/fall cleanup day or bulky waste collection.
- What materials are best to target to meet goals and community needs (e.g. books, furniture, toys, clothing, bicycles, etc.)?



Budget and Funding

What is the anticipated cost of the event? Securing volunteers to help organize and staff an event can have a significant impact on reducing costs. Arranging for sponsored or donated resources such as equipment, advertising, location, and contractual services (hauling of leftover items, any needed disposal or recycling), can also reduce costs.

Budget items to consider:

- · Public education and outreach.
- Operations costs—such as labor, equipment and supplies, traffic control, security, and site rental.
- Transportation costs—transportation of materials that are donated, usually billed per mile/hour, including driver labor charges and shipping supplies. Many charities and scrap vendors do not charge these costs for community events. Investigate ahead of time to see if there will be a charge. Consider alternate vendors if possible.
- Disposal costs—will there be a need for disposal of remaining items?
- Are volunteers available to work the day of the event?
- Is a regional event possible? (Costs could be split among the communities involved in hosting the regional event).



Options for covering event costs:

- Charge a fee for drop-off of items that have a transport fee attached or if a fee is charged when collected for recycling (e.g. electronics and household hazardous products). Fees could cover all or part of the applicable costs.
- At some events, such as tag sales, vendor fees can defray promotion and logistics expenses.
- Use municipal or tribal funds (from property tax, waste or recycling fee revenue, etc.) to cover all or part of costs.
- Use in-kind contributions from government/tribal and private sources to cover costs.
- Consider working with companies (vendor or hauler service providers, promotional material printers, rental space provider, etc.) that are willing to be listed as sponsors, either in lieu of charging or at a reduced rate.

Tasks to Complete Before the Event

Once a decision to hold a reuse event has been made, a project budget developed, and initial planning undertaken, there are a number of specific elements to address leading up to the event.

1. Pick a location/space

Consider the following:

- The location should be reasonably well known in the community, or at least be conveniently located and visible to the public.
- Whether the event is to be held inside or outside, or if it is a "drive-by" event, will dictate the type of space needed.
- The site should have good street access, so people can easily enter the site without creating backups or traffic delays. Avoid sites that have only one point of entry, or require people to make left turns on busy streets.

- The space or parking lot should be large enough to safely accommodate traffic, donation/recycling vehicles, and event staff. Inside events will require plenty of parking. Outside events will need to have enough space to hold participants and their vehicles, and tables for outside swap events. A drive-by event will require enough space for all vendor vehicles and participant cars. Combined reuse and recycling events will need to have room for the reuse activities, as well as room for bins or trucks for reuse and recycling vendors.
- Use of public spaces, such as parks or community centers, will keep costs lower; schools are often excellent locations for both inside and outside events.



- The space will need appropriate amenities—restrooms, tables for inside events, accessibility for disabled and elderly, etc.
- 2. Obtain permission, if necessary, to hold the event at the location. Early approval for an event should be a top priority in the planning process. Delays in approval can mean fewer publicity opportunities due to compressed timelines, thus lowering the turnout and the overall success of the event. Establish good communications with the property owner, occupant, or manager. Provide them with detailed information about the event and what to expect.

Tips:

- Identify the person who can legally provide permission for use of the site. For example, does using a school cafeteria or parking lot require the approval of the school principal or the school district? Call the entity responsible and review the event objectives. Address all of their questions and concerns.
- Be prepared to answer questions about your event who, what, when, where, why, and how.
- Have information about events that have been done elsewhere.
- Check with municipal/tribal officials and the site contact about insurance requirements for the space.
- Check with municipal/tribal offices—usually the Planning, Health or Public Works Department—to determine needed permits (event, signage, traffic/road closure, and/or tent permits).
- Determine any potential traffic flow or security needs. Is traffic likely to be an issue? Will traffic cones, barriers, etc. suffice? Can staff or volunteers assist with traffic flow? Or, will a police officer be needed?
- 3. Select reuse and recycling organization partners/vendors.
- Identify organizations and businesses that will accept the materials being collected or remaining at the end
 of a swap event. Determine if vendors will provide boxes for leftover items and collection services and any
 associated costs.
- Determine what additional provider services may be required (labor, equipment, transportation, and/or recycling). Include specific environmental management needs, such as use of a certified electronics recycler.
- Solicit proposals or bids as required from companies to provide the full range of services needed. This is
 particularly important if charges will be involved, and also if the reuse event is combined with recycling
 and disposal.
- Determine a shortlist based on cost, experience, and environmental performance.
- Check references and previous contracts for companies on the short list.
- Select a company that provides the best value in terms of the program goals.

• Confirm final arrangements for logistics—collection vehicles, recycling and/or trash containers, etc.

4. Staffing and Volunteers

Event staffing/volunteer needs will vary depending on the type of event. Event organizing typically requires at least one municipal or tribal staff representative to be involved, both in planning and onsite implementation. For events involving multiple jurisdictions or organizations, an organizing committee of different agencies and organizations can be extremely helpful in ensuring event success.

Advance communication with volunteers to discuss their talents and skills (organizing, sign-making, press, people skills, etc.) and desires for volunteering should be conducted. Volunteers should be assigned specific and clear tasks. Organizers should be mindful of volunteer time and make an effort to not overextend the commitments of their volunteers.

Reuse events are great opportunities to engage community members in volunteering. A "reuse committee", as noted in earlier in this Guide, can be an excellent source of volunteers. Reuse events benefit by a group of volunteers with a range of skills.

Volunteer guidelines should be developed to include dress tips (weather preparation information if the event is outdoors, appropriate clothing/shoes for lifting, if required, etc.), schedule, sign-in location, safety information, interfacing with the public, etc. Provide a volunteer training or briefing prior to the event and/or on the day of the event. See Attachment D for a sample.

Specific event tasks:

- Drive-by donation drop-off events should estimate between six and ten staff/volunteers for an estimated 150-200 cars served. Tasks include traffic control and unloading donated items.
- Swap type events involving advanced donation of items will require that people be on hand during item
 donation periods prior to the event. People will also need to clean and sort items by categories for display.
 On the day before the event and the morning of the event, items will need to be arranged on tables for
 display.
- Tailgate swap events will require people to be onsite early to direct vendor participants on where to place their vehicles and/or set-up display tables. Monitoring vendors for display of appropriate family-friendly items and items which may be a danger (knifes, etc.) will need to be conducted throughout the event.
- Someone to collect fees, registration, and hold-harmless forms will also be needed for indoor and outdoor vendor participants. Greeters and monitors are important to ensure that both vendors and shoppers are having a positive experience. Surveying both vendors and shoppers for tips for future events is also helpful.
- All events will require organizers to write promotional materials, post on social media, make signs, etc. Traffic controllers and security monitors will also be needed at events.

5. Promotion and Outreach

A successful reuse event requires an extensive promotional effort to inform participants about the reuse opportunities and the specifics of the event. The amount and type of advertising conducted can have a significant effect on the number of event participants.

Promotion specifics will vary depending on the type of event. Promotion needs to be designed to convey appropriate information for all participants.

A swap-type of event requires both "vendors" and "shoppers"; include information for people interested in participating as vendors in a swap-type event, as well as participants just wanting to "shop" at the event. A drive-by drop-off type event should advice "donors" on also acceptable donation items and drop-off specifics.

Provide enough information for vendors and participants to understand what they need to do. Inadequate information can discourage participation or inundate organizers with unnecessary calls or emails.

See Attachment D for outreach examples.

Information to include:

- Event location—inside or outside, specifics on parking, traffic flow, accessibility information, etc.
- Dates and times for the event. Dates and times for event set-up by vendors need to be included. Also, if the event is a toy swap, costume swap, or similar event which will include donations, a location and time(s) for item drop-off must be included.
- Items accepted and NOT accepted at the event.
- Participant vendor information, depending on event type. For example, whether vendors bring their own table and chairs for display of items, the space allocation for each vendor (inside display, vehicle/table outside space), etc.
- Whether there will be any user fees—permit fees for vendor participants, recycling fees for designated items
- Registration information for vendor participants.
- A Facebook page or webpage for more information on the event.
- Contact(s) name, phone, and email for more information, particularly for participant vendors or donors.

Some publicity options:

- Print, radio and television advertisements.
- Announcements in local recycling and community newsletters (including electronic newsletters and websites).
- Use of social media—Facebook pages, Twitter, Pinterest, etc.
- Special inserts in bills (water, utility or solid waste bill).
- Press releases and calls to local media to generate news reports.
- Handouts at local stores and other sites, such as recycling centers.
- Distribution of fliers at schools (for toy and children's clothing swap events).
- While somewhat unpredictable, local news coverage can provide a wide range of exposure for relatively low cost. An announcement coming from a community leader or public office has a much better chance of gaining the attention of the local news community. Consider holding a photo opportunity—for example, if donation drop-offs are involved invite the media for photos of the drop-off location.
- Establishing a community "reuse" Facebook page, Twitter page, Pinterest page and other social media is a free way to promote reuse events.

Timeline and Schedule

A basic timeline will be essential to establish a schedule and serve to keep in mind all of the activities that must be done during the event planning and implementation. If the event represents a partnership – a group of communities or nonprofits – the schedule may require additional time to allow for needed cooperation.

Three months before the event:

- Determine the type of event, participants (residents, schools, colleges, businesses), and dates and times.
- Seek partner and sponsor commitments to support event.
- Decide which items will be collected.
- List specific collection, sorting, processing activities and any provider services needed for the event.
- Determine activities organizers and volunteers will be responsible for and activities where reuse vendors/collectors/recyclers will undertake.
- Obtain a location/space for the event. Arrange for donation drop-off times if required.
- Research permit and insurance requirements.
- Set budget and determine vendor/participant fees, if any.
- Determine type of publicity and promotion for the event.
- Draft fliers and promotional press releases and other announcements, including "call for vendors", if appropriate.
- Send out early "call for vendors" and "save the date" announcement.
- Post calendar announcements; list tag sale events on "garage sale" websites.
- Draft vendor/participant hold harmless agreements, if needed.
- Establish vendor registration and payment system, if needed.

Two months before the event:

- Finalize the site location choice and ensure all necessary permission and permits are in place.
- Select reuse organizations to be recipients of leftover swap items or donations from drive-by events.
- Arrange any additional recycling services—batteries, electronics, plastics, etc.
- Arrange for any necessary garbage pick-up services.
- Finalize details for publicity and advertising materials (locations, times, dates).
- Send out notices and information with long lead times (newsletters, bill inserts).
- Create on-site signs or handouts for donors, vendor participants, and "shopper" participants.
- Expand promotion—Facebook and social media, flier distribution and posting, email listsery outreach.
- Initiate call for volunteers.

One month before the event:

- Confirm data collection needs for measurement and reporting; vendor/participant surveys.
- Recruit volunteer staff, if necessary, and provide general guidance on event (e.g., what to wear, safety/traffic control, hours, etc.). Notify volunteers of onsite training/briefing requirements prior to the event.
- Confirm insurance coverage is in place.
- Contact local police department and traffic control authorities, as necessary.
- Ongoing promotion for the event.
- Send advertising and other publicity copy and art, as necessary.

One-two weeks before the event:

- Reconfirm staffing/volunteers, equipment, reuse and recycling service arrangements.
- Ensure event staff/participants have access to water and restrooms.
- Make arrangements for collecting fees, if necessary (staff, petty cash, security).

- Obtain supplies—traffic cones, tape, tools, refreshments, cleaning materials for donated items, etc.
- Send out press release and contact local reporters several days before event.
- Resend announcements and update Facebook and social media.
- If donations are being accepted for swap events, be sure staffing or volunteers are in place to receive, sort, and clean items.
- Make copies of surveys, hold harmless agreements, volunteer instructions, etc.

Day before/day of the event—final planning tasks:

- Follow up on advertising and promotions, contact local news outlets.
- Prepare site early with reuse and recycling organizations and other on-site staff and/or participant vendors for swap meets/garage sales.
- Re-connect with property management before event begins; exchange contact information and establish protocol for addressing unexpected issues
- Coordinate and manage on-site staff/volunteers. Provide onsite volunteer training.
- Greet participants and interested constituents or supporters.
- Collect data, including how much of each material was collected and participants and any survey information, in order to document the event to help with future funding and support.

Post-Event Tasks

- 1. Communication with partners and sponsors
- After the event is complete, it is best to communicate with all parties involved in the event.
- Send letters to each participating organizations and service provider to appreciate them for their partnership and help in carrying out the event.
- Establish a timeframe for the reuse and recycling organizations to report back on the types and quantities of material collected during the event.

2. Final Report

Create a public announcement or report to share with the general public and community decision-makers. The report will serve to inform people about the event and its benefits, as well as provide an analysis for use in future events. Don't forget to boast about accomplishments! Also consider using an environmental benefits calculator to measure the impacts of the event.

Include:

- Brief description of the objectives for the event and the event itself.
- Dates and locations of the event.
- Number of participants (vendors, shoppers, sponsors, organizations involved, etc.).
- Types and quantities of materials collected.
- Volunteer hours donated and appreciation for volunteers.
- Cost assessment.
- Lessons learned.
- Contact information for those seeking more detailed information about the event.

Draft a press release publicizing the results of the event. Use the opportunity to help the public and officials see how much waste was reused (and recycled).

Path to Success

- Have a plan for crowd control.
- Create an upbeat, festival-like, community atmosphere.
- Utilize social media, listservs, organizer(s) and sponsor websites, and local press interviews.
- Consider that some amount of municipal/tribal staffing is necessary.
- Work with local community groups to find a "home" for leftover items.
- Short, well-organized events work best for volunteers and participants.
- Hold events at a single, consistent location.
- Use participant evaluation forms to help inform metrics; and keep events simple, at least at first.
- Build partnerships which include government/tribal and nonprofit organizations.
- Plan events with meaningful impacts for the communities; and use a range of outreach strategies, including press releases and social media.
- Plan for enough space to hold a large number of cars and donation trucks for drop-off events or outside swap events.
- Get as many end markets as possible for reuse event targeting multiple materials.



