RURAL RECYCLING GETS SOME ATTENTION

A Ford Foundation-funded study provides details on seven rural recycling efforts, filling an information gap.

Do rural communities have to worry about starting recycling programs? One would not think so, with all the attention paid to waste disposal crises in urban areas lately. But rural areas have solid waste management problems as well.

Some solutions are presented in a recent report funded by the Ford Foundation, "Case Studies in Rural Solid Waste Recycling." The report examines recycling as a waste management alternative in seven rural areas and gives recommendations on how other communities might implement their own programs.

According to The Minnesota Project, the organization that conducted the study, time and money limitations in rural areas increase the likelihood of quick-fix, piecemeal, and short-term waste management decisions. The Minnesota Project's goal in the study was to prove that recycling can be put to use effectively in rural solid waste management.

By KATHLEEN MEADE

Seven recycling efforts profiled

A range of rural recycling programs — in California, Maine, Michigan, Minnesota, New Hampshire, and Wisconsin — are examined in the report, as are two communities in Wisconsin. Here's a brief look at each community program, as described in the report:

Pierce County, Wis.: The county developed a recycling

Table One
River Falls, Wis., Recycling Center Marketing Strategies (1986)

Item	1986 Market	Approximate Tonnage	Approximate Price	Revenues
Aluminum cans	MSD (Minneapolis-St. Paul)	10.70	$.21/lb	$4,494
Glass	Anchor Glass (Minneapolis-St. Paul)	37.80	$45/ton	$1,701
Newspaper	Waldorf Paper (Minneapolis-St. Paul)	115.20	$20/ton	$2,304
Corrugated	Waldorf Paper	4.80	$20/ton	$96
Ledger paper	Waldorf Paper	3.43	$60/ton	$206
Scrap aluminum	Kattinger Auto Salvage (Downing, Wis.)	.27	$.21/lb	$116
Tin cans	Martin Bush Scrap (Minneapolis-St. Paul)	6.19	$5/ton	$31
Bimetal	MSD	1.13	$.07/lb	$158
Waste Oil	Rock Refining (Stratford, Wis.)	760 gallons	$.02/gal	$15
Batteries/misc.	Kattinger Auto Salvage (Downing, Wis.)	.37	$.00-.01/lb	—
Total		**180 tons 760 gallons**		**$9,090**

program out of a center begun in its largest city, River Falls. The River Falls Recycling Center (RFRC) was started by an environmental group. In 1986, RFRC handled approximately 180 tons of aluminum cans, scrap aluminum, tin cans, glass, newspaper, white paper, corrugated paper, and some miscellaneous items.

Citizens, who either have their wastes collected by private haulers or take it to a township dump, can voluntarily donate recyclables at one of several drop-off sites throughout the county.

The RFRC markets its products extensively in the Minneapolis-St. Paul area and Wisconsin (see Table One). In 1986, the center received $9,090 in revenues from such sales.

Morrison County, Minn.: The Morrison County Developmental Achievement Center (DAC) began recycling in 1975, as a means of providing work for developmentally disabled adults. The center collects and processes newspaper, corrugated, glass, and aluminum.

Residents can donate recyclables at about 18 drop-off sites throughout the county. Most of their other wastes are collected at the curbside by private haulers. The center pays all the recycling expenses (which were approximately $150,000 in 1986) from its human services budget. DAC received $36,465 in recyclable revenues in 1986.

Prairie du Sac, Wis.: The village of Prairie du Sac started with voluntary recycling at drop-off sites, then implemented mandatory separation for citizens five years ago. Glass, aluminum, tin, newspaper, office paper, plastic, and used oil are recycled.

Residents now put their recyclables at the curb in clear plastic bags. At first, village workers collected them; now a contract hauling company collects recyclables at the same time as refuse. If residents fail to recycle, their refuse may be left at the curb; in addition, they can be fined $50.

All recyclables are given away to Wisconsin Intercounty Nonprofit Recycling, which makes approximately $7,000 to $8,000 annually from sale of the material, and keeps it all.

Ithaca, Mich.: At the time the study was conducted, Ithaca's recycling program had been in effect for only five months. Mid-Michigan Recycling, a for-profit business, is working with the city, processing and marketing its recyclables. Volunteers pick up recyclables at curbside, which are placed there in clear plastic bags.

