

Recommendations for Establishing a Curbside Recycling Program in a Township with Remote Subdivisions and a Private Residential Development

Sandy Township Clearfield County



“From Start to Finish and Around Again” 2001 Recycling Poster Contest Winner
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BACKGROUND

The Pennsylvania Department of Environmental Protection (PaDEP), the Governor's Center for Local Government Services, the Pennsylvania State Association of Township Supervisors (PSATS) and the Solid Waste Association of North America (SWANA) formed a training partnership for Pennsylvania local governments interested in achieving higher recycling rates. Through this partnership, Sandy Township was awarded a \$5,000 in technical assistance from Gannett Fleming, Inc.

INTRODUCTION

Sandy Township has two drop-off bins for recycling, both of which are located at the Municipal Building. At this location, Township residents can drop off corrugated cardboard, newspaper, bi-metal cans, aluminum cans, clear, green, and brown glass bottles, and PET and HDPE plastics. Superior Incorporated of Brockway (Superior, Inc.) empties the bins on a routine basis for recycling.

Refuse is handled through private contracts between Township residents and local haulers. There are three County licensed haulers who serve Township residents: Superior, Inc., Heffner's Sanitation, and Glen Buerk. Only Superior, Inc. provides both refuse and recycling services.

Title 25 of Pennsylvania Code Chapter 272 Section 411 (25 Pa Code 272.411) states that "a municipality other than a county that has a population of 10,000 or more shall establish a source separation and collection program for recyclable materials in accordance with the guidelines of the subchapter." As of the year 2000 United States Census count, the Sandy Township population is 11,556. Sandy Township includes the Private Residential Development (PRD) of Treasure Lake, which constitutes one-third of the Township population. The PaDEP offers Act 101 Section 902 grants to Pennsylvania counties and municipalities to support recycling and yard waste composting programs. In preparation for a mandated recycling program, Sandy Township requested technical assistance from Gannett Fleming through SWANA.

SECTION 902 RECYCLING DEVELOPMENT AND IMPLEMENTATION GRANTS

The PaDEP has offered more than \$158 million in Act 101 Section 902 grants (902-grant) to Pennsylvania counties and municipalities since 1988 in support of recycling and yard waste composting programs. In 1997, the Commonwealth announced a goal of 35% recycling statewide by 2003. To complement this challenge, Governor Tom Ridge signed legislation extending the recycling fee on waste disposed at municipal waste landfills and resource recovery facilities for an additional five years. Fee payments to the Recycling Fund through October 2003 is expected to enable the PaDEP to continue to offer recycling grants to local governments.

The PaDEP has historically solicited recycling grant applications annually in the fall through announcements in the Pennsylvania Bulletin. As a result of the 2000 US Census population count, Sandy Township will have an opportunity to apply, and will be given a high priority for funding. Jodi McCluskey, the County Recycling Coordinator, has offered to provide assistance with the 902-grant application process.

SCOPE OF WORK

In a meeting between Barb Hopkins and Mary Beth Stojek of Sandy Township and Ray Regan of Gannett Fleming, Inc on January 30, 2001, the following tasks were outlined:

- Task 1** Contact the PaDEP Regional Recycling Coordinator in regards to the need to provide curbside recycling to every residence in the Township and the handling of Private Residential Developments (PRDs).
- Task 2** Provide a sample municipal ordinance for recycling.
- Task 3** Recommend a list of materials for recycling for both the residential curbside and non-residential programs.
- Task 4** Suggest methods for public education on recycling.
- Task 5** Provide cost estimates for curbside recycling containers, curbside collection and hauling, and other applicable items to establishing a curbside program.

TASK COMPLETION

Task 1: Contact the PaDEP Regional Recycling Coordinator in regards to the need to provide curbside recycling to every residence in the Township and the handling of Private Residential Developments (PRDs).

Ron Sommers, the PaDEP Recycling Coordinator of the Northcentral Region, was contacted on February 16, 2001 in regards to the PaDEP policy on the following:

- The need to provide curbside recycling to every resident in the Township.
- Coordination between a Municipality and Private Residential Developments (PRDs) on recycling efforts.

In regards to the extent of a curbside recycling program, Mr. Sommers commented that policy states that curbside should be provided for every resident, but recognized the challenges and lack of feasibility of serving the remote locations of a Township. Sandy Township can apply for an “Alternative to the Curbside Program.” As an alternative program applicant, the Township will need to demonstrate a plan to serve all residents through a combination of drop-off and curbside recycling programs as well as a cost comparison of the proposed program with full curbside service.

