

Recycling Program Consolidation in Wisconsin: A Decision-Making Guide

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Foreword

Students enrolled in the Workshop in Public Affairs at the Robert M. La Follette School of Public Affairs, University of Wisconsin–Madison, prepared this report in collaboration with the Bureau of Waste and Materials Management, Wisconsin Department of Natural Resources (DNR). The workshop provides graduate students in their last semester of the Master of Public Affairs degree program the opportunity to expand their policy analysis skills while working with a government agency and contributing to that agency’s understanding of a major public policy issue.

This report was accomplished during a period of major policy changes in Wisconsin. DNR originally asked the students to examine potential savings if the units of government responsible for mandatory recycling programs (“responsible units”) consolidated their recycling efforts. Governor Scott Walker’s subsequent proposal to eliminate state mandates and funding for recycling abruptly altered the policy environment. This was a real lesson in the necessary adaptability of policy analysis to the political process. This report examines the likely fiscal impact of consolidation but does not draw firm conclusions on whether DNR should encourage consolidation. Rather, it lays out a process for responsible units to consider consolidation and offers conclusions about the circumstances under which consolidation may result in cost savings. Although the conclusions are addressed to DNR, other readers are likely to find this report useful for its overview of recycling policy in Wisconsin.

Cynthia Moore, Recycling Program Coordinator in the Recycling and Solid Waste Section of DNR’s Bureau of Waste and Materials Management, first suggested this topic. She and others in that section were available to the students throughout the semester. This report would not have been possible without their enthusiasm and availability. The acknowledgments written by the authors thank other individuals who supported their work through frequent meetings in person and by phone. I add my gratitude to the appreciation expressed there. I also thank Ann Coakley, Division Head, for her support of this project and her willingness to allocate staff time to guiding the authors in their work.

The report also benefited greatly from the support of faculty and the staff of the La Follette School of Public Affairs, especially that of Publications Director Karen Faster, who edited and managed production of the report. The conclusions herein are those of the authors alone and do not represent the views of the La Follette School of Public Affairs, its staff, or of the client for which the report was prepared.

Karen Holden
Professor Emeritus of Public Affairs and Consumer Science
May 2011

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Executive Summary

Wisconsin law mandates that all municipalities offer recycling services if they use Wisconsin's public or private waste disposal facilities. This law has resulted in a patchwork of more than 1,000 units responsible for managing recycling services. The Wisconsin Department of Natural Resources (DNR) asked graduate students in the La Follette School for Public Affairs to analyze ways to assist responsible units in deciding if some form of service consolidation across municipalities would reduce program costs and increase uniformity in services. We provide a consolidation decision guide and explore the pros and cons of consolidating recycling services or entire programs. We find that service consolidation has the potential to reduce costs and increase equity in the provision of services and overall costs for many responsible units. The more services consolidated, the greater the potential savings. However, because responsible units are varied in services and structure, these findings may not hold true for all. Thus, we recommend that responsible units examine their individual needs to determine whether consolidation would benefit their communities. We also recommend that DNR consider actively aiding responsible units interested in consolidation.

This report discusses ways in which responsible units can consolidate into larger responsible units or consolidate services among responsible units. We examine three phases of consolidation: *what* services to consolidate, *where* (meaning at which level of government) to consolidate, and *how* to consolidate. We evaluate these phases based on multiple data sources, including interviews, surveys, and DNR's database of responsible unit cost figures. We also address Governor Scott Walker's proposed elimination of the recycling mandate and state grant program, and the effects his proposal may have on consolidation options. We conclude with recommendations for responsible units and for DNR.

Introduction

Wisconsin law requires that every local governmental unit be part of a state-approved responsible unit to use public or private waste disposal facilities. *Responsible units*¹ are the local units of government charged with creating and implementing state-mandated recycling programs (Wisconsin Statute § 287.09 (2009-10)). A city, village, town, or tribal body (collectively referred to as a municipality in this report) serves as the responsible unit of a geographic area unless the municipality delegates that authority to another governmental entity (Wis. Stat. § 287.01(9)).

Each responsible unit is required to provide a minimum range of services to its residents, including collection of recyclables and education about recycling services. More than 60 percent of the state's 1,061 responsible units serve populations smaller than 2,000 people (Wisconsin Department of Natural Resources [WDNR], 2011). The Wisconsin Department of Natural Resources (DNR) requested an analysis of consolidation models to explore whether consolidation could increase responsible unit efficiency. *Consolidation* is the start of a legal agreement such that one new or existing responsible unit of government provides some or all the recycling services previously provided by two or more responsible units of government. In this report, we describe consolidation in a three-phase analysis. First, we consider *what* services a responsible unit could consolidate. Second, we consider *where*, or at which level of government, responsible units could consolidate. Third, we consider *how* responsible units could consolidate and describe the challenges and legal procedures involved. Our analysis suggests that in some cases consolidation may reduce municipalities' recycling costs. These cost savings may enable responsible units to continue to offer recycling services even if state grants are eliminated.

¹ Because the recycling program mandate may be repealed under the proposed budget bill, responsible units may lose their statutory meaning. We refer to them in this report under their current statutory meaning.

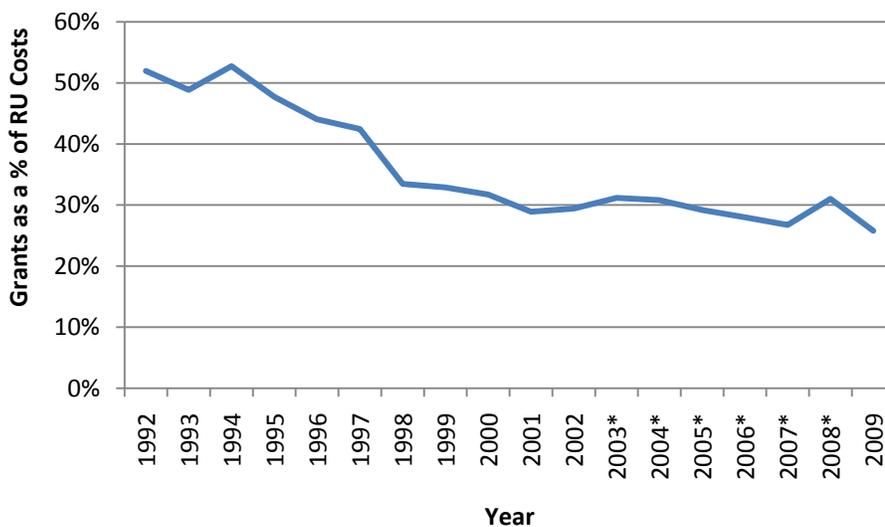
Overview of Wisconsin's Recycling Program

Prior to 1990, Wisconsin did not have statewide recycling regulations. Wisconsin's initiatives to manage landfill waste arose from concerns about the environment and disposal of solid waste. The Legislature enacted 1989 Wisconsin Act 335, a statewide program aimed at encouraging and, in some instances requiring, solid waste recycling and reduction (Bonderud, 2011). Between 1991 and 2011, the Legislature enacted a series of bans prohibiting disposal or incineration of certain materials in Wisconsin landfills and incineration facilities (Bonderud, 2011 & Wis. Stat. § 287.07). Wisconsin's recycling laws emphasize voluntary compliance through technical and financial assistance rather than enforcement (Bonderud, 2011). This gives responsible units flexibility in meeting community needs and allows for cooperation through local agreements.

