

# HOW TO PLAN A COMMUNITY RECYCLING PROGRAM

*You must plan, in detail, before you recycle. This installment of the University of Wisconsin/Waste Age course details planning tasks.*

**W**hile the need for planning may seem obvious, in practice, political pressure to get a program up and running may result in critical details being ignored. This, in turn, probably will have a negative impact on the program.

A community recycling program will involve disparate groups of people from both the public and private sector. This lesson will detail a plan of action for successfully managing this complex community effort.

## **Who is the community?**

Before planning a program, the initial question is: "Who is the community?" This will help in making important determinations, including the general area to be served, the government and citizen organizations that can be consulted for assistance or advice, and the existence of competing recycling operations. If the community is *not* defined in advance, those who might support the recycling operation — or those who might strongly oppose it — may be missed in the planning phase, causing problems later.

For a waste hauler who wishes to provide a recycling

service, the community may be the company's customer list. For a local government, the area to be served may be the entire area within political boundaries, or a subset thereof. For a community group, the service area may be a defined neighborhood.

Obviously, the larger the community, the more complex the planning tasks involved; but a larger community should also have more potential resources available.

## **Be innovative, but realistic**

In planning a community recycling program, try to use all available community resources to make the program run smoothly and to cut program costs.

Innovative thinking can help to limit some of the budgetary and other problems of a new recycling program. For example, many communities will help new programs by providing inexpensive (or free) space, or equipment purchasing assistance. Some may provide volunteers to operate the recycling center or help with material pick up.

It is important to realistically assess the assistance that a community can be expected to provide. If the recycling operation will be a for-profit venture, the local community or local government may balk at providing too much assistance — even though taxpayers will benefit from lower waste volumes.

Similarly, where free or low cost space or equipment is offered, the proposal should be carefully investigated. Exactly what is being offered? Unused industrial property may be vacant because of water problems, presence of hazardous materials, difficulties with local crime and security, or other drawbacks. Equipment offered to

---

By **PATRICK WALSH** and **PHIL O'LEARY**  
*Walsh and O'Leary are solid waste specialists at the University of Wisconsin-Madison. This is the fourth lesson of an eight-part correspondence course that describes solid waste recycling. Persons wishing to officially enroll in the course can use the enrollment form (in the January, 1988 Waste Age); or contact Phil O'Leary, University of Wisconsin, 432 N. Lake St., Madison, WI 53706; (phone 608/262-0493). The registration fee is \$80.*

**Figure One**

**Timetable For Starting A Multi-Material Recycling Center<sup>1</sup>**

Activity	1	2	3	4	5	6
Organizing	█	█	█			
Financing	█	█	█			
Market Analysis	█	█	█			
Site Selection	█	█	█			
Layout and Design		█	█			
Construction			█	█	█	
Equipment Installation				█	█	
Hiring Center Manager			█	█		
Hiring Employees					█	█
Promotion					█	█
Grand Opening						█

<sup>1</sup> Times shown will vary. Timetable is for guideline purposes only.  
 Source: "The Complete Guide To Planning, Building, and Operating a Multi-Material Theme Center," Glass Packaging Institute (1984).

Goals could include saving landfill space, conserving basic resources, providing jobs and economic development, and/or reducing litter problems.

**Organizational structure:** Recycling programs are being operated successfully by non-profit organizations, consumer co-ops, city and county governments, and businesses.

Non-profit corporations, once they have accepted government funding, will

a program may be falling apart, inefficient, or an inefficient energy user.

A recycling program should be developed like a business. Even if the community does not require the operation produce a profit, the only way to long-term success is to adhere to good business practice when making decisions. Such a realistic, business-like approach would include at least the following:

- A budget should be developed and followed.
- Trained personnel should be utilized.
- Buildings and equipment should be maintained and updated.
- State and federal laws should be followed to the letter.
- Standard bookkeeping and accounting practices should be utilized.
- A timetable for taking action should be developed and the milestones met (see Figure One).

### The basics of a recycling plan

One planning format to use is an action plan. An action plan is simply a detailed checklist, organized in steps: important work items are identified; time is allocated for each task; and a budget is prepared. The action plan should address these issues:

**Statement of goals:** Establishing and publicizing program goals will generate community support and will help to respond to initial criticism that recycling is too much bother or otherwise unimportant.

Of course, a successful program is the goal. Beyond this, the goals of the program should be discussed and listed. This is especially true for community recycling programs. By understanding program goals, organizers can best allocate scarce resources and avoid wasting effort on unimportant issues.

probably undergo the most public scrutiny of their operations. If a recycling program organizer can choose among these options, this topic should be thoroughly discussed with an attorney prior to making a final decision.

