## Contents

Background ................................................................................................................................. 1

Overview of Recycling Study ................................................................................................. 1

Case Studies .............................................................................................................................. 3 - 38

| City of Boise | 3 |
| Ada County Wood Waste Diversion Program | 7 |
| Southern Idaho Solid Waste | 9 |
| Blaine County, Idaho: Above and Beyond | 12 |
| Teton Valley Community Recycling | 13 |
| Heartland Recycling, New Meadows | 17 |
| Adams County: Council Recycle Center | 20 |
| City of Sandpoint | 21 |
| Bonner County | 23 |
| City of Pocatello | 25 |
| Bannock County/ Pocatello Compost Demonstration Project | 27 |
| Kootenai County | 29 |
| Moscow Recycling & Latah Sanitation Inc | 33 |
| Pay by the Can: Conservation-based Pricing | 36 |
| City of Lewiston | 37 |

Tips for Starting a Community Recycling Program ................................................................. 39

Minimizing Costs ...................................................................................................................... 40

For More Information .............................................................................................................. Back Cover
Background
Idaho is a predominately rural state with only two major metropolitan cities and large reserves of public lands. Much of the state's economy is dependent upon its natural resources, including land for agriculture, mining and lumber, and water for recreation and energy production.

Idaho is also a fast-growing state, facing increasing demands on its natural resources and land. Waste disposal options are becoming less readily available. Many small landfills have closed, unable to meet more stringent federal environmental regulations. Remaining landfills are filling up at sooner-than-anticipated rates, forcing many communities to look into options for expanding capacity or trucking their waste long distances.

During the past two decades, communities nationwide have implemented recycling and household hazardous waste programs in an effort to conserve resources, extend the life of existing landfills, and protect ground water and soils. Recycling opportunities remain limited in Idaho, however, for a number of reasons including:

1. Most communities in the state are small and lack the resources and tax base to finance and operate recycling collection programs;
2. Many communities are located hundreds of miles from large cities where recyclable goods are processed. Transportation costs can be prohibitive, often outweighing the value of materials collected for recycling.
3. Landfill fees are low, compared to neighboring states, often making it cheaper to dispose of waste than to recycle it. The economic incentive to recycle is lacking in most areas of the state.

Despite these challenges, some Idaho communities have succeeded in implementing innovative and cost-effective recycling programs for their residents. How have these communities managed to make recycling work? What are their keys to success? What could other Idaho communities learn from these successful recycling programs?

Overview of Recycling Study
To learn how communities developed successful recycling programs, the Idaho Department of Environmental Quality (DEQ) applied for and was awarded a federal product stewardship grant from the U.S. Environmental Protection Agency to conduct a study of recycling market development in Idaho.

In early 2003, DEQ’s Pollution Prevention Program researched and identified nine community recycling programs in the state. During the spring and summer of 2003, the program conducted site visits to learn about the following programs:

- City of Boise
- City of Pocatello
- Southern Idaho Solid Waste
- Kootenai County
- Teton Valley Community Recycling
- City of Lewiston
- Heartland Recycling
- Moscow Recycling & Latah Sanitation Inc.
- City of Sandpoint

These programs differ significantly in size, type, and organizational structure. They include curbside collection, drop-off sites, household
hazardous waste collection, and wood waste diversion. Some are county or city-run, while others are operated by dedicated volunteers or private hauling companies. They serve populations ranging from several hundred to nearly 200,000. Together they divert more than 27,000 tons of waste annually from local landfills.

Although the programs studied differ significantly, they share several characteristics including:

✔ A strong commitment to recycling and to providing a reliable system for residents to recycle.
✔ A collection system customized to the needs and abilities of the local community.
✔ A strong emphasis on cost minimization.

This report presents overviews of each program evaluated for this study including:

- histories of the programs;
- current implementation techniques; and
- notable achievements.

The purpose of this report is to share information on successful community recycling programs in Idaho, with an eye toward encouraging Idaho communities where recycling services are unavailable or limited to develop and/or expand these options.
Boise is Idaho’s largest city, serving a community of 181,711. Working with local recycling contractors and Ada County, the city has implemented a household curbside recycling collection program, drop-off sites, and a household hazardous waste program. Strong partnerships, a large population, and access to local recycling processors allow for a wide range of services and recyclable products collected. Program highlights include:

✔ Strong city/county partnership leverages resources
✔ Rate structure encourages recycling
✔ Access to recycling processors facilitates recycling opportunities

**Program History**

Boise’s recycling program began in the early 1990s, as a result of public interest, mayor and council support, and the cooperation of a local waste hauling company and local recycling processor.

To develop a program, the city devoted one staff position to research program options and implement several pilot projects including a curbside bin collection program. The employee and pilot projects were funded from the city’s solid waste fund, generated from trash collection fees. Pilot projects were implemented through an addendum to the city’s waste hauling contract, minimizing the need to hire additional city employees, or to invest capital in such items as collection containers or trucks.

In April 1992, the city expanded the curbside bin collection program citywide. The city contracted with its waste hauling contractor to purchase and distribute blue bins to households and provide recycling collection vehicles. The contractor integrated collection of recyclable materials into the established trash collection service.

Household solid waste rates were increased to cover the added cost of providing this additional collection service. The city opted to allow the contractor to market the recyclable materials collected through the program and to either retain a profit or cover the losses based on market conditions.
The recycling program received wide support from the public and mayor's office. Some opposition was voiced by individual citizens who expected to be compensated for the value of the items they recycled, and from local volunteer agencies who feared, but did not experience, a loss of revenue from their drop-off sites.

**Current Implementation**

Today, Boise residents have access to a wide variety of recycling services and options. Current services include curbside pickup for all single-family households, drop-off sites, a household hazardous waste materials collection program, and special events. In Boise, the distance between collection sites and recycling processors is short, within the city limits. This increases the available recycling opportunities and minimizes transportation costs.

Costs of operating the household curbside recycling program are paid from the city's solid waste fund, which is generated by residential solid waste (trash and recycling) collection fees. The city devotes approximately five full-time employees to manage city waste hauling contracts, oversee programs, conduct outreach and education, and develop new projects. The city also relies upon volunteers to assist with special events and outreach and education. No capital costs are incurred by the city as a result of the use of its trash hauling contractor for pickup and transport of recyclable goods as well.