Effective Recycling Programs

DNR considers a responsible unit to be an *effective recycling program* if it meets the criteria outlined in Administrative Rule NR 544. Responsible units with effective recycling programs are eligible for state grants, and in 2010 more than 96 percent of responsible units received these grants (Bonderud, 2011). However, Figure 1 shows that the percentage of responsible unit costs covered by state grants decreased from 50 percent in 1992 to less than 30 percent in 2009.

Figure 1 State Grants as a Percentage of Responsible Unit (RU) Costs over Time



Note: * Includes Recycling Efficiency Incentive Grant funds, a program that was available to responsible units that consolidated or cooperated with other responsible units.

Source: WDNR, 2011

Potential Changes to the Recycling Mandate and Grant Program

In February 2011, Governor Scott Walker released his proposed Budget in Brief for the 2011-2013 biennium. The proposal included the elimination of the recycling grant program and the recycling mandate. Appendix A contains the relevant text of the Budget in Brief. We analyze the potential impacts of the proposal later in this report.

Data Overview

We use a variety of data sources to inform our analysis. DNR provided an internal database of information about responsible units. We also interviewed and conducted surveys of recycling administrators.

DNR Responsible Unit Database

Every year, each responsible unit must submit a report to DNR. This report includes information about compliance with effective responsible unit requirements, program costs such as cost per ton of recycled material collected, and the unit's outreach and waste reduction efforts. Most of the responsible-unit-level data in this report come from DNR.

In our analyses, we use cost per ton as the main measure of program efficiency.² The DNR database includes several cost measures for each responsible unit: the total cost of program implementation; the "grant eligible costs" for collection, processing, and education; and grant eligible costs minus yard waste collection. The last category excludes yard waste collection costs because only a third of responsible units receive state grants for this activity. We use grant eligible costs minus yard waste collection costs in our cost per ton figures because they allow us to compare similar costs among responsible units.

The cost per ton measure has its limitations. In the early years of the state grant program, responsible units were eligible to receive additional funds not directly tied to their program costs for being a county-wide responsible unit. They also received more funds for having an inverted fee schedule for garbage collection similar in concept to pay as you throw programs.³ In addition, due to the flexibility in program operation allowed under the state law, responsible units are highly diverse in the range of services they provide. Some responsible units do not incur any collection costs and instead require households to contract directly for recycling services.

On the advice of DNR, we opted not to use per capita measures because of measurement complications. In the database, responsible units are assigned the full populations of their geographical areas based on Wisconsin Department of Administration published data. However, the responsible unit may in fact cover only a portion of this population if it includes locations not served by responsible units, such as prisons or multi-family dwellings.

In several of our figures and tables, we excluded municipalities that used their grant awards exclusively for yard waste collection. We also excluded gross

² We define efficiency as achieving a lower average cost per ton of recycled material collected and increasing economies of scale by providing more services (such as education) at a lower cost.

³ A pay as you throw program charges residents for collection of municipal solid waste based on the amount that the household throws away.

outliers, such as a municipality with a listed cost per ton of more than \$20,000. We attribute these extremes to reporting or data entry errors. Most tables and figures rely on 2009 data, but that year's dataset has incomplete cost information. When 2009 data were not available, we used 2008 data.

Interviews

We conducted in-person and phone interviews with eight responsible unit program administrators and recycling industry specialists to better understand the basic operations of consolidated and unconsolidated responsible units. We purposely sought out interviews with administrators from a variety of sizes and types of responsible units. These interviews informed the development of our survey questions and provided much of the data for our case studies.

Survey

We conducted a statewide survey of responsible units in March and April 2011 to generate basic data on the current state of the units and their opinions regarding consolidation. The DNR database provided us with quantitative data, and we hoped to supplement the figures with thoughts and opinions. We designed the survey to gather representative data on responsible unit consolidation efforts, financial situations, and service provision. We sent the survey by email to 993 recipients and received 374 responses. We were unable to contact all responsible units because many do not have valid email addresses listed with DNR.

Respondents to our initial survey came from a fairly representative distribution of responsible units based on population served. Table 1 compares the percentages of responsible units and survey respondents by population category. The smallest responsible units were somewhat underrepresented in our initial survey, while mid-sized responsible units were overrepresented. In our initial survey, we used more population categories than DNR to gain a better understanding of the range of responsible units our respondents served. When referring to the initial survey, we refer to the corresponding population categories. When referring to numbers from DNR's database, we refer to DNR's classifications.

Table 1 Percentages of Responsible Units (RUs) and Initial Survey Respondents by Population Category

Population Category	% RUs	% Survey Respondents
<1,000	41	32
1,000-4,999	43	44
5,000-9,999	6	9
10,000-24,999	6	7
25,000-49,999	2	4
50,000-99,999	1	2
100,000+	1	2