Carl Hursh, the PaDEP Chief of Recycling and Markets, commented on February 20, 2001 that a PRD and its residents is subject to the municipality's recycling ordinance. The PaDEP does not have extensive precedents for the questions that may arise, such as whose responsibility it would be to provide recycling containers for the residents, and who would be responsible for arranging and paying for recycling collection service. Mr. Hursh also commented that a rule of thumb would be to handle recycling in a manner similar to municipal solid waste (MSW) collection. In other words, if the municipality performs or contracts for the waste service, it would be expected to do the same for recycling. If individuals subscribe for service, service providers should include recycling.

Task 2 Provide a sample municipal ordinance for recycling.

Enactment of a municipal recycling ordinance is necessary prior to implementation of the program. The required details are set forth in 25 Pa Code 272.422. An example municipal recycling ordinance from the Borough of Clearfield is presented in Appendix A. For additional examples, the Pennsylvania State Association of Township Supervisors can be contacted by phone at 717-763-0930 or on the web at www.psats.org.

Task 3 Recommend a list of materials for recycling for both the residential curbside and non-residential programs.

Title 25 Pa Code 272.422 provides a list of alternatives for recyclable material collection for the residential program, and mandates the materials for collection from non-residential establishments. The term “residential” is used to refer to all homes, apartments, and other residential dwellings. “Non-residential” refers to all commercial, municipal, and institutional establishments. As presented below, 25 Pa Code 272.422 also requires separation of leaf waste from municipal waste for all establishment types.

1. Persons shall separate at least three materials from municipal waste generated at their homes, apartments and other residential establishments, and shall store the materials until collection. The three materials shall be designated in the ordinance, and shall be chosen from the following: clear glass, colored glass, aluminum, steel and bimetallic cans, high-grade office paper, newsprint, corrugated paper, and plastics.
2. Persons shall separate leaf waste from municipal waste generated at their homes, apartments and other residential establishments until collection, unless those persons have otherwise provided for the composting of leaf waste.
3. Persons shall separate high-grade office paper, aluminum, corrugated paper and leaf waste generated at commercial, municipal or institutional establishments and from community activities, and store the materials until collection. The ordinance may designate additional materials for recycling.

Often, municipalities select **aluminum cans** and **bimetallic (tin) cans** as two of the alternatives to include in the recycling ordinance for the residential curbside program. The third alternative varies considerably across the State. Selection of an alternative depends on the following factors:

- **Market Demand:** The sale of recyclable materials is market based. Although the market demand for aluminum and bimetallic cans has been fairly constant over the last 12 years, it has not been so for the other materials. Selection of the third alternative for curbside recycling can be done with input from the County Recycling Coordinator and a local recycling vendor, such as Superior, Inc.
- **Potential Quantity:** For materials with a relatively low market value, the selection of a third alternative can be based on potential quantity that can be collected. Newspaper, plastics, and glass are generated in larger quantities at residential establishments than office paper and corrugated cardboard. Among the glass waste products, half of all glass waste is clear.
- **Weight-to-Volume Ratio:** The most significant cost that is associated with recycling is the hauling of materials. A vendor is more likely to accept a product with a low market value if the potential quantity and the weight-to-volume ratio of the product is high. As an example, the weight-to-volume ratio of newspaper is greater than that of plastics.

Table 1 provides a summary of the recommended and PaDEP mandated materials to include in a municipal recycling ordinance. The Township can choose to mandate more than three materials for recycling. Often municipalities choose to incorporate the minimum PaDEP requirements, and allow additional recycling initiatives to be done on a voluntary basis.

Table 1: Summary of Recommended and Required Materials for Recycling

Source	Pa Code requires at least 3 materials for the residential recycling program and specifies 3 materials for recycling from non-residential establishments.		
Residential	Aluminum cans	Bi-metallic (tin) cans	To be selected ¹
Non-Residential ²	Corrugated cardboard	Office paper	Aluminum cans
Plus a curbside leaf collection program for all establishments			

(1) Selection of newspaper, clear glass, or plastics is recommended whereas office paper and corrugated cardboard are not recommended.

(2) Non-residential includes commercial establishments, schools, and government facilities

Task 4 Suggest methods for public education on recycling.

Title 25 Pa Code 272.423 states that a municipality shall establish a comprehensive and sustained public information and education program concerning recycling program features and requirements. The Code further states that a municipality shall notify the persons occupying residential, commercial, institutional, and municipal premises within its boundaries of the requirements of the ordinance **at least 30 days prior to** the initiation of the recycling program and **at least every 6 months thereafter**.