**Markets and marketing:** The plan should provide a brief analysis of the market for each potentially-recyclable commodity.

As discussed in last month's lesson, potential buyers should be identified. The plan should include information such as price, reliability, specifications, and distance from the community. Some prediction should be made of the dependability and stability of the buyer over the long term.

Next, an analysis of the sources of recyclable material should be performed. Assess all sources, including municipal, industrial, and commercial. Some trends in volume production, including effects of population growth or decline or changes in use patterns, should be described.

### Other planning considerations

Other factors affecting the volume available should also be analyzed.

**Collection method:** How will recyclables be collected? Voluntary drop-off centers will provide the lowest percentage of participation; mandatory curbside source separation, the highest. The approach that the program will take will depend on community goals and resources.

**Other programs:** Another very important factor is the presence of existing recycling programs.

**Government action:** Is the local government willing to enact a mandatory source separation ordinance to ensure maximum public participation?

**Public education:** To ensure maximum participation over the long term, a public education and promotion program should be developed. The program should begin before the recycling operation starts up.

To educate the average citizen as to why recycling is a good idea, news conferences, press releases, leaflets, and public speaking (before groups and in schools) are useful techniques. Door-to-door contact — talking to people and leaving information that explains the recycling program — is one of the most effective tactics. Enlisting churches, youth groups, neighborhood organizations, or service clubs will help make the program become one that is part of, and accepted by, the whole community.

Plans should include a long-term plan for promotion and education. Many recycling programs start with initial high participation rates during the first few months, only to see operations fail in the end because community outreach and education programs were neglected.

**Report on progress:** The promotion plan should include periodic reports to local government officials concerning how the program is progressing. Local officials, kept informed, will be more amenable to providing both financial and legislative support for the program should that become necessary.

### Program operation plan

Operational planning should develop a procedure for collecting and bringing the material to the recycling center, processing the material at the center, and shipping or delivering the material to market. Each segment of the trip from the home to the market should be analyzed to determine which type of facilities, equipment, personnel, and management procedures will be necessary.

As an example, programs collecting newsprint will need space for storage away from the weather. Those collecting glass will probably not need protected space, but outside revetments will probably be needed. Similarly, equipment for materials handling and processing must be chosen to reflect the specifications of markets.

An operational plan should also address other recycling center functions. A record-keeping system including accounting, billing, and other business functions must be developed. Inventory control must be strictly managed. Standard business practices, such as withholding of taxes and social security, should be developed and implemented.

Equipment is an important part of an operational plan. The plan should provide for equipment installation and maintenance costs. The routine process of checking and upgrading equipment should be devel-

oped. Some spare parts or machines should be kept on hand, especially where loss of the use of a given piece of equipment will shut down the recycling facility.

### Building and location

Minimum space requirements for receiving, handling, and storing recyclables should be a part of your plan. So should peripheral space needs — employee locker rooms, restrooms, cashier and office space, and outside areas including parking, roadways, and scales.

Analyze the pros and cons of each location in terms of available space and existing buildings and equipment, as well as in terms of other factors (such as closeness to markets served). Legal regulations, including zoning and building codes and transportation limitations, will be extremely important. Local officials should be consulted to determine what, if any, permits, variances, or other legal approvals must be received.

If a location is at a former industrial site, it may be a good idea to have an environmental audit performed, to ensure that the property does not have a problem with buried hazardous wastes or a leaking underground tank. If a site is near a residential area, plan to minimize potential nuisance conditions, such as odor or wind-blown paper. In addition, the local community may develop a NIMBY (Not-In-My-Backyard) attitude toward the facility.

In general, the building and location chosen should provide the lowest reasonable overhead, as well as the easiest access for those being asked to support the program. See Figure Two.

**Construction:** If existing buildings are not sufficient and construction will be required, the construction project should be described in detail. A timetable should be developed for obtaining permits and zoning, grading and site preparation, and building construction or remodeling. Necessary inside work, including electrical, plumbing, heating, and painting should be accounted for.