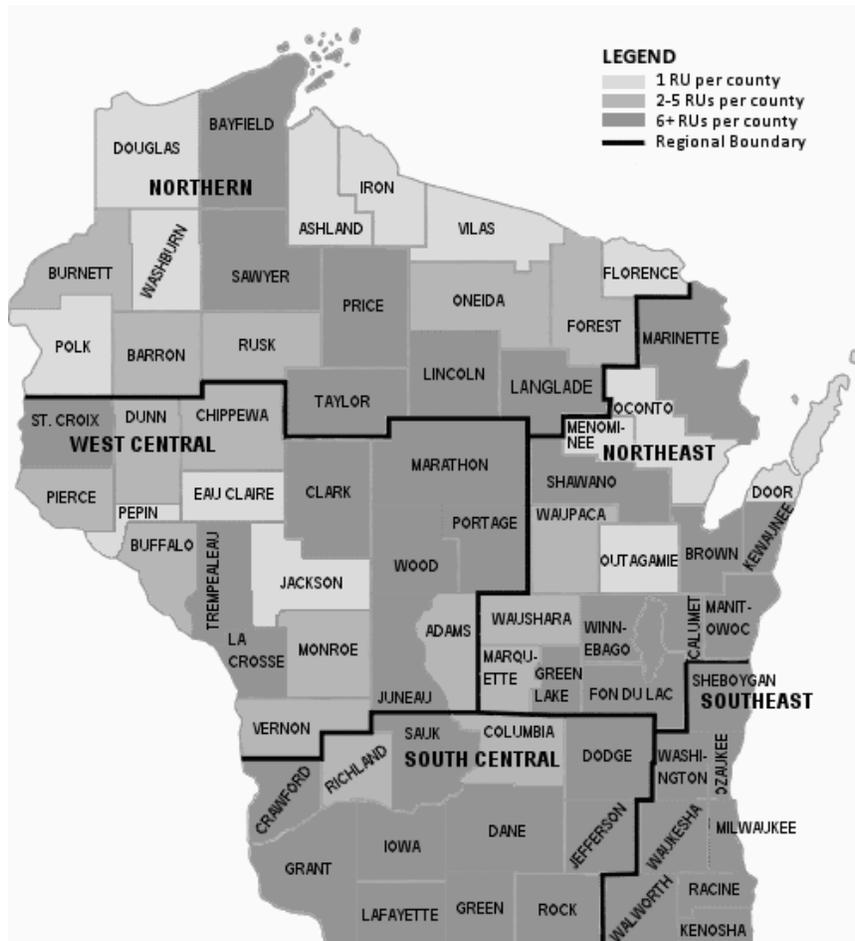
Source: WDNR, 2011; authors

We conducted a follow-up survey in late March 2011. This survey was designed to capture administrators' opinions about Governor Walker's proposed elimination of the recycling mandate and the state grant program. We sent the survey to the same administrators as the first survey and received 270 responses. We do not report individual level responses in this report. Appendix B contains the initial and follow-up survey questions and a summary of the responses.

Selected Consolidation Initiatives across Wisconsin

Most consolidation efforts occurred soon after the 1990 mandate. Few responsible units have formally consolidated since 1995, although some have begun cooperating with neighboring responsible units. Sixty-four responsible units are consolidated; they contain 866 municipalities. Figure 2 shows that most of the consolidated responsible units serve the North and West Central regions. If there are fewer responsible units in a county, it is likely that more of them are consolidated. In our initial survey, we found that very few small responsible units (serving less than 1,000 people) cooperate with neighbors, while the majority of large responsible units (serving more than 100,000 people) do.

Figure 2 Responsible Unit (RU) Consolidation Density by County



Source: Authors

Our survey results further indicated that respondents from large responsible units, which are more likely to be consolidated, tend to see benefits from consolidation. Respondents from smaller responsible units, which are less likely to be consolidated, were unlikely to see benefits. However, data from DNR show

that there may be cost efficiencies from consolidation. Table 2 shows that consolidated responsible units have a lower average cost per ton of recycled material collected than unconsolidated responsible units.

Table 2 Wisconsin Responsible Units (RUs) Average Cost per Ton of Recycled Material Collected by Region and Consolidation Status, 2008

Region	Unconsolidated RUs		Consolidated RUs	
	# RUs	Avg. Cost/Ton	# RUs	Avg. Cost/Ton
Northeast	213	\$215.62	9	\$181.18
North	108	411.79	25	282.38
South Central	306	265.46	8	228.83
Southeast	150	138.84	1	111.82
West Central	215	250.03	21	196.54

Source: WDNR, 2011

We present several consolidated responsible units as case studies. In researching these cases, we gathered data on these responsible units and conducted interviews with staff. Our initial survey of responsible units showed some administrative staff see benefits from consolidating, and more than 90 percent of very small and very large responsible units see potential for cost savings in consolidating. However, more than 60 percent of respondents were unsure if their communities would be interested in consolidation. We include case studies to exemplify successful consolidations. We use them as examples throughout this report. Table 3 provides an overview of the data available for the case studies.

Table 3 Comparison of Selected County Responsible Units, 2009

2009 Facts	County			
	Eau Claire	Outagamie	St. Croix	Waukesha
Population served	101,069	193,270	70,365	273,701
State grant per person	\$7.43	\$4.38	\$4.10	\$5.22
Cost per ton	\$231.90	\$120.03	\$89.56	\$138.66
Collection and drop-off services	Private; organized by households	Public; collected by county	Private; organized by municipalities	Private; organized by municipalities
Recycled material processing	Organized by private companies	County operates facility with two other counties	Organized by municipalities	County operates facility with private company

Source: WDNR, 2011

Eau Claire County

In Eau Claire County, individual households contract with one of four service providers for curbside pickup of garbage and recycling. In 2009, the county's cost per ton was \$231.90. The county picks up the entire cost of curbside recycling for households outside the city of Eau Claire. The county provides education programs to all 18 of its municipalities and operates drop-off sites for rural households.

Outagamie County

Outagamie County provides recycling services to all of its 32 municipalities. In 2009, the county's cost per ton of recycled materials was \$120.03. The county contracts with a private provider for curbside collection, offers education services, and works with Brown and Winnebago counties to process materials at the Tri-County Materials Recycling Facility.

St. Croix County

St. Croix County operates a consolidated responsible unit serving 26 of 31 municipalities. The responsible unit handles all administrative services and educational services. Each member municipality contracts with its own curbside and drop-off service provider and manages its own recyclable materials. The county's 2009 cost per ton of recycled material collected was \$89.56.

Waukesha County

Waukesha County operates a consolidated responsible unit that includes 25 of 37 municipalities. The county manages recycling administration and education, and runs a materials recycling facility with a private company. In 2009 the county helped 13 member municipalities jointly negotiate a trash and recycling collection contract with a service provider. It provides joint education with Milwaukee County through radio ads and is working to establish a regional materials recycling facility.

Consolidation Goals

To compare consolidation options, we consider efficiency, equity, and feasibility. These goals are informed by our finding in interviews, surveys, and relevant literature. Literature indicates that municipalities often look to consolidation as a means to address these goals (Carr & Feiock, 2004, p. 5). Respondents to our initial survey stated that cost savings and the ability to provide greater services were the most significant benefits. Additionally, our interviewees stated that they consolidated or were not interested in consolidation due to concerns about efficiency and equity. Table 4 outlines some of the costs and benefits of consolidation.

Table 4 Costs and Benefits of Local Government Consolidation

Benefits of Consolidation	Costs of Consolidation
<ul style="list-style-type: none">• Cost savings• Eliminate redundant services• Maintain or increase service levels• Increase professional expertise in informing public decisions• Promote regional interests over single municipality interests• Make jurisdictions large enough to be cost effective	<ul style="list-style-type: none">• High transaction costs<ul style="list-style-type: none">○ Coordination○ Contracting• No automatic cost savings• Savings are lost to increased service provision• Larger units may be less responsive to residents• Loss of local control

Source: Pennsylvania Economy League, 2009; Carr & Feiock, 2004

Efficiency

To measure efficiency, we primarily use cost per ton of recycled material collected. Consolidation may maintain current service levels or provide increased services at a reduced cost. A consolidated responsible unit's average cost per ton should fall as the scale of output increases.

Equity

We consider equity in terms of uniform distribution of costs and services. To do so, we use service data from our survey and cost data from DNR.

Feasibility

In our analysis, feasibility refers to administrative and political feasibility. Political feasibility is likelihood of community acceptance of policy decisions. Administrative feasibility means municipalities have trained and knowledgeable staff with adequate time and resources to provide recycling services. Additionally, fewer responsible units in the state may lead to fewer administrative bodies and more streamlined management of services.

We highlight practices that generate the greatest benefits for municipalities. Although consolidating is almost always difficult, financial support during the process and a means for selling the plan to residents improves the chances of success (Pennsylvania Economy League, 2009 pp. 3-4).