To satisfy Commonwealth requirements, Gannett Fleming suggests five methods to educate Borough residents on recycling.

- **Newspaper Articles:** Newspaper articles are an effective means of informing Township residents of recycling activities. The Courier Express can be contacted for additional information on publishing informational articles at 371-4200.
- **Flyers:** A flyer can be delivered either door-to-door or inserted to the daily newspaper to announce the Township's plans for recycling. A sample flyer from the Borough of Clearfield is presented in **Appendix B**.
- **Classroom Education:** The PaDEP has a number of publications for use in the classroom. "Erth Moore Worm" is an educational story to teach children about composting, ecology and the environment. "I'm a Blue Ribbon Recycler" is a book of activities that help children to understand the concepts of recycling. Both of these publications can be ordered from the PaDEP at www.dep.state.pa.us. Click on the Recycling Works logo. Some sample for classroom education are provided in **Appendix C**.
- **Billboards or Signs:** The entrance and mailbox areas in Treasure Lake are ideal locations for a sign to inform half of the Township residents of proposed recycling initiatives. For information on posting a sign or billboard at this location, Matt Begley, the Treasure Lake General Manager, can be contacted at 371-0711.
- **Television Commercials and Radio Announcements:** Local media can be used to convey information as well as to remind Township residents of curbside collection days and schedule

changes that may result from inclement weather. A list of several television and radio stations in the DuBois area is presented in **Table 2**.

Table 2: List of Television and Radio Stations in the DuBois Area

Television		Radio	
WTAJ-TV.....	653-7410	WMKX FM	372-4500
Treasure Lake Communications, Inc....	371-0385	WCED-WOWQ.....	371-6100
Ducom Cable TV.....	371-0334	WDBA FM.....	371-1330
Adelphia Cable	1-800-892-7300	WOKW FM	375-2600
		WDSN Sunny 106.....	375-5260

Educational costs that are related to the recycling and incurred by the Township other than administrative are eligible for State reimbursement. Billboard postings are also not reimbursable. An estimate of these costs should be included on the 902-grant application, and, in cases where contracted services are involved, the estimate should be based on a written quote. Ms. McCluskey recommended Diane Kesner, a marketing consultant for Media Services, for assistance with this task. Ms. Kesner can be contacted at 765-1312.

Task 5: Provide cost estimates for curbside recycling containers, curbside collection and hauling, and other applicable items to establishing a curbside program.

This section provides preliminary cost estimates for recycling that should be helpful in completing a 902-grant application. Through the application and implementation process, county and local representatives are available for guidance, and include:

- Jodi McCluskey, the County Recycling Coordinator, at 814-765-2641
- Greg Lingle, the Clearfield Borough Manager, at 814-765-7817
- Fran Lias, the City of DuBois Recycling Coordinator, at 814-371-2002 EXT 112

Collection equipment contracts for recycling are available through the Pennsylvania Department of General Services (DGS). Act 57 of May 15, 1998 permits local public procurement units, such as municipalities, to participate in State contracts for supplies, services, or construction. The advantage of procuring equipment through DGS is that the bidding requirement is waived because contracts have already been developed through the Commonwealth's competitive

bidding system. For additional information and to view a list of State contracts that are available, the DGS can be contacted at 717-787-1105 or visited at www.dgs.state.pa.us.

To provide preliminary cost estimates for Sandy Township, some census and map data gathering is necessary. This section is split into two subsections for this reason.

Task 5A: Preliminary Data Gathering

The preliminary steps for the Sandy Township planned recycling program include the following:

1. Use topographic or census maps to determine the locations and extent of population clusters.
2. Use United States Census data for population counts.
3. Develop a list of municipal waste haulers that serve the Township.

1. Locations and Extent of Population Clusters:

The largest community subdivision is Treasure Lake, a 9,000-acre Private Residential Development (PRD) of 1,800 homes, which is located in the northwest corner of the Township. A list of other community subdivisions to include in a curbside recycling or alternative recycling plan are listed in **Table 3**.

Table 3: Community Subdivisions and Approximate Locations

Community Subdivision	Approximate Location
Treasure Lake	Area surrounding Treasure Lake
Sabula and Sandy Lick Creek	Route 255 to the north of Interstate 80
Trailer Parks off Routes 255 and 322	Area surrounding the intersection of Route 255 and 322
Oklahoma and Sylven	Area to the southeast of the City of DuBois
Adrian Furnace and Iselin Heights	Area to the northwest of the City of DuBois and near the railyard
Spring Hills and Clear Run	Area to the west of the City of DuBois
Kiwanis Park	Area to the southwest of the City of DuBois
Western portion of Falls Creek	A majority of the Town of Falls Creek is in Jefferson County. The western tip extends into Sandy Township.