The city's recycling programs are facilitated by strong partnerships with Ada County and its waste hauling contractor.

**Household Curbside Collection Program**

Over 62,000 households in Boise have access to curbside recycling. Boise's Public Works Division and City Utility Billing provide contract oversight, outreach and education, billing, and other management services for the curbside recycling program.

To encourage recycling, the city developed an incentive-based pricing system for trash and recycling services. Residents pay a flat rate for collection service that includes unlimited trash and recycling pickup once per week. Those citizens who wish to recycle are provided a blue recycling bin at no extra charge and pay one-dollar less per month for solid waste collection service. The following materials are collected curbside: newspapers, magazines, waste paper, aluminum, steel cans, plastic bottles and flattened cardboard. Residents must separate their recyclable materials into paper bags in the bin. Residents also may set out up to two gallons of used oil for recycling.

Recycling and trash collections occur on the same day to facilitate and encourage recycling. Reduced rates and additional services are offered to low-income families and persons with disabilities. As a result, 73.5% of households are signed up to participate in the recycling program, with an average weekly set out rate of 31.6%.

The city's trash hauling contractor collects and hauls recyclables collected from households to a recycling processor. The contractor purchases and retains ownership of trucks and collection bins. One unique feature of the city's program is a clause in the contract between the city and the contractor stipulating that no materials collected
through the curbside program be landfilled. This ensures that all materials collected are recycled or diverted for reuse. The contractor absorbs either the profit or loss from the recyclable goods marketed by the processor.

**Drop-off Sites**
The city and several private companies host a number of recycling drop-off sites throughout the city.

- Private recycling processors host drop-off sites for many common recyclable items such as newspapers, phone books, cardboard, aluminum, glass, and plastic.
- Because glass is not collected in the city’s curbside program, Boise has set up seven glass-only recycling sites, generally at government facilities such as fire stations or sewer districts throughout the city.
- The downtown business district has eight sites with bins for newspaper, plastic, and aluminum. These are sited in central locations such as outside restaurants or well-traveled street corners.

All city-run drop-off sites use a contractor for collection and transport of materials to the recycling processor.

**Household Hazardous Waste Program**
In addition to traditional recyclable items, hazardous wastes are collected in conjunction with the Ada County Household Hazardous Waste (HHW) program.

Ada County maintains a Hazardous Waste Collection facility at the local landfill where residents may drop off hazardous wastes two days a week. The county assumes responsibility, through a contractor, for material management, marketing, and transport to a remanufacturer or recycling processor.

The city of Boise provides additional mobile collection opportunities within the city limits at eight locations where residents may drop off household hazardous wastes once or twice per month. The city owns the collection vehicle, which is used to collect the materials from the drop-off sites and transport them to the Ada County facility.

The city contracts the operation, collection, and transport of the wastes. In addition, the city contracts its mobile collection unit with neighboring communities of Meridian and Garden City, bringing additional HHW collection opportunities to these areas at a reduced cost.
**Special Events**

In addition to its on-going recycling programs, the city of Boise sponsors special curbside collection events for seasonal items such as leaves, branches and Christmas trees at no additional cost to residents and to kick off new programs.

For example, prior to implementing a ban on computer monitors and TVs from the landfill, the city held a free e-waste collection event. A total of 103,540 pounds of e-waste was diverted from the landfill. The city teamed up with Ada County, local volunteers, and Hewlett Packard to host this event.

---

**Conclusions**

The city's various programs diverted over 6,400 tons of waste from the local landfill in 2002, avoiding an estimated $105,600 in landfill fees.

Distance between recycling processors and remanufacturers is long, however, and transportation to end markets can be costly. While some items such as aluminum are cheap to transport, heavier commodities such as glass can be costly, so much so that transport costs often exceed the value of the material.

Expansion of recycling services in Boise will be limited by the availability of local recycling remanufacturers and market prices. Short-term profits and gains are difficult to achieve.

Long-term benefits include conservation of landfill space and a longer lifespan for the landfill. Tipping fees are low relative to surrounding states (less than $20/ton v. $80/ton in some areas), but construction of new landfills is costly and will only become more expensive in the future. In addition, the majority of Boise residents have a strong conservation ethic and expect recycling services to be provided.

Future plans for the city include increased public education and outreach to sustain recycling programs and expansion of special programs such as year-round yard waste collection.
Ada County: Wood Waste Diversion Program

Ada County diverts 50 million pounds of wood waste a year from its landfill using a two-tiered diversion program.

**Tier I**
A special collection area is set aside where haulers, including residents, may deliver wood waste at a reduced tipping fee. The wood is chipped on-site by a contractor and sold for use in secondary markets as fuel, firewood, or landscaping. This program captures about 50% of all wood delivered to the landfill.

**Tier II**
To prevent landfilling of wood waste in mixed waste loads, trucks identified as carrying wood waste along with regular trash are diverted to a separate area of the working face. At this site, inmate workers manually sort wood waste from trash and deliver it to the wood waste collection area for chipping and sale. Inmate labor is free to Ada County. This program captures 20% more wood waste.
Southern Idaho Solid Waste (SISW) is an award-winning multi-county program providing recycling and solid waste service to seven rural counties in Idaho. The program manages 21 drop-off sites throughout a geographic area of 10,462 square miles. Highlights of this system include:

- Recycling opportunities for rural communities
- Minimization of costs through shared resources
- Flexibility to allow for tailored participation by communities

**Program History**

In 1989, seven southern Idaho counties pooled resources to investigate the impacts of current and pending solid waste regulations. At the time, the counties housed 24 public landfills and one incinerator, with solid waste management costs ranging from $4.80/ton to over $34/ton.

Regulatory compliance was making solid waste management more expensive and resource-intensive. A regional system allowed counties to pool resources and realize greater efficiencies. Benefits of a regional system included lower capital investment, operational expenses, and shared construction costs for new landfills in lieu of maintaining seven individual county systems and multiple disposal sites.

In developing the regional model, officials decided on four guiding principles for solid waste management. Chief among these principles was recycling.

In 1994, the waste district became operational, and focus shifted from landfill development to waste diversion, recycling, and public education. Financing for these programs was built into the operational costs of the waste district.
**Current Programs**

SISW currently operates rural drop-off recycling sites, landfill/transfer station programs, and a waste exchange, and hosts special collection events.

