BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF APPROVING THE INTERIM WASTE REDUCTION PLAN TO PROVIDE DIRECTION FOR REGIONAL WASTE REDUCTION PROGRAMS PENDING THE COMPLETION OF THE UPDATED REGIONAL SOLID WASTE MANAGEMENT PLAN	))))))	RESOLUTION NO. 06-3722 Introduced by: Michael Jordan, Chief Operating Officer, with the concurrence of David Bragdon, Council President

WHEREAS, Metro Council adopted Ordinance No. 95-624, "For the purpose of adopting the Regional Solid Waste Management Plan (RSWMP)," on November 30, 1995; and

WHEREAS, the RSWMP includes guiding direction for the region's waste reduction programs; and

WHEREAS, the RSWMP is currently being updated for the next ten years (2005-2015); and

WHEREAS, the RSWMP fulfills the state requirement that the regional wasteshed have a waste reduction plan; and

WHEREAS, Metro, in cooperation with public and private sector stakeholders, developed new goals and objectives for program activities in waste reduction, hazardous waste management, education, and product stewardship; and

WHEREAS, Metro Council directed staff to complete an Interim Waste Reduction Plan pending the completion of the RSWMP; and

WHEREAS, the draft Interim Waste Reduction Plan has been through an extensive public involvement process; and

WHEREAS, the Interim Waste Reduction Plan has been reviewed and approved by the Oregon Department of Environmental Quality, who termed the Plan's contents " . . .a strong base for implementing innovative and successful waste reduction programs over the next decade"; and

WHEREAS, this resolution was submitted to the Chief Operating Officer for consideration and was forwarded to the Metro Council for approval; now therefore

BE IT RESOLVED, that the Metro Council approves the Interim Waste Reduction Plan (attached hereto as Exhibit "A") to provide direction for programs and activities related to reducing the amount and toxicity of waste generated and disposed, pending the completion of the updated Regional Solid Waste Management Plan.

ADOPTED by the Metro Council this 17th day of August, 2006.

David Bragdon, Council President

Approved as to Form:

Daniel B. Cooper, Metro Attorney

Approved Одобренный Совет метро Metro Council METRO COUNCIL

Exhibit A to Resolution No. 06-3722

DRAFT

Interim Waste Reduction Plan

Regional
Solid Waste
Management Plan
Update Project

July 2006

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Contents

Executive summary

A strong environmental ethic in the Portland metropolitan region has fueled ambitious waste reduction goals and effective programs, making this region a national leader. Over the past 20 years, the waste reduction rate* increased from 26% to 59% (see Figure 1). The goal ahead is to achieve a 64% rate by the end of 2009, an increase of five percentage points over the current rate, or approximately 400,000 additional tons of material diverted from disposal. This Plan is the region's blueprint for achieving that milestone goal, but it is also intended to accomplish much more. The desire to achieve a sustainable use of natural resources in this age, preserving resources for future generations, is at the heart of the guiding framework and every program area contained in the Plan. The Plan identifies significant policy, system, and behavioral changes needed to reverse the current context.

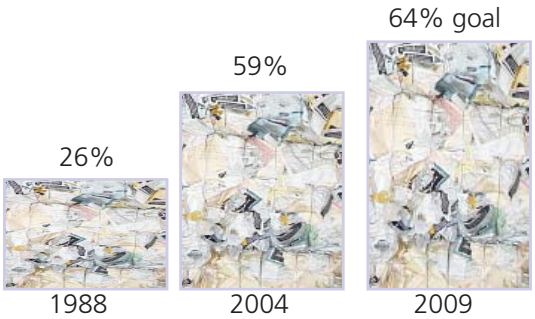
Context of the times

Among the impediments to the sustainable use of natural resources in the region are the following, which this plan seeks to address.

Waste generation is increasing.

