# Best Practices for Reuse & Repair in Rural Maine Communities

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# About this guide

This document explores how two types of reuse might be implemented within rural communities in Maine: swap shops and community repair clinics. Drawing on academic literature, best-practice handbooks from non-profit organizations, governmental sources, and communication with practitioners, this paper is intended to synthesize the available knowledge on reuse and repair for rural Maine communities.

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# Reuse & Repair: Summary for Decision-Makers

Community reuse can help municipalities achieve economic, social, and environmental goals. Swap shops and community repair events are opportunities to reduce waste and build a sense of community. There are a few key considerations for determining how to set up new operations and which policies should be adopted:

## Consider Space

Many organizers found that community repair events were much more popular than anticipated. Plan for growth as you think about space for your program or event. Consider how people will move through the space and whether lines or congestion will cause issues in the space you have designated.

## Make Clear Protocols

There is no single right way to operate a swap shop or a repair event, but it is important to be clear with participants about what is expected. Consider what types of items you will accept and how surplus goods will be handled. Post signage and communicate your protocols ahead of time.

## Engage the Community

Whether you are running a swap shop year-round or organizing a one-time repair event, it is important to find champions in the community who will help you succeed. Many swap shops rely on volunteers to keep the spaces organized and tidy. Most repair events are staffed by volunteers who hold a broad range of repair skills, from sewing to small electrical repair.



## Introduction

Waste management is a challenge for any community, but is particularly problematic for rural communities. In Maine, where per capita waste generation remains below average for New England states, as well as for the country as a whole, waste is no less an issue.<sup>1</sup> Collecting and transporting waste are time and resource-intensive tasks, especially for rural communities with shrinking budgets. Based on input from a series of stakeholder meetings across the state of Maine, Blackmer and colleagues reported that "waste management expenditures in Maine typically rank between the third and fifth highest category on municipal budgets."<sup>2</sup> National trends show a dramatic increase in consumption of material goods in the United States since the 1960s, meaning that barring an unforeseen decline in consumer purchasing, the quantity and cost of disposing of waste are unlikely to decrease.<sup>3</sup>

Recognizing the economic, social, and environmental costs of waste disposal, the state of Maine developed a solid waste management hierarchy in 1989 that provides guidance on prioritizing waste management decisions.<sup>4</sup> Within the hierarchy source reduction and reuse – strategies that extend the lifetime of material goods and prevent disposal – are ranked above options like recycling, incineration, and landfilling. While governments emphasize "a commitment to the 'waste hierarchy' as a guiding principle [...] Recycling, despite being only the third most desirable option in the waste hierarchy, has received the most attention."<sup>5</sup> Recycling is a critical strategy in the waste management toolkit, but it is prioritized below reduction and reuse for a reason.

Recycling is a manufacturing process that breaks materials down into their component parts so that they can be used as raw materials in production. It necessitates the collection, transportation, and sorting of recyclable materials – all energy and cost-intensive processes, especially for remote rural communities. While recycling is an important and well-established practice in Maine, stagnating recycling rates and unmet goals show that on its own it is insufficient as a strategy to reduce waste.<sup>6</sup> Instead, it is important to move "up the hierarchy",<sup>7</sup> using a suite of strategies to *prevent* waste, rather than only managing it after it is created. Compared to recycling, reuse involves a very different set of practices.

Reuse involves the exchange of used goods *in their original form* as well as "prepare for reuse" activities, including repair. Reuse offers economic and environmental benefits compared with other

<sup>&</sup>lt;sup>1</sup> Maine DEP, "Maine Solid Waste Generation and Disposal Capacity Report: Calendar Year 2015."

<sup>&</sup>lt;sup>2</sup> Blackmer et al., "Solid Waste Management in Maine: Past, Present and Future," 1.

<sup>&</sup>lt;sup>3</sup> Schor, *Plenitude*.

<sup>&</sup>lt;sup>4</sup> Maine Revised Statute Title 38, §2101.

<sup>&</sup>lt;sup>5</sup> Lane, Horne, and Bicknell, "Routes of Reuse of Second-Hand Goods in Melbourne Households," 151–52.

<sup>&</sup>lt;sup>6</sup> Blackmer et al., "Solid Waste Management in Maine: Past, Present and Future."

<sup>&</sup>lt;sup>7</sup> Isenhour et al., "Moving up the Waste Hierarchy in Maine: Learning from 'Best Practice' State-Level Policy for Waste Reduction and Recovery."