The service area is very rural, with a population density of 11 persons/square mile. Long distances between communities, collection sites, and recycling processors result in high transportation costs. Distances between communities and the nearest recycling processor are up to 110 miles.

Despite these barriers, the region recycles or diverts over 20% of waste from the landfill each year.

All programs are financed out of operational funds. Each program is evaluated using an avoided-cost model. The cost-per-ton of waste avoided must be competitive to the cost of disposal in the landfill. The regional system minimizes costs to individual counties through shared staffing and equipment. Counties pool resources and share capital costs. For example, one recycling truck serves recycling sites in all seven counties.

**Rural Recycling Program**

Despite its sparse population and long transportation distances, SISW operates a rural recycling program. SISW has implemented 21 drop-off sites for recyclable goods, including aluminum, tin, newspaper and cardboard. Sites are conveniently located at strip malls, community centers, and other frequently traveled public areas.

In addition to the drop-off sites, SISW operates the Blaine County Resource Recovery Center, located at the Ohio Gulch Transfer Station. The Resource Recovery Center processes materials collected by local trash haulers through curbside recycling programs in two Blaine County cities. Blaine County residents also may drop off materials at this center at no charge. Altogether, SISW’s recycling programs serve up to 190,000 people annually and in 2002, collected over 2,000 tons of material.

**Landfill/Transfer Station Programs**

In addition to the rural recycling sites, SISW diverts and recycles tires, scrap metal, and clean wood at its transfer stations and diverts wood waste from its landfill.

Tires and scrap metal are collected from each site and recycled by private-sector contractors. Wood waste is shredded at each site by SISW employees using a portable tub grinder. The shredded wood waste is then sold to landscapers, composting operations, and dairies for use in manure management. Approximately 100,000 cubic yards of wood waste are diverted from the landfill each year.

**Special Programs**

In 2001 and 2002, SISW partnered with Blaine County to hold special e-waste collection events for Blaine County residents. Over 7,500 pounds of computer equipment were diverted from the landfill, including over 3,000 pounds of computer monitors. Computer monitors are estimated to contain between five and eight pounds of lead per monitor.

**Waste Exchange**

SISW operates a waste exchange where individuals and companies trade materials. The exchange is managed as a Web site, minimizing costs and resources needed for program implementation. The site lists materials available or wanted and contact information. SISW does
not store materials. The exchange is a low-effort endeavor with varied success. Its passive nature limits the quantity of items listed and matches made.

**Composting**
In 1994, SISW implemented a residential compost education program to increase green waste diversion from the landfill. SISW distributed over 1,000 composting bins and educated residents about home composting through local garden clubs. It is estimated that households could reduce waste to the landfill by 900 pounds a year through residential composting.

---

**Conclusions**
The regional recycling model employed by SISW leverages resources of smaller communities and brings recycling to rural parts of Idaho. Capital and staffing costs are held to a minimum through regional cooperation. Equipment such as wood chippers, trucks and bins can be shared among communities.

The region faces some limits to its program. Long distances to recycling remanufacturers limit items that can be collected economically. In addition, little competition among recycling processors limits new business opportunities.

Despite these limitations, the program has met with much success as evidenced by the tonnage diverted from the landfill each year and the support of the community. In addition, the program was nationally recognized in 1999 by the Solid Waste Association of North America and presented the SWANA Integrated Solid Waste Management System Excellence Gold Award. The landfill system also won SWANA’s Recycling Excellence Bronze Award.

SISW continues to identify and operate cost-effective recycling programs. In addition to its new household hazardous waste program, SISW plans to expand its commercial recycling opportunities and encourage recycling at area schools.

---

**Future Programs**
SISW continues to explore new opportunities and implement new programs such as household hazardous waste (implemented in 2003) and expanded commercial recycling collection. All projects will be evaluated using an avoided-cost model.
**Blaine County, Idaho: Above and Beyond**

Blaine County is part of Southern Idaho Solid Waste. However, to meet the demand and interest of its citizens, Blaine County operates an additional recycling center – the Blaine County Resource Recovery Center. This center offers customer drop-off services and provides a local drop-off collection site for the valley’s curbside collection program. The center bales and packages materials, which are then sold directly to processors.

Curbside recycling collection service is offered by Wood River Rubbish. Residents of Hailey and Ketchum receive this service automatically as part of their solid waste collection. Other residents of Blaine County may signup directly with Wood River Rubbish for an additional monthly fee.

The Blaine County Resource Recovery Center’s costs are paid through revenue generated by the sale of materials. Costs are minimized through the use of community service labor and volunteers for special collection events.

In 2002, the center reported that operating expenses continued to exceed revenue. However, the county also reported $36,978 savings in avoided landfill fees at the Milner Butte Landfill. Therefore, the county estimates that recycling services actually generated a net savings for the county in excess of $20,000/year. In 2002, the county diverted 1,936 tons of recyclables from landfill.
Teton Valley Community Recycling

Population.........................4,000
Service size..........................Teton County
Geographic area.....................450 square miles
Programs offered....................drop-off collection site
Tons recycled in 2002..............~24
Farthest distance from pickup
to recycling processor............70 miles

The citizens of Teton County are committed to their community and the environment. That's why they manage a volunteer-run recycling program. Highlights of this system include:

✔ Use of volunteers to minimize operating costs
✔ Recycling services provided to a rural area
✔ Innovative fundraising practices to raise money for program operation

Program History/Structure
Teton County is located approximately 70 miles east of Idaho Falls, on the western edge of the Teton Mountains. Small, rural towns supporting agriculture and tourism dominate the area. Community services in these areas tend to be limited by geography and resources. Many households do not have access to trash collection and self-haul their garbage to local landfills.

Recognizing the impact of household waste on local landfills and the need to protect the headwaters of the Snake River, residents in Teton County formed Teton Valley Community Recycling (TVCR). Volunteers estimate that since 1997, over 175 tons of material have been diverted from landfills.

In May 2002, TVCR began weekly community recycling drop-off events at Broulim’s grocery store in Driggs. The group owns a six-bin Protainer recycling container mounted on a trailer. The trailer is placed in the parking lot of Broulim’s each Saturday from 10 a.m. to 2 p.m. Items collected include cardboard, aluminum, steel, tin, newspaper, and magazines. Volunteers staff the site to assist residents with sorting and collection.
When the container is full, about every two weeks, volunteers haul the trailer and Pro-tainer to Jackson, WY (weather permitting) or Idaho Falls.