The sum total of waste generated for recycling as well as disposal continues to increase. On a per person basis, the region's "waste generation rate" rose from 1.26 tons in 1994 to 1.72 tons in 2004 – a 37% increase, or over 3% per year – outpacing the rate of population growth. With significant population growth and good economic times, the generation rate historically trends up due to increased commercial activity. The challenge is to instill greater awareness and implementation of effective waste prevention activities in the residential, commercial, and industrial sectors. Reducing waste generation pays off with reduced material consumption as well as reduced energy, air and water impacts. This Plan is intended to contribute to dampening the rate at which waste is generated in the region.

Figure 1. Region's waste reduction rate



Recyclable resources are disposed.

Despite this region's high recovery rate, many resources that can easily be recycled are still disposed. Enough waste from this region is landfilled each year to fill a football field 100 stories high. Fully one-third of that disposed material is paper, wood, metal, glass, plastic and organics (food and yard waste) that could be recovered through existing programs. This Plan is intended to achieve greater progress toward ensuring these material resources are not wasted.

Toxics impact the environment.

Volumes of household hazardous waste continue to climb, and only a portion of the total generated by households each year is separated and collected for recycling or safe disposal. The high cost of dealing with this waste stream, plus the risks posed to human health and the environment, make this a compelling issue to address. By making people aware of alternatives to hazardous products for homes and gardens, and by giving them good reasons to use those alternatives, the amount of hazardous waste entering the environment, and the disposal system, can be substantially reduced. This Plan is intended to ensure continued sound management of household hazardous waste while bringing expanded emphasis to the promotion of safe and effective product alternatives.

The system is managed end-of-pipe.

A confluence of factors – growing fiscal constraints on public sector activities, rising amounts of total waste and increasing quantities of difficult-to-recycle waste – have motivated support for a more upstream-oriented approach to managing waste. Over the past decade, Europe and Canada enacted "product stewardship" policies that require manufacturers to share responsibility for managing certain products at their end-of-life; examples include tires, electronics, pesticides, beverage containers and other packaging. Making that policy shift could have significant results - more equitably shared costs, and products that are better designed (i.e., less toxic), more durable and

*Throughout this Plan "waste reduction" refers to both the "prevention" of waste (e.g., reuse, backyard composting) as well as "recovery" (e.g., recycling, composting and energy recovery). The region's annual "waste reduction rate," calculated by the Department of Environmental Quality (DEQ), combines credits for waste prevention programs as well as tons recovered from all waste generated. For 2004, the region's waste reduction rate was 59% (53% recovery plus 6% waste prevention credits).

more readily recyclable. This Plan is intended to support policies and practices consistent with shared responsibility addressed in the Plan vision statement.

Vision of the future

This Plan's vision is of a significant shift from today's "end of pipe" waste management practices to a future where resources are managed more efficiently for current and future generations, and responsibility for this is shared among producers, consumers, and government.

To achieve this vision, the Plan will build on progress achieved to date, and address impediments to resource conservation through activities that:

- prevent waste from being created in the first place,
- encourage more recycling and composting,
- promote alternatives to toxic products,
- require manufacturers to take more responsibility for the products they sell, and
- create awareness and support of the above through effective educational programs.

Plan contents

The Plan's first two chapters contain information on the process used to develop the Plan, including public involvement; the current waste reduction system; and material recovery and disposal trends. Chapter III lays out the Plan's long-term vision, as well as the regional values and waste reduction policies that will guide activities over the duration of this Plan.

Chapter IV presents the goals and objectives that will guide the key program areas – waste reduction, education services, hazardous waste management and product stewardship. Chapter V describes the framework for implementing the Plan, including annual work plans, plan performance, alternative programs, compliance and enforcement, and revisions.

Action plan

The goals and general direction planned for the four program areas addressed in this Plan are summarized below. (Complete text may be found in Chapter IV or Appendix A.)

1. Waste reduction

Goal: Increase the sustainable use of natural resources by reaching a waste reduction goal of 64%.

