UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE
OF SOLID WASTE AND
EMERGENCY RESPONSE

Dear Reader,

Through WasteWise, a voluntary partnership program that focuses on reducing solid waste, the U.S. Environmental Protection Agency (EPA) provides free technical assistance and national recognition to businesses, governments, and institutions. Since 1994 the program has continued to keep more than 1,200 WasteWise partners informed of cutting-edge waste reduction activities that help organizations save money while improving resource efficiency and protecting the environment. From basic source reduction and recycling to environmental management systems and life cycle planning, WasteWise provides resources and guidance that can help organizations gain a competitive advantage in the marketplace.

More recently, several WasteWise partners have successfully demonstrated additional cost savings and improved waste reduction through an innovative contracting strategy coined "resource management" (RM) by WasteWise partner General Motors. This manual is designed to guide WasteWise partners and other organizations through the process of establishing a baseline for current waste streams, issuing a request for proposals (RFP), and designing a comprehensive waste management contract that utilizes RM. The appendices of the manual provide useful examples such as an RFP template and compensation options.

Because WasteWise already helps partners assess, track, and measure waste streams, RM implementation will be much easier for WasteWise partners and will complement existing efforts to save money and resources. For organizations not participating in WasteWise, please consider joining this free, voluntary program to take advantage of available resources and be eligible for recognition by EPA for your achievements. Visit <www.epa.gov/wastewise>, call 800 EPA-WISE (372-9473), or e-mail <ww@cais.net> for more information about the program.

The enclosed *WasteWise Update* describes successful RM implementation by three WasteWise partners. Also, visit the RM page <www.epa.gov/wastewise/wrr/rm.htm> of the WasteWise Web site for basic background information and other resources.

Please e-mail all comments or questions regarding this manual to <ww@cais.net>.

Sincerely,

Angie Leith
EPA Program Manager

Acknowledgements

This Resource Management Contracting Manual was developed by the U.S. Environmental Protection Agency's (EPA) WasteWise program.

EPA wishes to thank WasteWise partner organizations and others that have been instrumental in developing and testing resource management. The majority of information in this manual comes from resource management projects with the following partner organizations:

Clark County, Nevada

Fairview Health Services*

General Dynamics Defense Systems*

General Motors Corporation*

Healthcare Waste Solutions, LLC

Jackson County, Missouri*

Massachusetts Department of Environmental Protection*

Northeast Utilities*

One Beacon Street (CB Richard Ellis-Whittier Partners)*

Public Service Enterprise Group (PSEG)*

Iowa Department of Natural Resources

Raytheon*

The Saunders Hotel Group

Shattuck Hospital

Texas Instruments*

Verizon*

West Des Moines School District

** WasteWise partners*

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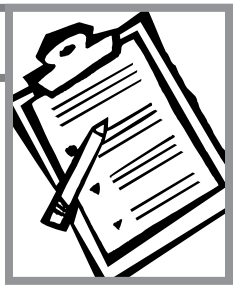
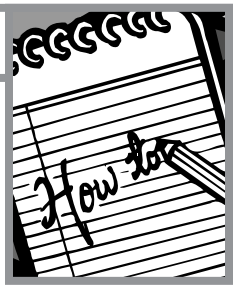




What is RM Contracting?

Resource management (RM) is an innovative contractual partnership between a waste-generating organization and a qualified contractor that changes the nature of current disposal services to support waste minimization and recycling. As a performance-based contract strategy, RM taps into the expertise of external contractors to bolster waste reduction and recycling through value-added services, such as improved reporting, dedicated customer service, and analysis. The key to success in RM contracting is changing the compensation structure to provide incentives for contractors and reward them for achieving mutually determined goals—shifting the contractors' profitability model from "haul/dispose more volume" to "minimize waste and manage resources better."

RM contracting is based on three premises: 1) significant cost-effective opportunities to reduce waste, boost recycling, and otherwise optimize services exist; 2) contractors will pursue them when offered proper financial incentives; and 3) financial incentives to contractors are supported by the savings generated through cost-effective improvements to your current waste/recycling system. For example, if contractors identify cost-effective recycling markets for disposed materials or techniques for preventing waste altogether, they receive a portion of the savings resulting from the innovation. This arrangement enhances the recovery of readily recyclable materials while promoting opportunities to develop new markets for difficult-to-recover materials. As a result, RM promotes a business-driven effort—rather than regulatory initiatives—to make waste reduction and pollution prevention a priority.

Since most organizations contract for waste disposal services, recruiting a waste/recycling contractor is a standard part of business operations. This manual can help you evaluate, plan, and implement an RM program by hiring an RM contractor. It provides a step-by-step process for organizations interested in developing an RM program—from evaluating your current activities and costs, to issuing a request for proposal, to designing appropriate financial incentives, to implementation.

Examples of Successful RM Implementation

General Motor's Orion Assembly Plant (Auto Manufacturer):

- Reduced waste management expenses by 30 percent in the first 3 years.
- Achieved a 25 percent reduction in per vehicle waste.

Public Service Enterprise Group (Utility):

- Reduced hazardous waste from 1,460 tons to 103 tons (1992 to 2000) and recycled more than 94 percent of non-hazardous waste (2000).
- Reduced total waste management costs for both hazardous and non-hazardous waste from $6 million to $4.25 million during the first three years.

One Beacon Street (Office Building):

- Increased recycling rate from 28 percent in 1990 to more than 60 percent in 1999.
- Reduced waste and recycling costs by 60 percent through avoided disposal costs and increased recycling revenue.

Additional resources on RM contracting are listed in Appendix A.

What Are the Benefits to Waste Generators?

Solid waste and recycling contracts directly influence how the vast majority of waste streams are managed. Most waste and recycling contracts, however, feature a profit incentive to contractors to maximize disposal levels (hauls) and/or a limited scope of service with multiple contractors handling separate waste streams or recyclables. This "fragmented" approach often lacks an emphasis on recycling and resource efficiency[1]. Furthermore, waste and recycling contracts are often loosely managed—once rates are established, waste generators tend to only contact their contractors if waste and recycling containers overflow. For these reasons, traditional contracts do not tend to support waste reduction efforts.

RM makes good business sense because it allows organizations to save money, while receiving better service and improving resource efficiency. RM contracting helps you achieve a higher level of recycling and waste minimization. Although the degree of success in existing recycling and waste minimization programs varies widely in different organizations, even the most successful programs reach a plateau. Benefits of RM contracting include:

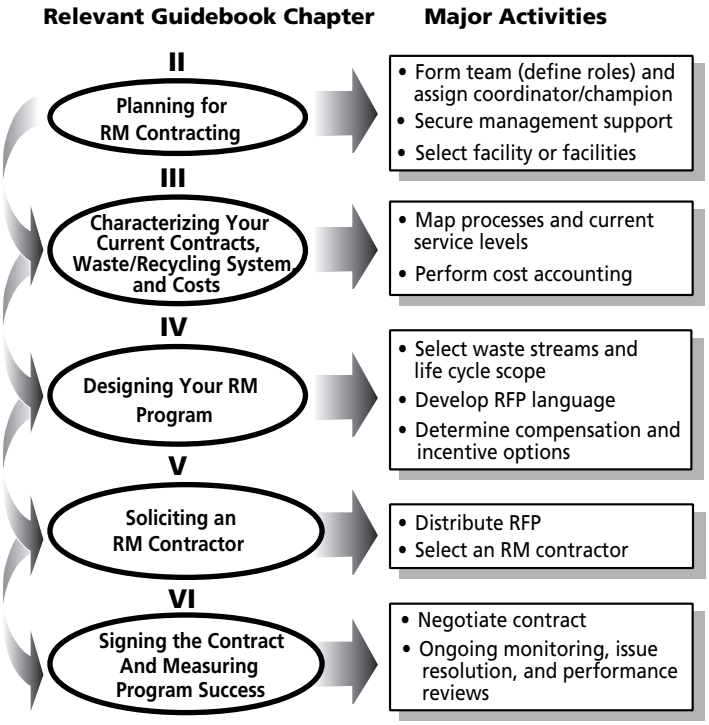
- Reduced cost and potential liabilities
- Increased quantities of materials currently being recycled
- Addition of new materials for recycling
- Increased waste minimization opportunities
- Improved data tracking and reporting

Most organizations believe they could improve current recycling operations and waste minimization if they had more resources. Using an external RM contractor to perform additional activities for which there are no internal resources helps overcome this problem. RM contractors bring expertise that is simply not found in traditional waste and recycling contracts.

A number of WasteWise partners have already demonstrated that RM contracting benefits their bottom line while also conserving resources. Based on their experiences—highlighted in the enclosed *WasteWise Update*—and the valuable input they have provided for this manual, WasteWise encourages other organizations to explore RM and the benefits of implementing this innovative contracting strategy.