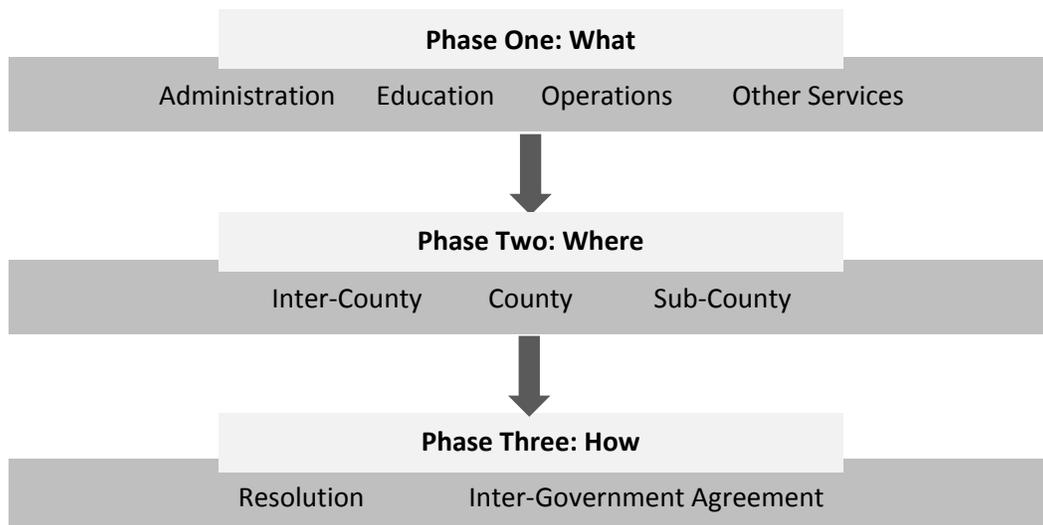
Because there is no single model for consolidation and responsible units seem unsure of whether consolidation is right for their communities, we have created a three phase decision guide. The guide incorporates the goals and should serve as a tool for responsible units that are trying to improve efficiency, equity, or feasibility, especially when facing difficult budgetary decisions.

Consolidation Decision Guide

Our consolidation decision guide consists of three phases: *what* services to consolidate, *where*, or at which level of government to consolidate, and *how* to legally consolidate. In the first two phases, we consider if a particular combination would increase efficiency relative to current cost per ton and would decrease other costs. We also consider if a decision results in equitable distribution of costs and services. Finally, we consider whether the options we discuss are politically feasible. Figure 3 provides a flow chart of the decision guide.

The first phase looks at the possible services to consolidation, including operational services, educational services, and administrative services. In the second phase, we analyze how the governmental level of consolidation affects our goals of increasing efficiency, equity, and the feasibility of each consolidation option. In the third phase, we lay out two legal paths for consolidation.

Figure 3 Flow Chart of the Responsible Unit Consolidation Decision Process



Source: Authors

Phase One: Services

In Phase One, we analyze the types of services responsible units can consolidate, looking at operational, educational, administrative, and other services. Our goal was to build a guide that could expand on the services that are already shared among responsible units. Our initial survey of responsible unit administrators found that respondents believe cost savings and increased services were the most likely results of consolidation. The survey also indicated a lack of service parity. Specifically, 42 percent of responsible units serving fewer than 10,000 people report that they provide services beyond those of their neighbors, while 58 percent of those serving more than 10,000 people state the same.

Operational Services

Operational services include curbside collection, recycling drop-off sites, recycled materials processing, and the marketing of recycled materials to potential buyers. In general, operational services are already somewhat shared among responsible units. Sixty-one percent of the respondents to the initial survey use the same service provider to collect solid waste as does their neighboring responsible unit. However, many cite contracting for those services as taking up a significant portion of staff time. Consolidating operational services could lower operational costs for responsible units, although administrative costs might increase or decrease depending on the responsible units' current context. For example, each responsible unit might end up duplicating much of the administration and enforcement because they would still be considered individual responsible units for reporting purposes. This setup means that administrative tasks, such as managing funding and reporting to DNR, as well as all enforcement duties, would still be under the purview of each unit. This arrangement is inefficient and would likely result in reduced cost savings than it would if combined with consolidating administrative services.

Educational Services

Wisconsin law requires responsible units to provide information to the public about how to reduce, reuse, and recycle waste (Wis. Stat. § 287.09(2)(b)2). The education and outreach a responsible unit provides varies across responsible units. Small responsible units may save money or increase educational outreach by providing these services with neighboring responsible units. Consolidation of educational services without consolidating other services is feasible. Twenty-five percent of initial survey respondents already partner on education and outreach services.

For example, Waukesha County partners with Milwaukee County to provide educational radio ads. The Milwaukee media market includes Waukesha. Previously, Waukesha was paying extra money to advertise to Milwaukee residents who were not the intended audience. An interviewee states that by partnering to create a single radio ad, both counties saved money (February 2011).

Administrative Services

Administrative services include enforcing local and state recycling ordinances, handling complaints, distributing funds, and providing an annual report to DNR. In our initial survey, few responsible units reported that they have at least one staff member fully dedicated to recycling. Additionally, one interviewee indicated that smaller responsible units have so few staff that there is sometimes no one who knows much about recycling administration in the community. This is borne out by our survey. While an equal number of small and large responsible units use the same service providers as their neighbors, staff at small responsible units are more unsure whether they do. By partnering, the responsible units may be able to devote greater staff time to other recycling projects, which could improve the quality of programs and services. Additionally, responsible units with little or untrained staff could band together to hire a more knowledgeable administrator.

DNR would also benefit if responsible units consolidated administrative services. Consolidation would result in fewer responsible units, each able with its shared financial resources and staff to contribute to greater levels of recovery and recycling of materials statewide. Fewer responsible units needing individualized technical and compliance assistance from DNR would significantly reduce DNR workload and allow the agency to direct staff time to other projects.

Other Services

In the initial survey, many respondents indicated that they collaborate on special services, such as electronics recycling programs. For example, one interviewee explained that her responsible unit's service provider only collects cell phones in batches of 50. She added that responsible units with very small populations take much longer to obtain 50 cell phones to recycle. By collaborating with neighboring areas, responsible units could more quickly recycle cell phones. In this case, the responsible unit would not gain cost savings, but it would be able to achieve greater service provision. Whether a responsible unit will receive cost efficiencies from consolidating other services depends on the specific service in question. Given the broad spectrum of other services responsible units offer, it is difficult to make generalizations about the political and administrative feasibility of consolidation.

Phase One Analysis

Consolidating services may help responsible units improve efficiency and equity. For example, Table 5 shows that many unconsolidated responsible units do not collect the required amount of recycled material per person, whereas many consolidated responsible units do. In consolidated and unconsolidated responsible units, the smaller responsible units are least likely to meet the minimum of recycled material collected per person. Consolidation could allow responsible units to achieve greater equity in service provision and costs. One potential drawback is that it could make recycling less convenient for some people. This problem is especially apparent when forming larger responsible units and would be less likely if small responsible units were consolidating with one another. For example, a Dunn County official told us that residents from an unconsolidated responsible unit opposed consolidation with the county's responsible unit because the drop-off facility would be moved to a less convenient location.