Objectives to reach the region's goal of 64% waste reduction by 2009 have been identified for each of the following sources of waste: single-family residential, multi-family residential, business, building industry and commercial organics. Each of these five sources will require unique approaches and regionally coordinated efforts to provide access to services by all.

The Plan aims to increase both the quantity and quality of materials recovered from both single- and multi-family residences. The Plan places special emphasis on business and commercial sources of waste where the opportunities for improvement are greatest. Offices generate large quantities of paper; construction and demolition sites generate wood and metal; and restaurants and grocery stores generate food waste.

Customized education and outreach campaigns will encourage more voluntary involvement in recycling; however, the Plan also suggests the necessity of other measures to realize the waste reduction goal, such as requiring business and construction debris recycling throughout the region.

2. Education services

Goal: Increase the adoption of sustainable behaviors by households and businesses through increased knowledge, motivation and commitment.

The Plan identifies information services and school education as methods of achieving this goal. Implementing objectives in these areas will require coordinated efforts among Metro, local governments, and public and private schools.

Education strategies motivate residents to take their commitment to the next level and instill in newcomers an appreciation for the region's environmental values. Special emphasis is placed on outreach efforts that help people make environmentally responsible choices.

3. Hazardous waste management

Goal: Reduce the use and improper disposal of products generating hazardous waste to protect the environment and human health.

Management of hazardous waste is approached by this Plan in two ways: 1) reducing the amount of hazardous waste generated by reducing the use of hazardous products; and 2) collecting generated wastes properly. The goal of this program area will be reached through coordinated efforts of education and efficient, safe collection methods.

The Plan emphasizes targeted education and outreach to encourage the use of safe alternatives to hazardous products. The Plan also calls for possible disposal bans on some products that pose the most serious risks to public health or the environment.

4. Product stewardship

Goal: Shift responsibility to manufacturers, distributors, and retailers ensuring that products are designed to be nontoxic and recyclable and incorporate the cost of the product's end-of-life management in the purchase price.

This Plan outlines the initial steps to be taken for furthering product stewardship. Product stewardship represents a change from current end-of-pipe waste management to front-end product management.

Such a significant change in approach will eventually help reduce the burden on local governments for proper waste handling and will also arguably lead to less waste, reduced toxicity and increased recyclability by having those in charge of the manufacture and consumption of products take responsibility for the proper management of those products.

Moving forward

Historically, the waste reduction rate has been the primary measure of progress in this Plan. Emphasis on that measure continues, as the Plan identifies policy and operational changes necessary to enable the region to divert approximately 400,000 additional tons of material from disposal and achieve the 64% waste reduction goal by 2009.

How will we get there? Increased recovery of commercially generated organics is predicated on expanded participation of large food waste generators in the City of Portland and other jurisdictions in the region, as well as the siting and operation of a food waste composting facility in the region. Increased recovery of "dry waste" material generated by the business and building industry sectors will follow the implementation of regulatory requirements by Metro and other jurisdictions, and on-going technical assistance to generators. Increased recovery of material from the multi-family residential sector is anticipated after region-wide implementation of a uniform collection system and more effective outreach targeted to those residents. Finally, increased recovery of material from the single-family residential sector will result as local jurisdictions throughout the region convert from bins to roll carts for the collection of recyclables.

Future goals

In addition to ambitious plans for achieving a 64% waste reduction goal by 2009, it is anticipated that a new set of performance indicators for the region will be implemented in the years ahead. Sustainability Goals for the Solid Waste System, related to solid waste facilities and collection services, will be included in the draft Regional Solid Waste Management Plan (RSWMP) update next year. Nine goals and 23 related objectives encompass air emissions, stormwater run-off, natural resource use, toxic materials, green building standards, training and education, purchasing practices, health and safety, and quality of life. This groundbreaking work was developed by a subcommittee of the Regional Solid Waste Advisory Committee (SWAC), which then recommended the measures for inclusion in the updated RSWMP.