[1] Resource efficiency refers to source reduction, reuse, and recycling/diversion, or other means to decrease generation and disposal of waste (e.g., enhanced procurement/delivery techniques, material handling, or use).

Figure 1.1: Activities by Chapter



Using This Manual

This manual is intended to help commercial entities consider and implement an RM program. The term "commercial" in this guide is meant to include all commercial, institutional, and industrial settings, as the contracting methods in each of these settings is similar. The step-by-step approach to establishing an RM program is shown in Figure 1.1. Note that the appendices contain many useful tools such as sample language to develop a request for proposals and suggested compensation mechanisms.

This manual uses a variety of icons to highlight key concepts and suggestions for the reader.

The toolbox icon highlights references to tools listed in the appendices.

The stop sign signifies key "decision points," which are critical steps in the RM process where the internal team analyzes and discusses a set of data or information and comes to a consensus on whether/how to move forward.

The hand signifies work steps required for a particular phase in the RM process.

The light bulb indicates ideas, examples, and success stories.

Chapter 2: Planning for RM Contracting

Before beginning the planning process, you should conduct a quick appraisal of your current system to identify any immediate impediments to RM contracting. Fundamental questions to consider include:

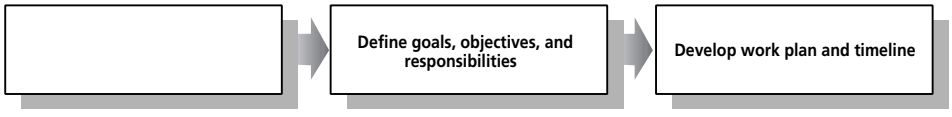
Is RM possible for your organization?

- Can you hire a new contractor within the next year or do you have long-term contractual commitments?
- How many vendors currently handle your waste and recyclables?
- If you were given more resources, do opportunities to improve your current solid waste/recyclables management exist (including reuse and waste reduction initiatives)?

If your answer to the first question is that you are locked into your current contract for at least 2 years, **and** you will incur penalties if you break it, you will likely want to postpone development of an RM program until about 8 months prior to the end of the contract. The second two questions can help you assess whether RM can offer benefits. If you have two or more vendors, transitioning to RM would allow one contractor to take over all waste-related services. By doing so, the RM contractor can adopt a systems approach to manage all waste-related activities, instead of multiple contractors taking a piecemeal, waste-stream-by-waste-stream approach.

RM contracting reinvents the current processes of handling and managing resources—or what was previously known as waste. Like any new business model, fundamental change might be resisted or misunderstood. RM's success relies, by and large, on acceptance of innovations and a fundamental change of mindset. Careful planning lays the foundation a successful RM program.

Figure 2.1: Initial Planning Steps for an RM Contracting Program



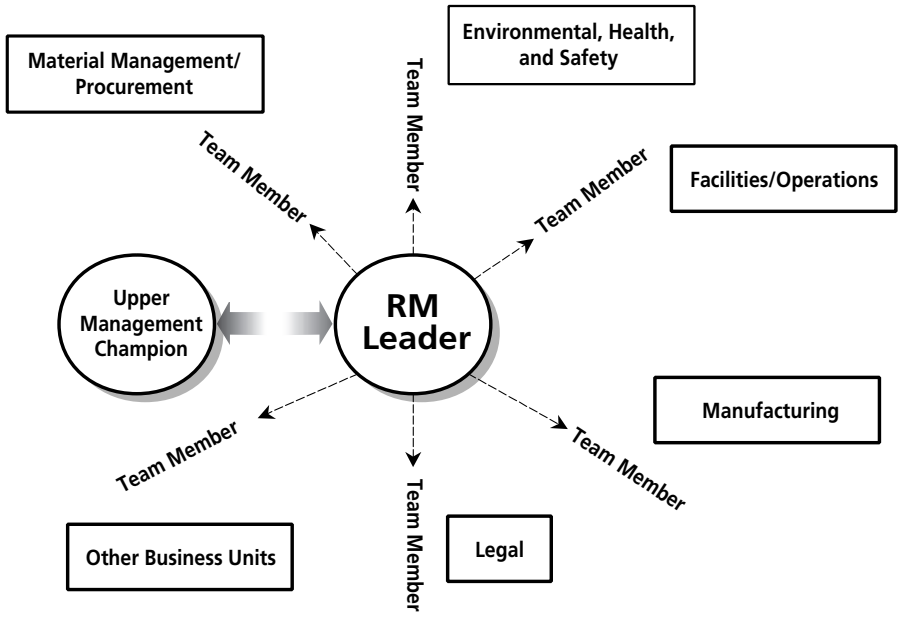
Establish an RM Team

To address all concerns during program development and implementation, you must involve key stakeholders from the initial planning stage. Equally important is securing top management commitment at the outset. You can take several critical steps to accomplish this:

Steps to establish an RM team.

- **Assign an RM leader** to spearhead the planning process and oversee RM implementation. The team leader must have knowledge of current internal waste and recycling activities, as well as an understanding of the current external contracting process.
- **Assemble a working team** with representatives from departments or divisions with responsibilities for people who generate or handle waste or manage waste/recycling activities. Include procurement staff that oversee contracts (or, in the absence of a contract, those who hire waste/recycling contractors under informal agreements). Also include representatives from finance, accounting, environmental health and safety operations, facilities engineering, manufacturing, and legal staff. Some roles might not apply, depending on the structure of your organization/facility.

Figure 2.2: A Cross-functional RM Team



A cross-functional team ensures that the concerns of different functional units are addressed during the planning and implementation stage. The team members have access to vital information for characterizing the current waste management process. They also play a key role in communicating with and securing buy-in from their respective divisions. A team with procurement, environmental, and operational individuals helps you strike the right balance between cost reduction, environmental goals, and service needs.

See Appendix B for a sample presentation to use in explaining RM contracting to upper management.

- **Secure top management support** early in the development of an RM program. Appropriate management decision-makers must be informed about, and committed to, the program during its development and throughout its implementation. *Identifying and establishing communication chan els with an upper management cham-n pion is important.n*At a minimum, the champion should be regularly informed of the working team's progress. The champion plays a key role in ensuring that suf-

ficient resources are allotted for the whole program and providing support and direction throughout the process. He/she will be extremely valuable in helping your organization overcome any potential institutional or organizational barriers. The management champion is essential to ensure timely and organized communication between the RM team and other upper management decision-makers.

- **Define the roles of the working team** and the responsibilities of each team member. Individual responsibilities will generally align with respective organizational units.

Define Goals and Objectives

Sample goals and objectives are available in the sample RFP in Appendix D.

Your goals and objectives should clearly identify why your organization wants to implement an RM program and what it expects the program to achieve. Your goals should be developed with support from your team and should address the most pressing needs of the organization. Where possible, RM program goals should be linked to broader organizational strategies or goals (e.g., mandated recycling targets, corporate environmental policy and goals, EMS).

Example RM goals.

Goals can include the following:

- Promote efficient use of resources and cut costs by reducing waste at the source, reusing materials, and recycling.
- Improve environmental performance and workers' health and safety.
- Contribute to improvements in quality of production (e.g., by helping reduce scrap rates).

Specifically, clear objectives and measurable targets contribute to achieving each goal. Objectives should lend themselves to measurable results through performance metrics once your program has been implemented. Achieving consensus on program goals and objectives at the beginning of the process will avoid backtracking or straying "off course" as the program develops.

Develop Work Plan and Timeline

Once the team establishes and agrees upon the goals, objectives, and targets, it should develop a work plan outlining all stages of the RM contracting process. The three major tasks to include in the work plan are:

1. Evaluate your current system and conduct a comprehensive cost baseline.
2. Design your RM program and issue a Request for Proposal (RFP).
3. Select an RM contractor and implement the program.

Under each task, the work plan should itemize what actions are needed, who will be responsible, when the tasks will be completed, and what resources are required. Establish regular meetings with the team to complete the tasks of the work plan. Make sure you establish a recordkeeping mechanism to record decisions and responsibilities for these meetings.

See Appendix C for a sample work plan.

To establish an internal timeline, use the three major tasks on the previous page as milestones. The first task of evaluation and conducting the baseline might take between 1 to 3 months, depending on the speed of your team and the availability of data. Designing your program and finalizing the RFP can take between 1 to 2 months. Finally, from the point the RFP is issued until you implement a program should require 2 to 3 months. The entire process can be completed in 4 to 8 months. Note that during this time, there will be periods of inactivity, such as waiting for RFP responses.

Establishing goals, a project timeline, and a work plan can be accomplished by convening a kick-off meeting in which all team members participate and contribute their thoughts. If possible, the management champion should also participate to show support. The team leader should create draft materials and distribute them prior to the kick-off meeting.