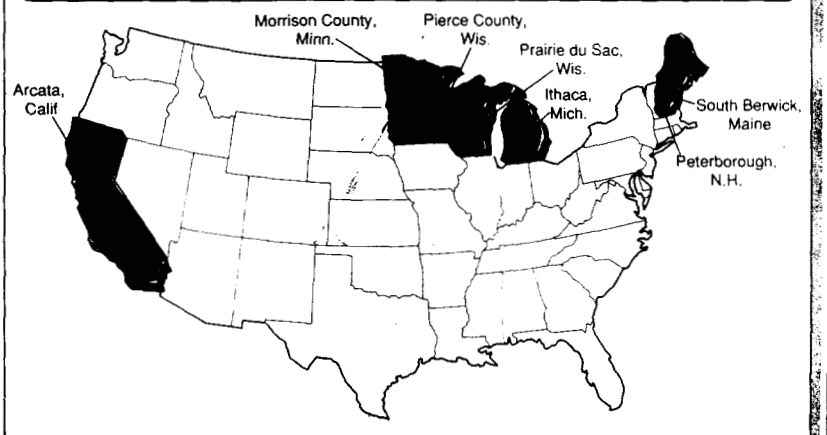
Mid-Michigan Recycling accepts the material, which includes glass, aluminum, tin cans, plastic, newspaper, and cardboard. The company reportedly pays all expenses and receives all the revenues from the recyclables it processes.

Arcata, Calif.: The Arcata Community Recycling Center (ACRC), a private, nonprofit program, has a long history of recycling. ACRC works as a separate entity, but receives some funding from the city and Humboldt County.

ACRC has set up four different methods for citizens to participate in its voluntary program:

- recyclables can be donated and separated at the center;
- public and community groups can receive cash for bringing recyclables to the center;
- citizens can place recyclables in canisters placed in different Arcata neighborhoods; and
- businesses can arrange for ACRC pickup of corrugated cardboard and office paper.

Figure One
Communities Studied By The Minnesota Project



The center processes and markets all its own newspaper, glass, aluminum cans and scrap, office paper, cardboard, motor oil, and reusable clothing.

Peterborough, N.H.: In the town of Peterborough, residents can either hire a private hauler to dispose of their wastes, or take it to a town "dump" themselves. Citizens who use the dump are required to separate newspaper, aluminum cans and scrap, bimetal cans, glass, cardboard, yard wastes, tin cans, used oil, and scrap metal from their household wastes. Dump employees monitor residents' separation efforts.

City employees process most of the materials on site. Materials are marketed by the city in parts of New Hampshire, Connecticut, and Massachusetts.

South Berwick, Maine: About 80% of the citizens of South Berwick dispose of their wastes at the town's transfer station, where users are required to separate recyclables as glass, aluminum cans, newspapers, magazines, corrugated, ashes, wood, brush, tires, and metal.

Private haulers, who also must separate recyclables at the transfer station, encourage their customers to recycle. The

report says, however, that transfer station requirements have not been enforced, and only 50% of the citizens and haulers now separate out aluminum cans and glass.

Very little processing is done at the transfer station. Marketing, which is the responsibility of the town manager, has also dwindled lately, and the town now collects and sells only aluminum and glass.

Recommendations from the report

The Minnesota Project compiled a number of conclusions and recommendations, covering planning, participation, collection, processing, marketing and overall operation of a rural recycling program. Among the recommendations:

Promotion and education: Participation in the recycling program should be broad-based. Rural residents with different objectives, such as private waste haulers, government officials, civic groups, and existing recyclers should be included in all of the initial planning. Public education plays an important role, and the report recommends person-to-person communication, as well as other media, to promote a recycling program.

The report suggests that waste management be identified as the primary goal of a recycling program, with environmental and human service goals as secondary purposes.

Planning: Rural recycling program planners should research markets, costs, waste composition, and program designs before getting started, the report advises. It may also be important to target specific materials for recycling, as well as the population that will do the recycling. Newspaper, aluminum cans, and glass are some of the traditional materials to start with (cardboard, plastic and tin cans can be added later).

Collection: According to the report, recycling should be connected with both collection and disposal activities in a rural area. For example, recycling might be easiest for citizens if they dispose of their wastes and recyclables at the same time and in the same place. Some of the most effective programs, the report says, involve the waste hauler in most aspects of the program, including collection, processing, marketing, and education. The report claims that when rural residents see their waste hauler is involved in recycling, they are better able to make the connection between recycling and waste disposal.

A combination of curbside pickup, drop-off sites, and buy-back centers is effective, the report says, and it recommends mandatory recycling over voluntary.

Processing: This type of machinery is a big investment for rural communities, the report says. It suggests that regional sharing of staff and equipment might help recycling programs hold costs down. Equipment needed, at least initially, includes a metal separator, sorting tables, a baler, a forklift, trucks, storage bunkers, barrels, and bins.

Marketing: To accomplish this task most effectively, the report says, a person or people skilled in marketing should be hired. Local buyers are listed as a good idea, but regional brokers are another alternative.

Who does the work? According to the report, the local government unit that handles solid waste management should be ultimately responsible for overseeing the recycling program. But partnerships with private businesses or nonprofit organizations could provide collection, education, processing, or marketing; in fact, the report says, a partnership is probably the best way to design a recycling program.

Who pays? The local government unit responsible for waste management should, however, pay any net recycling costs, the report says. Recycling should be treated as a public service. Recycling fees and trash disposal surcharges are recommended over a general tax.