Pallet Fest, Denver

Leading the Way

- <u>Castro Valley Sanitation District</u> hosts a webpage that encourages communities to organize reuse swap events. The webpage contains event ideas, organizing tips, and more.
- An annual <u>Funky Junk Flea Market</u> is held in Atchison, Kansas, featuring Vintage Finds, Retro Treasures, Antiques, Upcycled, Recycled, & Repurposed Vendor booths.
- Several communities in Massachusetts have implemented annual reuse events. Northampton has developed a sustainable model for diverting reusable items with assistance from a committed group of volunteers. With support from the City's waste management department, and start-up resources provided by the Massachusetts Department of Environmental Protection, the Northampton Reuse Committee has been holding successful one-day collection events since 2011. Annual events include a Community Tag Sale & Costume Swap, Autumn Reuse & Recycling Rally, and a Toy Exchange. See Attachment E for a case study on Northampton's reuse activities.
- In New York's North Country, NERC worked with the Development Authority of the North Country (NY), County Solid Waste offices, nonprofit organizations, the State of New York Department of Environmental Conservation, and community representatives, to organize reuse trainings and events. Events included Toy Swaps, College Move Out events, and a community-wide Tailgate Flea Market. In St. Lawrence County, a Reuse Partnership has been formed to explore the organization of a reuse center focusing on deconstruction, job training, and sales of used items. See Attachment B for case studies.
- PalletFest is an annual two-day upcycle event held in Denver.
- Also in Massachusetts, the towns of Ayers and Shirley offer a unique combination of reuse and recycling—Recycle Your Reusables—a drive-up, drop-off opportunity for residents to beneficially discard both reusables and recyclables. The sixth annual event, in 2014, brought in more than 350 cars "dropping off" nearly 4 tons of textiles; 16 barrels of paper for shredding; 2500 pounds of books; 30 cubic yards each of non-bottle rigid plastics and Styrofoam; 11 pounds of pens and markers; 20 bicycles; 17 pounds of soaps and shampoos; and more! Recycle Your Reusables brings together some 25 organizations accepting more than 100 different items, from appliances to wine corks. Tewksbury hosts a similar annual event called Zero Waste Day with some 16 organizations onsite to collect reusable items. The event is coordinated by the Tewksbury Recycling Committee and Tewksbury Congregational Church, and held at a local middle school.
- ReuseFest is a one-day drop off event open to the general public that diverts materials from local landfills to reuse by Pittsburgh nonprofits. Organized by the Pennsylvania Resources Council (PRC), items from canes, crutches and wheelchairs, to usable building materials, furniture and bicycles, were donated and reused to benefit the local community, successfully diverting tens of thousands of pounds of materials from local landfills since the event was started in 2012. PRC collaborates with local nonprofits including Construction Junction, Global Links, Goodwill, Off the Floor Pittsburgh, the Animal Rescue League, Catholic Charities, and others to host the event.

- NERC also worked with the St. Regis Mohawk Tribe Solid Waste Management Program to hold its first ever tribal-wide Swap Meet. Held in Hogansburg (Akwesasne), tribal members were invited to sell, exchange, barter, give away and/or purchase usable housewares, toys, games, sports equipment, clothing, electronics, furniture, books and more. Fifteen vendors (including several family vendors with multiple tables) participated. Throughout the day a steady crowd, estimated to be as many as 400, flowed through the event, to mingle and shop. See Attachment B for case study.
- WHAM Art Association Recycle Arts and Youth Festival is held annually in Surprise, Arizona. The free
 neighborhood event includes a Recycle Arts Exhibit and Fashion Show that promotes the possibilities of
 working with reusable post-consumer materials, Project UpCycle for kids, and more.

Conclusion— Reuse on the Rise

Reuse allows for individual action and engagement—donating clothing, purchasing used building materials, buying beer in a refillable growler—that extend product lifecycles, support local business, and contribute to social good. Reuse businesses, whether nonprofit or for-profit, small or large, are engaging in a multitude of activities helping to pave the way toward a more sustainable, circular economy. Extracting the maximum economic value out of our products through reuse presents the world with a new entrepreneurial spirit.

Public agencies, tribal leaders, communities, organizations, and companies are realizing that incorporating sustainability strategies into their programs and operations brings positive benefits to people, the planet, and economies ("profits")—the

"triple bottom line". Reuse presents a viable triple bottom line strategy.

Sustainable consumption

- "...the use of services and related products which respond to basic needs and bring a better quality of life while minimizing the use of natural resources and toxic materials as well as the emissions of waste and pollutants over the life-cycle so as not to jeopardize needs of future generations."
- Oslo Symposium on Sustainable Consumption, 1994

Reuse clearly provides cost savings for consumers, as reused items are typically less expensive than similar products purchased new. Reuse plays an invaluable role in providing free and low cost items to schools, small businesses, nonprofits, and disadvantaged populations. A lack of awareness or understanding of reuse, repair, and remanufacturing and its benefits by dealers, consumers, and policymakers continues to be an obstacle to growth of the industry, however. Metrics that better measure the economic benefits and job opportunities created through repair, refurbishing, upcycling, and resale, must be better understood and adopted.

<u>"Right to Repair" or Fair Repair legislation</u> is one undertaking on the horizon for reuse. Several "Right to Repair" bills have been proposed in the United States Congress and several state legislatures, to require automobile manufacturers to provide the same information to independent repair shops as they do to dealer shops.

Other "Right to Repair" legislation focuses on <u>copyright issues</u>. Current copyright law allows manufacturers to block access to any tools or code that might facilitate access to copyrighted software; this stymies repair, which often involves modification of parts and settings, and customization of embedded software. Already a

successful campaign to <u>legalize cellphone unlocking</u> resulted in <u>winning key exemptions</u> from the Copyright Office for repair.

According to "Sustainable Consumption & the Sharing Economy," a white paper published by the West Coast Forum Research Work Group, "Sustainable consumption encompasses a broad range of consumption activities that reflect changes in purchasing and ownership patterns and the way consumers are meeting their needs for goods and services." In terms of materials management, sustainable consumption can embrace a range of activities, including reuse, renting, borrowing, sharing, and repair.

New models of taxation that account for environmental externalities associated with consumer good production can promote both the circular economy and sharing models that best benefit society and the environment. Similarly, public policies that foster the eco-design of products can move us closer to a sustainable circular economy. One that embraces positive models of sharing by extending the serviceable lifespan of consumer goods through increased durability and opportunities for repair. New models such as these have the potential to contribute to a more equitable society. Sharing and peer-to-peer economy entrepreneurs who demand more ecologically designed goods can also influence upstream manufacturing.

Economic growth, jobs, and innovation are already benefiting from the increase in reuse and the growth of the shared economy. New Internet platforms appear regularly, as do technological innovations such as "share key locks" for shared cars and lodgings. Other technological advances, such as 3D printing, may serve to boost repair and remanufacturing by increasing efficiency in obtaining necessary parts to replace worn or broken components. 30

Emerging, small-scale and community-based sharing models, including repair xafés and tool lending Libraries, offer the most positive and sustainable models to move reuse forward. Public monitoring of reuse programs and businesses—and promoting those which are not only successful, but also most benefit communities, the economy, and the environment—will help us move in the right direction.



The Scrap Exchange Art Making Event

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³⁰ http://www.theengineer.co.uk/the-race-to-remanufacture/

Attachments

Attachment A: Reuse Resource List Attachment B: NERC Case Studies

Attachment C: Anatomy of an Event: Holiday Toy Swap Event

Attachment D: Sample Outreach Materials
Attachment E: Northampton Reuse Case Study

Attachment F: Household Hazardous Waste Reuse Shed

Attachment G: Case Study: Santa Ana Swap Shop & HHW Re-Use

Reuse Resource List

Please note that the resources listed in the "Leading the Way" sections of the Guide are not included below.

General Reuse Resources

- Contact Info for State Surplus Property Programs in New England, Delaware, Maryland, New Jersey, New York & Pennsylvania https://nerc.org/nerc-resources/search-for-resources/contact-info-for-surplus-property-programs-in-new-england?src=1
- EcoCycle's List of Reuse Programs in Boulder County, Colorado http://www.ecocycle.org/recycle-compost-reuse/reuse
- Monroe County (Indiana) Solid Waste Management District, Reuse Options http://gogreendistrict.com/reuse
- Ponder Research <u>www.ponderresearch.co</u>
- Prairieland Solid Waste Management (Martin County, Minnesota), Household Hazardous Waste Reuse Program
 - http://www.co.martin.mn.us/images/Solid%20Waste/Household%20Hazardous%20Waste%20Reuse%20Program.pdf
- Reuse Alliance http://reusealliance.org
- Reuse Alliance State Chapters http://reusealliance.org/chapters/
- Reuse Development Organization http://loadingdock.org/redo/Benefits of Reuse/body benefits of reuse.html
- Reuse Documentary Reuse! Because You Can't Recycle the Planet https://www.facebook.com/SurplusExchange
- Reuse Institute http://www.reuseinstitute.org/
- Reuse Minnesota http://www.facebook.com/ReuseMN/?fref=nf
- Rutgers, Reuse and Recycling Opportunities in Newark http://bloustein.rutgers.edu/reuse-and-recycling-opportunities-in-newark/
- Stay Vocal Reuse Documentary http://www.reusedocumentary.com/
- Tri-County, Oregon Reuse webpage http://www.tricountyrecycle.com/managing-my-materials/reuse
- Wikipedia's Definition of Reuse http://en.m.wikipedia.org/wiki/Reuse
- WRAP http://www.wrap.org.uk/

Reuse Metrics

- Embodied Energy Calculatorhttp://www.thegreenestbuilding.org/
- Environmental and Economic Benefits of Reuse http://www.wrap.org.uk/content/environmental-and-economic-benefits-re-use
- EPA Electronics Environmental Benefits Calculator <u>https://www.epa.gov/sites/production/files/documents/faq_eebc.pdf</u>
- Splitwise Furniture Value Calculator https://www.splitwise.com/calculators/furniture & How the Calculator Works https://blog.splitwise.com/2011/05/10/19/
- Modeling Reuse in WARM https://www.epa.gov/warm/additional-user-guidance-waste-reduction-model-warm

Adaptive Reuse

- Adaptive Reuse Tools http://www.landscapes2.org/ToolsElement/Pages/AdaptiveReuse.cfm
- Cascade Alliance http://cascadealliance.us/
- Community Guide to Military Base Reuse http://www.oea.gov/resource/community-guide-base-reuse
- Design for Reuse http://designforreuse.com/
- How to Support Adaptive Reuse of Buildings https://savingplaces.org/stories/how-to-support-adaptive-reuse-of-historic-buildings#.V8SSn4-cGM9
- Inhabit http://inhabitat.com/nac-architectures-machias-elementary-school-is-a-symbol-of-sustainability-and-rural-heritage/
- Useful Community Development http://www.useful-community-development.org/adaptive-reuse.html

Building Materials Reuse

- BRING Reduce, Reuse, Recycle, Rethink http://www.bringrecycling.org/
- DELTA'S GO-GUIDE Deconstruction and Reuse http://delta-institute.org/delta/wp-content/uploads/DeconstructionAndReuseGoGuide2ndEd Web.pdf
- Reclamation Administration http://www.reclamationadministration.com/2015/08/15/tiny-reclaimed-wood-cabins-that-appear-plucked-from-the-pages-of-dr-seuss-colossal/

COLLEGE "MOVE OUT DAYS"

- Keep America Beautiful <u>"Give and Go"</u>
- Post-Landfill Action Network <u>Post-Landfill Action Network</u>
- US EPA's Move In/Move Out Day

Creative Reuse

- Cardboard tube projects http://happyhooligans.ca/22-things-make-cardboard-tubes/
- Rivard Report, Spare Parts: Creative Reuse in the Art Educational Experience http://ht.ly/NLIDP
- Directory of Creative Reuse Centers http://www.lancastercreativereuse.org/directory-creative-reuse-centers.html
- Extras for Creative Reuse https://www.facebook.com/ExtrasforCreativeReuse
- Repurpose broken Household Items http://www.diyncrafts.com/6081/repurpose/100-ways-repurpose-reuse-broken-household-items
- SCRAP Resources http://www.scrap-sf.org/creative-reuse/creative-reuse-resources
- Scrap stores and Creative Reuse List from Around the World: A World Wide Guide http://www.artofrecycle.org/our_neighbors.html
- Spare Parts, San Antonio, Texas http://sparepartstudio.org/

Durables and Refillables

- Durable Goods, More Sustainable Products http://www.beuc.eu/durable-goods
- The Beautiful Stuff http://beautifulstuffproject.com/

Food Recovery

- Ample Harvest (locate a food bank) http://ampleharvest.org/find-pantry/
- Comprehensive Guidelines for Food Recovery Programs http://www.foodprotect.org/media/guide/food-recovery-final2007.pdf
- The Enhanced Federal Tax Deduction for Food Donations (April 2016) http://recyclingworksma.com/wp-content/uploads/2015/07/Legal Fact Sheet MA Donation Tax Incentives-FINAL RWF.pdf
- FDA Food Code 2013 http://www.fda.gov/Food/GuidanceRegulation/RetailFoodProtection/FoodCode/ucm374275.htm

- Food Shift http://foodshift.net/good-samaritan-food-act/
- Harvard Food Law and Policy Clinic Fact Sheet: Liability Protection http://recyclingworksma.com/wp-content/uploads/2015/07/Legal Fact Sheet -MA Liability Protections-FINAL RWF.pdf
- Harvard Food Law and Policy Clinic Fact Sheets: Tax Incentives http://recyclingworksma.com/wp-content/uploads/2015/07/Legal Fact Sheet MA Donation Tax Incentives-FINAL RWF.pdf
- Harvard Food Law and Policy Clinic Fact Sheets: Date Labeling http://recyclingworksma.com/wp-content/uploads/2015/07/Legal Fact Sheet -MA Date Labeling-edited FINAL RWF.pdf
- Legal Guide to Food Recovery http://law.uark.edu/documents/2013/06/Legal-Guide-To-Food-Recovery.pdf
- Let's Glean! http://www.usda.gov/documents/usda_gleaning_toolkit.pdf
- ServSafe Food Safety Training https://www.servsafe.com/home
- Sustainable America http://sustainableamerica.org/foodrescue/
- USDA List of National Donation Organizations and Laws http://www.usda.gov/oce/foodwaste/resources/donations.htm
- US Environmental Protection Agency. Food Recovery Challenge. http://www.epa.gov/smm/foodrecovery/
- US Environmental Protection Agency & US Department of Agriculture. Waste Not, Want Not Feeding the Hungry and Reducing Solid Waste Through Food Recovery.
 www.epa.gov/wastes/conserve/pubs/wast_not.pdf

Refurbish/Reconditioning

• Relan http://www.relan.green/#home

Remanufacturing

Explaining the World of Remanufactured Parts
 http://www.truckinginfo.com/article/story/2015/03/reman-past-present-and-future.aspx

Repair (Repair Cafés/Fixit Clinics/Guides)

- Hudson Valley Repair Café http://www.repaircafehv.org/#welcome1
- Ifixit http://ifixit.org/resources

Second Hand Market

How to Develop a Thrift Store and a Second-Hand Store http://smallbusiness.chron.com/develop-thrift-store-secondhand-store-13069.html