Startup for the TVCR included purchase of a trailer and recycling container, and organization of volunteers. A seven-member board was formed to provide oversight and organization.

Initial costs were financed by community grants. These monies were used to purchase the trailer and recycling container. Other operation costs were minimized through partnerships with surrounding communities and the local grocery store.

**Current Program**

Currently, TVCR is operated by 12 volunteers who assist on alternating Saturdays with collection and transportation.

Annual operating costs run approximately $3,000 - $4,000 each year and include trailer maintenance, mileage reimbursement, advertising, and marketing. Funding comes from a variety of sources. Local community grants help offset some costs. Fundraisers, such as an annual flea market, also provide support. Each year, the group holds an annual Trash Bash in which local artists donate art made of trash for auction. Lastly, the group sells advertising space on the recycling container. Companies may either pay for this space or donate services, such as providing two trailer hauls to Idaho Falls.
The local grocery store, Broulim’s, lends support in two ways. The store provides space each Saturday for collection. In addition, the store allows volunteers to use its baler to bale cardboard and transports the cardboard to the processor at no charge.

The cities of Jackson and Jackson Hole, Wyoming provide additional support. Weather permitting, Teton County Recycling trucks its recyclables to Jackson Hole Recycling, a distance of approximately 45 miles. Roads to Jackson can be treacherous in inclement weather, in which case the program transports its recyclables to a processor in Idaho Falls, approximately 70 miles. In addition, the Wyoming communities aid residents of eastern Idaho in disposing of household hazardous waste and have awarded grants to TVCR to assist with their operations.

The program advertises through a Web site and ads in local newspapers. The result is between one to two tons of material are collected each month, plus 500 pounds of cardboard.

Conclusions

Teton Valley Community Recycling hopes someday, recycling will be a county-run operation. However, in the short term, the group plans to increase education and outreach to youth through schools and scouts. The group would like to expand to other recyclable materials, but will proceed slowly until more resources and volunteers are found.
Heartland Recycling, New Meadows

Population.............................620
Service size.............................New Meadows
Geographic area..........................0.5 square miles
Programs offered.........................drop-off collection site
Tons recycled in 2002...............153
Distance from pickup
to recycling processor........118 miles

For over 10 years, the citizens of New Meadows have managed a volunteer-run recycling program. Drawing upon community support and a strong conservation ethic, this small, mountain community has developed one of the most extensive recycling drop-off sites in Idaho. Highlights of this system include:

✔ 24-hour drop-off center
✔ Center conveniently located in middle of town for easy access and visibility
✔ Recycling services provided to a rural area
✔ Transportation costs minimized through back-haul arrangement

Program History/Structure
New Meadows is a small mountain town located about 118 miles north of Boise, near McCall, Idaho.

Since 1990, residents have operated a volunteer recycling program that has grown over the years to become Heartland Recycling, a non-profit, volunteer-run drop-off recycling facility.

In 1998, Heartland Recycling opened its current facility, a drive through enclosure that houses bins for many common recyclables.

Initial funding for this facility was achieved through grants, donations, and partnerships with area businesses. For example, the building used for collection was funded by U.S. Department of Agriculture and U.S. Forest Service grants, with materials donated by a local company, Evergreen Forest Products. Volunteers assisted with construction.
The building is located on city land, leased to Heartland for $1/ year. The site even boasts landscaping funded through a National Arbor Foundation grant, to shield the building from wind. The non-profit also received equipment donations such as cardboard balers, lifts and special event collection bins. Local governments (city and county) pay the site’s electricity and insurance.

The facility is sited with public access in mind. Organizers considered two options—locating the site near the landfill or locating it in the heart of town. The town option provides easy access, visibility, and proximity to the local school. Organizers felt this option best suited their goal of encouraging recycling among all residents and generations.

Current Program
Heartland Recycling offers collection of many common materials, including cardboard, glass, aluminum and tin, paper, newspaper, phone books, and plastics. Most items are shipped to Boise (118 miles) or Fruitland (95 miles) for processing.

To minimize transportation costs, Heartland Recycling negotiated a discounted back-haul rate with a local trucking company that makes periodic deliveries to McCall.

Heartland Recycling also offers recycling of some specialty items. Auto batteries can be disposed of through a local auto shop. Transportation costs to Boise are covered by sales of the materials.

Heartland Recycling does not purport to make money on this venture. Some years, the program has seen a small profit, which is generally set aside.
to subsidize costs during less profitable years. The group relies on volunteers, partnerships, and donations to maintain the operation.

Oversight of Heartland Recycling is conducted by a volunteer Board of Directors, with by-laws and a regular meeting schedule. The facility is open 24 hours a day, 365 days each year. Fourteen volunteer couples check on the site and donate time for maintenance, housekeeping, and baling.

Heartland Recycling advertises its services through brochures, pamphlets and advertisements in the local paper. The group actively works with students and provides education and outreach to the local school. As a result, Heartland Recycling processed over 522 tons of material in the last five years.

**Conclusions**

Heartland Recycling continues to emphasize volunteer commitment as a key to its success. Future plans include expanded outreach to schools and continued operation of the facility. In addition, the Heartland Recycling model has been replicated in the nearby town of Council.
Adams County: Council Recycle Center
Council is located about 45 miles south of New Meadows. The area is the county seat of Adams County. Residents here also have a strong recycling ethic and have run a volunteer drop-off recycling center since the early 1990s.

A fire in 2000 led to rebuilding of the Council Recycling Center facility. The new center is modeled after the New Meadows facility, and the types of materials collected have expanded. USDA grants were used to create educational materials, tote labels and a storage shed for supplies. Currently, a part-time employee staffs the center, bales materials, and coordinates volunteers who remain essential to the center’s success.