Table Two
1986 Recycling Data — Seven Rural Communities

	1980* Population	Tons Waste Generated	% of Waste Stream Recycled	Collection Method	Recycling Costs	Recycling Revenues	Avoided Tip Fees
Pierce County, Wis.	32,126	12,995-14,780	1.2-1.4%	Voluntary at drop-off sites	$33,000	$9,090	$2,250
Morrison County, Minn.	29,311	12,402-13,497	5.3-5.8%	Voluntary at drop-off sites	$150,000	$36,500	$11,900
Prairie du Sac, Wis.	2,145	1,368	21.0%	Mandatory curbside pickup	$25,000	$11,000	$4,320
Ithaca, Mich.**	2,950	1,470	6.0-7.0%	Voluntary curbside pickup	$3,923	$1,766	$481
Arcata, Calif.	12,340	11,000	7.8%	Voluntary drop-off, buy back from groups, neighborhood canisters, commer. paper collec.	$78,364	$74,822	$11,556
Peterborough, N.H.	4,893	3,000	18.0%	Mandatory at town "dump"	$29,440	$12,000	20,475
South Berwick, Maine	5,600	2,920	2.8%	Mandatory at transfer station	***	$1,500	$3,320

* All population figures are based on 1980 census data, except for Pierce County, which is a 1985 figure, and South Berwick, which is a 1987 figure.
** All the data for Ithaca (except the population figure) are based on 1987 recycling efforts.
*** Recycling costs for South Berwick were considered negligible by the report.
Source: "Case Studies in Rural Solid Waste Recycling," The Minnesota Project, November, 1987

Keep records: A final recommendation is for rural recyclers to keep accurate and detailed records. Figures tracked should include tons handled, materials handled, revenues, costs, and labor requirements. These records can be used to compare the cost of recycling to other waste management strategies and to make decisions about new investments in recycling.

Conclusions hedged in many cases

With all these recommendations, it would seem that rural communities have the guidelines they need to start their own recycling programs. However, as the report points out, each county, city, and town is unique; there is no one right way to recycle. Note, however, that The Minnesota Project's recommendations in the report are based on the findings of studies of only seven rural areas. Those seven cases may or may not provide a true sampling of the variety of rural communities in the U.S.

Rural community officials reading this report may not find the answers to all the recycling problems they might encounter. For example, the report doesn't address scavenging, which could be a problem in either curbside collection or an unattended drop-off site. Also, the report fails to go into detail on development of markets for recycled products, which could be a difficult task in rural areas located far from markets for any of the recyclables collected.

What's more, the reader should be aware that several major conclusions drawn in the report are based on the authors' opinions of the seven cases, not facts. The authors could not always draw specific recycling effects to direct causes, so quite a few of the recommendations are qualified by examples that begin with "it appears."

With that disclaimer, this report still may be of use to rural waste managers. It fills an information gap; very little of substance is currently available about rural programs. Haulers and municipal officials in rural areas might benefit from the entire report, especially the individual case studies, which examine seven ways of handling rural recycling.

For more information or copies of the report, call the Minnesota Project at 612/378-2142 or 507/765-2700. ▮

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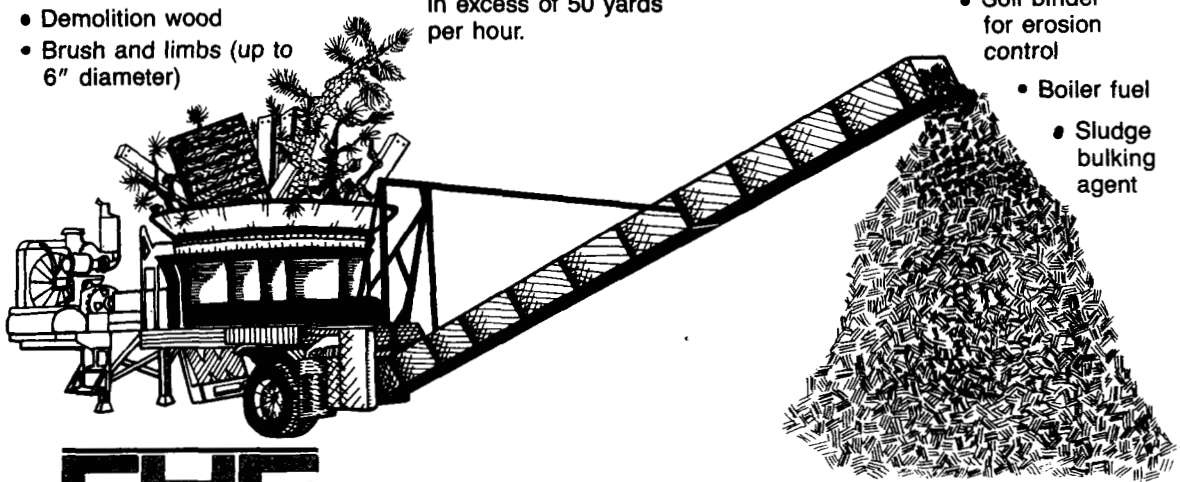

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