**Table 5 Wisconsin Responsible Units (RUs) Collecting <90%
of Required Pounds of Recycled Material per Person, 2009**

Population Category	Unconsolidated RUs			Consolidated RUs		
	# RUs	# Under Collecting	% Under Collecting	# RUs	# Under Collecting	% Under Collecting
<2,000	682	124	18.2%	18	5	27.8%
2,001-5,000	181	7	3.9%	7	2	28.6%
5,001-10,000	60	2	3.3%	8	1	12.5%
10,001-50,000	62	2	3.2%	25	1	4.0%
≥50,001	10	1	10.0%	6	0	0.0%
Total	995	136	13.7%	64	9	14.1%

Note: Each responsible unit must collect a minimum number of pounds of recycled material per person; DNR sets the minimum based on the responsible unit's population.

Source: WDNR, 2011

Because another government entity or a private contractor can provide most services, responsible units have immense flexibility when deciding which services to consolidate. Of the services discussed, it is the most administratively and politically feasible to consolidate operations because many responsible units already have third parties providing services and can simply join together to form a new contract. Different services may be privately or publically provided as best fits a responsible unit's situation. However, administrative services may not be privatized; state statutes mandate that only a government unit may provide the annual required information to DNR.

Phase Two: Level of Government

Phase Two considers the level of government at which municipalities could consolidate. Using existing models as a guide, we consider inter-county, county-wide, and sub-county consolidation.

Inter-County Level

Inter-county consolidation occurs between two or more county-wide responsible units, or between one county-wide responsible unit and one or more smaller responsible units. For example, the Village of Marathon in Marathon County contracts with a private hauler and has its materials processed at the Portage County Materials Recycling Facility. Consolidated responsible units would contribute state grant, tax, and other funds to a larger fund managed by a county administrator. The duties of managing shared services could be shared among county administrators or delegated to one official

County Level

County consolidation occurs at the county level, and all state grant or local tax funds for member municipalities would be managed by the county. DNR considers

a responsible unit representing at least 75 percent of the county population to be a “county” responsible unit; prior to 2000, county responsible units were eligible for additional state grants (Wis. Adm. Code NR 542.06(1)). County consolidation service provision could range from educational to providing all recycling services. Similar models have been implemented in Waukesha, St. Croix, Dunn, and Eau Claire counties.

An example of the possible outcomes from county-level consolidation is Waukesha. Of the 12 responsible units in Waukesha County that do not participate in the consolidated responsible unit, seven had higher costs per ton than the county responsible unit in 2008. Table 6 demonstrates the large variation in cost per ton among Waukesha County responsible units. If all unconsolidated responsible units had received the county cost per ton rate, we estimate the total cost savings would have been over \$275,000 in 2008 (WDNR, 2011).

Table 6 Cost per Ton of Recycled Material Collected for Responsible Units in Waukesha County, 2008

Responsible Unit	Population	Cost per Ton
Town of Ottawa	3,807	\$15.76
Village of Sussex	10,045	64.89
Village of Lannon	1,055	73.15
Village of North Prairie	1,955	102.67
Town of Mukwonago	7,558	108.07
County of Waukesha	273,331	111.81
Town of Genesee	7,556	114.21
Village of Menomonee Falls	34,600	121.81
Town of Eagle	3,571	130.75
Town of Vernon	7,450	156.48
City of Muskego	23,075	192.30
Village of Mukwonago	6,953	257.97
Village of Butler	1,799	276.52

Source: WDNR, 2011

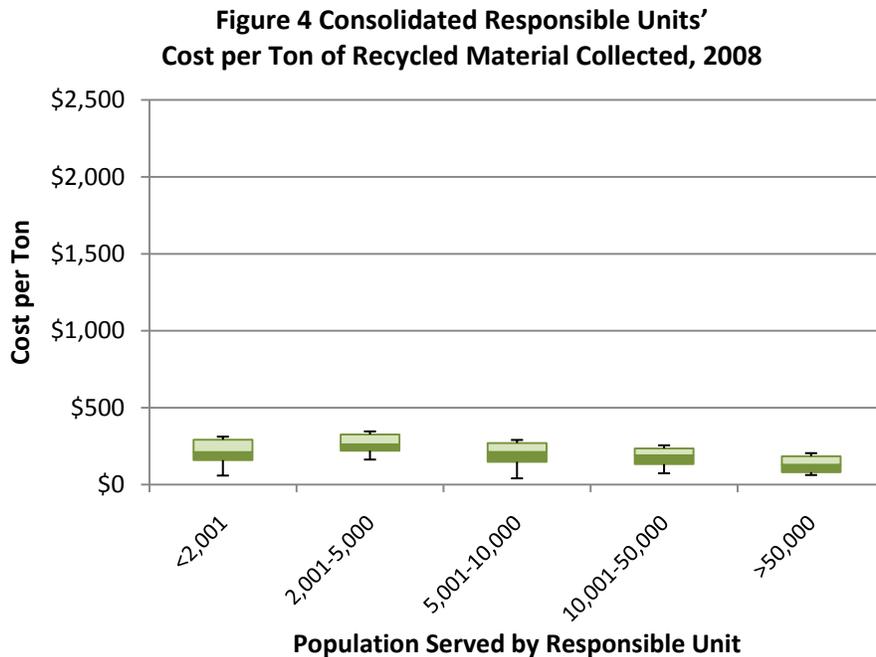
Sub-County Level

Sub-county consolidation occurs at the local level across municipal lines. Municipalities could form a responsible unit that provides services previously provided by individual responsible units. Alternatively, they could negotiate contracts to share recycling services. State grant funds would go to the administrator of the consolidated unit.

Phase Two Analysis

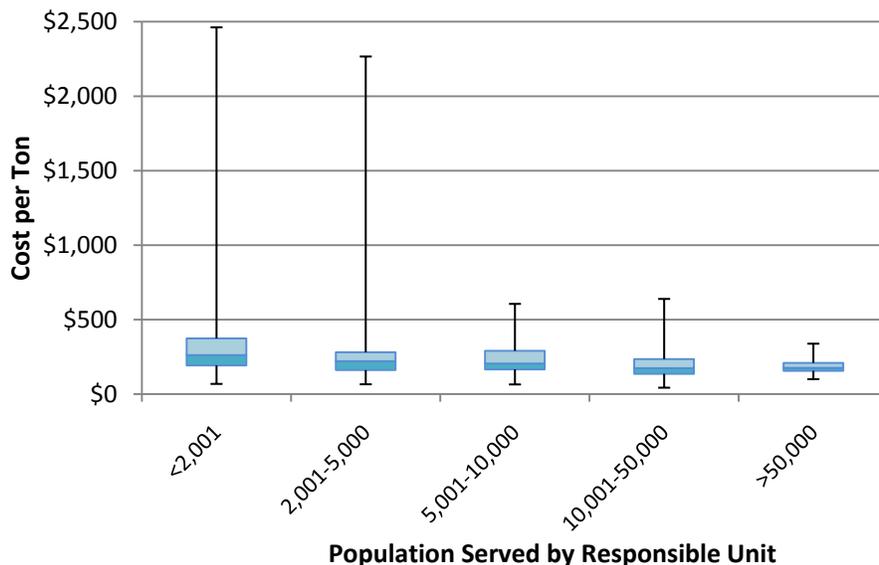
According to responses to our initial survey, 60 percent of responsible units serving more than 100,000 people and 12 percent of those serving fewer than 1,000 people have made an effort to consolidate. This difference is not surprising because efficiency and equity gains are generally greater when the responsible unit is larger. Figures 4 and 5 show the distribution of cost per ton for consolidated and unconsolidated responsible units. The bottom of the box represents the 25th percentile of cost per ton in each category, and the top represents the 75th percentile. The two shades meet at the median cost per ton for the population category. The whiskers represent the maximum and minimum cost per ton across responsible units within each size category. As the figures show, costs are much less equally distributed across unconsolidated responsible units. Consolidated responsible units experience much less variability in cost, regardless of population served. Within both categories, the median cost per ton tends to decrease as population increases.