Sharing Economy

- Center for a New American Dream Lend Locally Program https://www.newdream.org/programs/collaborative-communities/sharing-resources/lend-locally
- Local Governments and the Sharing Economy Report http://www.localgovsharingecon.com/
- Sharable Life http://www.shareablelife.com/what-is-sharing-economy/
- Shared Economy in Albany, New York https://www.youtube.com/watch?v=v Qkw9Sx788&sns=em
- The Sharing Economy: Make it Sustainable http://www.iddri.org/Evenements/Interventions/ST0314 DD%20ASN sharing%20economy.pdf
- The Sharing Project <u>www.thesharingproject.ca</u>

Swap Shops & Reuse Centers

- Concord's Drop Off Swap Off Program http://www.slideshare.net/MassRecycle2011/town-of-concord-rod-robison-fred-serr
- Lewis County (Washington) Reuse Center http://lewiscountywa.gov/reuse-center
- Swap Shops: Cost Effective Residential Reuse http://infohouse.p2ric.org/ref/26/25975.pdf
- The Wish Project Goods Bank http://thewishproject.org

Textile Recovery

- Bureau of International Recycling/Textiles Division http://www.bir.org
- City of Lowell MA Dumpster (Donation Box) Ordinance http://ecode360.com/9043477
- Connecticut's Textile Resources
 http://www.ct.gov/deep/cwp/view.asp?a=2714&q=537718&deepNav_GID=1645
- Council for Textile Recycling http://www.weardonaterecycle.org
- Links to Business Take Back Programs Manufacturer, Retailer and Other Take-Back Programs
- Massachusetts Department of Environmental Protection http://www.mass.gov/eea/agencies/massdep/recycle/reduce/
- NERC Webinar States Charging Ahead with Textiles Recovery
 - o <u>Textiles Webinar Recording States Charging Ahead with Textiles Recovery</u>
 - o Textiles Webinar MADEP Presentation
 - o Textiles Webinar NERC Presentation
 - o <u>Textiles Webinar Re-Clothe NY Presentation</u>
 - o Textiles Webinar RIRRC Presentation
 - o Textiles Webinar SMART Presentation
 - o SMART NY Bin Legislation
- Project Repat Documentary http://www.projectrepat.com/pages/our-story?gclid=CjwKEAiA9c-2BRC vaaJ0Ybps30SJABlqxDem3KhR161CzKQajKjNujwqU5FMjGrASCdj162M77raxoC18rw wcB
- SMART's Grades K 2 Lesson Plans & Worksheets http://www.smartasn.org/educators-kids/K-2
 worksheets.pdf
- SMART's Grades 3 5 Lesson Plans & Worksheets http://www.smartasn.org/educators-kids/3-5
 worksheets.pdf
- SMART's Textiles Recycling Fact http://www.smartasn.org/educators-kids/Textile Recycling Fact Sheet.pdf
- SMART (Secondary Materials & Recycled Textiles Association) Videos & PSAs
- SMART Vendor Agreement <u>Sample Textiles Collection Agreement</u>
- Uber and Goodwill Partner to Make Spring Cleaning Simple and Easy
 http://www.sustainablebrands.com/news and views/waste not/caitlin kauffman/uber goodwill partne
 r make spring cleaning simple easy?utm source=newsletter&utm medium=brandsweekly&utm camp
 aign=apr30&mkt tok=3RkMMJWWfF9wsRoks67MZKXonjHpfsX54%2BkrWq%2B%2BlMl%2F0ER3fOvrPUfGi
 I4FTsZml%2BSLDwEYGJlv6SgFTrTBMbVxyLgOXxk%3D
- Weymouth Public Schools Textiles Diversion
 - <u>Textile Recycle</u> http://www.weymouthschools.org/lawrence-w-pingree-primary-school/slides/textile-recycle
 - o Make a Difference Textiles Collection http://www.weymouthschools.org/lawrence-w-pingree-primary-school/slides/textile-recycle-0
 - o Textile Collection Challenge http://www.weymouthschools.org/district/news/textile-recycling-challenge-ongoing
 - Textile Collections Community Partners http://www.weymouthschools.org/district/community-partners-a-c

Tool Lending Library

A Directory to Tool Libraries Around the World http://blog.krrb.com/a-directory-to-tool-libraries-around-the-world/

Reuse Events

- Northampton ReUse https://www.facebook.com/NorthamptonReUse/events
- ReuseConex International Reuse Conference & Expo http://www.reuseconex.org/

Case Study: St. Lawrence County New York College Move Out Events

NERC received funding from the Rural Utility Services, United States Department of Agriculture to advance reuse in New York's North Country and with the St. Regis Mohawk Tribe. NERC provided technical assistance to plan and implement College Move Out Events and plan for potential ongoing reuse.

Overview

Waste on college campuses across the country spikes at the end of each academic year. At the <u>University of New Hampshire</u>, for example, the average 25 tons of trash per month normally generated at the school, jumped to 125 tons when students moved out in the spring.

Like the rest of the nation, furniture, TVs, microwaves, other electronics, wearable clothes, household goods, and more are found in dumpsters in St. Lawrence's four colleges, at the end of the academic year. Last year, Clarkson spent over \$7000 for the disposal of these useful goods. And, that cost does not factor in the value that could be gained from these disposed goods, if they were given "another life" through reuse.

Clarkson had previously initiated a small, student-led move out initiative. This year, an ad hoc St. Lawrence County "reuse committee" which included representatives from the Development Authority of the North Country (DANC), St. Lawrence County Solid Waste Operations, the St. Lawrence County Environmental Management Council (EMC), the Local Living Venture, New York State Department of Environmental Conservation - Region 6, and the Northeast Recycling Council, Inc. worked with Susan E. Powers, PhD, PE, with Clarkson's Institute for a Sustainable Environment, along with staff and student members of the Campus Sustainability committee, to expand and improve upon Clarkson's "Take it Or Leave it" move out event.

The event was part of a St. Lawrence County Move-Out initiative to keep valuable goods in our economy and out of the landfills, by working with three of the area's four colleges; St. Lawrence University and SUNY Potsdam also participated (see below).

Clarkson University Take It Or Leave It 2015

The event was designed to both encourage students to donate unwanted, usable items both for other students who may need free clothing and other items, as well as to promote donation to the Rescue Mission.

The event was run from Wednesday through Friday of both Final's week (4/29-5/1) and Senior Week (5/6-5/8):



Item drop-off dates:

- · Wednesday, April 29th
- Thursday, April 30th
- Friday, May 1st
- Wednesday, May 6th
- Thursday, May 7th
- · Friday, May 8th

"Leave it" drop off locations for useable goods and electronics/CFL/battery recycle were located in each of the housing areas.

Item drop-off locations:

- Woodstock 6 #6022 Common Room
- Townhouse Laundry
- Moore House 2nd floor lounge #2010A
- Vannote 1st floor lounge
- HP Classroom
- Quad 117
- *Riverside residents may bring items to Woodstock 6 or to the tent in front of ERC.

Clarkson Staff and volunteers moved the goods daily from housing to the staging area tent located on a grassy area at the Technology Advancement Center, next to the parking lot.

Students were invited to look at collected items on display at the "Take it or Leave it" tent and take them for reuse at no charge. The tent was staffed for this purpose: from 12 noon – 2pm on Thursday, April 30; Friday, May 1; Thursday, May 7; Friday, May 8. Area charitable groups were invited to come to the tent for items on the last day of the event.

Remaining materials were moved to the bins provided by the St. Lawrence County Solid Waste Operations for collection by the Rescue Mission. Based in the Syracuse area, the Rescue Mission is a nonprofit organization with a network of thrift stores and provider of a range of social services throughout the region, including operation of a thrift store and services in Watertown.

Acceptable Items

A list of acceptable items was developed by the St. Lawrence reuse committee and provided to the three participating colleges.

- Textiles (dry and clean), high quality for thrift stores and donations or low quality for recycle
- Appliances/electronics that are in working order for donation (hair dryers, microwaves, irons, phones, printers, computers) or non-working order for recycling
- Furniture no broken furniture no pillows
- Food Nonperishable, unopened
- New school supplies
- For recycle CFL light bulbs, batteries and non-working electronics





Household goods -nothing glass

Staffing/Volunteers

Several staff from the Clarkson Institute for a Sustainable Environment worked throughout the collection at the "Take it or Leave it" tent. At least one staff and student volunteers would collect items in the University truck.

A number of students volunteered during the collection days as well. They assisted in triaging and sorting collected items, folding clothing to display on tables, etc. A "<u>VolunteerSpot</u>" sign-up was established for students to volunteer for the event. Volunteer sign up was promoted in a handout developed for the program (see below), as well as a flier that was posted throughout the Clarkson campus.

Promotion

The Clarkson event was prominent on the <u>Clarkson</u> <u>Sustainability Initiatives</u> website. A handout describing the event was posted, along with a copy of the "Take it or Leave it" flier.

A Kick-off event to celebrate the beginning of a college "Move Out Days" collection campaign at local colleges in St. Lawrence County, was held at 4:00 p.m. on Thursday, April 30. The event was held in front of the Clarkson University Take it Or Leave it tent.

Clarkson University President Tony Collins and Judith Aldrich, from Assemblywoman Addie Russell's office spoke at the kick-off. Members of the St Lawrence County reuse committee also made remarks.



A video of the Clarkson event was put together by Clarkson Marketing & External Relations -

Metrics

It was initially discussed by the Clarkson Sustainability Committee to weigh and track materials. However, it was decided that that would be too hard to manage, at least for the first year. It was reported by Professor Powers that, "Materials moved in and out at an uncountable rate, but we generally had a foot of clothes on three tables at all times."

The Rescue Mission and St. Lawrence County Solid Waste reported that primarily textiles were collected in the materials donated to the Rescue Mission. The events yielded approximately 200 bags of textiles with an estimated weight of 1,725 pounds. Some furniture, lamps, and household items were also collected.

Clarkson University Observations

Professor Powers reported "Overall – this was a great program. Everyone I spoke to thought it was a necessary thing to do. But...I was still dismayed by the amount of goods that made it into the dumpsters. It will be interesting to look at May Casella bill compared to last year. Even if the fraction of May trash removed from the landfill in this program was small, the value of keeping materials in use was great (unfortunately not quantifiable)."



St. Lawrence University and SUNY Potsdam

St. Lawrence University has a successful Move Out event, with reusable materials primarily collected for incoming International students in the fall; remaining items are sold through the University Reuse Store. However, the Sustainability Coordinator for St. Lawrence University worked with the St. Lawrence County

reuse committee to expand their collection of textiles to include items normally rejected during their event as not usable by the students.

SUNY Potsdam has not previously held a move out event. There event was held May 11-15. As with Clarkson, drop-off collection points in student housing around the campus. SUNY Potsdam custodial staff were responsible for moving the dropped-off, reusable items to the collection bins provided by St. Lawrence County Solid Waste Operations.



Lessons Learned

Metrics

- Use a "people counter" to tally students entering the "Take it Or Leave it" tent at Clarkson.
- Have a scale on the collection truck
- Count the number of electronic items donated
- Reduction in waste disposal costs/amounts during the month of collection, as compared to previous years
- Ask reuse stores who benefited from the goods to report the estimated value/benefit of the donated items

Donation

While it is important to provide inexpensive items through the "Take it Or Leave it" and other move out events, the concepts of charity and donation are also essential to instill in students. Service learning is a key concept taught at institutes of higher learning. Tapping into this as a foundation for development of tomorrow's leaders and responsible citizens will help to generate support for move out events, volunteers, and the notion of donating usable items that would otherwise end up in the garbage.

"Integration of Town and Gown" is also an important component of many colleges and universities around the nation. Involving community nonprofits as recipients of some or all of the usable items collected can again foster a greater awareness amongst students for the importance of giving. It will also serve to promote the college as a fundamental component of the community.

Acceptable items

For St. Lawrence County involvement, if providing "reuse collection bins" next year, it is recommended that only textiles be placed in the bins. Relatively few usable household goods and other, non-textile items were placed in the bins for Rescue Mission. Perhaps a better effort to involve local nonprofits next year can result in remaining usable items being accepted for their resale.

Future Plans

Due to the success of the Move Out Events, the colleges have expressed their intent to holding annual move out events. In the spring of 2016, the three colleges—Clarkson, Potsdam, and St. Lawrence University (SLU) continued their events. The St. Lawrence County Solid Waste Department provided dumpsters for collection of items not kept on used for student exchanges. Items collected in the County dumpsters were donated to the Rescue Mission. In Clarkson's Take it Leave it event, there were a lot of students participating in taking desired items. Additionally, local nonprofit organization representatives were invited to "shop."

In 2016, diverted materials collected by the Solid Waste Department included:

- Clarkson: 487 pounds, all textiles
- Potsdam: 6,680 pounds, 90% textiles, 10% mixed household items
- SLU: 4,180 pounds, 95% textiles, 5% mixed household items and books

As a result of the reuse project work in the North Country, The *St. Lawrence Regional ReUse Partnership* was formed to explore bringing new reuse opportunities to the region. The goal is to lay the foundation for establishment of a *ReUse Store* that can benefit the community by providing a place for usable building materials to be donated or sold to provide builders and do-it-yourselfers with low cost materials and supplies.

For More Information

Athena Lee Bradley, Program Manager, Northeast Recycling Council athena@nerc.org
802.254.3636

Larry Legault, Recycling Coordinator/Operations Manager St. Lawrence County Solid Waste Department llegault@stlawco.org 315.379.9084

Case Study: Lyons Falls, New York Tailgate Flea Market

NERC received funding from the Rural Utility Services, United States
Department of Agriculture to advance reuse in New York's North Country and
with the St. Regis Mohawk Tribe. NERC provided technical assistance to plan
and implement a community-wide tailgate Flea Market in Lyons Falls, a reuse
training for Lewis County, and a plan for potential ongoing reuse.

Overview

A Tailgate Flea Market was held on Saturday, July 11, 2015 at Riverside Park in Lyons Falls, New York. The event provided an opportunity for the Lyons Falls community to sell, exchange, barter, give away, and/or purchase usable housewares, toys, games, sports equipment, tools, clothing, electronics, furniture, and more. The event featured ten vendors selling a wide range of items. An estimated 250 people stopped by the Flea Market during the day's festivities.

The Tailgate Flea Market was part of an annual town event, the Lyons Falls Festival. In addition to the flea market, the Festival featured a parade, a bounce house and other children's games, horse-drawn carriage rides, a barbeque by the local Fire Department, and music by the community choir.



Also at the Festival, Friends of the Lyons Falls Library held a Book Giveaway, and Forest Finds Thrift Store of Lyons Falls held a raffle of baskets made with items from the Store. In 2016, a town-wide garage sale was held that involved many of the town's residents selling their reusable items from their own yards.