Other measures of assessing performance in resource conservation efforts will be considered in years ahead. As the 64% benchmark-year of 2009 draws closer, Metro will launch a regional discussion on new goals for the future. New waste reduction goals beyond 64% will be considered; a goal to reduce per capita and/or total waste generation (similar to that established by the state) will also be considered after the Oregon Department of Environmental Quality stakeholder process on waste generation has concluded its work. Ways to meaningfully establish and assess other measures (e.g., toxicity reduction, energy consumption, and greenhouse gas reduction) will be discussed, and, where related to Plan activities, goals in these areas may be established.

A shared agenda

For the next four years, the focus is on addressing impediments to the sustainable use of natural resources by achieving the goals and objectives identified in this Plan.

Stakeholders who participated in developing this Plan will also play valued roles in its implementation. From almost 20 years of such collaborative efforts in the region, the pieces are in place to move forward, achieve greater goals than before, and continue to be a national leader in reducing the amount and toxicity of waste.

Chapter I
Introduction

Plan purpose

This Interim Waste Reduction Plan (Plan) is intended to provide direction for waste reduction programs pending the completion of the Regional Solid Waste Management Plan (RSWMP). In addition to providing interim guidance, this Plan meets state requirements (ORS 459) for a plan that shows how statutory waste reduction goals will be met.

Planning process

The RSWMP update project began in late 2003 with an initial assessment of areas needing to be updated and the development of a process for conducting that work. The information shown in this Plan was originally gathered as part of the project to update the RSWMP, but ongoing discussions about Metro's role in the disposal system (and especially questions about Metro's ownership of two transfer stations) have delayed the RSWMP. Since the information in this Plan was essentially ready, it was determined that an interim waste reduction plan should be prepared and released without further delay. When the RSWMP is completed, most of this Plan will be incorporated into it.

Public involvement

An extensive stakeholder process was conducted in 2004 to solicit input on the *existing* RSWMP and issues to be addressed in the *updated* RSWMP. This process was conducted in two phases. The first phase identified and then refined a list of regional issues to be addressed by the RSWMP update. In the second phase of public involvement, an on-line survey and a series of facilitated small group discussions, called "Let's Talk Trash," were offered throughout the region to generate additional input on three issues:

- Do garbage and recycling services meet your needs?
- How much can we recycle?
- How can sustainability principles guide solid waste practices?

Project staff developed a discussion guide and questionnaire to help people understand the issues, examine alternative approaches and discuss the implications and trade-offs. Overall, 88 people attended Metro's hosted or facilitated discussions and 151 people submitted comments using the on-line or printed questionnaire. During this period, Metro also recorded more than 1,300 "visits" to Metro's "Let's Talk Trash" web pages. More information about the process and results can be found on Metro's web site, but the conclusions of that process can be summarized as follows:

The current garbage and recycling system is working well, but recycling rates and services should be improved.

Participants generally expressed a high degree of satisfaction with regional solid waste and recycling systems, but each group also expressed the idea that recycling services could be improved. Some participants stated that they wish to see curbside recycling services expanded to include more items, such as all plastics, food waste, electronics and household hazardous wastes. There is also a desire to see recycling made easier by using consistent standards (such as standard rules for acceptable materials and preparation instructions) across the region and providing households with larger containers that have lids to protect recyclables from wind and rain. While all groups stated a willingness to pay for these services, it is uncertain how much more people would actually be willing to pay.

Residents and businesses can do more to recycle; more education and incentives should be emphasized but not exclude regulation.

Questionnaire respondents expressed only moderate satisfaction with current levels of household and business recycling. To increase recycling levels, most participants preferred incentives over regulations. Some participants expressed an interest in a system that covered the costs of additional recycling services by charging households and businesses that don't recycle, while other groups were in favor of broadening the scope of the state's "bottle bill" to include more types of beverage containers. Despite a preference for financial incentives, participants recognized that there is sometimes a need to use regulations to encourage recycling. Participants were generally in favor of requiring businesses to recycle. Others suggested that strategies to increase recycling should include increasing education in schools and making a larger investment in publicity and informational materials.