Figures 4 and 5 indicate that the median costs are similar, but the range of costs varies. One specific example comes from Sawyer County, where two towns serve fewer than 500 people, do not meet the minimum required pounds per person, contract with the same service provider, and use the same materials recycling facility (WDNR, 2011). One town has a cost per ton of less than \$300 and the other has a cost per ton of more than \$700 (WDNR, 2011).



Source: WDNR, 2011

**Figure 5 Unconsolidated Responsible Units'
Cost per Ton of Recycled Material Collected, 2008**



Source: WDNR, 2011

Although efficiency and equity may improve with consolidation, the suggestion to move responsibility to a higher level tends to prompt resistance from the affected citizenry and may result in officials who are less accountable to the population. In our surveys and interviews, officials from small and large responsible units cited concern about the loss of local ownership of programs. Thus, it seems most politically feasible to consolidate at the county or sub-county levels. In rural areas, however, inter-county consolidation may be the only way to achieve the economies of scale required to achieve cost efficiencies.

Phase Three: How

The two primary legal paths to consolidation are adopting a resolution to become a new responsible unit or creating an inter-government agreement to share service provision. Currently, local government agencies handle most recycling programs. Below we discuss the legal process, who would offer services, and important considerations for each of these paths. Responsible units are managed in a variety of ways, but the process for consolidating is similar regardless of the starting point.

Resolution

By default, each municipality is its own responsible unit. However, a county may adopt a resolution declaring itself a responsible unit. Within 90 days of the county's resolution, a municipality within that county can adopt its own resolution to retain separate responsible unit status (Wis. Stat. § 287.09(1) (a-b)). If a municipality does not join a county recycling unit, the county may charge it to use some of the county's recycling services. This option only applies to county-level consolidation.

Adopting a resolution is a fairly permanent arrangement. Municipalities or counties that are unsure of whether they want to be a responsible unit in five to 10 years should consider an inter-government agreement.

Inter-Government Agreement

The second path to consolidation is through contracting. An *inter-government agreement* is a contract between two units of government to share service provision. The governing body of any responsible unit may designate by contractual agreement another unit of government to be the responsible unit (Wis. Stat. § 287.09(1)). For example, a responsible unit can contract with a solid waste management board, which is composed of a single county or of multiple counties, to administer the area's solid waste and recycling program. (Wis. Stat. 59.70(2), (3); Wis. Stat. § 287.09(1) (b)). The agreement must cover all responsible unit duties and may delegate some or all duties to another entity. For example, in the absence of an ordinance that states otherwise, municipalities may form contracts that delegate most responsible unit authority to the county. Wisconsin statute section 159.09(3)(a) allows for allocation of duties between public or private entities.

Using the Three-Step Guide: Examples

We created several hypothetical examples of applying the three phase process. It is up to the municipality to decide what type of consolidation arrangement works best given its circumstances. When considering consolidation, administrators should study the requirements for becoming an effective recycling program and the list of landfill bans. Then they should ask the following questions. After asking and answering these questions, administrators can proceed through the analysis above.

- 1) What services do you want to provide and who can best provide them?
- 2) Who is in the best position to administer the programs and any state grant money?
- 3) If any services are going to be contracted out to a private entity, who could best accept bids and manage contracts? (WDNR, 1990).

Table 7 presents potential scenarios that responsible units could face when considering consolidation. It demonstrates possible decisions that responsible units could make based on their current context and provides an example of a responsible unit in a similar situation.

Table 7 Examples of Consolidation Using the Three Phase Decision Guide

Potential Scenario	Phases of Consolidation			Example
	One: What	Two: Where	Three: How	
Two neighboring municipal responsible units	<u>Operational:</u> contract with one collection hauler <u>Educational:</u> provide education to all <u>Administrative:</u> one seat of authority	Sub-county	Inter-government agreement	Village of Albany and Town of Albany
Rural county containing many small responsible units	<u>Educational:</u> provide education to all <u>Administrative:</u> one seat of authority	County	County ordinance declaring itself the responsible unit	St. Croix County
Two neighboring county-level responsible units	<u>Operational:</u> Process recyclables at one facility	Inter-county	Inter-government agreement	Outagamie, Brown, and Winnebago counties

Source: Authors

Impact of State Budget Proposal

Our consolidation options were developed within the context of the current state recycling law. We provide a discussion of potential adaptations to the phases below in case the state recycling grants and mandate are eliminated as proposed in Governor Walker's budget (Wisconsin Department of Administration, 2011).

In Phase One, the service options would not change significantly. Without a mandate, some municipalities may choose to voluntarily provide services. Our follow-up survey respondents overwhelmingly indicated they would try to retain recycling without state funding. This move could lead to a patchwork of different policies and expected levels of services across Wisconsin.

Phase Two and Phase Three could be greatly affected because counties may not have the authority to operate recycling services. Under Chapter 287 of the state statutes, counties are given authority to operate recycling programs and to pass recycling ordinances. Under Home Rule, a municipality has the right to act without state direction, while a county must be given that authority. A repeal of the mandate would eliminate a county's abilities to enforce recycling ordinances and to operate an effective recycling program, which would eliminate inter-county or county-level consolidation as options.

Additionally, municipal governments may review recycling ordinances, which could lead to the patchwork of regulations described above. Many of the factors required to consolidate local units of government, such as cooperative agreements, would remain and change very little should communities decide to consolidate their services.

Recommendations

In addition to the decision-making guide outlined above, we have two recommendations for recycling programs. First, we recommend each responsible unit look to its particular situation to see if consolidation is beneficial. Second, we recommend DNR act as a facilitator for responsible units looking to consolidate.