Planning and Implementation

- Site identification: The Annual Lyons Falls event was held in a large open air park in Lyons Falls in conjunction with other events planned for the day. Vendors easily pulled up their vehicles to use tailgates, as well as set-up tables, to display their sale items.
- Type of Event: The Lyons Falls Alive representatives and NERC discussed various reuse program and event
 options. It was determined that a flea market would be the most effective reuse activity to engage and
 benefit the community. Additionally, the Tailgate Flea Market was deemed to be a low cost event that
 would coincide with other activities planned for the event day and bring community members out to the
 events.
- Public awareness: NERC drafted a flier and press release for the event, which was reviewed by Lyons Falls ALIVE representatives and distributed around the Lyons Falls community and Lewis County. NERC posted the event information through its Email Bulletin (distribution 800), website, and Facebook® page. Press releases were sent out to local radio and print media; calendar announcements were posted, including a listing on the local cable television station. An article about the event was posted in the Watertown Times.

Planning/Implementation: Through its USDA funded Reuse Project,
NERC staff worked with project partners from Lyons Falls,
including representatives from Lyons Falls ALIVE, to organize the
event. Preliminary planning for the event was initiated in January
with the Mayor of Lyons Falls. She expressed interest in a swaptype event to be held in July in conjunction with the annual town
festival. Additional planning in early spring included both the
Mayor and Lyons Falls ALIVE representatives. Research into types
of "reuse swap" events, sample vendor registration/waiver forms,
and other background information was gathered by NERC and
shared with Lyons Falls' representatives.

The Lyons Falls Mayor wanted to hold the event in conjunction with the town's annual Lyons Falls Festival in order to bring an added attraction to the event, particularly one which would foster reuse and environmental awareness. NERC assisted with logistical arrangements, including development of a vendor registration and waiver form, as well as outreach and promotional materials.



The vendor registration included information such as: space allocation; sale items must be suitable for a family-friendly audience; vendors are responsible for their own item pricing, cash boxes, collection of money, change, etc.; have spare shopping bags for purchases; spaces must be supervised at all times; and, vendors are responsible for hauling away any remaining items. Lyons Falls ALIVE representatives handled registrations and helped with promotional distribution. NERC staff also assisted Lyons Falls ALIVE with onsite technical assistance during the event. Lyons Falls ALIVE provided tables and chairs, traffic cones, and other items for the day of the event.

- Event Staffing: NERC provided one staff person and Lyons Falls Alive had two staff at the event. This was sufficient for staffing a table to greet vendors and shoppers, to assist vendors as needed in bringing in tables/items, to ensure that all vendors/helpers signed a waiver, and to provide any necessary assistance during the event.
- Other Logistics: Vendors were asked to complete a short application and pay a fee of \$10 to cover promotional and logistical expenses for the Tailgate Flea Market. Lyons Falls ALIVE handled registrations and fee acceptance. Each vendor was allocated a space of 20 feet by 20 feet. Vendors were invited to pull their vehicle into their assigned space, as well as bring tables, blankets, etc. to display their wares.

Event Description

The Tailgate Flea Market was held outdoors on Saturday, July 11, 2015 from 9 a.m. until 3 p.m. at Riverside Park in Lyons Falls, New York. The event provided an opportunity for the Lyons Falls community to sell, giveaway and/or purchase usable housewares, toys, games, sports equipment, tools, clothing, electronics, furniture, and more.

Promotional materials included fliers and posters distributed around the Lyons Falls community, postings on the Lyons Falls ALIVE Facebook page, and email outreach to Lyons Falls Alive contacts. A registration and waiver form was sent to vendor inquirers; vendors were also able to show up the day of the event.

Vendor applications were available via email from NERC and Lyons Falls ALIVE, or could be picked up at Dolhof's Hardware and the Lyons Falls Village offices. Completed applications were sent via email, dropped off at the Village offices, or brought to the Flea Market on the event day. Vendors were allotted a 20 x 20 foot

square space inside; vendors had to provide their own tables, chairs, and any other display needs. Set-up began Saturday morning at 7:30 a.m. Space set-up was first come, first serve. This was deemed adequate due to the large size of the vendor parking area. Vendors were asked to be set-up and ready to go by 8:45 a.m.

Ten vendors participated in the event. Each vendor was charged \$10.00 for their space. Vendors were personally greeted by either NERC or Lyons Falls ALIVE staff and asked to have all table helpers sign the waiver form. Vendor fees that had not been paid were collected, as well. Periodically through the day, staff also stopped by to check in with vendors and to ask about suggestions for subsequent events.

The Event was held in conjunction with the eighth annual Lyons Falls Festival. The festivities began at 9:30 a.m., with a parade through town to Riverside Park. All townspeople were invited to participate in the parade.

The Festival followed the parade. An inflatable "bounce house" was on-site, along with free face painting and other games for the children. A bake sale was held. Free horse-drawn carriage rides were provided around the park. Entertainment also included music, with appearances from the Adirondack Choir, Capo 3 and Lowville Village Band. The Lyons Falls Firemen were on hand to sell their delicious barbecue and refreshments as a fundraiser for the Fire Department.

Friends of the Lyons Falls Library held a Book Giveaway providing free books to all. Forest Finds Thrift Store, located in Lyons Falls, held a unique raffle in conjunction with the event. Goods from the store were arranged in baskets for a raffle to be held at the end of the day's festivities. People purchased as many raffle tickets as they wanted and placed them in the basket(s) of their choice to participate in the drawing.

Project partners for the Tailgate Flea Market and the training included the Village of Lyons Falls, Lyons Falls ALIVE, and the Development Authority of the North Country.



Lessons Learned

- Holding the Tailgate Flea Market in conjunction with a well-known and popular town event proved
 effective in attracting vendors for the first ever community-wide flea market, as well as shoppers. In the
 future, holding the event annually in conjunction with the Lyons Falls Festival should help grow the event.
- Posting fliers around town, distributing press releases, and posting calendar listings proved to be low cost
 ways to promote the event. The Flea Market was also included in media outreach and social media
 postings for the Festival. Placement of low-cost signs on saw horses on days leading up to the Flea Market
 might help draw in both vendors and shoppers. Signs stating "Coming Saturday" and "Today Only" could
 be reused each year. Also, in the cross promotion with the Lyons Falls Festival, perhaps information on
 how vendors could signup may be included.
- Riverside Park had plenty of space for vendors to easily pull in their vehicles, and lay out tables, chairs, and merchandise.
- A bullhorn to make announcements at the festival, perhaps showcasing vendors during the day, etc. would be handy.
- As in many communities, volunteers to help organize and staff events can be difficult to find. Those that do volunteer in their community are often already overstretched. Perhaps spreading the word about the flea market to other audiences could be a strategy for finding additional volunteers. The larger volunteer pool could then be formed into a "Reuse Committee."
- Making the Flea Market an annual event will require less planning and organizing time. However, volunteers are still needed to assist in promotion and staffing the day of the event.

- The money made on the Flea Market vendor spaces can be used for paid advertisement and other out-of-pocket costs for the following year's event.
- Perhaps cross-promotion of the Book Giveaway and Forest Finds Thrift Store basket raffle could serve to foster greater interest in each of these activities, as well as promote reuse.
- Integrating other environmentally-related activities, such as children's "recycling sort," "trash obstacle course," and similar games, would be fun and help foster greater awareness of environmental issues.
 Making art from reused materials is also a popular activity for children. A short composting workshop, including how to build a compost bin from salvaged materials, could also be held.
- Inviting crafters using reused materials could also be an attraction.

Results

- 10 vendors (including several families with multiple tables).
- Estimated 250 participant shoppers.
- Surveys of vendors and shoppers indicated that they were thrilled with the event and would like to see it be held as an annual event.

Future Plans

Mayor Catherine (Katie) Liendecker and Lyons Falls ALIVE organizers felt that the Tailgate Flea Market was a success. Holding it in conjunction with the Lyons Falls Festival worked out well. A Flea Market was planned in 2016, but unfortunately was rained out. However, organizers of the Flea Market organized a town-wide garage sale earlier in the summer that was well received.

For More Information

Mary Ann Remolador, Assistant Director maryann@nerc.org
Northeast Recycling Council

Athena Lee Bradley, Program Manager athena@nerc.org
www.nerc.org

Case Study: Holiday Toy Swap, Jefferson County, New York

NERC received funding from the Rural Utility Services, United States Department of Agriculture to advance reuse in New York's North Country and with the St. Regis Mohawk Tribe. NERC provided technical assistance to plan and implement a Holiday Toy Swap in Jefferson County.

Overview

A toy swap, or "toy exchange," provides opportunities for people to donate and/or receive clean and gently used toys, games, and working sports equipment. A toy swap is a wonderful holiday event, promoting reuse and community sharing.

NERC worked with staff from the Cornell Cooperative Extension Association of Jefferson County (CCE) and the Development Authority of the North Country (DANC) in New York State to hold a "Holiday Toy Swap" on Saturday,



December 6, 2015. The event proved to be very successful with more than 50 "donors" and "shoppers." Children's toys, books, and DVDs, along with winter clothing, were accepted at the event. With more than 50 people participating as donors, "shoppers," or both, the Toy Swap was deemed a success for a first time event by organizers and participants.

Planning and Implementation

The Holiday Toy Swap was organized in less than two months, due to the partnership between NERC, CCE, and DANC.

- Logistics: The event was held at the CCE offices in Watertown, New York. The location provided a large room in which to hold the event. There was plenty of storage for donations, and CCE staff was available to accept donations prior to the event.
- Materials Accepted: Clean, gently used (or new) toy cars and trucks, stuffed animals, building toys, dolls and dollhouses/furniture/clothes, kid's bikes and riding toys, instruments and noisemakers, books, games, model kits,
- Recycling Education Program

 Recycling Educat
- outdoor toys, sports equipment, arts and crafts kits, baby toys, music and movies (CD's/DVD's/VHS tapes), computer games, and more were accepted for the event. *Items not accepted* included anything that was dirty, broken, ragged or missing pieces, and baby gear such as cribs, car seats, strollers and play-yards.
- Donations Collection: Project partners provided invaluable early donations of toys. DANC and CCE staff contacted friends and family to promote the need for donated toys and children's items. All promotional materials also included a call for donations.
- Event staffing: A representative from NERC and DANC staffed the event along with CCE employees and 4H volunteers. Early donations were accepted by CCE employees during normal business hours. Three people sorted and cleaned collected items on the Friday prior to the event, as well as in the morning before the

- event opened to the public. Four additional people were on hand during the event. A volunteer information sheet and briefing was put together by NERC.
- Promotion: Outreach materials included a flier, press release, and calendar listings. Press releases were distributed to local media and resulted in several news articles, and Channel 7 news conducted a live interview with project partner Jan Oatman of DANC. An ad was also placed in the primary local paper (Watertown Daily). Articles were posted in the CCE newsletter and NERC's Bulletin. DANC posted an announcement on its website and social media was also used to promote the event. The flier and an announcement were sent via email to local service agencies, Ft. Drum contacts, nonprofit organizations and others.

Event Description

Organizing started for the event in late October. Organizers benefited from having an ideal location at the CCE offices. Promotional materials were developed and sent out throughout November promoting the holiday theme of the event.

"Donors" were asked to drop-off items for the Swap at CCE on Friday, December 5, from 5-8 pm, and on the morning of the event, from 8-9 am. DANC and CCE partners also collected donations from staff members, family members, and associates.



A wide range of toys were donated, from stuffed animals and toy cars, to action figures and dolls. A large number of baby and preschool items were received, as well as books for children of all ages. Building toys, games, puzzles, and even electronic/battery operated toys, and winter clothing were also donated.

The Toy Swap event was free. Toy donors were admitted to "shop" from 9-10 am; doors opened for general public from 10-noon. Participants were requested to limit their "shopping" to one full bag and one larger item (as long as these lasted). An unlimited number of books could also be taken. Participants were encouraged to bring a reusable bag to collect items. Participants were asked not to bring children with them to help ensure a more orderly "shopping" experience for everyone and a surprise for their kids.

More than 50 people participated as donors, "shoppers" or both. The Toy Swap was deemed a success for a first time event by organizers and participants. Participants all expressed their appreciation for the opportunity to receive usable toys and gifts for their children; many spoke of hardships suffered and their concern for not being able to provide what they wanted for their children. The Toy Swap helped them to be able to fill this void.

Remaining items were donated to the Impossible Dream Mission Store in Watertown. New toys still in packages were donated to the Toys for Tots program.

Lessons Learned

- Jefferson County is host to Fort Drum Military Base.
 There are many young military families in the area facing economic challenges. The region has a high poverty rate.
 Promotion through the Military Base was conducted, but could be increased in order to encourage more military families to participate in the Toy Swap.
- Working through social agencies could also help to promote the event.
- Putting the word out to event organizer families and friends was hugely successful in bringing in donations.
 People are thrilled to have their gently used toys go to children who will benefit.



• Free publicity needs to be actively sought to produce results. Local newspaper, radio and television interviews, social media, municipal websites, and community listservs can be leveraged successfully. Display advertisements in newspapers are expensive and may not yield comparative results.

Future Plans

Jefferson County hosted its Second Annual Holiday Toy Swap on Saturday, December 12, 2016, at Carthage Central High School in Carthage. NERC worked with students, primarily from the High School Environmental Club; an instructor who works with the Club; and a representative from the Development Authority of the North Country in New York State to hold the "Holiday Toy Swap."

"Donors" were asked to drop-off items for the toy swap at Carthage Central High School, on Thursday and Friday prior to the event and on Saturday from 8-9 am before the start of the event. Toy donors received first choice of the merchandise from 9 am-10 am on Saturday. The doors were open to the public from 10 am until noon. People could shop at the toy swap without having made a donation of toys. In the spirit of reuse, shoppers were asked to bring a reusable bag to collect their items.

An estimated 500 or more toys were donated, from stuffed animals and toy cars, to action figures and dolls. A large number of baby and preschool items were received, as well as books for children of all ages. Building toys, games, puzzles, and even electronic/battery operated toys were donated.

Ten Carthage students and staff volunteered their time to accept donations, clean items, set up the event, and oversee the swap. More than 20 families participated as donors, "shoppers," or both. The toy swap was deemed a success by organizers and participants. The new volunteer organizers from Carthage are looking forward to growing the event in future years.

Grateful shoppers scooped up most of the toys, with the remaining items donated to the Impossible Dream Mission Store in Watertown. New toys still in packages were donated to the Toys for Tots program.

The Carthage Central High School Environmental Club advisor, as well the DANC representative, both agreed that while the second event was somewhat smaller, it was still successful and worthwhile to host again.



For More Information

Athena Lee Bradley, Program Manager, Northeast Recycling Council athena@nerc.org
802.254.3636

Case Study: St. Regis Mohawk Tribe Reuse Swap Meet

In materials management, reuse has frequently been ignored or viewed as insignificant. But today, with community leaders developing an increased focus on both environmental and economic sustainability, reuse can play a pivotal role in bringing us closer to our stated goals. Reuse conserves resources by extending product life cycles, and it presents the world with exciting and innovative business models that benefit social good.