The list of communities in **Table 3** is not expected to be a complete inventory. Other communities, which are not shown on US Topographic maps with photo revision dates between 1986 and 1994, may be present. Current demographic maps are available for the Township from the Pennsylvania State Data Center at an estimated cost of \$75. For further information, the Data Center can be contacted by phone at 717-948-6336 or by e-mail at PaSDC-Data@psu.edu.

2. Population Counts:

US Census Data from the year 2000 estimates the population of Sandy Township at 11,556 residents. There are an estimated 3,946 total housing units of which 1,800 are located within the Treasure Lake PRD. A vast majority of the remaining housing units are believed to be located in the other community subdivisions that are listed in **Table 3**. As of April 2001, the US Census data has not released track specific data.

3. List of Municipal Solid Waste Haulers:

Three licensed municipal waste haulers are known to serve residents in Sandy Township. Superior, Inc. of Brockway serves all of Treasure Lake, and is believed to serve between 80 and 90% of the total housing units in the Township. A list of municipal waste haulers who serve residents in Sandy Township is presented in **Table 4**.

Table 4: List of Municipal Waste Haulers who Serve Residents in Sandy Township

Refuse Hauler	Estimated Percent of Sandy Township Residents Served	Phone Number
Superior, Inc.	80 to 90%	1-800-338-8971
Heffner's Sanitation	Less than 5%	1-814-653-8653
Glen Buerk	Less than 5%	1-814-834-4835

Sandy Township residents contract privately for municipal solid waste services. Among the contracted haulers, Superior, Inc. is the only one that provides recycling services. Township residents, who have chosen to recycle voluntarily with Superior, Inc. are charged an additional two dollars per month fee.

Task 5B: Budget Category Data

This section is formatted to coincide with the budget categories of a 902-grant application. A description of reimbursable items is presented within each budget section as well as specific needs and estimated costs. The estimated costs are presented strictly for budgetary purposes, and will need to be reevaluated at a time when the Township is ready to prepare a 902-grant application.

The Township has two years to implement a mandatory recycling program from the time that the 2000 Census data became official. The Township can choose to implement the recycling program over two years in phases, which would ease the burden on the Township's annual budget. Phase 1 for the grant application deadline in 2001 could focus on the curbside recycling program, and Phase 2 for the 2002 grant application would concentrate on the leaf collection and composting program. The budgetary costs presented below assume that Township will approach recycling in phases and that curbside services will be provided for all residents. A summary of budget category data is presented in **Table 5**.

- A. Project Development:** The process of project development includes design costs, market investigations, equipment procurement, and the development of market commitments, program ordinances, and public education programs. Time spent completing the 902-grant application, however, is not reimbursable. Jodi McCluskey is willing to complete the grant application, and Gannett Fleming is willing to provide consulting services. With time included for Township efforts, the cost of project development is estimated at \$15,000.
- B. Public Education:** The cost of educational materials includes flyers, paid newspaper advertisements, commercials, and billboard or sign production. In cases where public education serves more than one purpose, such as with a Township flyer, reimbursement is handled on a prorated basis. Administrative costs that are associated with public education are not reimbursable. A budget cost of \$5,000 can be assumed for the first year

of curbside recycling. When the Township is prepared to begin a public education campaign, a marketing consultant for assistance with the details and budget costs.

- C. Collection Equipment:** The costs of purchasing or leasing vehicles used to collect and transport recyclables are reimbursable. Sandy Township will need to purchase both curbside collection bins and a curbside collection truck. For budgetary purposes, the Township can assume \$40,000 for bins (4,000 homes at \$10 per bin with logo) and \$75,000 for a collection truck.
- D. Processing Equipment:** The cost to purchase or lease equipment for processing recyclables, such as wood chippers, cardboard and paper balers, and metal separators is reimbursable. At this time, it does not appear that Sandy Township will require any processing equipment for Phase 1.
- E. Construction, Acquisition and Modification of Buildings:** The costs associated with providing shelter for collection and processing equipment is reimbursable. A municipal recycling truck can be stored at the facility of the contracted recycler. If such an agreement can be arranged, Sandy Township will not need to construct, acquire, or modify a building for the proposed recycling truck.
- F. Land Associated Costs:** The improvements to land that are needed to operate a recycling or composting facility are reimbursable, but the cost of purchasing or leasing land is not reimbursable. If an agreement can be established between Sandy Township and Treasure Lake for leaf composting on Treasure Lake property, the Township can apply for grant reimbursement for the necessary improvements.
- G. Other:** If drop-off bins are to be included in an Alternative recycling plan, sticker labels fit the “Other” category. A budget price of \$200 for stickers can be entered onto a 902-grant application without a written quote.