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forms of waste management.<sup>8</sup> The Oregon Department of Environmental Quality writes that "while recycling is typically preferable to manufacturing from virgin resources, reuse offers significantly greater potential for conserving resources and reducing pollution."<sup>9</sup> Promoting reuse not only offers an informal, lower-cost solution compared to disposal<sup>10</sup> but it also keeps value within communities rather than exporting it to other towns or states.<sup>11</sup> Further, activities like community-based repair clinics and "swap shops" can build community and lead to greater levels of happiness.<sup>12</sup>

<sup>&</sup>lt;sup>8</sup> Coe and Hickman, "Best Practices in Reducing Waste"; Isenhour et al., "Moving up the Waste Hierarchy in Maine: Learning from 'Best Practice' State-Level Policy for Waste Reduction and Recovery."

<sup>&</sup>lt;sup>9</sup> Oregon DEQ, "Strategic Plan for Reuse, Repair, and Extending the Lifespan of Products in Oregon," 4.

<sup>&</sup>lt;sup>10</sup> Bradley and Remolador, "Reuse Explorations Guide: Innovative Programs and Strategies"; Isenhour et al., "Moving up the Waste Hierarchy in Maine: Learning from 'Best Practice' State-Level Policy for Waste Reduction and Recovery"; Lane, "The Waste Commons in an Emerging Resource Recovery Waste Regime: Contesting Property and Value in Melbourne's Hard Rubbish Collections."; Lane, Horne, and Bicknell, "Routes of Reuse of Second-Hand Goods in Melbourne Households."

<sup>&</sup>lt;sup>11</sup> Bradley and Remolador, "Reuse Explorations Guide: Innovative Programs and Strategies."

<sup>&</sup>lt;sup>12</sup> Bradley and Remolador; Paralkar et al., "The Sustainable Neighborhoods for Happiness (SNfH) Decision Tool: Assessing Neighborhood Level Sustainability and Happiness"; Rosner, "Making Citizens, Reassembling Devices."



# Swap Shops

Known variously as swap shops, recycling barns, take it or leave it centers, treasure chests, freebie barns, and share shacks, these small reuse hubs are dotted across the state of Maine. The Maine Department of Environmental Protection estimated that 86 Maine communities operated some form of a municipal swap shop in 2014. Often located at solid waste transfer stations, swap shops can be as informal as a designated drop-off site or as formal as a shed or garage. Regardless of their form, swap shops function as places where used items in good condition can be dropped off for others to take, often free of charge.<sup>13</sup> Swap shops are associated with greater community-level happiness,<sup>14</sup> and can provide access to material goods to those who might otherwise be unable to afford them. Additionally, these local exchange sites keep materials out of landfills, reducing the costs associated with tipping fees and hauling waste,<sup>15</sup> as well as the environmental costs of transporting and storing or incinerating waste. Finally, swap shops can provide a low-cost solution to community-scale reuse,<sup>16</sup> and are relatively simple to establish and run.

#### Location & Layout

The first step in establishing a swap shop is to consider the potential location and layout. Oftentimes, swap shops are situated within transfer stations where lines of cars and crowds can cause problems for operations. Thinking through how people will travel through the space is important in reducing the stress on employees and other visitors. One swap shop manager commented that based on the popularity of her swap shop, she would have designed it differently: "I'd spread it out a little bit more. We're kind of cramped here. And I'd have spent a lot more time on placing, you know, things. We have a lot of traffic and I would've done things different. I would have spread it out more." She notes that the swap shop's popularity surprised the local select board, who designed the space anticipating less traffic. Beyond the site layout, the popularity of the shop may quickly outgrow its physical space. Developing a plan for growth will allow the swap shop to expand without requiring changes to the rest of the transfer station or host site.

Swap shops may be located in existing buildings, in freestanding sheds, or under protected awnings. The type of space will determine the amount of items the shop is able to accommodate, as well as how items can be displayed. When possible, it is helpful to make shelving and hooks available for organizing items, as it helps move items through the space more quickly. Further, keeping items off the floor ensures that they stay clean and attractive to shop visitors, which also has the potential to impact the types of goods that are dropped off. Bradley and Remolador write that "if items are nicely displayed, participants will be more likely to only leave things that are working [and] clean."<sup>17</sup>

<sup>&</sup>lt;sup>13</sup> Bradley and Remolador, "Reuse Explorations Guide: Innovative Programs and Strategies."

<sup>&</sup>lt;sup>14</sup> Paralkar et al., "The Sustainable Neighborhoods for Happiness (SNfH) Decision Tool:

Assessing Neighborhood Level Sustainability and Happiness."