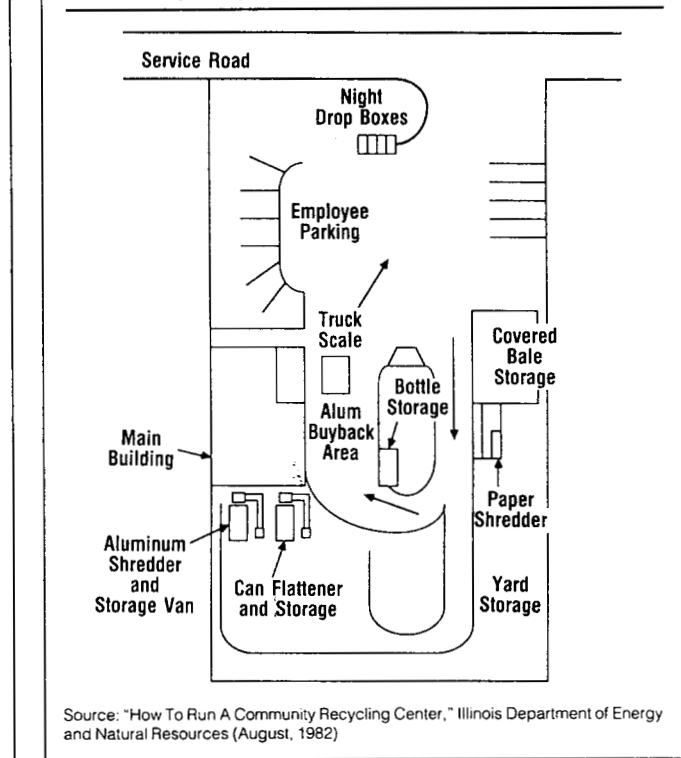
Similarly, any outside work, such as paving or fencing, should be planned for.

### Personnel needs

For any recycling program to succeed over the long term, someone must be directly responsible for ensuring that the program is properly managed. Without this, inefficiencies will develop, maintenance will be ignored, education and promotion efforts will slip, and downturns in the market could threaten the program viability.

Like any business, a recycling program will not run itself. For any large program, a paid manager or staff is a necessity. These programs require a person or staff

**Figure Two**  
**Community Recycling Center**



Source: "How To Run A Community Recycling Center," Illinois Department of Energy and Natural Resources (August, 1982)

member with broad business and organizational skills as well as the ability to operate and supervise operations of a variety of expensive and often dangerous machines, such as glass crushers and balers. The manager can also be an effective promoter of the recycling program by conducting public education and awareness programs and by working with the local press.

Programs run by volunteers should involve as many organizations as possible to ensure program continuity and an adequate work force. A program could be damaged by declining support from initially enthusiastic volunteers. Rotating tasks among volunteers can help sustain continuing interest.

Special care must be taken where the intention is to employ special groups, including developmentally-disabled citizens. For groups like these there may be additional building code or workplace environment requirements that must be met. Local agencies should be consulted to determine if any regulations requiring additional supervision or training exist.

Depending on the types of materials handled, all employees may now be required to have training to protect them from workplace hazards pursuant to employee right-to-know laws.

The personnel plan should also address needs for other support personnel, such as office workers, cashiers to handle cash and recycling material purchases,

bookkeepers/accountants, and inventory control managers, as well as maintenance and cleaning personnel. Small recycling operations can probably handle many of these supportive functions in-house. But no matter what size the operation is, someone must be responsible for ensuring the work gets done.

## Budget

Using figures for personnel, equipment, building, and other expenses, a detailed budgetary breakdown should be prepared.

The budget should indicate anticipated capital and operating costs as well as predict revenues and other sources of income. The availability of state or local grants or loans should be discussed and included in the budgetary discussion.

Where more than one option is under consideration, the budget should provide a general cost breakdown for each scenario, and should include other program-related expenses, including the cost of promotion, insurance, utilities, office equipment, and maintenance.

## Summary

In general, the community recycling plan should set community goals, discuss the available options to meet those goals, decide on a course of action which involves all relevant community organizations, and set a timetable for implementation of the program.

Developing a community recycling plan can be a time-consuming and complex process. However, the chances of establishing a successful program will be greatly enhanced if time is taken to investigate the specific strengths and weaknesses of a community effort before acting.

*Next month:* Lesson Five will discuss organizing a voluntary recycling program.

## References

*The Complete Guide to Planning, Building, and Operating a Multi-Material Theme Recycling Center*, Glass Packaging Institute, 1984.

Mulligan, Kevin, and Jerry Powell, *Operating a Recycling Program: A Citizen's Guide*, U.S. Environmental Protection Agency, SW-770, 1979.

## Homework Assignment

1. List the major steps involved in setting up a community recycling program.
2. Describe two problems that will likely be encountered when implementing a community recycling program. Suggest possible solutions. ■