NERC received funding from the Rural Utility Services, United States Department of Agriculture to advance reuse in New York's North Country and with the St. Regis Mohawk Tribe. NERC provided technical assistance to plan and implement a tribal-wide Swap Meet, reuse training, and plan for potential ongoing reuse.

Overview

On Saturday, April 18, 2015 the St. Regis Mohawk Tribe Solid Waste Management Program held its first ever Swap Meet at the former IGA building in Hogansburg (Akwesasne). Tribal members were invited to sell, exchange, barter, give away and/or purchase usable housewares, toys, games, sports equipment, clothing, electronics, furniture, books and more. Fifteen vendors (including several family vendors with multiple tables) participated. Throughout the day a steady crowd, estimated to be as many as 400, flowed through the event, to mingle and shop. Vendors and shoppers alike were pleased with the event as it was the first "garage sale" of the spring and it brought together tribal members after a long winter.



Solid Waste Management Program

Planning and Implementation

- Site identification: St. Regis Mohawk Tribe (SRMT) Solid Waste Management Program Recycling Coordinator, Larry Thompson, was able to secure an empty former IGA supermarket building. The building is owned by SRMT. Due to the potential for inclement weather in April, it was important to hold the event inside. The IGA building is well known to the tribal community and is located on the major road through Hogansburg. It is also situated across from the Akwesasne Mohawk Casino Resort and was well suited to attract people from outside of the area for drive-by participation. The use of the tribal-owned building helped to minimize expenses; the building is decorated nicely and has been well maintained. The building was empty, but was equipped with electricity, bathrooms, water, etc. A large parking lot allowed for easy access, plenty of parking, and smooth traffic control. Vendors could easily pull up to the building entrance to offload tables, chairs, and swap items. The building was handicap accessible. The Solid Waste Program arranged for the building to be cleaned prior to the event.
- Type of Event: SRMT and NERC discussed various reuse program and event options. It was determined that a swap meet would be the most effective reuse activity to engage tribal members and divert the most materials from the waste stream.
- Public awareness: NERC drafted a flier for the event which was adapted by the SRMT Solid Waste Program into a full-color poster for posting around the community. SRMT also paid for a newspaper ad and a local radio station ad campaign. The SRMT website and Facebook® page was also used effectively to advertise the event. NERC posted event information through its Email Bulletin (distribution 700), website, and Facebook® page. The SRMT Recycling Coordinator posted large signs on portable saw horses facing the two streets leading into the building.
- Planning/Implementation: Planning for the event was initiated in January, although research into types of reuse events, sample vendor registration/waiver forms, and other background information had been

gathered previously. SRMT Recycling Coordinator wanted to hold the event for Earth Day in order to expand their ongoing Earth Day activities and establish it as an annual activity. NERC worked with SRMT to develop a vendor registration and waiver form. SRMT did not want to charge vendors a fee, but it was deemed important to have each vendor and their helpers sign the waiver/"hold harmless." The vendor registration included information such as, space allocation; sale items must be suitable for a family-friendly audience; vendors are responsible for their own item pricing, cash boxes, collection of money, change, etc.; have spare shopping bags for purchases; spaces must be supervised at all times; and, vendors were responsible for hauling away any remaining items. SRMT wanted to include a composting component in the event. NERC suggested an instructor and worked with them to include a reuse component (compost bins made from used materials). It was decided to hold the Swap Meet event from 11 am – 3 pm. The Solid Waste Program provided tables at the building entrance for greeting people and to display their literature. Reusable shopping bags, water bottles, and magnets were also given away.

• Event Staffing: NERC provided on staff person and SRMT had two staff at the event. This was sufficient for staffing a table to greet vendors and shoppers, to assist vendors as needed in bringing in tables/items, to ensure that all vendors/helpers signed a waiver, and to provide any necessary assistance during the event.



Event Description

The Reuse Swap Meet was held indoors on Saturday, April 18, 2015 from 11 am – 3 pm. It was promoted as an Earth Day event. Promotional materials included fliers and posters distributed around the SRMT reservation, postings on the SRMT Solid Waste Program website, a newspaper ad, a radio ad campaign, and email outreach to SRMT listserv contacts. A registration and waiver form was sent to vendor inquirers; vendors could also show up the day of the event.

Vendors were allotted a 20 x 20 foot square space inside; vendors had to provide their own tables, chairs, and any other display needs. Set-up began Saturday morning at 9:30 a.m. Space set-up was first come, first serve. This was deemed adequate due to the large size of the building. Vendors were required to be set-up and ready to go by 10:45 a.m. Fifteen vendors, several of whom were family vendors with multiple tables, participated in the event. Vendors were personally greeted by either NERC or SRMT staff and asked to have all table helpers sign the waiver form. Periodically through the day staff also stopped by to check in with vendors and to also ask about suggestions for subsequent events.

The Solid Waste Program provided a "greeting" table with program brochures and giveaways. The table was staffed throughout the entire event.

An estimated 300-400 shoppers, including tribal members and area tourists, stopped by during the event.

Included during the Swap Meet were two composting workshops held at 11:30 am and 1:30 pm. The knowledgeable instructor, Sayre Stevens (formerly with Cornell Cooperative Extension of Jefferson County) provided participants with an overview of how and what to compost, along with troubleshooting tips. In keeping with the "reuse" theme, participants were taught how to build a composting container from old wooden or plastic pallets, scrap wood, and other "found objects."



Vendors and shoppers were invited to participate in the workshops. In addition, Mr. Stevens was on hand throughout the

day to answer questions and provide quick composting overviews for those who missed the workshops. Twenty-five people participated in the first workshop; 10 participated in the second. The homemade "used material" compost bins, along with a chicken wire bin and a manufactured bin were on display during the Swap Meet.

A "zero waste" station was established by the Solid Waste Program at the event in order to both provide an opportunity for recycling and composting and to help educate Tribal members about the Program's opportunities.

Lessons Learned

• Display advertisements in newspapers are expensive and difficult to justify on an ongoing basis. For the event, an informal survey of participants suggested that the radio ads were in fact more effective at promoting the event and were lower cost. The CKON Akwesasne Mohawk Radio Community Calendar was also noted as an excellent place to promote the event. The SMRT website and social media was somewhat effective, along with email outreach to tribal listservs and word of mouth. Facebook® and other social media outlets could be utilized more effectively for upcoming events. The signs on saw horses along the two streets leading into the building were excellent for drawing in vehicle passersby. Larger signs might be even more effective and should be put in place several days prior to the event (perhaps with signs stating

- "Coming Saturday" and "Today Only". Also, perhaps the Casino could be approached to post an announcement on their outside marquee.
- A cart was available for vendors to use to carry in tables, chairs, and merchandise. Perhaps an additional
 cart or two could be secured for upcoming events. Bringing extra newspaper for wrapping items would
 also be helpful in case vendors run out.
- A bullhorn to make announcements, perhaps showcasing vendors during the day, etc. would be handy.
- The "greeting" table and Solid Waste Program brochures and giveaways was an excellent way to welcome people and promote the program. The "zero waste" station was also effective as an educational tool.
- The event opened at 11 am. A survey of vendors suggested that an earlier opening of 9 am for future events would be better and have the event run until 2 or 3 pm. Also, on the promotional materials and door signage, vendors requested that a "no early birds" notice be posted.
- Food and beverages leftover from a reuse training held the day before the Swap Meet was brought in for vendors. A tribal organization was holding a fundraiser down the road, so several vendors went there to pick up lunch. For future events it would be beneficial to have one or two food vendors onsite, perhaps as a fundraiser.
- Holding the compost workshops in conjunction with the Swap Meet, especially with the display of compost bins made from used materials, was a huge success.
- Since this was the first such event for SRMT, metrics were not emphasized. Perhaps a hand tally counter device could be used to count the number of folks coming through the door.
- A couple of vendors suggested that crafters using reused materials could be invited to participate.
- It was suggested that a "free table" be set-up. Vendor items slow to sell or trade could be placed on the table.
- A kid's area, perhaps staffed by volunteers, would be helpful for both vendors and shoppers. Tables and chairs could be setup and activities could include making art out of old magazines, found objects, etc.



Results

- 15 vendors (including several families with multiple tables)
- Estimated 300-400 participant shoppers
- Surveys of vendors and shoppers indicated that they were thrilled with the event and would like to see it be held as an annual event.

Future Plans

Larry Thompson, SRMT Recycling Coordinator remarked, "The Tribal-wide Swap Meet was a very successful event. We'll plan on making the Tribal-wide Swap Meet an ongoing Earth Day activity. Vendors and shoppers were enthusiastic about making this an annual event. It's a perfect time of year to bring Tribal members together and celebrate our environment."

For More Information

Athena Lee Bradley, Program Manager, Northeast Recycling Council athena@nerc.org
802.254.3636
www.nerc.org

Larry Thompson, Recycling Coordinator, Saint Regis Mohawk Tribe larry.thompson@srmt-nsn.gov
518.358.4529
www.srmtenv.org



Anatomy of an Event: Holiday Toy Swap Event

Looking for a great holiday reuse event? Try a "toy exchange" or "toy swap."

The Northampton Department of Public Works ReUse Committee hosts an annual Toy Exchange for this community of 28,540, located in Western Massachusetts.

According to the DPW's Waste Management Supervisor, Karen Bouquillon, "Participants reaped all of the benefits of reuse—like saving money, natural resources, and energy, while providing free toys for local families. As an added bonus, it was a great opportunity to de-clutter before the holidays!"



The event was extremely well organized. Volunteers from the City's Reuse Committee received donations of used toys and sporting equipment on Friday, December 7 from 5pm-8pm and Saturday, December 8 from 8am-9am. All donations were examined and cleaned up, if necessary.

Only good quality, gently used toys and sporting equipment (e.g. toy cars and trucks, stuffed animals, building toys, dolls and doll houses/furniture/clothes, kid's bikes and riding toys, instruments and noisemakers, books, games, puzzles, model kits, outdoor toys, sports equipment, arts and crafts kits, baby toys, music/movies/computer games) were accepted. Items that were not taken included anything that was dirty, broken, ragged or missing pieces, and baby gear such as cribs, car seats, strollers and play-yards.

How it worked

The toy swap was held in the high school cafeteria. Volunteers separated out the donations into categories, such as games, electronic toys, building toys, outdoor toys, arts and crafts kits, etc. Each category was nicely displayed on cafeteria tables or on tablecloths spread on the floor. Small sandwich boards sat on top of the tables to denote the toy category. Other signage explained rules and noted that the toy exchange was a "zero waste" event.

As an incentive to encourage toy donations, toy donors received the first opportunity to "shop" from 9 am-8 am on Saturday morning. Donors were lined up outside of the doors before the event opened and the room was packed shortly after the doors opened. Additionally, toy donors received raffl e tickets that allowed them to be entered into an auction for several donated items of high value. From 10:00 a.m. - Noon the event was open for anyone to shop.



New, unwrapped toys delivered were donated to the "Toys for Tots" program, amounting to enough toys by the end of the event to fill four large boxes. A Salvation Army truck arrived just before the event ended to haul away any toys that remained at the end of the morning. Fifteen large boxes and 2 large bags of stuffed animals were donated to the Salvation Army.

Several hundred people participated in the event. All participants were asked to take a short survey to gauge how they felt about the toy exchange and what they felt was the estimated value of the items they picked up. Based upon survey responses the estimated value of toys participants took home was worth more than \$10,000, averaging about \$77 worth of toys per participant.

Participant comments were very positive and appreciative that the City sponsored the event. While children were discouraged from attending in order for the event to run in a more orderly fashion, both adults and the few children in attendance were friendly and courteous.

Other communities are also sponsoring similar gift exchanges

The <u>Fountaindale Public Library</u>in Bolingbrook, Illinois, held its first toy swap in early December. Participants donating toys received a voucher for every toy they donated that could be redeemed for another.

The Bainbridge Church of Jesus Christ of Latter-day Saints on Bainbridge Island in Washington State held a "Gift Giving Exchange." This annual event is held on the weekend before Thanksgiving to encourage residents to "re-gift toys" instead of discarding them. As with the Northampton event, tables are dedicated to toy categories, including stuffed animals, model cars, dollhouses, etc. Some brought items that would interest adults, as well. At this event, however, donors are presented with "Giving Bucks" for each item they donate. These "Giving Bucks" could then be redeemed for other items at the Exchange.



Online toy exchanges are also growing in popularity, such as the <u>New York Toy Exchange, Inc.</u>, <u>www.jumbleworld.com</u>, <u>www.toystotrade.com</u>.

Outreach Material Samples





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Saturday, December 6



Cornell Cooperative Extension Association of Jefferson County (CCE)
203 North Hamilton Street, Watertown

Donation drop-off at CCE:

Friday 12/5, 5-8 pm & Saturday 12/6, 8-9 am

The Event:

For toy donors: Saturday, 12/6, 9-10 am For general public: Saturday, 12/6, 10-noon



What is a Toy Swap?

Donate and/or Receive
CLEAN, gently used, toys,
games, & working sports
equipment. Winter
clothing—boots, snow suits,
& coats will also be
accepted.

The Toy Swap is a free event. Each "shopper" (one per family please) may fill up to one bag with items. Please bring a reusable bag to collect your goods!

Grown-ups only, please! This will help keep the "shopping" experience orderly and your kids surprised!

Any remaining toys will be donated to local charities.

Toys for Tots will also be accepting donations of new, packaged toys.

For more information: Athena Lee Bradley at 802-254-3636 or via email at Athena@nerc.org.

Sponsors







This event is funded in part by a grant from the United States Department of Agriculture Rural Utilities Programs.

Cornell Cooperative Extension Association of Jefferson County provides equal program and employment opportunities.

Please contact us if you have any special needs.

Akwesasne Community

Earth Day Events

Reuse Swap Meet

In celebration of Earth Day, a Reuse Swap Meet will be held to provide an opportunity for tribal members to sell, exchange, barter, giveaway, and/or purchase usable housewares, toys, games, working sports equipment, clothing, electronics, furniture and more!



Spring cleaning often leads to a pile of stuff you wouldn't mind getting rid of. Bring your items to the Akwesasne Reuse Swap Meet!

Bring your own tables and chairs. Each vendor will be allocated a space of 20 feet by 20 feet. The Akwesasne Reuse Swap Meet will be a great opportunity for sellers and buyers alike!

Participation is free; however, a vendor application is required. Space is limited.

To receive the application contact Larry Thompson, Recycling Coordinator at larry.thompson@srmtnsn.gov (phone: 518-358-4529) or Athena Lee Bradley at athena@nerc.org (phone: 802-254-3636). Applications are also available at the transfer station.