Sustainability practices in homes and business should be improved, and government agencies should lead by example.

Many participants were unfamiliar with the meaning of terms such as "green," "sustainable," and "zero waste." Those who were aware of these concepts were not satisfied with current practices and supported "greening" the solid waste system and adopting zero waste strategies as long-term goals. It was unclear how much more people would be willing to pay for sustainability-related services. Participants generally felt that manufacturers should be encouraged to reduce product packaging and should be held responsible for the end-of-life management of their products. They also felt that governmental agencies and schools should lead by example when it comes to sustainable practices.

Bottom line: The current system is generally good, but improvements in services and recycling are desired, with resource conservation as the guiding principle.

Overall, participants were generally satisfied with solid waste and recycling services, but saw room for improvement. They felt that increasing education efforts, expanding recycling services and encouraging greater corporate responsibility would help move the region toward the goal of conserving resources through increasing recycling rates, "greening" the solid waste system and implementing zero waste strategies.

The goals and objectives in this Plan take this stakeholder feedback into account.

Plan organization

The rest of this Plan provides information about the current system and describes how the region will meet future goals, with this information divided into four chapters:

Chapter II, Regional waste reduction performance, describes the existing system for solid and hazardous waste reduction. It includes a discussion of the quantities and composition of the waste that is recycled and disposed, and then concludes with an assessment of future goals.

Chapter III, Guiding direction, presents the vision, values and policies related to waste reduction in the region. This framework helps determine future activities (objectives) by providing a basis for comparing where the region wants to be in the future against the results and activities of present-day efforts.

Chapter IV, Program areas, contains the goals and objectives for waste reduction, education services, hazardous waste reduction, and product stewardship activities.

Chapter V, Plan implementation, provides additional information on how the goals and objectives of this Plan will be implemented and how future results and performance will be monitored.

Chapter II
Regional waste reduction performance

This chapter provides an overview of the current waste reduction programs and related facilities; a summary of the results of those programs; an assessment of what more can be recovered from the waste stream; and concludes with an assessment of the future waste reduction goal.

Current waste reduction system

Within the larger system of integrated facilities, services, and programs that manage solid waste in the region, a sub-set of these are dedicated in whole or in part to waste prevention, material recovery and other efforts (e.g., hazardous waste collection) that divert material from disposal. This section describes that public/private subset as the "waste reduction system."

The success of the region's recycling programs is partly due to two key elements of the system. First, the region has emphasized source-separated recycling, meaning that recyclables are separated by type of material at the source. This reduces the need for sorting facilities and increases the market value and options for the materials. Second, the region is fortunate to have extensive local markets for most of the collected materials. Local markets make recycling more cost-effective because transportation costs are kept low and the markets are more stable. Both of these elements increase the economic sustainability of the system.

Residential recycling services

Within the Metro region, all jurisdictions have weekly curbside collection of recyclables on the same day as garbage service. This approach has been shown to help increase participation in curbside recycling. Residential garbage and recycling service is franchised in almost all jurisdictions in the region. Each city is responsible for its own franchising system, while the counties administer franchises in the unincorporated areas.

Curbside collection service is critical to the success of regional recycling, and is responsible for a significant amount of the tons recovered. In 2004, residential curbside systems in the region recovered 219,000 tons of materials. This represented about 16% of the total materials recovered from all sources in the region.

Recycling services for residents living in multi-family apartments also contribute to regional recovery levels. In 2004, 13,000 tons of materials were collected from the multi-family sector.

A number of activities within the region support and promote residential curbside programs. Local governments regularly inform residents about proper preparation of recyclable materials and other collection issues through newsletters, mailers and other methods. Residents can also receive the most current information regarding their services by calling their haulers, local government and Metro.