To meet growing concerns over landfill space, Adams County has expanded its outreach to school recycling and cardboard recycling for businesses. The county works with an array of private companies, citizens and community businesses to continue services and explore new options for recycling throughout the county.
Sandpoint is one of the most diverse small towns in the Pacific Northwest. Situated on Lake Pend Oreille, the town is the largest in Bonner County and offers recreation, tourism, and a strong art community. Sandpoint also provides a curbside recycling program for households. Highlights of the program include:

- Built program support through a pilot project
- Lowered operating costs by utilizing used trucks and equipment
- Benefitted other local communities by meeting regional landfill requirements

**Program History**

The city of Sandpoint, located in the northern Idaho Panhandle, has a population of 7,000. Strong public support and leadership from the mayor’s office were integral to developing a citywide recycling program.

In 1994, the city initiated its recycling program through a pilot project. The pilot project placed three 10-yard drop-off boxes in the community. The goals of this project were to assess support for recycling while evaluating different models of recycling. The city picked up the costs of promotion while contracting hauling services to the city’s trash contractor, which provided both the collection boxes and transportation to a recycling processor.

After six months of running the pilot project, the city asked its contractor to provide a cost estimate for curbside recycling collection service, including equipment, pickup, and hauling. First estimates were evaluated by the city as too expensive to implement, largely due to the cost of purchasing a new recycling truck. Operating costs were significantly reduced, however, when a used recycling truck became available, resulting in lower implementation costs per household. Within a year, curbside recycling was implemented citywide in Sandpoint.

Initially, costs for this program were funded through residential service fees and added as a separate line item to the monthly trash collection bills. In 1997, this fee was absorbed into the solid
waste collection fee and residents are billed for recycling and solid waste as a comprehensive service.

Bonner County sends its solid waste to a landfill in Oregon. The landfill requires communities using its landfill to operate a recycling program. The Sandpoint program met the recycling requirement for the county and in return, the county agreed to partially fund the city’s recycling efforts.

**Current Program**

Today, Sandpoint continues to offer curbside recycling collection. Items collected include glass, cardboard, aluminum, tin, plastics, newspaper, and magazines.

Participation rates are approximately 60%, with 220 tons of recyclable materials collected each year. Services continue to be provided through a city contract with a private hauler and funded by residential collection fees. Recyclable materials collected are trucked to a local processor or to processors in Spokane or Coeur d’Alene.
Bonner County

Bonner County residents may participate in a countywide recycling and household hazardous waste drop-off program at five attended disposal sites around the county. Most sites are open seven days a week during normal business hours. Recyclable materials collected include glass, aluminum, cardboard, magazines, and newspaper. Household hazardous waste collection includes paints, solvents, cleaners, oils, and pesticides. Household hazardous wastes that are still usable, like paints, are available for free to residents. Other wastes are shipped out for recycling or processing.

The services are funded through residential fees assessed on tax bills and monies recovered from sale of recyclable items. Recyclable materials are transported by Bonner County to site in Coeur d’Alene for processing, at distances of 40 to 80 miles.
Pocatello is located in southeast Idaho and nestled at an elevation of 4,448 feet in the western foothills of the Rocky Mountains along the Oregon Trail. The area is surrounded by agricultural lands, but hosts a diverse array of businesses from agricultural operations to manufacturing facilities to a large university. The city offers six drop-off recycling containers for common recyclables.

✔ City funded drop-off sites
✔ Access to local recycling processing facilities

**Program History**
In 1991, the City of Pocatello implemented its citywide recycling program. With support of the city council and public, the program began with five drop-off sites, situated at various community buildings or popular shopping centers. Initial funding was obtained through city trash fees, with labor provided by city employees. Over time, however, the city contracted collection services to a local recycling company.

The city implemented a Household Hazardous Waste (HHW) program in 1992. Facing potential ground water contamination from the landfill, the HHW program was adopted by Bannock County in 1995. A permanent collection site at the landfill is open to residents monthly throughout the summer. Costs are funded through local taxes and landfill tipping fees.

**Current Program**
Today, Pocatello has expanded recycling collection to six drop-off sites. The city collects cardboard, aluminum, plastics, newspaper, magazines, and tin.
The sites are serviced by a local recycling processor through a city contract. Costs are paid by city trash collection fees. The bins are well used, diverting 545 tons of waste each year or an estimated 1.7% of all waste generated from the landfill.

Education remains a critical component to the program to encourage use and minimize contamination of bins with non-recyclable items such as trash. Ads are placed in local newspapers, pamphlets distributed, and large signs posted on each container.

Bannock County continues to offer HHW collection on the first Saturday of each month from April to October. Approximately 250 people are serviced each day of operation. The operation requires 3–4 trained staff. Additional assistance in sorting is provided by lower-cost inmate labor. Costs for collection are offset by landfill fees and county taxes. In 2002, the program collected 605 barrels of pesticides and aerosols, 2,875 gallons of used oil, 575 gallons of antifreeze, 875 barrels of flammable liquids and 1,255 barrels of flammable sludge.

The first policy of the Bannock County HHW program is to find a local use for all waste collected. Paint finds its way to community projects, including painting local buildings, picnic areas, and park structures. Unused pesticides and garden items are used in county gardens and at the fairgrounds. Items that cannot be reused are recycled through a recycling company or service. This not only saves money in recycling costs, but lowers community maintenance and operating costs for paint and other supplies.

Both the city and county believe education is essential for successful programs. Both visit schools and local groups to educate citizens about recycling. They distribute refrigerator magnets, pamphlets, and other outreach materials. Bannock County estimates it reaches approximately 6,000 people with its recycling message each year.

Conclusions
The city has investigated expanding services to include curbside collection. It estimates that costs would range between $1 and $2 per household per month, a cost considered too high by area residents at this time. In the meantime, the city will continue to explore and encourage recycling, HHW collection, and new ventures such as the Compost Demonstration project.
Bannock County and City of Pocatello: Compost Demonstration Project

Bannock County, in cooperation with the city of Pocatello, has implemented a pilot composting project. Goals of this project include:

• Determine the feasibility of operating a large-scale composting operation at the landfill;
• Develop a process for efficiently collecting, composting, and distributing the material; and
• Develop end uses for composted material.

The county plans to collect up to 1,000 tons of material, after which it will evaluate the project structure and its success. Items collected include grass clippings, flowers, leaves, green weeds, and yard and garden trimmings. The county uses inmate labor to help sort and staff the collection area, minimizing operating costs. In 2002, the project diverted 600 tons of compostable material from the landfill.
Kootenai County is a fast-growing area in the northern Idaho Panhandle. The area is characterized by large lakes, forested lands and I-90, a major transportation corridor through the northern United States. The area is home to traditional mining, agriculture, and timber industries, as well as a resort destination for many in the Pacific Northwest.