<sup>&</sup>lt;sup>15</sup> Bradley and Remolador, "Reuse Explorations Guide: Innovative Programs and Strategies."

<sup>&</sup>lt;sup>16</sup> Bradley and Remolador.

<sup>&</sup>lt;sup>17</sup> Bradley and Remolador, 43.



#### Protocol

Determining what the swap shop will accept, and what the accepted protocol will be for people to use the space is critical to its success. There is great variation in protocol between swap shops in Maine. Some, like South Portland, Kennebunk, and Cape Elizabeth, prohibit the donation of clothing, and most do not allow televisions, computer monitors, and broken items. Recognizing the variety of goods that may be dropped off at swap shops, many simply state that items should be "gently used" or "serviceable," asking donors to exercise their own judgment. Swap shops may charge for items to be placed in the swap shop, especially for those materials that are expensive to dispose of, and many shops require the visual inspection of goods by a volunteer or staff member. All swap shops should be aware of items that are potentially hazardous and should not be swapped, including children's car seats and tires, among other items.<sup>18</sup> Regardless of the donation protocol, it is important to clearly establish the rules either through posted signage or through verbal communication with staff or volunteers.<sup>19</sup>

It is just as important to establish clear rules around the use of the shop as it is around the materials accepted. Many shops operate on a first come, first served principle where visitors may take what they want and stay as long as they like. When conflicts arise at swap shops, they may be attributed to a lack of clear rules on the use of the shops.<sup>20</sup> While behavior at the shop can be managed through clear rules and regular oversight, some worry about individuals profiting from the free goods available at swap shops. To this end, one swap shop manager cautions "don't get tangled up in worrying about what happens to the stuff when it leaves. Don't get tangled up and think it's going to end up in somebody's yard sale or on Craigslist, because the main reason for doing it is to save tax dollars. And once it goes out through the gate, if somebody sells it on Craigslist and they make \$20 that helps out that family." If visitors will be charged a fee to take items from the swap shop, it is advisable to decide in advance how the funds will be used.

Not all items will be taken from a swap shop, and "removing things that don't move is important to ensure customer return."<sup>21</sup> In Berwick, Maine, items are tagged when they arrive in the swap shop to allow for staff to determine when to discard goods that have remained untouched in the shop for too long. Other resources suggest partnering with non-profit organizations to donate materials that remain in the swap shop for too long.<sup>22</sup> Some swap shops charge residents to dispose of goods, but allow for free exchanges to take place if an item is directly transferred from one person to another, in an effort to reduce the accumulation of undesirable items. Posting clear signs about the types of items accepted by the swap shop can preclude some of the issues associated with items not moving.

<sup>&</sup>lt;sup>18</sup> Bradley and Remolador, "Reuse Explorations Guide: Innovative Programs and Strategies."

<sup>&</sup>lt;sup>19</sup> Bradley and Remolador.

<sup>&</sup>lt;sup>20</sup> Bodnar, "Town Officials Close Dump Swap Shop after Fighting over Freebies 'got out of Hand.""

<sup>&</sup>lt;sup>21</sup> Bradley and Remolador, "Reuse Explorations Guide: Innovative Programs and Strategies," 43.

<sup>&</sup>lt;sup>22</sup> NEWMOA, "Reusing and Recycling Large Rigid Plastic Items in Rural Communities."



### Staffing

Some oversight of the swap shop is helpful in ensuring that items left are in accordance with the facility rules.<sup>23</sup> While some swap shops require that items are checked in by a staff person to ensure they meet quality and safety standards, others are less time-intensive of staff, and many shops are run by volunteers. Having people on hand to organize the space, answer questions, and oversee the intake of items can help the shop run smoothly. Further, having staff or volunteers available to track donations can aid communities in assessing the success of the swap shop.

#### Savings and Benefits

Communities with swap shops have realized significant waste reduction goals as well as cost savings. Buckfield is reported to save over \$3,000 annually in solid waste disposal costs, and has reduced its waste by over 30 tons per year.<sup>24</sup> Another swap shop is diverting over 100 tons per year from the community's waste stream, with significant cost savings for tax payers. Further, these facilities are helpful to town residents, as one manager notes:

We've had tragedies in town where apartment houses burned, and the owner of the building supplied the beds and mattresses to the people and we actually furnished their apartments for them out of the take-it shop. And even today if people need, say they're looking for a recliner and they can't afford it. We have beautiful recliners that come in and we contact them and tell them we've got one.