Commercial recycling services

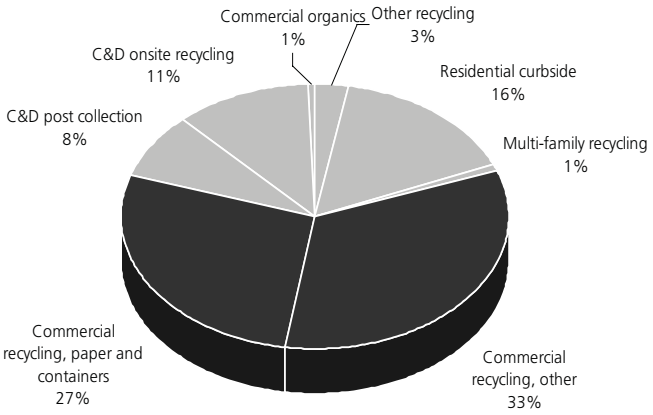
Commercial garbage and recycling service is franchised in all jurisdictions in the Metro region except for the City of Portland. Portland's commercial system allows customers to choose among permitted haulers in the city and negotiate rates for service.

Within the region, there are also independent recyclers that specialize in collecting various materials.

Under state recycling opportunity requirements, haulers are required to provide recycling services to businesses that want to recycle, but businesses are not required to recycle except in the City of Portland. Portland requires businesses to recycle at least 50% of their wastes.

The commercial sector is the largest source of recovered material in the region. In 2004, 841,000 tons of source-separated recyclables were collected from businesses, which was 61% of the total materials recovered throughout the region (see Figure 2).

Figure 2. Amounts recovered by generator source



Commercial recycling is promoted through business recognition programs, an on-line interactive recycled product database, and a regional campaign to provide deskside paper recycling collection boxes. There is also a regional business assistance program designed to provide on-site personalized technical assistance for waste reduction practices, including waste prevention, recycling and buying recycled products.

Commercially-generated organics programs

Regional efforts to recover commercially-generated organics (food waste) target edible food for donation to local agencies, and diversion of non-edible food to composting operations. For edible food, the program aims to increase the levels of donations as well as increase the capacity of the agencies to take donations. In 2004, local agencies recovered 16,000 tons of edible food, an increase of 1,800 tons from the previous year. For non-edible food, the program aims to increase the processing infrastructure for organics available to businesses within the region. Metro, the City of Portland and the private sector have worked on a number of projects that have expanded food waste recovery from 4,400 tons in 2000 to 8,400 in 2004.

Building industry programs

The commercial garbage and recycling systems described earlier (franchised everywhere except Portland) are also used by many companies in the building industry for construction and demolition (C&D) wastes, but an estimated 50% of C&D waste is "self-hauled" by building contractors to disposal or processing facilities. Approximately 158,000 tons of source-separated materials were recovered from the building industry in 2004. In that same year, processing facilities in the region also recovered 112,000 tons of material from mixed dry waste, the bulk of which was from construction and demolition sites.

The building industry program has increased the capacity of local firms to handle used building materials. A survey of regional activity in deconstruction and used building material retailers reported that more than 10,000 tons of materials were salvaged for reuse in 2004. The program has also emphasized developing partnerships with building industry associations to increase awareness of waste reduction practices within the industry. Metro has distributed 25,000 copies of the construction industry recycling toolkit that lists over 100 facilities accepting C&D materials for reuse and recycling.

Hazardous waste services

Collection services for household hazardous waste have been offered by Metro since the mid-1980s. Services began with occasional collection events and have grown to include permanent facilities at Metro's two transfer stations and community-based collection events around the region. In 2005, 44,443 customers used the facilities and 10,622 attended the community events.