Over the last decade, recycling in Kootenai County has developed as part of an integrated solid waste management system based upon the belief that recycling must be available to each citizen. Highlights of the program include:

✔ Integrated solid waste management
✔ School drop-off sites that create additional revenue for schools
✔ Programs to meet needs of urban and rural customers

Current Programs
Recycling in Kootenai County is made up of many programs—curbside collection in Couer d’Alene and Post Falls, school drop-off sites, the Ramsey Transfer Station recycling center, and household hazardous waste collection.

All residential recycling and trash services provided by the county are funded through yearly solid waste fees. These fees support transfer station and landfill operations, recycling, and other solid waste services not provided by the cities. Additional collection fees for trash and recycling may be assessed by individual cities within Kootenai County.

Over 12,000 tons of materials were recycled by county residents in 2002. Additionally, commercial customers may drop off recyclable materials at the Ramsey Transfer Station at no charge. An additional 53,000 tons of material were diverted from the landfill through this program in 2002.

Curbside Recycling
The cities of Post Falls (pop. 18,738) and Coeur d’Alene (pop. 36,259) offer curbside recycling for residents. Items collected include newspaper, cardboard, glossy magazines, phone books, plastic milk and soda bottles, aluminum cans, steel (tin) cans, and household batteries.
Collection is managed by the cities and fees for curbside collection are assessed by each city as part of the collection costs for solid waste service. Materials are delivered to the Ramsey Transfer Station managed by Kootenai County.

For convenience, recycling bins are picked up the same day as trash in both cities. This curbside collection program accounts for over 1,000 tons of materials recycled annually.

**School Drop-Off Program**

Thirty-seven area schools have drop-off recycling bins on site. Schools pay for their own bins, and the county provides collection and transfer to a processor. Schools keep the proceeds from all items recycled, except cardboard.

In 2002, 871 tons of newspaper, aluminum cans, magazines and cardboard were recycled through the school drop-off program. This program brings recycling to rural areas of Kootenai County and provides a way for citizens to earn additional revenue for schools in their area.

**Ramsey Transfer Station**

The county has one transfer station located in Coeur d'Alene. This station is open to both commercial and residential customers. The transfer station houses an extensive recycling drop-off site, wood waste diversion program, and household hazardous waste facility.

Residential customers may dispose of most trash at this station free of charge. Commercial customers are charged a tipping fee for most materials. Recyclable materials for both residential and commercial customers may be dropped off at no charge.

Recycling drop-off bins at the station are referred to as the Recycling Island. The island is located near the main entrance and exit. It is the first thing that customers see upon entering the landfill and the last prior to leaving. The following materials are collected at the island: magazines, office waste paper, phone books, aluminum, tin, certain plastics, glass, newspaper, cardboard, and batteries. Tires, appliances, scrap metals, and carpet pad also are collected elsewhere in the facility. Depending on volume, residents may be assessed a fee for tires.
**Wood Waste Diversion**
Wood can be a particular problem in landfills. In addition to its bulk, it also can limit compaction of waste. Other uses for wood waste include fuel or secondary wood products.

Kootenai County offers a wood waste diversion program. Commercial customers may dispose of wood waste at a reduced fee (approximately 25% less than the normal tipping fee).

**Household Hazardous Waste**
Kootenai County is home to the Rathdrum Aquifer, the primary source of drinking water for the region including the city of Spokane, Washington. As a result, the area is particularly vulnerable to incorrect disposal of hazardous materials. Kootenai County received a state grant to start a HHW program that continues today. Residents may dispose of HHW free of charge each Wednesday and Saturday. Used oil is collected every day.

The county aids conditionally exempt small quantity generators in disposing of hazardous waste by holding special collection days for commercial customers. In cooperation with a local hazardous waste contractor, the Ramsey Transfer Station offers a monthly commercial collection day. A fee is charged for this service and all collections are managed directly through the contractor by appointment only.
Latah County and the city of Moscow are located in the north-central part of the Idaho Panhandle. The area is categorized by agriculture and the timber industry, and is home to the University of Idaho.

Community recycling services in this region are provided by a private company, Moscow Recycling, part of Latah Sanitation Inc., in close partnership with Latah County and its cities. Services offered to residents include drop-off and curbside recycling, household hazardous waste drop-off, yard waste diversion, and community outreach and education. Highlights include:

✔ Shared responsibility for collection, transport and processing of materials
✔ Winner of the Idaho GreenStar Award
✔ Diverse materials collected curbside in towns ranging in population from 543 to 21,674 people

### Program History

Moscow Recycling started in 1970 as a volunteer center on donated space in Moscow. In 1974, the volunteer program incorporated into Moscow Recycling, which later became part of Latah Sanitation, Inc.—the local trash hauling company.

Moscow Recycling received start-up support from the city to purchase equipment. Funding for special projects such as the first household hazardous waste (HHW) collection days and composting workshops was provided by both the city of Moscow and Moscow Recycling.
In 1993, faced with pending closure of the local landfill, the city of Moscow and its trash hauler opened the Moscow Recycling Center, undertook transfer station operations, and embarked on a waste education program. Latah County partnered by offering support for the education program and household hazardous waste collection day.

In 1996, the Moscow Recycling Center won the GreenStar Award from the Idaho GreenStar program. GreenStar is an environmental recognition program for companies and organizations that go even beyond recycling by such measures as energy conservation, water conservation, solid and hazardous waste reduction, environmental purchasing, and outreach and education.

Today, the Moscow Recycling Center run by Moscow Recycling still receives city and county support and has expanded services to include transport and curbside pickup in Latah County, and drop-off sites in Latah and neighboring Nez Perce County.

**Current Program**
Latah County has no local landfill. Waste is processed at a transfer station and transported to Oregon for disposal. High landfill fees and long transportation distances make diversion, including recycling, the preferred choice. As a result, Moscow Recycling, Latah Sanitation, and the cities and counties work together to bring services to their communities.

Latah Sanitation is the parent company of Moscow Recycling and offers collection, transportation, and processing of garbage throughout Latah County. In addition, Latah Sanitation operates a transfer station with a weekly household HHW facility. HHW waste is processed through a contractor.