Identify and Overcome Internal Barriers to RM Contracting

Developing an RM program involves introducing some very different ideas and processes. Any type of change—even those that promise net benefits to the organization—can upset the balance of what is comfortable and familiar. Some internal obstacles you might encounter are summarized in the table below. The majority of the obstacles can be overcome through effective communication, good listening, and careful planning and preparation that address the underlying reasons for reluctance or skepticism. Internal consensus is critical to secure an environment in which the contractor is free to focus all of its energy on improving your system and not becoming sidetracked by internal discord.

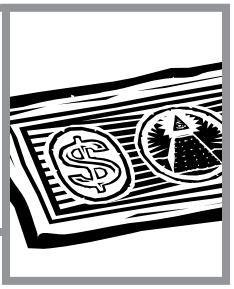
Ideas for overcoming obstacles.

Table 2.1: Internal Obstacles and Suggested Strategies

Internal Obstacle	Strategy
Lack of understanding and realistic expectations of RM contracting. RM is a new contractual relationship that will succeed when the company understands it is a true partnership and that the contractor will be interacting more in internal operations, not just at the loading dock.	**Provide education and outreach.** Clearly state the expected benefits and realistically convey the required commitment. Use information from case studies (in presentations in Appendix B) to show how RM contracting has worked in other organizations.

Internal Obstacle	Strategy
"We can do it better internally" argument. There might be resistance to the suggestion that an "outsider" can improve the current system. An associated concern is the perceived threat to job security for those with responsibilities for waste/recycling or contracts management.	**Conduct an objective assessment of the current waste/recycling system to look for potential opportunities to improve cost-effectiveness.** RM contracting is not strict "outsourcing," but adds resources to recycling and waste reduction activities.
Loss of control. An unspoken fear is that in providing an increased scope of service and more access to a single RM contractor, some element of control is surrendered. In fact, organizations often gain greater visibility and control of their services and resources because they possess better information to make decisions. Under RM, you make the decisions, set the goals, and guide the process, while the contractor brings ideas, innovations, and resources to help implement change.	**Properly characterize the nature of the relationship between your organization and the RM contractor.** It is a partnership, but you remain the final decision-maker. The RM team and the contractor should establish a mutually agreed upon protocol for decision-making and resolving concerns that might arise.
Waste/recycling issues are not a priority. The costs of waste and recycling contracts often comprise less than 0.1 percent of total operating costs for an organization. Thus, reducing costs in this arena are generally not a priority for companies, and waste and recycling often does not receive management attention.	**Conduct a baseline assessment** to identify how much your organization is actually paying for waste, recycling, and associated activities. This activity might be eye-opening to some and might be what is needed to stimulate interest in pursuing the RM contracting option.

Chapter 3: Characterizing Your Current Waste/ Recycling Activities and Costs

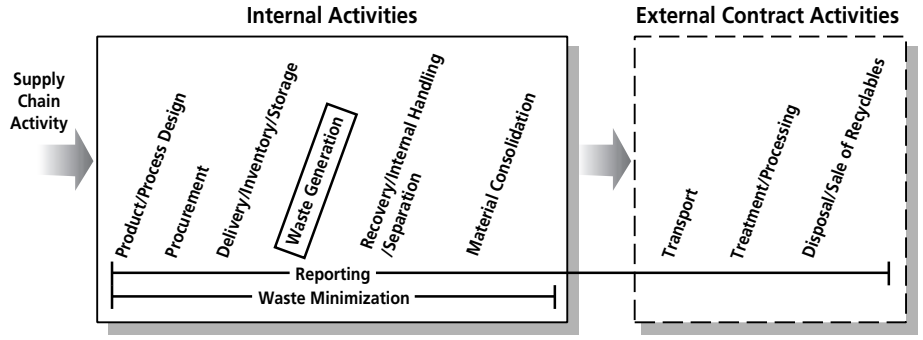


Understanding your current waste and recycling system—internal activities, contracts, current recycling levels, and associated costs—is crucial for you to evaluate RM contracting. This "baseline" will be used to design key elements of an RM program, including the nature of services you wish to receive, pricing structure, and financial incentives. In establishing a baseline, you will also uncover areas for improvement for your current program. Thus, your current waste and recycling baseline is a systematic documentation and cost assessment of activities you are currently performing. At the same time, it allows you to identify what you are not doing and what activities an RM contractor could perform to help you reduce waste and costs.

In conducting the baseline assessment, you will be forced to question how materials you purchase ultimately end as waste or recyclables. After all, any material that ends as waste is originally purchased, delivered, stored, and used. It is then consolidated and collected by an external contractor and ultimately disposed of or recycled. These activities, during any material's life cycle (see Figure 3.1) within your organization, will comprise the baseline.

The material life cycle provides a framework to help you characterize your waste and recycling system and the costs associated with it. Through material procurement, product/process design, material use, and internal material handling processes, your organization has a direct influence on the types and composition of waste generated and how materials are ultimately managed at the end of their life. Note that activities related to waste minimization and reporting cut across all other internal activities in the material life cycle. Indeed, waste minimization activities can occur at

Figure 3.1: Material Life Cycle (Waste Generator Perspective)



any point in a material's life cycle. Note also that the stages of the life cycle are categorized by internal material management activities and external waste and recycling contractor activities. This distinction is important because, at its core, RM contracting seeks to provide external contractors with more responsibility over internal activities to assist you in diverting more waste or eliminating waste altogether.

Steps to characterize waste.

There are three key steps to characterizing your waste and recycling system. Using the material life cycle, your baseline is made from the completion of the following steps:

1. Identify internal and contracted waste/recycling activities
2. Estimate current costs for each waste and recycling activity
3. Estimate current diversion rates

By design or by default, many individuals in your organization affect waste related activities. This chapter will help you document what your organization is already doing.

Identify Current Waste and Recycling Activities

This first step is primarily meant to identify major activities performed by internal staff and external contractors related to waste and recycling. Once current activities have been identified, you will assign costs to each task. Remember that as you gather data on what you are doing in this first step, you might be able to capture much of the cost data required for the next step.

At the end of this first step you should have three lists: 1) external contractor activities, 2) internal activities related to waste or recycling initiatives, and 3) internal areas where little or no activity is taking place. Think of this third list as your "wish list" or areas for improvement that can be addressed by an RM contractor.

Examples of external contract activities.

Table 3.1: Sample Record of Externally Contracted Activities

Facility	Number of Contractors		Frequency of Service		Compensation	
	Waste	Recycling	Waste	Recycling	Waste	Recycling
Facility A	1	3	2x week pick-up	Commingled OCC and paper 1x week Metals: 1x month	Trash: $90/haul, $55/ton tip fee	No service fee
Facility B	1	0	3x week pick-up	N/A	Monthly fee: $550/month/ compactor (compactor rental, hauling & disposal) Additional pick-up: $125/haul	N/A
Facility C	1	2	5x week pick-up	OCC & office paper: 1x week Aluminum: 1x month	Trash: $110/haul, $70/ton landfill tip fee, $105/month container rental	No service fee Receive half of the revenue from OCC and paper
Facility D	2	4	Trash: 3x week pick-up Confidential paper: 1x week	OCC & office paper: 1x weekly Aluminum: 1x monthly Organics: 1x weekly Metals: on call	Monthly fee: $275/month/ container (hauling & disposal) Container rental: $75/month Shredding fee for confidential paper: $3/minute	No fee except for organics ($500/month collection fee)

External contracted activities should not be difficult to identify (see Table 3.1). Determine how many contractors are serving your facilities, the service received, the current frequency of service, and length of service contract. For example, you might have one solid waste hauler that services four containers 7 days each week and two recycling companies that come to your site weekly. Your current contract or billing statements can tell you your current service levels. Listing the current service level and the compensation structure for the external contracted activities will provide the foundation to assign costs to contracted services. Table 3.1 shows a sample of records on service arrangements and levels for externally contracted activities.

Current *internal activities* might be a bit more challenging to identify. Table 3.2 shows major functions, responsibilities, and cost elements (applicable for estimating costs in next section) for each internal activity. As you go through the activities in the table, note which of the activities are being performed, who has responsibility for each, and where each is being performed. Engaging the whole RM team in this exercise is important because team members will have different perspectives on waste and recycling activities. You should brainstorm with your internal team to ask numerous questions related to the life-cycle stages such as:

- Who manages the contract? What activities are involved?
- Who communicates with contractors when problems arise or additional service is required?
- How are waste and recyclables collected internally?
- Who is responsible for internal waste and recyclables movement, consolidation, and processing (e.g., bailing or sorting of recyclables)? What activities are involved?
- If janitorial contractors are responsible for internal material movement, what is their role and who manages their services?
- Do we have anybody who devotes time to identifying waste reduction or recycling opportunities? What does this involve?
- Do we systematically look at how material choices in packaging, product design, and procurement affect downstream activities?