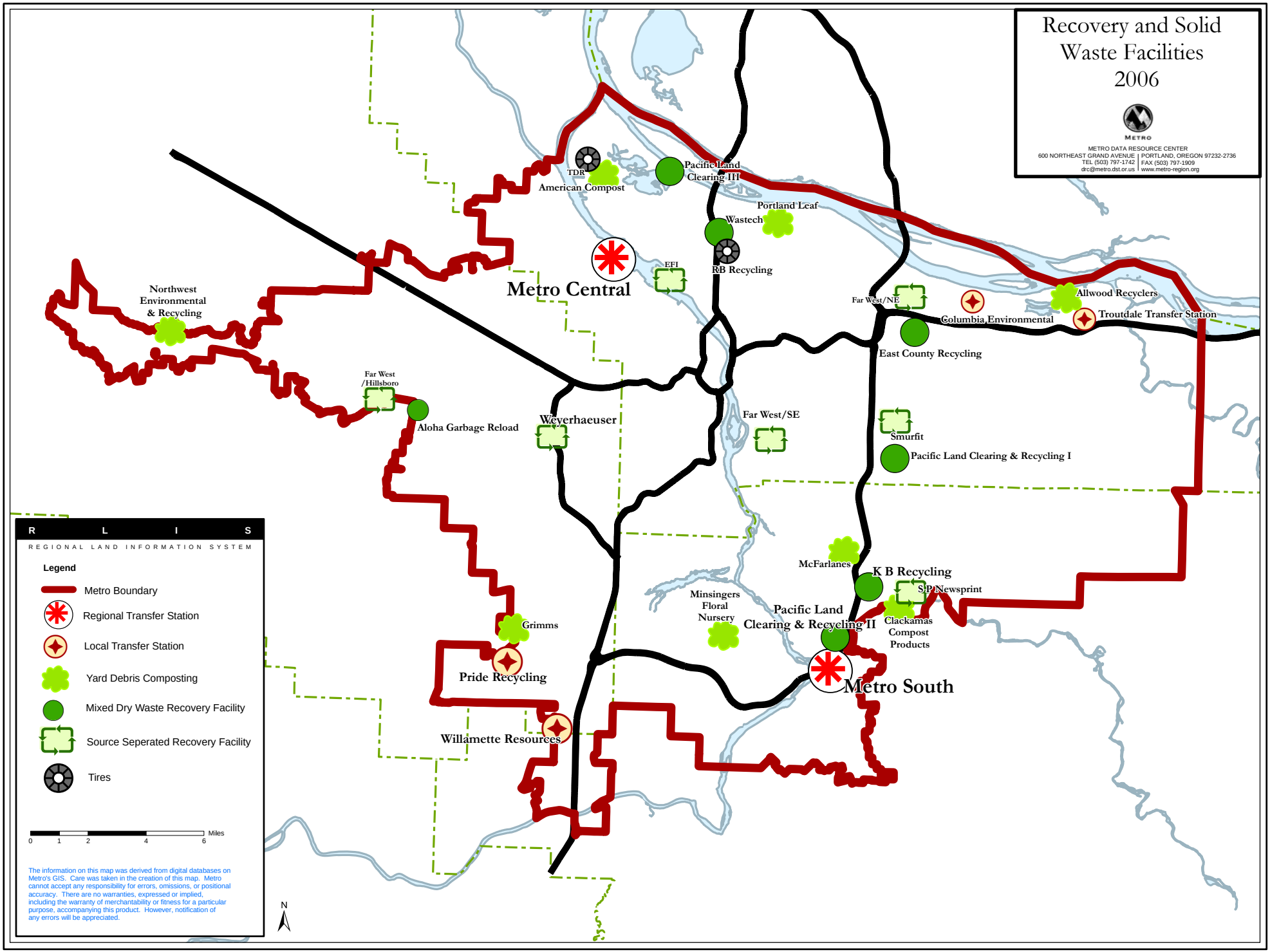
The collection events, conducted at various locations around the region, are held nearly every weekend between mid-March and mid-November. These events are located to provide a convenient disposal option for residents who are more distant from the permanent sites.