Moscow Recycling serves as collector and processor of recyclable materials. The center operates curbside programs in Moscow, Deary, and Troy, a drop-off center in the city of Moscow, and monthly drop-off sites around Nez Perce County. The center is the main processing facility
for materials sold directly to mills or a secondary processor. The largest constraint currently faced by Moscow Recycling is lack of space to store materials prior to shipment to the mill or secondary processor. This limits the addition of new items to its recycling inventory.

Moscow Recycling is also responsible for recycling outreach and education. Education programs include publications and mailings, a lending library, booths at community events and periodic contests to engage citizens.

Cities in Latah County manage individual contracts with Latah Sanitation and Moscow Recycling for garbage collection and curbside collection and handle customer billing and accounts. In addition, the city of Moscow leases land to Moscow Recycling for its recycling center. Moscow Recycling receives funding from the city of Moscow to support the recycling outreach and education program.

Recycling services are funded by a combination of city support, customer fees and commodity sales. As mentioned, materials are sold to secondary processors or directly to mills. Shipping is contracted out. Backhaul rates are implemented when possible to minimize the cost of shipping recyclable materials to market.

In addition, the city of Moscow pays Latah Sanitation and Moscow Recycling a fee per ton of recyclable materials collected. This cost helps support the recycling program and infrastructure and on a per-ton basis is approximately 50% lower than the cost to landfills the same tonnage of materials.

### Current Services

#### Curbside Recycling

Curbside recycling began in 1996 in Moscow (pop. 21,624) and in 2000 in Deary (pop. 543) and Troy (pop. 786). Cities negotiate the terms of collection with Moscow Recycling, which provides collection and transport to the recycling center for processing. Other cities in the county do not offer curbside collection.

Materials collected include glass, milk jugs, plastic bottles, tin cans, paper, aluminum, mixed paper, magazines, cardboard, brown paper grocery bags, and batteries. All items must be separated into specific collection bags. To accommodate the large range of recyclable materials, the program uses a rotating bi-weekly schedule, picking up different items on alternate weeks. Recent advances in sorting, however, and changing market prices for commodities, will allow Moscow Recycling to collect all items weekly starting in fall 2003.

#### Drop-off Sites

Moscow Recycling maintains a main drop-off center for recyclable materials in the city of Moscow and operates remote drop-off sites in rural areas throughout Latah and Nez Perce Counties. Mobile recycling trailers are placed at bulky waste collection sites once a month for rural collection.

#### Household Hazardous Waste and Special Items

Latah Sanitation manages a solid waste processing facility (transfer station) south of Moscow. Recyclable items such as tires, appliances, yard waste, and HHW are collected at the facility. HHW collection is held every Saturday and is free to residents of Latah County. Conditionally exempt small quantity generators also may dispose of hazardous waste at this facility.
**Conclusions**

Moscow Recycling is a private company driving community recycling programs in the Latah and Nez Perce Counties. The community and environmental ethic of this private company has been recognized by the Idaho GreenStar program.

Moscow Recycling continues to refine its services, conduct outreach and education, and look for new recycling opportunities. For example, Moscow Recycling is exploring ways to partake in Washington State University’s sneaker recycling program.

---

**Pay by the Can: Conservation-based Pricing**

To encourage recycling, the city of Moscow uses volume-based rates for solid waste services. All residents are charged a base rate. Residents also sign up for an additional level of service based on the number of cans they set out each week. A second service rate is assessed and combined with the base rate to attain the monthly total.

The fewer cans set out, the less a resident pays, thus encouraging recycling and conservation. To allow for fluctuations in volumes, residents may purchase can tags if waste volume exceeds normal amount during a particular week.
The city of Lewiston is located on the border of Washington and Idaho along the Clearwater River. Solid waste in Lewiston is trucked across the border to a landfill in Washington. Recycling diverts waste from the landfill and is offered to area residents through curbside collection and drop-off programs. Private recycling processors located in Lewiston also divert recyclable materials from the landfill.

✔ Solid waste rate incentive for recycling
✔ State and private partnerships for solid waste, recycling, and HHW

Program History and Structure
Recycling in Lewiston began in the early 1990s with satellite drop-off boxes. Curbside collection began in 1996 and is currently provided through a local contractor and funded through solid waste fees. The contractor retains revenues from the sale of materials collected and absorbs any gains or losses from fluctuations in market prices.

In 2002, Lewiston community recycling programs diverted 728 tons of material from the landfill. The local recycling hauler also runs a processing center and commercial recycling services, and serves as the processor for Asotin County, Washington. Together, all private and public programs in the Lewiston area recycled more than 7,000 tons of materials in 2001.

Current Services
Curbside
Biweekly curbside recycling collection is available to Lewiston residents. Residents are provided with bins; some sorting is required. Items collected include tin, aluminum, cardboard, waste paper, plastic, newspaper, and glass.

Costs for recycling services are included in the residential solid waste structure. To encourage recycling, residents who wish to recycle receive a $1 discount on their monthly bill. As a result, the city estimates a 68% participation rate among households.

Businesses signed up for the solid waste system’s mobile garbage cart collection may participate in
curbside recycling as well. Other businesses and multi-unit residences are evaluated on a case-by-case basis for eligibility for the curbside collection program.

**Drop-Off**

The Lewiston Transfer Station provides drop-off services for Nez Perce County residents. Recycling drop-off bins are available for tin, aluminum, cardboard, waste paper, plastic, newspaper, and glass. The transfer station also collects several common household hazardous wastes including motor oil, antifreeze, latex paint, and car batteries.

**Household Hazardous Waste**

A household hazardous waste facility at the Asotin County Landfill in Washington is open to Lewiston residents. This facility is open every Wednesday and two Saturdays each month. A full array of materials are accepted. Commercial hazardous wastes are accepted for a fee by appointment and pre-approval only.

**Christmas Trees**

Lewiston offers Christmas tree recycling collection to area residents. However, this service is also provided by local chapters of the Boys and Girls Clubs. Club volunteers pick up trees for a donation to the Club. The city delays its pick-up by several weeks to maximize participation in the Club’s fund-raiser.