As you examine each material life cycle stage (see Table 3.2), list the waste and recycling activities currently being performed. For example, note who is responsible for issuing the waste contract, who interacts with waste and recycling contractors, and who has responsibility over waste minimization. Make sure you identify individuals who need or gather waste data for any types of reports or regulatory permits as well as individuals who handle billing and paying contractors.

Table 3.2: Sample Organizational Functions, Responsibilities, and Cost Elements

Life Cycle Stage	Department/ Organizational Functions	Associated Cost Elements	Opportunities to Improve
External Contract Activities			
Waste hauling and disposal	• EH&S* • Facilities • Janitorial contractor	• Waste hauling and disposal fees for external contractors • Labor for information tracking and reporting on waste and service levels	• Optimize waste hauling • Improved reporting on waste and service levels
Recycling hauling and processing	• EH&S • Facilities • Janitorial contractor	• Recycling processing fees for external contractors • Labor to track recycling levels and revenue from sales of recyclables • Recycling revenues	• Increased recycling of materials that are currently recycled • Explore recycling markets for other materials • Optimize recycling hauling • Improved education to minimize contamination • Improved reporting on recycling and service levels
Internal Activities			
Reporting	• EH&S • Facilities • Janitorial contractor • Operations	• Labor to gather reporting data • Labor to monitor hazardous waste management	• Improved reporting in waste and recycling service levels • Improved tracking and reporting on hazardous materials
Material compaction	• Janitorial contractor • Facilities	• Labor and expenses associated with onsite consolidation of materials (e.g., bailing of recyclables, operation of compactors)	• Minimize contamination • Optimize onsite material consolidation
Recovery internal handling/ separation	• Operations • Facilities • Janitorial contractor	• Labor and expenses associated with onsite waste collection, material separation, and waste treatment	• Improvement in at-source separation • Increase recovery of materials through optimizing internal material handling process • Improvement in onsite waste treatment
Waste minimization	• Facilities • EH&S • Janitorial contractor • Operations	• Staff time to identify and implement specific waste minimization program	• Source reduction • Increased recycling • Increased waste diversion
Waste generation	• Operations • Facilities • Training	• Labor to troubleshoot problems, maintain manufacturing operations, etc. • Training on hazardous material handling	• Process improvement can lead to reduction in non-product waste • Improved training on hazardous material handling to minimize accidents
Waste related activities	• Waste storage • Inventory management	• Onsite storage and requirements for hazardous and non-hazardous waste	• Less waste stored on site
Procurement	• Material procurement • Facilities or whoever manages janitorial services and waste and recycling services	• Management of waste/recycling contractors • Management of janitorial contractor • Billing validation/payment	• Establish transparent billing structure minimizes labor to track and validate cost • Consolidation of waste/recycling contractors minimizes administrative cost • Environmental preferential procurement
Product/ process design	• Design and choose the types of materials procured	• Labor to look at the choices of material use that allow increased reuse and recycling, or minimize downstream waste generation	• Work with supply chain on packaging • Reusable drums/pallets initiatives • Inclusion of waste minimization as one criterion in material choice

**EH&S - environmental, health, and safetye*

Examples of internal activities.

You might find that your organization does very little internally to proactively manage waste and recyclables. Research and experience shows many organizations simply do not devote much time or attention to waste minimization on a continuous basis, probably because waste is typically a small fraction of overall operating costs and is not a core activity of many organizations. Research further shows that cost saving opportunities do exist, and most organizations admit they could improve this area of business if they could devote more time or resources.

An important task in this step is to identify what additional waste-related activities currently are not performed (or are performed on a limited basis), but which you might perform if you had more people, time, or money to do them. This step will constitute your third list that you can consider your "wish list." For example, better education and training, expanded programs to recycle other materials, and improved research on secondary commodity markets are all examples that can be put on your wish list. This is where an RM program can help your organization—to use external contractor expertise and resources to continuously improve your waste and recycling system. The whole point of an RM program is to encourage an external RM contractor to devote resources to internal activities where you are doing little or nothing.

You should have three lists before moving to the next step.

- A list of external contractor services and responsibilities (similar to those on Table 3.1).
- A list of internal activities you are currently conducting.
- A wish list defining the scope of services you will request in an RM program as developed in Chapter 4.

Estimate Current System Cost

To estimate your current system costs, you must assign costs to your external contractor activities and the items identified on your internal activities list. The external costs often comprise the majority of costs for many commercial organizations. Internal costs are often low simply because organizations do not spend much time or effort on many of the internal activities we show in the material life cycle. The sum of external fees paid to contractors and internal costs your company incurs is the baseline that you will use to compare current system costs with the costs for adopting RM contracting.

External Contracted Costs

Fees you paid to an external contractor typically include all waste and recycling services, including costs for collection, disposal, and recycling processing and any container rental fees. You should estimate these costs from the last 12 months of bills you paid your contractors. Table 3.3 shows an example of total external contracted costs separated by waste costs and recycling costs; note that in Table 3.1 you already identified the activities.

Examples of external contracting costs.

Table 3.3: Sample of External Contracting Costs

Facility	Annual Waste Cost	Net Annual Recycling Cost	Container Rental Cost	Total Annual Cost
Facility A	$42,353	$0	N/A	$42,353
Facility B	$16,200	N/A	N/A	$16,200
Facility C	$60,078	($1,980)	$1,260	$59,358
Facility D	$23,515	$6,000	$1,800	$31,315
Total				**$149,228**

Research has shown that actual fees paid to external contractors often differ from agreed-upon fee schedules and levels of service. Differences can be due to additional waste or recycling services requested that might not be documented in your contract. Also, many contractor bills do not separate individual services, but instead bill a single lump fee for numerous services. Such billing practices make it difficult to discern exactly what you are paying. In some extreme cases, organizations are overcharged for services they are not receiving and continue to pay for such services simply because they pay bills without checking them. For these reasons, it is important to use the last 12 months of bills to estimate your baseline costs for external fees to contractors. A key element of RM is establishing transparent, itemized pricing and billing so the services you are paying for are clear.

Internal Costs

Internal costs must now be estimated for the list of internal activities you previously identified. These include: 1) the labor costs associated with internal material handling (movement of trash or recyclables within facilities) and administrative or overhead costs related to contract management, billing, and reporting; and 2) costs of owned equipment (e.g., bailers, compactors, recycling containers). You might not be incurring costs from ownership of equipment because organizations often include these costs (such as container rental) in contractor fees. If you do own equipment, however, estimate these internal costs.

Most internal costs are labor costs. The magnitude of these costs will depend on how much your organization is actively promoting recycling and waste minimization. Costs will include labor for any individuals who perform internal activities related to any stage of the material life cycle. For example, labor costs of staff responsible for internal material movement and handling should be included here as should an estimate of environmental staff time for gathering data for reporting or compliance related activities. Similarly, time spent managing contractors (including labor costs for accounts payable and contract management), or separating or consolidating waste should be included. Refer again to Table 3.2 “Sample Organizational Functions, Responsibilities, and Cost Elements” on page 12, which lists cost elements for internal activities to ensure you identified all relevant internal costs.

To estimate labor costs, you will need to communicate directly with staff to get an estimate of individuals' time spent on waste and recycling related issues. Once you have time estimates, you will need labor rates to convert time into money. Your finance department can provide you with these different labor rates. For the purpose of this exercise, use fully burdened labor rates (i.e., inclusive of all benefits).

An RM program can either eliminate or greatly reduce some of your internal labor costs. Note that many of the labor costs will likely be a portion of a person's time. For example, you might have two individuals that spend only 25 percent of their time collecting recyclables. Although such costs might not be completely eliminated with RM, understanding these costs is important for two reasons. First, for labor tasks currently performed internally, an RM program will likely reduce or eliminate the time needed for these tasks (e.g., reporting), allowing you to use time on more strategic, core activities. Second, and perhaps more importantly, it gives you a good idea of what you are doing now and how RM contracting can offer additional services. Such additional services can be added to your wish list and highlights the value of RM contracting to provide additional services.

If you are not focusing on recycling and waste reduction internally, your cost baseline might be predominantly external contractor fees with minor internal labor costs for the management of contractors and waste or recycling environmental reporting tasks.

Estimate Baseline Recycling Rate

To balance the cost side of the baseline, you now want to see how well your organization is managing waste and recyclables (e.g., your resources). To measure your performance, you will want to create a minimum set of baseline metrics that includes your current recycling rate(s). Baseline metrics are important because RM contracting financial incentives are based on cost savings from diversion and waste minimization activities. You must be able to measure your RM contractor's performance from your baseline to reward the contractor when it performs well. In addition, if your baseline recycling rate is very low, many opportunities probably exist for your RM contractor to immediately help your organization improve.