Table 5: Budget Category Data

Budget Item	Item Cost	DEP Share	Applicant Match
A. Project Development	\$20,000	\$18,000	\$2,000
B. Public Education	\$5,000	\$4,500	\$500
C. Collection Equipment	\$115,000	\$103,500	\$11,500
D. Processing Equipment	0	0	0
E. Construction, Acquisition, and Modification of Buildings	0	0	0
F. Land Associated Costs	0	0	0
G. Other	0	0	0
Total Costs	\$140,000	\$126,000	\$14,000

Should the Township choose an alternative to the curbside recycling program, then a cost for drop-off bins would need to be added to budget item C. An alternative program would also reduce the number of curbside collection bins required.

SOLID WASTE PLANNING MODIFICATIONS TO CONSIDER:

Before a recycling program can be implemented, the Township will need to decide whether to retain the private agreement structure between Township residents and contracted waste haulers or select one contracted hauler to serve all Township residents through a competitive bid process. The purchase of a curbside recycling truck may necessitate service with only one solid waste hauler to ease the coordination of collection schedules. A municipal recycling truck can be rented to and stored at hauler's facility, as well. Your County Recycling Coordinator can be contacted for advice on handling modifications to the solid waste plan structure.

With implementation of curbside recycling, Gannett Fleming recommends a Pay-As-You-Throw (PAYT) program for non-recycled municipal waste. PAYT programs charge residents for waste removal services based on the quantity of material discarded. Some programs may have a set rate per bag while others use a combination of a fixed subscription fee plus a variable fee based on service. As listed on the PaDEP website, the benefits of PAYT programs include:

- **Fairness**: Each household pays a fee based on its use of solid waste services.
- **Increased Recycling**: Residents have incentive to recycle.
- **Waste Reduction**: Consumers become more aware that they can purchase recyclable packaging, avoid excessive packaging and consider alternatives to disposable products.
- **Composting**: Householders are encouraged to reduce waste and recycle at home with such methods as vermi-composting and grasscycling, which is a term for leaving grass clippings on the lawn.

Superior Inc. has a PAYT pricing structure in which homeowners pay \$3 per bag instead of a flat monthly fee. Rick Stewart of Superior Inc. commented that it is not a program that Superior advertises, and generally offers only to the elderly and part-time residents of Treasure Lake. If Sandy Township would like additional details on this program, Mr. Stewart can be reached at 265-1975.

CONCLUSIONS AND RECOMMENDATIONS:

With two years allotted for compliance with Act 101 recycling requirements, Sandy Township has time to educate and create enthusiasm for recycling as well as to make informed decisions regarding the set-up. Jodi McCluskey, the County Recycling Coordinator, is an excellent source for information and guidance on establishing both curbside recycling and composting programs.

We recommend that Sandy Township establish a recycling program in two phases. In Phase 1, a 902-grant application would be submitted in 2001 for curbside recycling, and in Phase 2, a grant application would be submitted in 2002 for leaf collection and composting. For phase 1, the tasks to complete before submitting a 902-grant application are the following:

- Contact Ron Sommers, the PaDEP Regional Recycling Coordinator, at 570-327-3755 and Jodi McCluskey at 814-765-2641 to set up a 902-grant pre-application meeting.
- Implement a municipal ordinance for recycling, and use the examples of other mandated recycling municipalities to establish the components. An example ordinance from Clearfield

Borough is located in **Appendix A**. Other examples are available from Ms. McCluskey as well as the Pennsylvania State Association of Township Supervisors.

- Consider the alternatives listed in **Table 1** for materials to recycle through a curbside program on the basis of market demand, potential quantity, and weight-to-volume ratio as well as the recommendations of Ms. McCluskey and Rick Stewart of Superior, Inc.
- Consider the tentative plan of approaching a recycling program in two phases over the course of two years to ease the financial obligations of the transition to curbside recycling while remaining within the Commonwealth timeline for implementation.
- Consider modifying the solid waste plan to incorporate a Pay-As-You-Throw program as well as a municipal contract with a single municipal waste service who can provide both refuse and curbside recycling services to Township residents.
- Inform Township residents of the proposed recycling initiatives once a tentative plan has been established. A combination of bulletin board postings on local television, radio announcements, and articles in the Township newsletter and local newspaper are all effective means of reaching Township residents.