NERC This event is funded in part by a grant from the US Dept, of Agriculture Rural Utilities Programs

Composting Workshop

The free workshop covers the basic science of composting as it relates to backyard composting. Additionally, it includes a hands-on demonstration on how to build effective and inexpensive compost bins out of reused or recycled materials commonly available in most rural communities. Backyard composting is an inexpensive and efficient way to handle organics waste while also creating a valuable material, compost, which builds soil fertility. Composting at home, along with recycling, has proven to lead to a significant reduction in a residential household's waste.

> Contact Larry Thompson, Recycling Coordinator at 518-358-4529 or email larry.thompson@srmt-nsn.gov for more information.



Saturday, April 18, 2015 11:00 a.m. to 3:00 p.m. 850 State Route 37, former IGA building, Akwesasne



MEDIA ADVISORY FOR THURSDAY, APRIL 30, 2015

KICK OFF FOR NEW ANNUAL "COLLEGE MOVE OUT DAYS" RE-USE CAMPAIGN GEARED TO REDUCE WASTE AND RE-USE CAST-OFF GOODS FROM AREA CAMPUSES

As students depart college campuses across the North Country, they leave behind piles of debris, amounting to thousands of pounds of materials, that would largely enter the landfill system. Many of these household goods and textiles can be re-used or recycled if collected and routed to the proper facilities.

There will be a short "kick-off" to celebrate the beginning of a college "Move Out Days" collection campaign at local colleges in St. Lawrence County. The unveiling will be at 4:00 p.m. on Thursday, April 30^{th.}

Clarkson University will be the first of the colleges to start their "Move Out" program, so the kick-off will happen at their site: the large parking lot behind the Technology Advancement Center (Bldg #17 on the attached map).

The project partners (Development Authority of the North Country; Local Living Venture; Northeast Recycling Council; SLC Solid Waste Dept.; SLC Environmental Management Council; NYSDEC) to make brief remarks.

President Tony Collins (or his representative) from Clarkson University and Assemblywoman Addie Russell's office will be in attendance. (Senator Patty Ritchie's office had to decline due to a scheduling conflict.)

WHAT: St. Lawrence County College "Move Out Days" kick-off event

WHO: Tony Collins, President, Clarkson University

Jan Oatman, Development Authority of the North Country (DANC)

Athena Lee Bradley, Northeast Recycling Council (NERC) John F. Tenbusch, St. Lawrence County Planning Office Larry Legault, St. Lawrence County Solid Waste Department

Chelle Lindahl, Local Living Venture

WHERE: Clarkson University Campus, Maple St. (Rt. 11),

Potsdam, NY 13699

The large parking lot behind the Technology Advancement Center

(Bldg #17 on the attached map).

WHEN: 4:00 p.m., Thursday, April 30, 2015

PHOTO OPPORTUNITIES:

- Ribbon cutting ceremony
- Collection bins at the ready for student deposits of re-usable items
- Any recycled materials that have been collected by that time may be sorted and bagged as a
 demonstration of the project goal to remove textiles and household items from the waste stream in
 favor of re-use, to be recycled or re-purposed.

CONTACT:

Athena Lee Bradley, Northeast Recycling Council - athena@nerc.org or 802-254-3636
Jan M. Oatman, Development Authority of the North Country -joatman@danc.org or 315-661-3234
John F. Tenbusch, St. Lawrence County Planning Office - jtenbusch@stlawco.org or 315-379-2292

###

Chelle Lindahl

Local Living Venture

LocalLivingVenture@gmail.com

"College Move Out Days" Campaign sponsored by <u>NERC</u>, <u>DANC</u>, <u>St. Lawrence County Solid Waste Dept.</u>, <u>St. Lawrence County EMC</u> and the <u>Local Living Venture</u>.

Toy Swap Volunteer Information

Safety is the #1 Priority!

Safety is everyone's responsibility. Please be alert and aware of what is happening at all times. Watch for any unsafe conditions and intervene immediately, as necessary. Our role is to anticipate and prevent all risks. In particular, pay attention to slip, trip, or fall hazards (objects on the floor, spilled liquids, etc.). Also, while we hope to limit the number of children in attendance, please be watchful of unescorted children. Request that parents keep children by their side. Report any hazardous conditions immediately to a staff person.

Please always be friendly and courteous. Assist participants when necessary. Any questions you cannot answer, please direct them to a staff person.

Pre-Event Tasks

Donation drop-off, cleaning items, making signs, review event set-up logistics

Thursday, 12/10, between 3-5 pm

Donation drop-off, cleaning items, event set-up

Friday, 12/11, between 3-5 pm

Donation drop-off, cleaning items, event set-up

• Saturday 12/12, 8-9 am

The Event:

For toy donors: Saturday, 12/12, 9-10 am For general public: Saturday, 12/12, 10-noon

Categories for Acceptable Items

- 1. Stuffed animals (THE ZOO)
- 2. Cars & trucks (THINGS THAT GO)
- 3. Action figures, dolls & accessories (DOLLS & MORE)
- 4. Models, kits & building toys (BUILDING TOYS)
- 5. Books, games & puzzles (BOOKS & GAMES)
- 6. Outdoor toys and structures (OUTSIDE PLAY)
- 7. Sports equipment & bikes (SPORTS)
- 8. Arts & crafts, creative learning (ARTS & CRAFTS)
- 9. Baby & preschool (BABY & PRESCHOOL)
- 10. Video games, DVDs, VHS tapes (ELECTRONIC MEDIA)
- 11. Musical instruments (MUSIC)
- 12. Electronic/robotic/battery operated (ELECTRONICS)
- 13. Children's winter clothing (WINTER WEAR)

THIS IS A ZERO WASTE EVENT! No trash or rejected toys will be accepted.

Please reject:

- Dirty/broken /ripped/chipped/ragged/chewed/marked items
- Baby gear (car seats, strollers, cribs, play yards)
- Anything with parts missing (puzzles, games)
- Items with possible cutting, choking or lead hazards
- Oversized items (bigger than a breadbox? Refer to a site staff person for a determination)

THURSDAY 3:00-5:00 PM VOLUNTEER TASKS

Receiving Team

- · Welcome donors and receive toys
- Inspect toys--Reject any items to not suitable (see above). If in doubt, see a staff person
- Give "Donor Ticket" to donor
- Remind donors to bring reusable bag with them for shopping on Saturday
- · Send any packaging and rejected toys back with the donor and thank them
- Clean & disinfect toys
- Make signs for tables

FRIDAY 3:00-5:00 PM VOLUNTEER TASKS

Receiving Team

- Welcome donors and receive toys
- Inspect toys--Reject any items to not suitable (see above). If in doubt, see a staff person
- Give "Donor Ticket" to donor
- Remind donors to bring reusable bag with them for shopping on Saturday
- Send any packaging and rejected toys back with the donor and thank them
- Clean & disinfect toys

Organizing Team

- Gather to determine which table to assign for each category
- Place signs on tables
- · Place items on tables, organized, and visible

SATURDAY 8:00-12:30PM VOLUNTEER TASKS

Receiving Team

Same as Friday night...plus...answer questions, give directions, tell adults that arrive with children they must provide close supervision (or they may be asked to leave), etc.

- > Inform each participant that he/she may fill one bag with items & take 1 large item, as supplies last.
- > The event closes at noon. Please remind "late comers" that they have limited time to participate.

Organizing Team

Same as Friday night...plus...

- "Clean up" consolidate items on tables, check toys to ensure all parts/pieces remain, remove and discard unacceptable items, etc.
- Monitor participation, and intercede if someone is being greedy or is acting inappropriately
- At 11:45 staff will make an announcement to shoppers that the event will be ending at noon.
- Noon begin cleanup/clear all tables. Assemble all remaining items at Receiving Area. Put in boxes/bags for donation to Impossible Dream.

General Information

- To get into the holiday spirit, consider wearing holiday colors!
- Have fun!
- When arriving on Saturday, please park at the back of the parking lot to allow front spaces for participants.

Thank you very much for helping out! We couldn't do it without you!!!

(Appreciation to the City of Northampton, Massachusetts for their inspiration, guidance for developing reuse events, and permission to adapt their Volunteer Instructions.)

Case Study: City of Northampton Waste Reduction Events

Development of one-day, volunteer-powered "pop-up" collection events for hard-to-manage materials.

Community Population: 28,549 (per clerk's office)

Households Served: 8,702 (H2O service connections)

Services Provided: Subscription service household trash and recycling with a PAYT option at an

enterprise-fund supported transfer station.

Program Overview

- We developed a sustainable model to collect a variety of objects and materials with reuse or recycling potential that remain outside of mainstream recycling activity.
- Our objectives were to reduce waste, generate more reuse opportunities and educate the public about reuse and recycling options and possibilities.
- We achieved this via a committed group of volunteers, the leadership of the City's waste management supervisor, the support of the mayor and public works director and resources provided by the Massachusetts Department of Environmental Protection's Sustainable Materials Recovery grant program. A total of seven successful one-day collection events were held in 2012; this report will highlight four of them.

History

- In November 2010 a task force was appointed to develop recommendations for reduction and management of solid waste in anticipation of the City's landfill closure in April 2013.
- Recommendations in the March 2011 final report presented to the Board of Public Works included
 maximizing reuse and recycling, development of financially self-sustaining programming sans reliance on
 the city's General Fund, and promotion of methods to reduce generation of waste.
- In 2011, the City held several successful, focused special collections which became the launching point for this effort.
- The Reuse Committee, a Board of Public Works subcommittee comprised of volunteers, took charge of planning under the leadership of the City's waste management supervisor.
- The Committee's long-term goal is to build a dedicated group of volunteers who will eventually operate a permanent reuse center with minimal City involvement.

Implementation

- **Site identification:** We chose to utilize city-owned property to minimize expenses and considered proximity to supporting departments (e.g. public works, transfer station), parking and traffic control, street appeal for drive-by participation, handicap and restroom access, availability/ease of reservation system, custodial requirements/fees and general participant convenience. We identified two suitable local schools.
- **Emerging recycling markets** were identified via discussions and interviews with our DEP municipal recycling coordinator, the DEP liaison to the local MRF, and discussions with recycling and solid waste colleagues. Textiles, bulky rigid plastics, expanded polystyrene (plastic foam--commonly referred to as Styrofoam®), electronics, and bicycles were among the material identified for collection.
- Public awareness was built via a (grant-funded) postcard mailing to Northampton residents, and
 promotion on both the Town and DPW web pages. A press release was issued, and interviews arranged on
 local radio stations. Finally, a Facebook® organization page was created by several members of the Reuse
 Committee and was circulated by members to generate notification "Likes."

- Partnerships with organizations interested in reusing material were sought. The Salvation Army (textiles & clothing, household goods), Bikes Not Bombs, ReFoamIt (EPS foam recycling), school fundraising organizations (refreshments, electronics collections), the city health department (sharps, unwanted medications), and artisans and craft people who have need of reclaimed material among them. These important partnerships increase the sustainable nature of collection events by creating a win-win-win situation: organizations receive a source of material or income; residents receive a free and simple method to promote the reuse or recycle of cast-off material; and the city reduces its waste stream.
- Outreach to local groups and individuals with needs that would be served by the collection became
 another important aspect. Residents who have material and might be willing to gather and deliver it to a
 special collection event were targeted, as well as those who might benefit from a free source of goods and
 materials. We contacted neighborhood associations, school parent/guardian groups, social service
 agencies, (others?) and notified their constituencies of events they would find of interest.
- A committed pool of capable volunteers fueled our project. Our Reuse Committee provided a strong base and other volunteers were recruited prior to each event by including information about the volunteer opportunity and providing contact information for replies. We also asked if event participants were interested in volunteering at future events on each event's evaluation form. A database of volunteers was created which we used to recruit for successive events. Training was provided via emailed (basic) instruction and during brief pre-event orientation sessions. Roles and responsibilities, behavioral expectations, and finite time slots were provided.
- Careful planning can prevent many problems. Consider: event duration; traffic control (via use of signs, traffic cones, police detail), restroom access; volunteer safety/ identification (safety vests) and comfort (shelter, seating, refreshment); necessary supplies (tables, tents, signs, handouts, clipboards & pens, walkie-talkies, paperweights); and back-up plans in the event of unwelcome weather (rain date or shelter). Thoughtfully planned and communicated volunteer assignments are very important; volunteers are less apt to volunteer a second time if they have a frustrating first experience.
- **Evaluation forms** to collect participant feedback proved very valuable. We were able to generate productive improvement suggestions and future volunteer prospects from exit surveys. Contacting partner groups /organizations for post event feedback also gathered useful information.

Four Successful Community Events

Event	Activities	Material collected	Timeframe
Reuse &	Food/drink concession	Bulky rigid plastic (BRP), textiles,	Spring/ fall
Recycling Rally	Public education displays Recycled material craft activity	bicycles, pellet bags, food wrappers (for artist), EPS	3-4 hours
Rally for the Arts	Craft sale (items made of reclaimed/recycled material) Halloween costume workshop	Arts & craft supplies, fabric, & items desired by artists (e.g. lace, buttons, metal scraps)	Late October 6-7 hours
Community	Food/drink concession	Textiles & household goods	Spring/fall
Tag Sale	Tailgate tag sale (no fee) Paper shredding (free)		3-4 hours
Community Toy Exchange	Donations collected evening prior, given away to the public the following morning	Toys in good condition	Late November or early December 3-4 hours per day

Lessons Learned

- Crowd control can be challenging. We learned to plan for longer vehicle lines for materials which take longer to unload or process (e.g. shredding), and to establish a participation guidelines for events that attract large numbers of people. The Toy Swap attracted both people who wanted toys for gifts and those who sell them online, and we continue to refine a reasonable process which can satisfy both parties.
- We found that participants respond best to an upbeat, festival-like, community atmosphere. In addition to positive attitudes of those organizing the event, we found it helpful to provide refreshments and music, both of which are welcome fundraising opportunities for school groups.
- Display advertisements in newspapers are expensive and difficult to justify on an ongoing basis. Unless a special financial arrangement can be worked out, free publicity needs to be pursued aggressively. Local newspaper, radio and television interviews, social media, municipal websites, and community list serves can be leveraged to great effect.
- Some amount of municipal staffing on an ongoing basis is needed to organize and coordinate the
 volunteers and act as contact person for all the groups involved in the project (public employees,
 residents, organizations, business owners, etc.).
- Outreach to community members in most need of used material proved complicated. Some of the groups
 we notified had transportation challenges. Notification well in advance of the event is helpful so
 neighborhood groups and social service agencies have plenty of time to make transportation (or other)
 arrangements.
- Maintaining volunteer enthusiasm from event to event is challenging. Short, well-organized events with
 consideration for a volunteer's comfort, meaningful assignments with measurable/observable outcomes,
 and prompt (and repeated) expressions of gratitude are powerful preventative measures for frustration
 and burnout. Having a large pool of volunteers is also helpful.
- We found that holding events at a single, consistent location has great value. Familiar venues, traffic
 patterns, procedures and signage is comforting to repeat participants and simplifies communication
 requirements.