On economic, social, and environmental terms, then, swap shops have great potential to benefit rural communities. With careful planning and foresight, these facilities can enhance quality of life in rural places, build social relationships between people, and reduce costs associated with waste disposal.

<sup>&</sup>lt;sup>23</sup> Bradley and Remolador, "Reuse Explorations Guide: Innovative Programs and Strategies."

<sup>&</sup>lt;sup>24</sup> Schneider, "Found It at the Dump."



# **Repair Clinics**

With a focus on durability, community repair programs keep materials out of landfills by fixing them when they are broken.<sup>25</sup> Repair clinics are temporary (often three to four hours), volunteer-run, community-based events that focus on fixing material goods. Events can focus on specific types of goods (electronics, for example) as well as offering broader services (from fabric to cabinetry). As with swap shops, the structure of repair clinics varies based on the needs of each community. Some clinics request a donation for the repair of items, while others only ask that attendees collaborate in the repair process. These events provide a place for community learning and knowledge-sharing between volunteer repair-people and attendees,<sup>26</sup> and are often very low-cost to run,<sup>27</sup> staffed as they are by volunteers.

## Location

Because repair clinics are temporary events, they can be held in under-utilized community buildings, like libraries, town halls, or even schools, during off-hours. This allows communities to maximize the use of existing space, and can provide a low-cost or free location to host the event. Libraries in particular have become popular sites for hosting repair events.<sup>28</sup> This is relevant for rural communities because libraries, "which are present in so many communities, serve a strategic role in extending public services to residents that may be hard to reach by other means. Many small and rural libraries are accustomed to linking what may be considered traditional library services with a variety of other social, educational, and economic development programs."<sup>29</sup> Libraries are increasingly expanding beyond lending books to becoming multi-use community spaces,<sup>30</sup> and hosting events like repair clinics is a way to bring new community members through the doors. Hosting repair clinics in schools and other institutions can foster vibrant community relationships between stakeholders that may have similar goals, but do not often have the opportunity to interact.

#### Organization

Communities may choose to host a repair clinic independently, or to join an existing organization, like Repair Café. Organizing the event independently may offer the greatest flexibility, while partnering with an existing organization can provide structure and support. Repair Café, established in Amsterdam, is an organization that helps communities run repair events across the world. To operate as an official "Repair Café," organizers must register with the parent organization for a one-time fee (€49 in 2017) that covers all subsequent events. Organizers must commit to running a noncommercial and voluntary event. In return organizers receive a startup kit that includes a startup

<sup>&</sup>lt;sup>25</sup> Rosner, "Making Citizens, Reassembling Devices."

<sup>&</sup>lt;sup>26</sup> Hobson, "Closing the Loop or Squaring the Circle?"; Martel, "The Fix Is Free"; Rosner, "Making Citizens, Reassembling Devices."

<sup>&</sup>lt;sup>27</sup> Bradley and Remolador, "Reuse Explorations Guide: Innovative Programs and Strategies"; Rosner, "Making Citizens, Reassembling Devices."

<sup>&</sup>lt;sup>28</sup> Calvert, "Uncommon Ground"; Cottrell, "Libraries and the Art of Everything Maintenance: Hosting Repair Events Reduces Waste, Brings in New Patrons"; Martel, "The Fix Is Free."

<sup>&</sup>lt;sup>29</sup> Swan, Grimes, and Owen, "The State of Small and Rural Libraries in the United States," 9.

<sup>&</sup>lt;sup>30</sup> Calvert, "Uncommon Ground."

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manual, a logo, flyer templates, liability protection forms, poster templates, and more.<sup>31</sup> Additionally, organizers are connected to a larger network of individuals and organizers which can help improve participation in events.<sup>32</sup> For some communities, the benefits of being associated with a larger organization and a network of support will outweigh the cost of registering with Repair Café, while other communities will value the flexibility of deciding their own logo, name, and operating procedures outside of the structure of a parent organization.