Local governments have limited funds. As a result, they must make difficult choices about where to allocate money. If the responsible unit's goal is to decrease costs, consolidation may be a way to do so. Many responsible units indicated in the follow-up survey that a decrease in funding from the state will lead to decreased services or increased costs. Consolidation of some services may allow responsible units to maintain service levels without raising money through local taxes or fees. However, consolidating does not necessarily result in positive outcomes. Some responsible units may see an increase in costs or a decrease in services upon consolidation. For example, some responsible units in Waukesha County would face increased costs per ton if they joined the county responsible unit and were charged the county rate. We recommend responsible units' administrators consider consolidation from a broad perspective of needs and resources to determine whether it will help them meet their goals.

Having fewer responsible units would benefit DNR because a large percentage of the Bureau of Waste and Materials Management's staff time is dedicated to handling the responsible unit reporting and enforcement requirements. In smaller responsible units, staff turnover is more common and compliance may be more difficult. DNR should consider assisting responsible units with the consolidation process. For example, DNR can assist responsible units in determining if their costs or services vary significantly from neighboring responsible units or similar responsible units and why that may be the case. Additionally, DNR could act as an arbitrator of contracts and agreements, including identifying necessary provisions and answering questions about the process. DNR already provides some statewide education and outreach, which it should continue to help reduce the burden on responsible units.

Conclusion

Many Wisconsin responsible units have great potential for cost savings through consolidation of recycling services. Our data suggest that a significant portion of unconsolidated responsible units, especially the smallest units, could decrease cost per ton by consolidating some or all of the services they provide because they have the most variable costs. Additionally, widespread consolidation could increase equity by making costs and services more uniform. Consolidation may allow municipalities to continue offering recycling services if state grants are eliminated.

We recommend that all responsible units evaluate their circumstances and communicate with surrounding responsible units to determine the potential for cost savings. We also recommend that DNR actively support these efforts by making information available to these responsible units and providing assistance with the processes of consolidation.

Works Cited

- Bonderud, Kendra. (2011, January). *Solid waste recycling and waste reduction*. Madison: Wisconsin Legislative Fiscal Bureau. Retrieved from http://legis.wisconsin.gov/lfb/informationalpapers/71_Solid%20Waste%20Recycling%20and%20Waste%20Reduction.pdf.
- Carr, Jered & Feiock, Richard. (2004). *City-county consolidation and its alternatives: Reshaping the local government landscape*. New York City, NY: M.E. Sharpe, Inc.
- Pennsylvania Economy League. (2009, April). *Municipal merger/consolidation and the sharing of services*. Wilkes-Barre, PA: Author. Retrieved from <http://teampa.com/wp-content/uploads/2010/07/Final-Report-TeamPA-Merger-Consolidation.pdf>.
- Wisconsin Department of Administration. (2011). Governor's budget recommendations: Department of Natural Resources. Madison: Author. Retrieved from <http://www.doa.state.wi.us/debf/docview.asp?buid=40>.
- Wisconsin Department of Natural Resources. (1990, June). *Forming a responsible unit under Wisconsin Act 335: The recycling law (PUB-IE 044-90)*. Madison: Bureau of Information and Education.
- Wisconsin Department of Natural Resources. (2011). Internal Database. Madison: Author.

Appendix A: Governor’s Budget in Brief

In February 2011, Governor Scott Walker released his Budget in Brief for the 2011-2013 biennium. The proposal included numerous changes to state agencies’ budgets, including eliminating the Department of Natural Resource’s recycling grant program and the recycling mandate, and rewording the landfill/incineration disposal bans. The relevant text of the proposal is below. SEG-O is segregated general revenue.

Table A 1 Governor Walker’s Budget Proposal to Eliminate Wisconsin’s Recycling Mandate and Grant Program

19. Repeal Recycling Mandate								
Source of Funds	Agency Request				Governor’s Recommendation			
	FY12		FY13		FY12		FY13	
	Dollars	Positions	Dollars	Positions	Dollars	Positions	Dollars	Positions
SEG-O	0	0.00	0	0.00	-32,098,100	0.00	-32,098,100	0.00
TOTAL	0	0.00	0	0.00	-32,098,100	0.00	-32,098,100	0.00

The Governor recommends eliminating the requirement that a municipality or county operate a recycling program to manage solid waste in compliance with disposal restrictions. The Governor also recommends eliminating financial assistance for the local governmental recycling program.

20. Recycling Fund Modifications

The Governor recommends renaming the recycling and renewable energy fund to the economic development fund, and depositing \$4 per ton of the recycling tipping fee in the economic development fund and \$3 per ton in the environmental fund. The Governor also recommends transferring to the environmental fund current appropriations from the recycling and renewable energy fund that are for purposes related to the environment.

Source: Wisconsin Department of Administration, 2011

Appendix B: Survey Questions and Summary of Responses

In March and April 2011, we conducted two surveys of responsible unit administrators. The survey was sent to all administrators in the Wisconsin Department of Natural Resources database who had valid email addresses, 993 people. We conducted the initial survey in order to gain greater knowledge about recycling services and consolidation from those who provide the services. After the Governor announced his plan to eliminate the recycling mandate and state grant, we decided to conduct a follow-up survey about the administrators' reaction to this announcement.

The results to both surveys, excluding responses with names, email addresses, and phone numbers, are included in this appendix. All qualitative responses were coded based on categories we created. Answers were coded in multiple categories if they included multiple responses. For example, if an administrator stated that his responsible unit worked with a neighboring responsible unit on electronic recycling and bulk item recycling, the response would be included in both categories. This means that the total count of respondents does not always match the number of responses.

We did not limit the survey to only invited participants, so we cannot know how many people accessed the surveys. The initial survey received 375 total responses; 271 of those respondents completed the entire survey. The follow-up survey received 270 responses; 220 of those respondents completed the entire survey.

Initial Survey

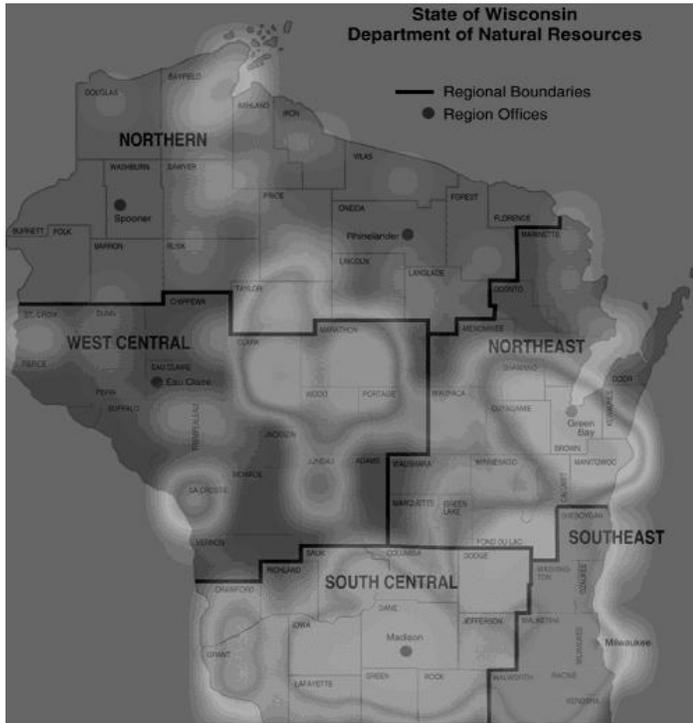
* Coded qualitative response

1. How many people does your RU serve?

Answer	Response	%
Less than 1,000	101	32%
1,000 to 4,999	137	44%
5,000 - 9,999	28	9%
10,000 to 24,999	23	7%
25,000 to 49,999	11	4%
50,000 - 99,999	5	2%
100,000+	6	2%
Total	311	100%

Total Responses | 311

2. Where in the state of Wisconsin is your RU? (Please click on the map to choose your region)



0 11

Total Responses 264

3*. How many municipalities are served by your RU?