Surprisingly, many organizations do not track the basic information that will be required to calculate a recycling rate, so you might have to use the best information you can locate. If you do not currently measure waste and recycling tonnage, you will likely need to request information from your current waste or recycling haulers so you can estimate tonnage. Information usually has to be culled from bills and, depending on your current pricing structure, you will likely only be able to obtain information such as number of pick-ups or number of containers hauled. Customers might be provided with data on waste and recycling tonnage if the haulers' compensation is based on tons of materials handled, or such information is required under the contract agreement. Research has shown, however, that most organizations do not receive tonnage data so you will likely need to estimate waste tonnage and recycling amounts to calculate metrics.

Your estimate can be based on:

- Collection frequency
- Volume of waste/recyclable containers
- Percentage of containers filled at the time of collection
- Volume-to-weight conversion factor for waste and recyclables

Your contractor will, at a minimum, bill you for the first two items, so these data should be readily available. You should check with your internal RM team to verify this information and to check, on average, the fullness of containers when the contractor services them.

Estimate annual waste tonnage using the following equation:

Annual waste tonnage = Volume of waste container (yd^3) x Conversion factor (ton/yd^3) x Percentage of container filled (%) x Number of pick-ups per year

For the standard volume-to-weight conversion factors for various types of materials and general trash, refer to the resource guide in Appendix A.

Similarly, you can estimate annual recovered tonnage using the equation below. Calculate the tonnage recovered for each material you currently recycle.

Annual recovered recyclables = Container volume for the selected recyclable (yd^3) x Conversion factor (ton/yd^3) x Percentage of container filled (%) x Number of pick-ups per year

Finally, estimate your baseline recycling rate by using the following equation:

$$\text{Recycling rate} = \frac{\text{Total annual recycling tonnage}}{\text{Annual recycling tonnage + Annual waste tonnage}} \times 100\%$$

In addition to your overall recycling rate for all materials, you might want to calculate individual recycling capture rates for each material you currently recycle. To calculate individual recycling capture rates, divide the total amount of a given material that is recycled by the total amount of that material generated (the amount recycled plus the estimated amount that is still disposed).

Appendix A lists several resources that provide guidance on estimating recycling capture rates.

Your baseline recycling rate will be used later. Establishing quantifiable performance targets (see Chapter 6 for examples) is a core component of an RM program. These targets should be tied to the baseline recycling rates or other baseline metrics. An advantage to adopting RM contracting is that, by nature, RM programs track this information.

Your baseline should now be complete and this information will be used in developing your RFP, evaluating bids, and negotiating.

Chapter 4: Designing Your RM Program

With your baseline costs in hand, the next steps are to: 1) define the specific scope of services you want the RM contractor to perform, and 2) develop a request for proposal (RFP) that clearly articulates your desired services and program scope to potential RM companies that will bid for your work. These activities should occur somewhat simultaneously, as they are interrelated. Remember: there is no right or wrong way to design your RM program; this process is meant to be flexible to fit your particular needs and context.

Define Program Scope

Defining your program scope involves determining the materials and related life cycle services[2] you want your RM contractor to perform.

Steps to define program scope.

Steps to Define Program Scope

1. Review baseline data from Chapter 3.
   - Current external contracted services.
   - Current internal activities and costs.
   - Wish list of new services.
2. Group RM materials and services into two areas.
   - Include all current external services and internal activities.
   - New services identified in your wish list.
3. Consider leaving out sporadic or miscellaneous waste streams, and roll them into the program after implementation.

What Materials, Waste Streams, and Services Should Be Included?

Include all externally contracted waste streams and recycling in your RM program. Dividing responsibilities among multiple contractors results in a fragmented approach, wherein different contractors compete for the total amount of your "resources" that end as waste or recyclables. RM contracting fosters a "systems view" by giving responsibility to a single contractor to manage all your waste/resource streams. The more materials you allow your RM contractor to manage, the more

[2] These are services such as material handling, education/training programs, reporting, etc.

likely the contractor can bring innovation and improvement to your program. Further, selecting one RM contractor sends a strong signal to RM bidders and your internal stakeholders that your program is about more efficient material/resource use.

Services in the RFP Must be Structured to Ask Bidders:

- How much will it cost you to manage our current services?
- What additional services can you provide? Note: the cost to provide new services will be financed from the cost savings achieved as measured from the baseline costs of existing services.

In bundling the largest number of waste/resource streams and accompanying services possible in your RM program, the challenge now becomes how to articulate this in the RFP. Your baseline data from Chapter 3 will greatly aid this process. Recall from your baseline, you made three lists: your external contracted services and costs, your current internal services and costs, and your wish list (services or activities that are not currently performed but you will want the RM contractor to implement in the near future). As you think about structuring your RFP, group your material streams and services into the following two areas:

- **Current service levels for waste and recyclables.** This category will include trash service and any recycling service that is required on a regular basis. These services should correspond to your external contractor activities *and* any internal activities you are currently performing. Note that you estimated the activities and associated costs from the first two lists made in your cost baseline.
- **New diversion and source reduction activities that currently are not provided either internally or externally.** This category can be thought of as additional value-added services you want from your RM program and will correspond to your wish list of new internal activities in the material life cycle.

Example RM services.

Sample Services for an RM Program

Existing Services

- Waste hauling and disposal
- Recycling
- Billing

New Services

- Waste/recycling tracking systems
- Audits/comprehensive quarterly reports
- Improved capture of materials currently recycled
- Design and implementation of new separation and recycling
- Staff & supplier education/training
- Research on difficult waste streams
- Onsite personnel (optional)

Tying Your Cost Baseline to Services in the RFP

Categorizing services as either existing and new will allow you to compare bids to current costs, determine who is the most qualified bidder, and maximize the potential of RM contracting. Keeping existing services separate is extremely important since this will be structured as the base scope of work in the RFP. You will ultimately compare a bidders' proposal (financial bids from prospective RM contractors to manage your existing service) directly to your current baseline costs.

Evaluating the value of new services is not so straightforward. As mentioned above, the base financial bids for securing existing services will be compared to your baseline costs and you can immediately determine if you will see cost savings. Because you currently are not incurring costs for the proposed new services, however, a similar direct financial comparison is not possible. Ultimately, you will not be able to evaluate the full value of an RM program until you receive RFP responses back. Further discussion on evaluating bids is provided in Chapter 5.

What To Do With Miscellaneous Waste Streams

Many organizations generate sporadic or small waste streams such as fluorescent light bulbs, batteries, construction and demolition debris, electronic waste, and some hazardous waste. Although an RM might be able to help you manage this waste more effectively and increase reuse, recycling, and diversion, you might consider initially leaving these services out of your base scope of services in the RFP. The primary reason is that predicting the level of service and frequency of service you will require for such waste streams is difficult. From the bidders' perspective, accurately placing a bid on these services will be difficult, and therefore your evaluation of the bid will be difficult too.

If you want to see the value that potential RM contractors can bring to manage specific miscellaneous waste streams, you can include them in the RFP, but keep the descriptions and the financial bids separate from your base scope of work for managing existing services. In this way you can test the market for specific waste streams by requesting prices to handle certain quantities of waste in the RFP (see Appendix E for an example bid table). Research has shown that these services have typically been rolled into RM programs once your RM contractor proves it can manage these waste streams better than you can internally. This requires the RM contractor to better understand your operation to make such a case, however. Thus, it is best to leave miscellaneous waste streams out of the base scope of work. When you can predict a large amount of work will be required, as is the case for construction and demolition debris, you can ensure the winning bidder has the first chance to bid on such work as it develops.

What If Existing Contracts Have Restrictions

Some of your current contractual obligations might limit what you can immediately include in the RM program. For instance, if your organization has recycling or waste contracts that are long-term and involve penalties for breaking, you might not be able to immediately include services in the old contract as a service in your

new RM contract. Similarly, many commercial organizations might be required to use a single franchise hauler for waste services. We still recommend that your RM contractor manage these waste streams; however, you will be required to use your existing contracted price from your franchise agreement. In this case, the RM contractor will treat hauling and disposal as a "pass-through" cost[3]. The RM contractor can then re-bid any "pass-through" services as the applicable contracts expire.

Develop Your Commercial RFP

Golden Rules for RFPs

- Keep it simple
- Keep it short
- Be open and flexible

The RFP is the vehicle by which bidders will tell you how they can improve your current system, so it is important to encourage open dialogue. Two overarching principals govern contracting: 1) make sure you ask for what you want, and 2) make sure you get what you requested. Contracting failures can almost always be attributed to not following one or both of these critical principals. Thus, the RFP must provide information to prospective bidders explaining the services you are requesting. In bidders' responses, you then evaluate their qualifications—focusing on capabilities, experience, and staffing—and assess their ability to provide the requested services. The RFP is where you communicate clearly and concisely what you want in terms of services and results.