- Disposal of some materials proved difficult or expensive. The market for BRP became very soft and the
 recycling cost of EPS was high. Our attempts to mitigate the cost by charging a small EPS disposal fee
 angered some participants. Once a material has been collected, the public assumes there is a strong
 market for the material and it is difficult and time consuming to explain the change.
- Evaluation forms are very helpful feedback mechanisms, but require resources to collect, collate and analyze, and participants prefer to avoid them entirely. Carefully crafting forms so they ask for only the most valuable information with the least possible time investment will yield the best return on investment.
- We caution against committing to large or complicated projects initially as we they can prove unsustainable. Relying on one or two enthusiastic organizers is risky because they can lose interest the ability to follow through with their vision. Keep early projects fairly simple so that they are sustainable with minimal resources.
- Keeping event duration short has proved a good strategy as it minimizes the risk of volunteer burnout and municipal and custodial labor costs. Most of our events require a time investment of about four weekend hours...leaving plenty of time to enjoy the rest of the day and weekend.

For More Information

• City of Northampton Department of Public Works: 413-587-1570

Website: http://www.northamptonma.gov/dpw/Recycling/

• Facebook: https://www.facebook.com/NorthamptonReUse

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Household Hazardous Waste Reuse Shed

What are household hazardous wastes?



Hazardous household products have the potential to harm our subsistence foods, our people, and our environment. Hazardous products are in our Villages because we purchase them from our stores, or we bring them from hub cities. We use them for cleaning countertops, stripping and painting our boats, and lubing our 4-wheelers. Every day, people in your Village are

likely using hazardous household products.

Household hazardous are a problem because they can be harmful when they are used, and when they are *not* used - when they are thrown out. If you decide to discard a household hazardous *produc*t or material, it is called a "household hazardous *waste"*.

Any waste is named "hazardous" by the U.S. EPA if it:

- ✓ Can burn or flame up easily,
- ✓ Corrode (like a battery) or irritate the skin,
- √ Has the potential to generate heat or explode, or
- ✓ Is poisonous to humans and animals.



Remember, your Village can still decide how to define hazardous wastes for your community. For example, plastics and e-wastes can be very hazardous if they are burned in a burn box, barrel, or on the ground. If a computer is left in an open dump and subject to flooding, some very toxic metals will eventually seep into the water. But these wastes are not listed as "hazardous wastes". The reason is that waste burning and unlined dumps are not allowed in Lower -48 or Alaska cities.

What are examples of household hazardous wastes?

There are several different kinds of hazardous products out there, but many of them fit into these general categories:

- Household cleaners examples include: bleach, ammonia, toilet bowl cleaner, drain cleaner, oven cleaner, bathroom cleaner.
- Automotive products examples include: gasoline, motor oil, antifreeze, lead-acid batteries, brake fluid, transmission fluid.
- Home improvement products Examples: paint, paint thinner, paint stripper, adhesives, varnish.
- Pesticides examples include: rat and mouse poison, pet spray, flea collars, mothballs, insecticide, weed killer.



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Other — examples include: household batteries, shoe polish, lighter fluid, prescription medicines, arts and crafts materials.

Where are household hazardous wastes and what are their harmful effects?

There is a great interactive "house tour" on EPA's site that you can use to educate yourself and your community on how to find household hazardous wastes. Go to:

http://www.epa.gov/pesticides/kids/hometour/tour.htm#view

How can you tell if a product is hazardous?

Products containing hazardous substances are required by federal law to be properly labeled. Labels on hazardous products use a rating system of four "signal" words. These words are listed below from "most hazardous" to "least hazardous".



EPA's Virtual Home tour. Click on the house.

Signal Words

POISON



DANGER



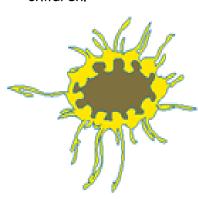
WARNING



CAUTION



These signal words are often followed by advice to take precautions such as "Keep out of reach of children"



- 1. **Poison** is the highest hazard level of the group. Poison means that a product is highly toxic. It can cause injury or death if eaten, breathed, or absorbed through the skin.
- 2. Danger means that a product is highly toxic, or flammable, or corrosive.
- 3. Warning and Caution mean that a product is toxic, corrosive, reactive or flammable (but not as highly as for "danger").

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Discarding Hazardous Products in a Village

For some of us, there are a lot of good things about living in a Village (e.g. our community!) and some bad things about living in a Village (honeybuckets for some of us). Mainly, it is different from living anywhere else, and working with household hazardous wastes is no exception. Here is why:

Good News.

The good news is that we live healthfully through subsistence on our lands and waters. Even when our foods have tested positive for some contamination, the contamination is much less than in the store-bought fish and meats that 'non-subsistence people' have to eat. We are lucky. We have a

saying in Southeast 'When the tide's out, the table is set".



The not-so-good news is that our dumps and sewage/honeybucket lagoons are often unlined, leaking, flooding, or sitting in or next to our lands and waters. Some of us have dumps and lagoons that meet all of these descriptions. In Anchorage, when folks throw out their hazardous wastes in the garbage, or pour them down the sink, the chemicals will end up in their lined Class 1

landfill. Or they will get diluted in their lined, advanced waste water treatment system. Not much of the waste will end up in the Anchorage environment. But in many of our Villages, that waste *does* end up in our environment.

For example: If we follow the disposal instructions for spray paint—"roll up the can in newspaper and discard in the trash" -- the spray can gets taken with our trash to our open, unlined dump. When the can rusts out, or is crushed by an ATV, snowmachine, or heavy equipment, the leftover toxic paint will leak. After that, the chemicals can be carried by flooding or snowmelt to the ground or river.



But the good news is subsistence again. Because, unlike people in Anchorage (and almost everywhere else in the world), we can control what goes into our local environment. That means we can control what community hazardous wastes get into our food. All we need to do is change our community's hazardous waste habits.

Break the Connection!

Hazardous wastes connect to subsistence by getting into our dump and sewage systems. We can break the connection by reducing, reusing, safely storing, or backhauling them instead.

If we help our communities break the connection, we protect our subsistence.

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Starting A Community Household Hazardous Waste Program

Are you interested in setting up program to gather the household hazardous wastes generated in your community? If so, follow these steps....

Educate Your Community and Reduce Hazardous Wastes

The most important step in a hazardous waste program is to educate your community. It is important to inform people of the dangers associated with hazardous wastes, and the need to dispose of the wastes properly. If you have an open dump, use honeybuckets, or have a sewage pond that floods or seeps: Be sure that your community knows that following disposal instructions on the label may not work very well.



- Do the "home tour" with them at http://www.epa.gov/pesticides/kids/hometour/tour.htm#view -- this will show them the types of products in their house.
- A fancier version that includes other healthy home information is at: http://www.webmd.com/health-ehome-9/default.htm#nav
- Take your community on a tour of your Reuse Shed/Center. Make a fun celebration day out of it.

2 Set Up A Reuse/Exchange Center For Household Hazardous Wastes

Reuse centers are a place to drop-off household hazardous products (and any other materials) that aren't being used. Other people pick up products that they need. Examples of items typically found at reuse/exchange centers are paint, partially used household cleaners, ant spray, art and hobby supplies...just to name a few.

Some communities choose to have reuse/drop-off centers that are open every day. Other communities choose to have monthly or annual drop-off/pick-up days. They plan a big event for everyone to bring their hazardous wastes. Still others might offer a house-to-house collection once per month.



Example of a HHW reuse center Photo source: Municipality of Anchorage www.muni.org/sws/hazardouswaste.cfm

Whether you decide to set up a reuse/drop-off center or hold a collection day, the hazardous products should be securely stored so they cannot be reached easily by children. The reuse center can be simple or fancy, depending on your budget. A used Connex works well. For information about

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selecting a good storage/collection center and to see examples, go to

http://zendergroup.org/docs/storing%20print.pdf .



Your HHW reuse center can be operated like a store where everything is free. So, if it is possible, it should be a different place from your regular hazardous waste storage area. A hazardous waste storage area is for storing wastes like lead-acid batteries, used oil, and used antifreeze safely away from the public. If it's not possible to have separate buildings, make sure that

these wastes are stored in lidded containers, or blocked off from where kids can get into them.

Pick a good location in your community that is convenient for people to take their household hazardous wastes. This could be a central place in your community where access is easy. Your dump/landfill can be one of the best places if it is staffed and fenced off during closed hours.

Business Wastes

Be careful that outside (or inside) businesses do not take advantage. Hazardous wastes in bigger quantities are supposed to be disposed at a

certified landfill Down South. These certified landfills or treatment centers are very expensive. One Village had a household hazardous waste collection day, and an unknown business dropped off many 55-gal drums of unknown contents. It took a lot of phone calling and fund-seeking to get rid of the drums. Hazardous wastes from even small businesses are not technically "household hazardous wastes". If you accept them for your reuse center, be sure to accept only quantities and sizes that are typical for households. Consider charging for larger quantities or have them store the materials (safely) at their business. You can help them advertise to the community that the reusable product is available.

Ideally, it is great to have someone **staff the reuse center**, especially in the beginning when it starts off. Staff can help explain how it works. If you're not able to staff the center, try big signs that explain what people need to do. Hold a grand opening day and give a tour.



Here are a few more suggestions for operating your reuse center:



Keep a list of items that are dropped off, as well as the person's name and the date, in case you have a question later about what they brought. We included an example at the end of this handout.



When people bring products, make sure you can clearly read the label of what the product is. If the label on the product is hard to read, write the name in big letters with a permanent marker.



Mark the drop-off date on the product if you can't find an original date on it.



Post a sign at the reuse center listing items that you do accept or items that you don't accept (and an alternative of what to do with them).



You might choose to not allow businesses to drop off wastes at your center. If you are concerned that they may try anyway, you can ask people to sign and date a waiver when

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they drop-off products. The waiver could say something like "I certify that this household product is from my household, and not generated at a business."



Have a spill kit located in your shed, or next to it. The kit should contain items such as absorbents, booms, and safety gear. A number of companies sell these or will make a customized kit just for you. See the safety gear factsheet for contacts.





Lock the Center when it is not staffed, or at least when there is not someone close oncall.



Purchase a first-aid kit and mount it to the wall, or have it handy.



Have folks sign out for the items they are taking. There is an example at the end.



Make sure you have an inventory handy. You can use your sign-in sheet and cross out the products that were taken.



Consider whether you want to have a liability release form. There is an example at the end of this handout—what is used in Anchorage. For a small community where folks know and trust each other, it might not be worth it. If you have good control of what comes in and the condition it is stored in, it is similar to operating a store. It is up to your tribe/city to decide.



Regardless of whether you have a liability release form, make sure your community is informed of the proper way to use and store hazardous products. There is an example educational flyers/handouts at the end of the document.



Store products in the best layout you can think of for your community. And segregate wastes that should be kept separate. Read and follow all the storage tips in the educational flyer at the end of this document. Separate shelves or segregated areas can work well.

Once your reuse center is set up, place signs up around the community and at the dump/landfill letting people know:

- What kind of hazardous wastes are being collected,
- Where (and when) they should take their hazardous wastes, and
- The importance of not dumping hazardous wastes on the ground, in trash can that ends up in your open dump, or in a pipe that empties to waterways.

To see an example of an educational flyer, see the end of this document.



Recycle/ship out/dispose of remaining hazardous wastes



If you have any remaining hazardous wastes that can't be reused, here are some suggestions:

Recycle/dispose properly

For information about how to recycle/dispose of different types of hazardous wastes including used oil, antifreeze, etc., go to Earth911.com, look up the or call 277-2111 if you can't find what you are looking for.



Ship hazardous wastes out of your community

For information about how to ship out hazardous wastes, go to $\frac{\text{http://zendergroup.org/backhaul.html}}{\text{or call us at 277-2111}}$ if you can't find what you are looking for.

For products that don't seem to be picked up by anyone and you just want them out of your community, you can send them all in a tote (or other suitable container) to companies that accept and process hazardous wastes. Emerald Services in Palmer (www.emeraldnw.com), and PSC Environmental Services (http://www.pscnow.com/) and Environmental Compliance Consultants (ECC), http://www.eccalaska.com/, in Anchorage are Alaska companies that do this. An example inventory sheet, courtesy of Emerald, to send with your items is attached. Note - if you are going to ship a variety of household hazardous products, you should call first to make sure you package and ship correctly.

An alternative is to contract a company to come to your village and process and package unused hazardous products. You can read our Drum Testing section in our "Drums" document at http://zendergroup.org/drum.html to see companies that will come into your village to help you with your hazardous wastes and products. If you cannot identify the product (e.g. no label), there are methods for determining what you have so it can be safely shipped.

Cleaning up spills and safety gear

If you have a hazardous waste spill in your shed or community:

Remove children and pets from the area where the spill occurred.

Mark off the area so people don't come into contact with the spill.

Ventilate the area if the spill happened inside. But only enter the area without a mask if you know for certain what you are dealing with. Larger spills of some chemicals must only be handled by trained personnel. Some chemical fumes can kill.

Wear appropriate safety equipment when cleaning up or assessing the spill.

Contain the spill by soaking it up with absorbents (you can purchase absorbent pads or use clay-based kitty litter)

Put the absorbed material into a plastic bucket or drum. Label it with the date and

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what's in it.

See Safety Gear fact sheet at http://zendergroup.org/docs/Safety_gear.pdf for places where you can purchase spill clean-up products

If you have a significant spill, contact ADEC's Spill Response Program. They can help you address the spill and help you fill out any needed forms.

During normal business hours call the Area Response Team Office *or* fax a completed spill report form to the nearest DEC Area Response Team Office.

Outside normal business hours call: 1-800-478-9300 (International: 1-907-428-7200)



Area	Phone	FAX
Central (Anchorage)	269-3063	269-7648
Northern (Fairbanks)	451-2121	451-2362
Southeast (Juneau)	465-5340	465-2237

Always use appropriate safety gear when using hazardous products. See http://zendergroup.org/docs/Safety_gear.pdf .

Tour of a household hazardous waste collection center

In February 2004 during the Forum conference, we arranged a tour of the Midtown Anchorage Household Hazardous Waste Center. Follow along after the resource section and learn some additional tips for setting up!



Resources

You may also be able to obtain a printed copy of EPA documents if you call the RCRA Information Hotline at: 1 (800) 424-9346

- Household Hazardous Waste Management: A Manual for One-Day Community Collection Programs. http://www.epa.gov/osw/conserve/materials/pubs/manual/index.htm
- Household Hazardous Waste: Steps to Safe Management. April 1993. EPA 530-F-92-031.
 http://cfpub.epa.gov/npstbx/files/epa_house_haz_waste.pdf

Also, the Alaska Native Health Board (ANHB) has a great household hazardous waste guide in their Integrated Waste Management Planning Resource Guide which can be viewed in Appendix 3 at this link: http://zendergroup.org/anthc.htm.