**Conclusions**

Recycling in Lewiston is essential due to local dependence on an out-of-state landfill and high landfill fees. Local access to processors and city support facilitate a community recycling program that enjoys a high participation rate by both residential and commercial customers.
Tips for Starting a Community Recycling Program: Ideas from Idaho Programs

The recycling programs profiled in this report differ vastly in size, type, and organizational structure. Yet they each have found ways to run successful residential recycling programs as evidenced by the combined total of more than 27,000 tons of material recycled each year. Creativity in overcoming long transportation distance, operational costs, and limited resources serves as an example to any Idaho community wishing to start a recycling program. Key features of these programs include:

Strong Commitment
A strong commitment to recycling and to running a program is needed to ensure successful implementation of a community recycling program. The commitment to provide oversight, management, and funding may come from a local government, private company, non-profit or volunteer group.

Customized Program
Many types of recycling programs—from drop-off to curbside collection—are available. Pick the right program for the community, based on resources, finances, and needs. Size of the community alone does not determine which type of program will succeed.

Drop-Off Sites
Drop-off sites are lower-cost and less resource-intensive. When evaluating a drop-off program:

- Locate sites in an area with convenient public access and high visibility.
- Place collection bin in a covered area or use side loading containers to minimize moisture impacts.
- Educate citizens on proper sorting procedures. Use highly visible signs, advertisements etc. to instruct people what and what not to place in the bin. Be prepared—some people still will use the drop-off bin for garbage.
- Allocate sufficient time to maintenance of bins and equipment to ensure that they are in good working order and clean. If using a contractor, negotiate this service as part of the contract.

Curbside Collection
Curbside collection programs are more costly than drop-off sites, but usually result in higher participation rates and volumes due to their convenience.

- Pick up trash and recyclables on the same day if possible. Having same-day collection makes it easy for customers to remember and encourages participation.
- If contracting the service, include a requirement that all items collected for recycling are recycled and not mixed with trash and landfilled.
- Provide residents with bins for collection.
- Look for rate structure pricing incentives to encourage participation in recycling programs. Additional costs will be incurred with pickup service, but the rate structure can be set up to cover these costs while enabling those who choose to recycle to pay less than those who don’t.
Minimizing Costs

No matter what size the program, cost minimization can be achieved. Follow these tips:

- Use volunteers to help run drop-off sites or special collection days, visit schools or conduct public outreach.
- Use community service labor to reduce staffing costs.
- Shop for used equipment such as trucks, balers or containers.
- Use balers to reduce costs and increase profit by condensing the volume of material prior to shipping.
- Consider contracting needed services. The service fee negotiated will include equipment costs, but these costs will be paid over the life of the contract rather than all at once. In addition, if the contractor retains the revenue from the sale of recyclable materials, any profits or losses from fluctuating markets will be absorbed.
- Ask for all the options. If contracting services, ask for quotes for several services or service packages. Different options may be more affordable than anticipated.
- If managing transportation to processors, look for a back-haul rate. Find a company that makes periodic deliveries to your town and ask if their trucks go back empty. They may be willing to truck recyclable materials to the processor for a reduced fee.
- Trade advertising space on recycling bins for service. Many small businesses may not be able to afford to pay for advertising, but may be willing to provide other services such as transporting materials to a processor, use of a baler or volunteer hours to staff your site.
- Solicit donations from area businesses for start-up materials. Items donated to existing programs include lumber for constructing recycling facilities, recycling containers, and used balers and small lifts.
- Look for grant opportunities from U.S. Environmental Protection Agency, the U.S. Department of Agriculture, local rural development programs and community foundation grants. Recycling programs in Idaho have received funds from such sources to help with facility construction, outreach and education campaigns, signs, and landscaping.
- Evaluate the many costs and benefits of recycling. Many benefits are long-term. Consider:

<table>
<thead>
<tr>
<th>Cost</th>
<th>Benefit/Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility</td>
<td>Sale of commodity</td>
</tr>
<tr>
<td>Transportation</td>
<td>Value of commodity</td>
</tr>
<tr>
<td>Equipment</td>
<td>Avoided disposal costs</td>
</tr>
<tr>
<td>Maintenance/Operations</td>
<td>Lifespan extension of landfill</td>
</tr>
<tr>
<td>Outreach/Education</td>
<td>Benefit to the environment</td>
</tr>
<tr>
<td></td>
<td>Conservation of natural resources</td>
</tr>
</tbody>
</table>
For More Information

On the recycling programs outlined in this report:

- **City of Boise**
  Public Works Department
  (208) 384-3901
  http: / / www.cityofboise.org/ public_works/

- **Ada County Wood Waste Diversion Program**
  Hidden Hollow Landfill
  (208)853-1008
  http: / / www.adaweb.net

- **Southern Idaho Solid Waste & Blaine County Resource Center**
  (208)432-9082
  http:/ / www.sisw.org

- **Teton Valley Community Recycling**
  (208) 354-2500 (TV Chamber of Commerce)

- **Heartland Recycling**
  Box 501, N. Commercial St.
  New Meadows, ID  83654

- **Adams County (Council Recycling Center)**
  County Clerk
  (208) 253-4561

- **City of Sandpoint**
  Public Works Department
  (208) 263-3150
  http:/ / www.cityofsandpoint.com/ publicworks.htm

- **Bonner County**
  Solid Waste Department
  (208) 265-1497
  http:/ / www.co.bonner.id.us/

- **City of Pocatello**
  Sanitation Department
  (208) 234-6192
  http:/ / www.ci.pocatello.id.us/

- **Bannock County**
  Solid Waste Department
  (208) 236-0607
  http:/ / www.co.bannock.id.us/

- **Kootenai County Solid Waste**
  (208) 446-1430
  http:/ / www.co.kootenai.id.us/

- **Moscow Recycling**
  (208) 882-0590
  http:/ / www.moscowrecycling.com/

- **City of Lewiston**
  Public Works Department
  (208) 746-3671
  http:/ / www.cityoflewiston.org/

On recycling and waste minimization in Idaho:

- **Idaho Department of Environmental Quality**
  Pollution Prevention Program
  Patti Best, Coordinator
  1410 N. Hilton
  Boise, ID  83706
  (208) 373-0502
  www.deq.state.id.us

- **Association of Idaho Recyclers**
  (208) 321-2761
  www.idahorecyclers.org