Appendix D provides a sample RFP that can be used in commercial, institutional, and industrial contexts.

You should follow three fundamental rules in drafting your RFP: 1) keep it simple, 2) keep it short, and 3) keep it open and flexible. The most important aspect of the RFP is simple, clear, and unambiguous language so that every bidder provides proposals and financial quotes with the same understanding. To keep it short, ask only for information that will enable you to judge bidders' qualifications to meet the needs established in your goals and objectives.

Be open and flexible in allowing bidders to tell you how they will improve your system. Because you are seeking more value-added services, stressing your goals and desired outcomes is essential but do not necessarily outline how to meet your goals. Think "outside the box" and give the contractor maximum autonomy to achieve results. In doing so, you allow bidders to bring ideas to the table before the program has even begun.

Elements of an RM RFP

The model RFP language in Appendix D provides examples and more detail on each of these RFP elements.

Although each organization might be different in the services it requests, the following six elements should be part of any RFP and are essential to clearly document your requirements to potential bidders.

The Cover Letter. This piece is an often unnoticed, but important aspect of the RFP, as it is the first document the bidders read. The cover letter sets the tone for the RFP process and should invite bidders to submit proposals and describe the

[3] "Pass through" costs are the existing fee structures that determine your baseline costs. An RM contractor can still manage the materials and work to reduce these costs, but must respect existing agreements.

general intent of your program. You should express the goals and objectives of your RM program in a few sentences—emphasize that your organization is looking for more than hauling and disposal. The cover letter should also include essential information such as dates for the bidders' briefing, when responses are due, and when you expect to award a contract.

The Introduction. This section provides background information on your organization and the underlying purpose of the services you are requesting. A description of your organization might include the number and location of facilities you want to include in the RM program, including descriptions of their size (e.g., employees, square footage, or other appropriate measures). You should also include a succinct description of the nature of your business (e.g., processes, services, products) and the comprehensive nature of services you are requesting.

The most important aspect of the introduction is conveying your organization's purpose in implementing an RM contracting approach. You might begin by describing the corporate philosophy and reasons for seeking RM services from an outside contractor. This section leads into more detailed and specific objectives that your organization is seeking to accomplish by soliciting RM contracting services. Much of this work will have taken place in the planning process. Don't create a laundry list; limit yourself to three to five such objectives. This activity will force you to focus on identifying core goals. Contract length and overall partnership approach should also be stated.

Bid Instructions. Bid instructions provide a roadmap for bidders on how to assemble and present their materials including format, content, and delivery requirements. Specific elements to consider for this section are included in the model commercial RFP language in Appendix D.

Scope of Work. This section is the main section of the RFP and describes the scope of services and, specifically, RM requirements the awarded bidder is expected to provide. As the model RFP language (Appendix D) shows, you should describe the scope of work in two areas:

1. **Scope of Services** provides a broad overview of services required under the RM program. Specific services are detailed in the RM Requirements section. In this section, define the length of the contract, materials to be managed, number of facilities, and service locations. It should be very brief.
2. **RM Requirements** asks bidders to detail how they intend to provide new, value-added services. This will be done through narrative responses and by requesting bidders to submit an operations plan to obtain and improve upon existing services. This section also outlines the desired results and performance requirements for new, value-added services. Appendix D, Section 4 has detailed examples and sample language.

Breaking the scope of work into two separate sections—RM requirements and scope of services—emphasizes that you are requesting something different from a typical hauling and disposal contract. Remember to be open and flexible. Your primary concern is that your needs are met, not how they are met. It is important to clearly state the desired end result or expected outcome, but the manner in which the work is to be performed should be left to the bidder's discretion. For instance, you can state that you want to increase diversion by 40 percent during the first 3 years of your RM program and ask bidders how they intend to help you meet this goal. If you are too vague or imprecise (e.g., our organization is committed to recycling), you run the risk of having bidders not respond directly. If you are too prescriptive (e.g., you want your RM to increase recycling of all materials by the same amount), you risk stifling any innovation that the contractor might express in their response. Flexibility provides bidders the latitude and freedom to innovate and provide you with more options to best to meet your performance objectives.

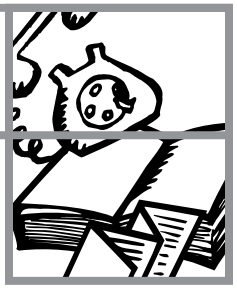
Normally, bidders will respond to how they can meet the scope of work through a combination of a "narrative proposal" or "operations plan" and their qualifications in performing similar services for their existing clients. You want the bidders response to the proposed scope of work to detail how they intend to conduct all activities specified in the scope of work.

Appendix E provides example bid forms and incentive structures.

Payment for Service and Incentives for Waste Reduction and Efficiency. The RFP must contain language to guide bidders on how you want the financial bids submitted. You must include fees you will pay the RM contractor for obtaining the current waste hauling, disposal, and recycling services and compensation for other RM services.

Proposal Evaluation Criteria. The RFP must communicate how you intend to evaluate the bidders responses. See Chapter 5 for a sample set of criteria and detailed methods to use these criteria.

Chapter 5: Selecting an RM Contractor



As you finalize the RFP, you can start to prepare for the solicitation process. You should establish bidding procedures to ensure that each step—from the identification of prospective providers to evaluation of proposals to final selection of contractors—is fair and open. An open and competitive bidding system provides a level playing field to all contractors and minimizes the potential for outside pressure on the final bid selection.

Identify Contractor Pool

Because RM contracting is an emerging service model, growth and delineation of the contractor base will continue to be dynamic. RM contracting requires a broader range of knowledge and management expertise. Many types of companies are converting to RM contractors. Companies from more established sectors (e.g., waste, industrial cleaning) are applying their know-how (as well as acquiring new competencies) to offer a new type of performance-based service. Supplying RM services is by no means limited to traditional waste management companies. Other companies, such as recycling companies, consultants, and property managers and brokers, are also making inroads to supplying RM services. RM contractors commonly obtain many of the responsibilities and subcontract other services. For example, property managers and consultants will manage internal systems and give hauling and other external activities to subcontractors. In fact, many companies that now provide RM services see this contracting strategy as a new source of revenue to diversify their profits and as a competitive advantage in marketing themselves to new customers.

Who Are the RM Contractors and Their Customers?

At least three categories of established companies are providing RM services to waste generators:

- Waste Management, a WasteWise partner, offers RM-like services to large industrial generators as part of in-plant services. Other smaller handling and disposal companies also offer RM services.
- Companies with specialized expertise in internal waste or process management and/or resource efficiency, including custodial firms, industrial cleaning companies, property management companies, and consultants/engineers.
- "Waste brokers," a rapidly growing segment of the solid waste industry that provides hauling and disposal contract management services for national companies.

These companies see RM service as a market "differentiator" that will allow them to gain or retain an account in an extremely competitive industry and as a conduit to diversify profit by supplying a wider range of high-value utility and environmental support functions.

Ideas for finding contractors.

Although several large national companies offer RM contracting services, much of the solid waste and recycling market is local or regional. Start with the following sources to identify prospective contractors:

- Your current contractors with whom you have positive experiences.
- List of pre-qualified contractors obtained from your purchasing/procurement office.
- Recommendations from other companies/local governments that have RM-like programs.
- Organizations that advance the RM approach[4].

Because RM contracting is still relatively new, some providers might have the ability, expertise, and willingness to provide these services, but are unfamiliar with how to structure their contracts according the RM principles. By sending the RFP to a wide array of companies you maximize your chances of locating interested contractors and receiving responsive bids. As the market for RM contracting matures, a more distinct group of top RM contractors will surely emerge.

Steps for issuing the RFP.

Issue the Request for Proposals (RFP)

Following a defined process will ensure that all providers are provided with the same information. The main steps in issuing an RFP include:

1. Issue RFP
2. Convene pre-bid meeting
3. Receive bidders questions and provide responses
4. Inform internal personnel, apart from the RM team, about the RFP
5. Accept proposals/bids and acknowledge receipt

Issue RFP

Once the list of prospective contractors is finalized, issue the RFP. Attached to the RFP should be a form that requires bidders to acknowledge receipt of the RFP and indicate whether they plan to submit a proposal. This form should also ask for contact information of contractor representatives planning to attend the pre-bid meeting. The RFP can be issued electronically or in hard copy. Managing the process to the greatest extent possible through e-mail will save time and shorten the overall schedule for the competitive process.