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Contacts and Phone Numbers

The State of Alaska does not have a hazardous waste program. For Hazardous Waste information in Alaska, **call** EPA Region 10 Hazardous Waste Hotline staff person, Xiang-Yu Ge (pronounced Shawn-UG) at 206-553-2859 **during EPA business** hours (7 am-4 pm Alaska Time Monday-Friday) or leave a voicemail message and your call will be returned.

Call the RCRA Hotline at 1-800-424-9346. The hotline is only open from 6 a.m. to 11 a.m. (Alaska time), Monday through Thursday. However, the operators are very helpful. You can also find the information online at www.Epa.gov/RCRAonline.

Emergencies

For emergencies with household hazardous wastes call 911 or the Poison Control Center in Alaska at 1 (800) 222 1222.



How can I get additional information about hazardous waste?

- 1) For an A-Z list of hazardous waste products and what to do with them see the alaska Village Hazardous Waste Guide at: http://zendergroup.org/haz.htm
- 2) Visit other hazardous waste websites below:
 - EPA Region 7: Household Waste http://www.epa.gov/region7/waste/solidwaste/household_hzd_waste.htm
 - EPA Region 3: http://www.epa.gov/reg3wcmd/solidwasteinhousehold.htm



Sample Forms and Reuse Shed Tour at End of Document

After the Anchorage Mid-Town Reuse Shed tour, these forms are attached:

- 1. Example Sign-In Sheet for Folks Who Drop Off Items
- 2. Example Sign-out Sheet (Courtesy Emerald Services, Palmer AK)
- 3. Example Liability Release Form (Courtesy Emerald Services, Palmer AK)
- 4. Example Informational Flyer/Brochure
- 5. Using and Storing HHW: Example Poster/Factsheet.



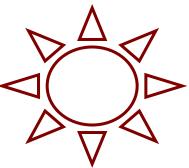
The front of the Anchorage Hazardous Waste Center



The household hazardous waste reuse center is located in a used Connex container. Shelving was put up, lighting installed, and a small office in the back was set up. It is just like a regular hardware store. Here we are-looking at the different products available to anyone who wants them (for free!).









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The Center also had hazardous waste safety, identification, and emergency information sheets posted. These sheets can be purchased for under \$20 at Alaska Safety in Anchorage (907) www.alaskasafety.com, 561-5661.



The staff person showed us the safety gear they had on hand in case of a spill. The photos above are Marvin Ramoth and Ben Davis from the Native Village of Selawik demonstrating the use of a Tyvek suit to wear when cleaning up spills. The other types of safety gear the Center had ready to use were gloves, goggles, and absorbents (kitty litter and pads) to clean up any spills.



Drop-off Log Native Village of Raven Household Product Reuse Center Please Fill Out a separate line for each product type you bring:

Date	Name of person dropping off Alexie John	Phone number	Product description	Quantity & size
6/21/12	Alexie John	555-5555	Oven cleaner	2 cans, 10 ounce size each

Native Village of Raven Hazardous Waste Reuse Program

Participant Material Acceptance Form

Number of	Volume of	Total	Description of Material	Manufacturer of	Category of
Containers	Containers	Volume	(common name)	Material	Material
Containers	(ounces)	Reused	(common name)	iviaterial	(Ignitable
	(ourices)				(Ignitable, Corrosive, Poison,
		(pounds)			Explosive)
					Explosive)
				l	
Participant					
Name					
(print):					
Participant					
Signature:					
Date					
			l	1	1
Staff	f				
Signature	:				
Date	:				
Time	:				
		_i			

NATIVE VILLAGE OF RAVEN

HAZARDOUS WASTE REUSE PROGRAM PARTICIPANT RELEASE OF LIABILITY AND INDEMNITY AGREEMENT

This Is An Important Legal Document. By Signing This Document, You May Give Up Rights That You Would Otherwise Have And Subject Yourself To Liability For Injuries To Others. Please read This Document Fully And Carefully Before Signing It.

The Native Village of Raven ("NVR) collects and disposes of certain household hazardous materials when residents no longer have use for the products. Some of the collected products are made available for reuse.

NVR has not thoroughly characterized the hazardous materials. NVR does not and cannot guarantee that material inside the container(s) matches the labeling of the container(s) or the shape of such container(s). NVR does not make any express or implied representations, guarantees or warranties concerning:

- The physical or chemical characteristics of the materials, including the purity, color, texture or age of the material;
- The manner in which the materials may be transported, stored, treated, discharged, disposed of, used, handled or otherwise managed; or
- Any actual or potential effects to property, human health and safety or the environment for the transportation, storage, treatment, discharge, disposal, use, misuse or other management of the materials.

Any and all other implied warranties are hereby disclaimed, including the implied warranty of fitness for a particular purpose. By accepting hazardous materials from NVR's Hazardous Waste Reuse Program, the undersigned agrees to be responsible to transport, store, treat, process, emit, discharge, dispose, use, handle or otherwise manage the material in compliance with all applicable local, state and federal law.

The undersigned understands that the materials may not conform to any label attached to the product and agrees to accept all risk associated with the product.

PROSPECTIVE RELEASE OF LIABILITY. THE UNDERSIGNED AGREES TO FOREVER RELEASE, DISHCARGE, AND WAIVE THE RIGHT TO ASSERT PAST, PRESENT AND FUTURE CLAIMS AGAINST NVR FOR ANY AND ALL INJURIES OF EVERY KIND, INCLUDING FOR PROPERTY DAMAGE, PERSONAL INJURY, DEATH, EMOTIONAL DISTRESS OR ENVIRONMENTAL HARM WHENEVER AND WHEREVER ARISING, WHICH RESULTS OR ALLEGEDLY RESULTS FROM OR WHICH IS CONNECTED IN ANY WAY TO MY ACCEPTANCE OF THE MATERIALS, OR TO ITS TRANSPORTATION, STORAGE, USE, MISUSE, DISPOSAL OR OTHER MANAGEMENT. THIS PROSPECTIVE RELEASE OF LIABILITY INCLUDES THE RELEASE OF CLAIMS ARISING OR ALLEGEDLY ARISING, IN WHOLE OR IN PART, FROM THE NEGLIGENCE OR OTHER MISCONDUCT OF NVR.

HOLD HARMLESS AND INDEMNITY AGREEMENT. THE UNDERSIGNED FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD HARMLESS NVR, IT'S RESPECTIVE AGENCIES, OFFICERS, OFFICIALS, AGENTS, EMPLOYEES, CONTRACTORS AND INSURERS FROM ANY AND ALL LIABILITY (INCLUDING LIABILITY FOR PERSONAL INJURY AND DEATH), DAMAGES, COSTS, CLAIMS, DEMANDS AND EXPENSES OF WHATEVER TYPE OR NATURE, INCLUDING ATORNEY'S FEES, WHICH ARE CAUSED OR ALLEGEDLY CAUSED BY OR CONNNECTED IN ANY WAY WITH THE MATERIALS, INCLUDING THE ACCEPTANCE OF THE MATERIALS AND ITS TRASPORTATION, STORAGE, USE, MISUSE, DISPOSAL OR OTHER MANAGEMENT. THIS HOLD HARMLESS AND INDEMNITY AGREEMENT INCLUDES ALL CLAIMS ARISING OR ALLEGEDLY ARISING, IN WHOLE OR IN PART, FROM THE NEGLIGENCE OR OTHER MISCONDUCT OF THE MUNICIPALITY OR CONTRACTOR.

The undersigned certifies that he or she has read and fully understands this Participant Release of Liability and Indemnity Agreement,

nd, in consideration for the receipt of materials from NVR Hazardous Waste Reuse Program, agrees to all of its terms.		
Date	Address	
Name (Please Print)	City/Zip	
Signature	Phone Number	

Raven Household Hazardous Product Program

Protect Our Subsistence. Household hazardous waste should not be disposed in the trash!

There are many items that are considered household hazardous products. Any products with these words on the label are hazardous and harmful to our community and subsistence: on product labels such as **poison**, **danger**, **warning and caution**. When disposed of improperly, these wastes can do serious damage.

Do you have leftovers or unopened containers of any the following products? Bring them to our Reuse Center to share with others! Are you looking for any of the following? Visit our Center and get the product for FREE!

Many items can be dropped off and may be available for reuse, including:

- Paint
- Paint Thinner
- Stain
- Household Cleaners
- Pesticides

- Fertilizers
- Unused Oil
- Unused Antifreeze
- Automotive Products
- Over-the Counter Medicines

Disposal Information

Bring household hazardous products to the Raven Household Product Reuse Center located behind the Tribal Building.



Hours: Tuesdays from 8:00am - 4:00pm. Phone: 555-5555.

Will-Call: We will pick up products from Elders free-of-charge. Call the above phone number to make arrangements.

DISPOSAL REQUIREMENTS:

The Reuse Center is for hazardous waste coming from households only – no businesses. Businesses can participate in our materials reuse program by listing their available products with our Tribal Environmental Program Materials Exchange Program. Please call 555-5555.



Additional requirements include:

- For Raven Community residents only.
- Bring products in their original containers.
- If the product label is missing, clearly list the contents on the container, if known.
- Transport hazardous waste in containers no larger than 5 gallons. Larger containers cannot be accepted.
- No explosives
- No bio-hazardous wastes (e.g. syringes, used bandages)

Important Tips when Using Household Hazardous Products

- Read and follow instructions on the product carefully.
- Don't mix products together.
- If you are pregnant, or someone in your house is pregnant, avoid hazardous products as much as possible.
- Keep hazardous products stored high, or in locked cupboards, away from small children.
- Use hazardous products in WELL VENTILATED AREAS. Open windows, use fans, and take plenty of fresh air breaks.
- Avoid eating, drinking, and smoking when using hazardous products. Some of the invisible chemical can get on food, drinks, and cigarettes. Then you will end up having the chemical for lunch. Smoking can be dangerous around flammable hazardous products.
- Avoid wearing soft contact lens when working with solvents and pesticides. They can absorb vapors from the air and hold the chemical against your eye.
- Use appropriate safety gear when using hazardous products. Go to http://zendergroup.org/docs/Safety_gear.pdf for information on hazardous waste safety gear and spill clean up products.

Important Tips when Storing Household Hazardous Products

- Make sure you tightly seal caps and lids on hazardous products.
- A
- Never store hazardous products in food containers.
- Keep products containing hazardous materials in their original containers and never remove the labels. Corroding containers, however, should be repackaged and clearly labeled. Keep containers dry to prevent corrosion.
- Keep products out of the reach of children and animals.
- Keep products away from sources of heat, spark, flame, or ignition such as pilot lights, switches and motors. This is especially important with flammable products and aerosol cans.
- Store products that warn of vapors or fumes in a well-ventilated area.
- Store oxidizers, such as chlorine products (i.e. bleach) away from flammable products. And store flammable products (e.g. gasoline) away from fuel sources such as your stacks of recyclable cardboard.
- ♦ Store bleach and bleach-containing cleaners separate from ammonia and ammonia-based cleaners. When combined these products can react and cause an explosive toxic cloud.
- Consider creating a family symbol, such as an unhappy or scary face, that children can identify. Draw this symbol on each container.



Case Study:

Swap Shop & HHW Re-Use

The Pueblo of Santa Ana is home to approximately 725 residents and is located roughly 20 miles north of Albuquerque. The Pueblo's Department of Natural Resources developed a Resource Recovery and Recycling Park at the existing solid waste transfer station. This enables community members to drop off recyclable or re-usable items and divert these items away from typical land filling.

The simple shed for the building was constructed as part of the transfer station's upgrade. It has a concrete pad for the floor, basic shelving and a corrugated roof. High volume items include children's toys, baby items, children's bicycles, house wares and clothing. A container from Big Brothers, Big Sisters collects materials specifically for that charity to re-sell.



Resources

Create a partnership with your local chapter of Goodwill Industries of New Mexico or Big Brothers Big Sisters to accept items that are not swapped at your reuse area. Goodwill 505-881-6401 and Big Brothers 505-837-9223

NMED Guidance on Rules
Regarding Reuse Areas: Tim Gray
with NM Environment
Department: Solid Waste
Bureau, 505-827-0129

Oversight: Having a staffed transfer or drop-off station works best with a reuse area. Education about types of material and keeping the area neat are important. Santa Ana's swap shop has faced problems including deposit of items that are broken, dirty, mouse infested or pose a health hazard being dropped in their Swap Shop.

They addressed this by providing

a letter to all visitors asking for their assistance to avoid these issues. Santa Ana noticed that having a well-trained staff person onsite to educate the public about what can and cannot be dropped off and to monitor the site has significantly helped with the above challenges. They have also installed a camera system for when the attendant is offsite and have posted signage letting visitors know they are on camera.

Regulation: According to the New Mexico Environment Department: Solid Waste Bureau (NMED) a reuse area is acceptable as part of a transfer or drop-off station. A community that adds this component to their drop-off should ensure that their permit reflects this.

Household Hazardous Waste: The drop-off also houses a Household Hazardous Waste (HHW)drop-off area for such items as paints, stains, pesticides, motor oil and other hazardous materials. This area was designed so that re-usable items such as the paints, pesticides, and other cleaners are kept separate, stored in spill-proof pans and are available for the taking by other patrons. Just so the packaging clearly details these items and they are not corroded or overflowing, this is an acceptable reuse practice.

If You Provide a HHW Exchange Area Please Follow These Steps:

- Let NMED know about your intentions so your operations plan can be updated.
- Provide a covered and lined area for the material that is in a controlled area of the drop-off station ensuring there is constant oversight of the materials.
- Have all visitors dropping off HHW materials sign a standard waiver (a sample can be
 provided by NMED). These records are required for NMED inspections and are used to track
 the material.
- Track materials by dating when received. All materials older than a year must be properly recycled. Ensure proper safety gear is at the drop-off in case of a spill or accident.
- Use best judgment on what HHW materials are available for public exchange. Paints and stains are exchangeable. Unopened pesticides or herbicides with clear labels are a viable exchange option. Anything extremely hazardous and open should be properly handled and recycled rather than exchanged.
- Tribes do not fall under NMED regulation in regard to management of HHW, but these outlined steps for tribal entities can be considered best practices.



Future: Santa Ana currently accepts construction materials and is learning that much of the wood placed in the area is reusable. They are considering expanding their re-use area to include a Construction Material Re-use Exchange area.

For more information contact: Alan Hatch, 505-771-6771 or alan.hatch@santaana-nsn.gov

This material is based upon work supported by a grant from the Unites States Department of Agriculture, Utilities Programs. Any opinions, findings, conclusions or recommendations expressed in this material are solely the responsibility of the authors and does not necessarily represent the official views of the Utilities Programs.