#### Logistics

A repair clinic might be as simple as a series of folding tables with plenty of outlets available, and tools supplied by volunteer repair people. Good signage and strong recruitment efforts will boost attendance, but perhaps the most important element to a successful repair clinic is recruiting skilled volunteers. "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."<sup>33</sup> Others note that enthusiasm is a critical attribute of a volunteer, perhaps more than technical skill.<sup>34</sup> Volunteers are also needed on the day of the event to staff a welcome table, direct foot traffic, track attendance, and distribute and collect waivers. While repair clinics are not high risk events, it is important to consult with an attorney to discuss liability concerns. Importantly, attendees should understand that volunteer repair people make no guarantees, and are not responsible for the condition of the item.<sup>35</sup>

#### Benefits

While a primary benefit of repair clinics is reducing waste and extending materials' lifespans, the temporary nature of these events makes it difficult to estimate their impact on waste reduction. What has emerged from the literature is a strong sense of the role that community-based repair plays in building social relationships.<sup>36</sup> When volunteers and attendees work together to solve problems, they not only exchange knowledge,<sup>37</sup> but also build community. These relationships can form between participants that span generational, income, and educational divides. Cottrell describes how repair clinics can foster an interest in engineering and science in young people, describing a young girl who co-repaired her broken electric scooter at a repair clinic, and who ties that experience to a newfound desire to study engineering in college.<sup>38</sup> Further, when repair clinics are located in welcoming community spaces they can prompt engagement from individuals who might not otherwise be able to access repair services, or feel comfortable doing so. Cottrell goes on to detail how a homeless man attended a repair event at a local library to get his headphones fixed:

<sup>&</sup>lt;sup>31</sup> "Repair Café: Start Your Own."

<sup>&</sup>lt;sup>32</sup> Rosner, "Making Citizens, Reassembling Devices."

<sup>&</sup>lt;sup>33</sup> Bradley and Remolador, "Reuse Explorations Guide: Innovative Programs and Strategies," 38.

<sup>&</sup>lt;sup>34</sup> Cottrell, "Libraries and the Art of Everything Maintenance: Hosting Repair Events Reduces Waste, Brings in New Patrons."

<sup>&</sup>lt;sup>35</sup> Bradley and Remolador, "Reuse Explorations Guide: Innovative Programs and Strategies."

<sup>&</sup>lt;sup>36</sup> Boyko et al., "How Sharing Can Contribute to More Sustainable Cities."

<sup>&</sup>lt;sup>37</sup> Hobson, "Closing the Loop or Squaring the Circle?"; Rosner, "Making Citizens, Reassembling Devices."

<sup>&</sup>lt;sup>38</sup> Cottrell, "Libraries and the Art of Everything Maintenance: Hosting Repair Events Reduces Waste, Brings in New Patrons."



The man explained he had gotten the headphones for \$2 at a hardware store several years back, and while he knew how to fix the broken wire that was likely inside, he didn't own or have a place to keep a soldering iron. [The organizer] and the patron were able to fix the headphones, and the man was appreciative.<sup>39</sup>

Building ties of trust and cooperation between people, also known as social capital,<sup>40</sup> is connected to a greater ability to work together to achieve shared goals, with positive implications for rural communities. There is some evidence that repair clinics might facilitate those durable connections between people that can be so productive for rural communities.

# Conclusion

Swap shops and repair clinics offer benefits to rural Maine communities on several levels; from reducing costs associated with waste management to building relationships between people. Swap shops offer low-cost strategies to prevent waste at transfer stations, with demonstrated cost savings and social benefits. While swap shops exist in many rural Maine communities, this simple solution could be expanded to communities across the state. Repair clinics are often associated with urban settings, but have great potential in rural contexts, as well. By maximizing the use of public spaces, engaging diverse (and often intergenerational) people in collaborative work, and extending the lifespan of material goods, repair clinics can meet multiple community objectives at a low cost. Both of these solutions could also be approached as a collaboration between communities to maximize participation and beneficial outcomes.

<sup>&</sup>lt;sup>39</sup> Cottrell.

<sup>&</sup>lt;sup>40</sup> Putnam, *Bowling Alone*.



## **Useful Resources**

Bradley, Athena Lee, and Mary Ann Remolador. "Reuse Explorations Guide: Innovative Programs and Strategies." Northeast Recycling Council, Inc., August 2016. <u>https://nerc.org/documents/Reuse/Reuse%20Explorer%20Guide\_FIN.pdf</u>

An overview of strategies for promoting and implementing reuse programs, with specific sections on swap shops and repair clinics, as well as other opportunities for waste reduction.

NEWMOA. "Reusing and Recycling Large Rigid Plastic Items in Rural Communities." Northeast Waste Management Officials' Association, August 2016. http://www.newmoa.org/solidwaste/pubs.cfm

The Northeast Waste Management Officials' Associations (NEWMOA) produces resource guides on waste reduction in northeastern states. Specific guides are available for a number of reuse programs.



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