Convene Pre-bid Meeting

A pre-bid meeting is usually organized within 2 to 4 weeks after the release of RFP. The meeting can last from 2 to 4 hours and should include an overview of your facilities and a description of RM program goals. Allow time for a followup question-and-answer period. After the meeting, arrange a site/facility tour to let

[4] The Tellus Institute <www.tellus.org> is in the process of compiling an RM supplier contacts database.

the contractors understand the working environment and to better assess their cost for implementing the new RM program. The pre-bid meeting serves two main purposes:

- Provides a forum for interested contractors to pose questions about the RFP, the proposal preparation process, and the organization procuring RM services.
- Provides an opportunity for your team to clarify instructions, and—most importantly—ensure that the rationale of RM contracting and goals of your program are understood by all bidders.

Ideas for a pre-bid meeting.

For the above reasons, you should strongly encourage contractors to attend the pre-bid meeting if they have indicated that they will be submitting a proposal. Key members of RM internal working team should attend the pre-bid meeting to address questions about different aspects of the RFP. The RM team leader should run the meeting.

Suggested Pre-bid Meeting Agenda

- Introduction
- Company overview
- RM rationale and goals of your program
- RFP discussion/clarifications
- Questions and answers
- Concluding remarks and restatement of schedule
- Facility/site tour

Receive Bidders Questions and Provide Responses

Even after the pre-bid meeting, additional queries will certainly arise. There are some questions prospective bidders will not want to ask in front of their competitors. The RFP should include a deadline after the pre-bid meeting for any prospective bidders to submit written questions. The RM team leader should manage all submittals and inquiries. Internal RM team members should be prepared for ad hoc meetings in case queries require discussion and input from several team members. All questions, together with answers, amendments, and/or addenda should be sent to all contractors that have received the RFP. This process will ensure a level playing field.

Inform Internal Personnel About the RFP

The RM leader should coordinate RM team outreach activities to inform all employees about the status of the RFP process. Include in the update the number of bids you expect to receive and the schedule for the internal review process. This activity raises the profile of the RM program and helps achieve buy-in during implementation when those affected have felt engaged and informed throughout the planning and RFP process. Ensure your management champion is engaged so he/she can communicate progress to upper management.

Accept Bids or Proposals and Acknowledge Receipt

All incoming proposals should be properly logged and checked for completeness. You should promptly send notifications to contractors who have submitted complete proposals. For incomplete bid submission, a reminder should be sent to inform the bidders the missing items (if you decide not to disqualify them).

Evaluate Bids and Select Contractor

You are now in the final stage of the process-bid evaluation and contractor selection. Remember that the aim of this solicitation should not be to focus exclusively on the lowest-priced bid, but to seek qualified contractors who provide the best value. In the long run, the "best value" bidders are those that will be able to provide the most complete service at the least cost. Your selection should rest on the technical soundness and creativity of the proposals, cost, and qualifications of the bidders.

Make sure the evaluation process and results are well documented so that your team can justify your recommendation to top management.

Develop Evaluation Criteria and Weightings

A structured evaluation process will keep you and your team on track. You should have included the evaluation criteria in the RFP. At this stage, you should establish the specifics of each criterion based on questions raised or issues highlighted in the RFP and determine the weightings for each criterion and their sub-components. Table 5.1 presents sample evaluation criteria and example weightings that might be assigned to each criteria. The criteria and weights should reflect your own program goals and service needs. Weightings for each criterion and their sub-components should be discussed and agreed upon by the whole team. This process is meant to aid your discussion, and responses within a few points of each other can be considered roughly equal.

Examples of bid evaluation criteria.

Table 5.1: Sample Evaluation Criteria and Weightings

Criteria	Maximum Points	Actual Points
Technical Aspects of the Proposal	**35**	
Potential for resource efficiency improvements	15	
Operations and maintenance for existing services	10	
Education and outreach activities	5	
Facilities / equipments provided	5	
Information Management	**15**	
Measuring and reporting service levels and waste generation source reduction/recycling rates	5	
Measuring and reporting savings	5	
Methods / mechanisms for information sharing	5	
Financial aspects of the proposal	**35**	
Base service fee (for existing operation)	15	
Gain sharing proposal / estimated cost savings	15	
Method of determining payments and terms of payments	5	
Experience, background, and qualifications	**15**	
Relevant experience	5	
General management capability	5	
References	5	
Total	**100**	

The best strategy for evaluating bids is to have all team members rate each proposal. After the individual grading is complete, convene a meeting to review the ratings collectively to reach consensus on the final selection.

Evaluate Cost Savings Using Baseline Costs

The bids are structured so bidders submit their base proposal to take over existing services. These are the only fees your organization should pay. New services are financed from cost savings realized as a result of your program's waste diversion successes. Cost savings from an RM program are derived in two areas:

- Immediate savings for an RM contractor to take over existing services.
- Potential savings one expects once an RM contractor launches the program and helps you improve your program.

Immediate savings for an RM contractor to acquire existing services can be determined by comparing the bids to your current baseline costs (see Chapter 3) for these existing services. We will call these savings "transition savings." In addition to savings on cost of current service, you might have other transition savings, such as immediate reductions in any owned equipment (e.g., containers) that might be eliminated under the new program. Transition savings might also result from par-

tially relieved resources on labor as tasks are transferred to the contractor (e.g., redirecting the environmental manager's time on waste-related reporting to more strategic environmental activities). Although many organizations do not consider these "hidden" savings in making a business decision, you should note them in your analysis of transition savings in addition to the obvious "bottom-line" transition savings.

Potential savings are what one expects once an RM contractor starts to help you improve your program. These savings come from the new services you will receive in your RM program, and we will call these "RM savings from continuous improvements." RM savings from continuous improvements will be an estimate at best. Evaluating new services and your RM contractor's ability to reduce costs is tricky because you are, in effect, evaluating what you think they can do. Recall the underlying premise of RM is that new services are financed from the savings that result from continuous improvements.

Appendix F provides more details on evaluating bids and creating summaries that model cost and benefits.

So how do you know if these additional services will really deliver improvements and costs savings? You will not know at the time you are evaluating the bids; however, there is a way to estimate the potential savings from continuous improvement. Appendix F walks through such an analysis. Savings will depend on the amount of waste they can reduce, the amount of recycling they will increase, or additional cost-effective improvements to your program. Savings will also depend on the type of RM compensation structure in place (e.g., how these savings are shared between your organization and the RM contractor).

You can now compare your current program cost with the estimated program cost of various proposals. Hopefully you have competitive bids that represent an immediate decrease in costs through transition savings, and you receive additional new RM services at this reduced cost. This then leads to savings from continuous improvements after the program is launched if it is successful. If all bids are higher than your current baseline costs, your RM team should decide whether the proposed additional services justify any increase over current costs.

A final word of advice on the value of RM—in evaluating the benefit of an RM program, we recommend you take a "cost neutral" stance. Cost neutral means that you pay no more than you are currently paying and still get new RM related services. In short, you get more "bang for your buck" since you receive additional RM services at no cost. Most organizations do not (or cannot afford to) devote significant resources to design and implement waste minimization and recycling programs. Allowing an external RM to share cost savings with you if they help you improve the management of your waste and recyclables makes good business sense. If your RM contractor successfully helps you find cost-effective ways to divert waste from landfills, then you will also share in the cost savings. More importantly, the environmental impact of your organization will be reduced.

Down-Select Bidders for Further Discussion/Evaluation (Optional)

In some cases, an obvious "winner" will emerge. For example, one bidder might be well below other bids, offer you immediate savings, and meet all qualifications. You will hope to receive several competitive bids from which you can choose the best-valued proposal, however. To save team members' time, you can choose several top proposals based on the results of the evaluation criteria and focus only on those. You can then invite the "down-selected" bidders to give oral presentations to help the team make their decision. If you decide to have bidders give a presentation, your team members should prepare a set of standard questions for all bidders. Those questions should address the most important issues and relate to issues that are most difficult to elaborate in the proposal, or can be better explained through interactive discussions. You might have specific questions for one bidder, but gathering information that is comparable among the selected bidders is easiest.

For all qualified bidders, seek recommendations from the bidders' references and summarize them for the team. The exhibit on the following page offers a sample list of some standard questions to ask each reference to ensure you make fair comparisons amongst bidders.

Examples of questions for bidder references.

Sample Questions for Bidder References

Scope of Your Program

1. What services does Company X provide for you? (e.g., recycling, marketing of recyclables, management of waste and recycling data, environmental reporting, outreach, and education)
2. What types of materials are covered by Company X's services?

Compensation

3. How is Company X compensated?
4. Do you share revenue from sales of recyclables?

Communications

5. Who is the point of contact at Company X? By what means and how often do you communicate with Company X?
6. Does Company X respond to you promptly? Are you satisfied with the level of communication?