Answer	Response
One	86
More than one	12
Don't know	1

Total Responses 298

4. Does your RU operate recycling services jointly with trash collection?

Answer	Response	%
Yes	253	81%
No	58	19%
Total	311	100%

Total Responses 311

5. Does your RU coordinate any services and/or outreach activities with adjacent RUs?

Answer	Response	%
Yes	66	21%
No	243	79%
Total	309	100%

Total Responses 309

6*. Please describe the services coordinated with other RUs

Answers	Response
Special collections (electronics, hazardous waste, etc.)	29
Education and /or outreach	13
Contracting	5
Collection and/or processing	10
Non-recycling services	2
Don't know	1
Unclear from response	2

Total Responses 52

7*. How many recycling collection and administration staff members does your RU employ? If some employees are part-time please give the best estimate of FTE.

Answer	Response
Less than .5 FTE	50
.5-1 FTE	24
More than 1 FTE	17
Unclear from response or don't know	10

Total Responses 268

8*. What are your RUs significant capital expenditures in the last 10 years, if any? Examples: investment in a drop-off center or storage facilities. Please give the year, a brief description, and the amount spent.

Answer	Response
None	47
Equipment	11
Facility purchase or maintenance	20
Vehicles	3
Did not address question asked or don't know	17

Note: Contracting is not considered a capital expense. However, many responsible units cited contracting as a significant expense.

Total Responses 238

9. How far is your MRF[†] from your RU? Please base on a central point in your RU.

Answer	Response	%
Within 10 miles	66	26%
11-20 miles	72	28%
21-50 miles	85	33%
51-100 miles	23	9%
100+ miles	10	4%
Total	256	100%

[†]Materials recycling facility.

Total Responses | 256

10. Do any neighboring RUs use the same hauler?

Answer	Response	%
Yes	169	61%
No	25	9%
Unsure	81	29%
Total	275	100%

Total Responses | 275

11. Does your RU provide recycling services (including educational outreach) beyond the minimum required by law?

Answer	Response	%
Yes	120	45%
No	144	55%
Total	264	100%

Total Responses | 264

12*. Please describe the additional services the RU provides.

Answer	Response
More frequent or special collection	27
Special event	20
Additional education or outreach	40
Other	3
Unclear or unknown	5

Total Responses | 88

13. Are there additional recycling programs or services that your RUs perform that neighboring RUs do not?

Answer	Response	%
Yes	49	19%
No	207	81%
Total	256	100%

Total Responses 256

14*. Please describe the recycling services your RU provides that the neighboring RUs do not.

Answer	Response
Collects additional items	27
Special events	5
Other	8
Unclear or don't know	4

Total Responses 47

15. How difficult is it for your RU to meet the current state standards required for an effective recycling program, as defined by Wisconsin Statute 287.11?

Answer	Response	%
Very Difficult	15	6%
Difficult	14	5%
Somewhat Difficult	36	14%
Neutral	104	39%
Somewhat Easy	35	13%
Easy	45	17%
Very Easy	17	6%
Total	266	100%

Total Responses 266

16. Has your RU made an effort to consolidate or contract with neighboring RUs?

#	Answer	Response	%
1	Yes	59	22%
2	No	205	78%
	Total	264	100%

Total Responses 264

17. Do you see potential benefits in contracting, cooperating, or consolidating services with nearby RUs?

Answer	Response	%
Yes	115	43%
No	151	57%
Total	266	100%

Total Responses | 266

18. Which of the following do you perceive are likely to be the most significant benefits associated with contracting, cooperating, or consolidating services with nearby RUs?

Answer	Response	%
Cost savings	92	85%
Ability to provide additional programs or services	53	49%
Increased efficiency in service provision	41	38%
Increased efficiency in administration (staffing)	22	20%
Other	3	3%

Other	Response
Increase recycling	1
Better coordination	1
Cost control	1

Total Responses | 108

19. Which of the following do you perceive are the most significant barriers associated with contracting, cooperating, or consolidating services with nearby RUs?

Answer	Response	%
Quality of service	65	34%
Initial costs are too high	32	17%
Contract bidding will be more difficult	64	34%
Not worth the loss of ownership	44	23%
Lack of interest in the community	72	38%
Loss of programs or services	32	17%
Loss or reduction in grant funding	56	29%

Total Responses 191

20. Is there interest in partnerships, coordination, or consolidation in your regional area?

#	Answer	Response	%
1	Yes	33	13%
2	No	70	27%
3	Unsure	158	61%
Total		261	100%

Total Responses 261

21. Which of the following have the greatest amount of interest in your regional area?

Answer	Response	%
Partnerships	41	17%
Coordination	70	28%
Consolidation	27	11%
Other	9	4%
None	132	53%

Total Responses 247

22*. What changes could be made to the Basic Recycling Grants program that would make consolidation a more attractive program to individual RUs?

Answer	Response
Increase funding or assure funding would not diminish	25
Demonstrate cost effectiveness, efficiency, or other benefits	6
Reduce reporting requirements	4
Other	8
None	15
Response unrelated to question	14
Unsure	26

Total Responses | 137

Follow-Up Survey

* Coded qualitative response

1. How do you anticipate the removal of state recycling mandates and financial assistance will affect your recycling programs?			
Answer		Response	%
Elimination of recycling in municipality		25	12%
Privatization of recycling services		20	10%
Reduction in recycling services		78	37%
Reduction in other municipal services		43	21%
Reductions in recycling staff		28	13%
Increased collaboration and/or partnerships with other RUs		13	6%
Increased service costs		98	47%
Loss of service providers (such as haulers)		13	6%
No change		49	23%

Total Responses 209

2. What do you anticipate the impact of this change would be on landfill and incinerator use?			
Answer		Response	%
Landfill use will increase		132	64%
Landfill costs will increase		84	41%
Use of incinerators will increase		31	15%
No change		39	19%
Other		16	8%

Note: Of the 16 respondents that said “Other,” five responded that they didn’t know or it wasn’t applicable. All remaining responses did not address the question asked.

Total Responses 207

3*. Please let us know of any other comments you have about the Governor's proposed changes to recycling laws in Wisconsin.

Answer	Response
Will have to change contracts	3
Expect dumping or burning will increase	7
Expect to decrease services or increase costs	13
Propose alternative ways to save money	6
General negative comment about the proposal	14
General positive comment about the proposal	3
Non-specific comment about continuing programs without state aid	6
Other	7

Total Responses 56