Performance of Vendor

7. Is Company X providing sufficient resources to meet your needs?
8. Are you satisfied with the service provided by Company X?
9. Has Company X exceeded your expectations or their promise in any way? Have they fallen short in any way?
10. Have you ever experienced problems working with Company X? If so, how have these problems been resolved?
11. Have the services provided by Company X helped you to enhance waste diversion, recycling, and source reduction? If so, please provide examples of initiatives that have helped you to achieve your program goals.
12. Would you recommend Company X as a resource management provider? Why or why not?

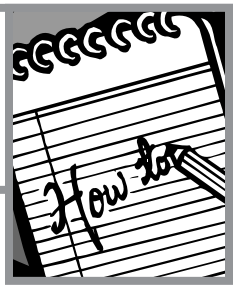
[ ] Highly recommended [ ] Recommended

[ ] Doubtful [ ] Unsuitable

Select the Bidder and Present Your Recommendation to the Top Management

As you move toward negotiations, you will follow one of two approaches. If you have identified one clear winner, you will simply work with that bidder. Alternatively, if you have identified several qualified bidders, you might decide to negotiate with more than one company to see if you can again leverage to increase services or reduce costs. Limit negotiations to two or three bidders. Before you enter negotiations, ensure that whoever does the negotiations has the authority to make decisions, compromises, or tradeoffs.

Chapter 6: Signing the Contract and Measuring Program Success



With the hard part of the solicitation process behind you, you are now ready to enter final negotiations with the selected provider and sign a contract. The contract will not be a totally new document. Much of the contract is about packaging work products that have already been completed and making any necessary changes. The contract will consist of three main components:

1. **Standard terms and conditions.** Your organization should have a standard set of terms and conditions you can use. Consult your legal and procurement staff.
2. **Scope of services.** These can be taken directly from the RFP and the winning bidder's response. Make sure reporting and billings requirements, as well as any training and meeting participation requirements, are clearly defined.
3. **Compensation and RM incentives.** This section can be taken directly from the RFP, the winning bidder's response, and the terms of any subsequent negotiations.

In some cases, the contract can be the RFP and response to the RFP (after all points have been negotiated), along with the standard terms and conditions. Thus, your contract is largely created already and the payoff for your hard work is almost at hand.

Final Notes on Negotiation and Inking the Contract

Your goals in negotiation should reflect the nature of your RM program—a strategic partnership. Obtaining a fair price for existing service is important, but rewarding your RM contractor for making your program a success is equally important. Waste costs are often a small cost center, and *the real value of RM is obtaining value-added services without increasing your overall costs*. Before negotiation, you should bear in mind that the key to success of an RM program is cooperation and mutual benefits.

When the negotiation is complete, you should seek management approval for the final contract. Once the contract is signed, your company is entering a new relationship with your RM contractor. The contract represents the living document that will define your expectations and relationship with your RM. A clearly defined contract will avoid ambiguity about responsibilities and payment and is the foundation for an equitable partnership.

Measuring RM Contractor Performance and Program Success

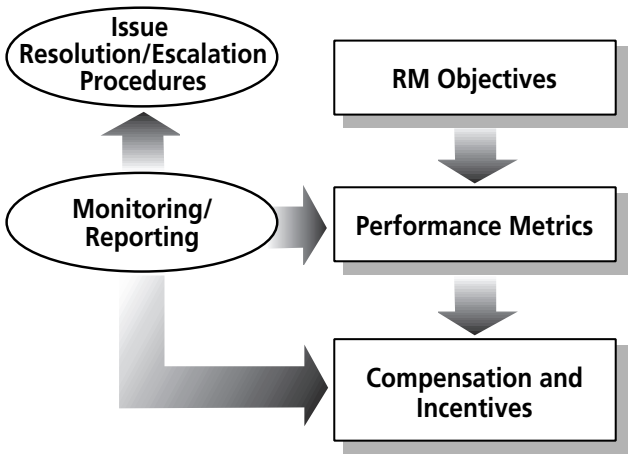
RM is based on a strong relationship between you and your contractor built on trust. The true success of an RM program will be determined in the long run by how effectively you communicate with your contractor (and vice versa), monitor and review performance, and take joint action to meet the stated RM objectives. Paying attention to all of the interconnected issues should facilitate program launch and foster continuous improvement in your program.

Monitoring your RM performance against simple, measurable metrics will ensure that standards and expectations are being met. Both you and your RM contractor should mutually agree upon reported metrics. Your baseline diversion and recycling rate(s) are a good starting point. The one reason for waiting until after the program is awarded is to address any uncertainty over the quality and/or availability of data. Metrics should be finalized in the first 3 to 6 months of the contract. A suggested set of metrics is provided in the text box below.

Sample Performance Metrics

- **Waste generation (tons/time period/# units)**—Normally measured as tons per time period (week/month) normalized to some business critical measure (e.g., per 100 widgets produced), # units produced (manufacturer), # guest nights (hotel), # square feet, employees, or net sales (retail).
- **Hauling cost per ton discarded ($/ton)**—This measures the efficiency with which the RM contractor is managing the cost of hauling materials (recyclables/waste) by optimizing compactor use, hauling only full containers, etc. The actual disposal tip fee on waste should remain constant.
- **Recycling rate (%)**—Equals weight recycled divided by (weight recycled plus weight disposed) multiplied by 100. This is a standard metric that is most often used to track recycling progress. Be aware that this measure can be affected by a decrease in total generation (lowering the denominator).
- **Capture rates for different materials (%)**—Equals weight of material recycled divided by (weight recycled plus weight disposed) multiplied by 100. Same calculation as recycle rate, only by material. This can be calculated only if recyclables of interest are segregated and waste sorts occur to determine the amount of the interested material disposed of as trash.
- **User satisfaction surveys**—For the people components (complaints, on time pick-ups, responsiveness to inquiries, improvement proposals, etc.).
- **Environmental benefits** such as greenhouse gas reductions (see Appendix G).

Figure 6.1: Linkages Between RM Objectives, Performance Measurement, and Compensation



Example performance metrics.

The more integrated the performance metrics, monitoring, and reporting requirements, the easier it will be to ascertain whether RM program goals are being met. See Figure 6.1. Although most data tracking and reporting will be completed by the RM contractor, you will be responsible for monitoring and managing progress.

Establishing reasonable but explicit communication protocols and conflict resolution processes will lead to mutual understanding and commitment to the program. The RM program and business relationship with your RM contractor is more likely to succeed if you plan for the following important communication pathways:

- **Meet on a quarterly basis with your RM team** to discuss progress, status, and performance of services. You should assign a single point of contact within your own organization who is primarily responsible for overseeing the RM contractor. Remember, your own employees will play a large role in making the program a success, and you might need to pull in your own personnel affected by the program (e.g., operations/facility maintenance, procurement) as necessary. These meetings provide a basis for regular communication and number of benefits:
  - — They instill the "partnership approach" that leads to shared responsibility and initiative to work towards waste elimination.
  - — In reviewing metrics, the RM contractor and your RM team can identify potential trends, and predict and preempt problems.
  - — When a problem does present itself, meetings provide a venue in which to take action to resolve the issue early on before it becomes more costly to resolve. Meetings might reduce the chance of recurrence if problems are explicitly addressed.
  - — They provide time to review contractor reports detailing waste reduction activities, cost savings, reductions in greenhouse gas emissions, and other metrics that gauge performance. The most detailed metrics will do no good unless tracked.

- **The contract should have established ground-rules and procedures** to resolve issues and conflicts, since questions will invariably arise. A protocol to discuss and escalate these issues to the proper decision-makers for resolution is key to keeping the program on track.
- **Ensure that proper support is being given to contractor** to help implement improvement activities.

Your RM contractor should also establish a broad internal communications plan that informs internal players outside of the RM team of the status of the program. This step can be as simple as update postings in company circulars or newsletters, or optional "program update" brown bag meetings for interested employees. Because employees are on the "front lines," they can be an excellent source of information to bring up issues, concerns, or ideas. Your RM contractor has an incentive to play a key role in providing this internal communication because it will help keep the program on track and increase its chance of success.

Elements of Well-managed Performance-based Contractor Relationships

- Clear communication of company's business culture and program objectives.
- Performance-based compensation and incentives.
- Objective performance criteria that are negotiated, measured, and reviewed periodically to ensure consistency with program direction.
- Ongoing monitoring and exchange of knowledge and information.
- Formal process/reporting structure for issue resolution.

A final word of advice: the RM contractor's performance is only half of the picture—the other half is your job. Many organizations that have engaged in strategic partnerships with external vendors have run into problems and immediately assumed the contractor was not performing adequately. Success of the RM program is contingent on attentive management, timely feedback, and appropriate support for the contractor. The communication and performance measurement that is so essential to program success is a two-way street.