Many small and large business generators contract with private companies that provide hazardous waste management services in the region. Metro, in partnership with DEQ, also collects hazardous waste from businesses that generate small amounts, which are known as conditionally exempt generators (CEGs). In 2005, Metro served more than 495 CEGs.

Waste recovery facilities

The Metro region is currently served by 15 facilities conducting material recovery from dry waste of varying types. Four of these facilities are also *local* transfer stations; two are publicly owned and privately operated *regional* transfer stations. Eleven of these facilities are permitted to take any dry waste and the other four are licensed to accept a more limited range of materials. Three of those four facilities are specialized waste recovery facilities limited to accepting wood, yard debris, and roofing; two handle tires exclusively (see map, page 8).

Eight yard debris composting facilities are located within the region. All but one of these facilities are privately owned and operated. The publicly owned facility handles only leaf debris generated by City of Portland maintenance crews. (The region is also served by a composting facility located in Washington state that is authorized to accept post-consumer food waste.)



Please recycle with mixed paper

There are also seven "clean" MRFs that exclusively receive and process source-separated residential curbside and business recyclable materials.

Current roles and responsibilities

The implementation of waste reduction programs in the region relies heavily on collaboration between the public and private sector participants in the system. Private sector service providers are critically important to the success of waste reduction programs. These service providers are primarily involved in collection and facility operation, as described earlier. They are expected to continue to play a central role in helping the region progress toward a more sustainable future.

The following is a description of the roles of each level of government in the administration or regulation of waste reduction programs, facilities and services.

State level

The Oregon Department of Environmental Quality (DEQ) prepares and adopts a state solid waste management plan and approves local solid waste management plans, measures recovery rates and enforces statutes, including the wasteshed goals. DEQ also provides technical assistance and offers grants.

Regional level

Metro is responsible for solid waste planning and disposal in the region. As a part of these responsibilities, Metro develops and administers the RSWMP, which gives the region direction for meeting waste reduction goals. Metro is accountable for state-mandated waste reduction goals in the tri-county region, and works with its local government partners to accomplish these goals. Metro provides funding assistance to local governments for waste reduction programs. Metro also operates household hazardous waste prevention and collection programs in the region.

Local level

Cities and counties are responsible for designing and administering waste reduction programs for their jurisdictions. These activities must comply with state laws, including the Opportunity to Recycle Act, the Oregon Recycling Act and the Metro Waste Reduction Plan (see Appendices B, C & D).

Local governments also are responsible for regulating and managing solid waste and recycling collection services within their jurisdictional boundaries (including setting franchise boundaries), and reviewing collection rates and service standards. In all jurisdictions, garbage and recycling collection services are provided by private haulers who are permitted or franchised by their respective jurisdictions.

Material recovery and disposal trends

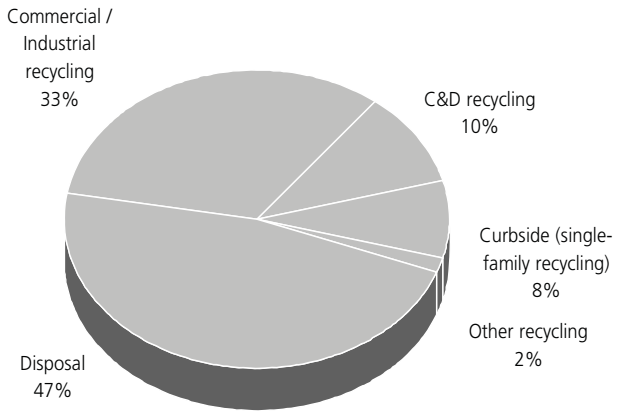
Current waste recovery rate

The current percentages recycled and disposed are illustrated in Figure 3. The data used for Figure 3 do not include the waste prevention credits (6%) or other waste prevention activities.

As shown in Figure 3, over half of the wastes generated are being recovered through recycling and composting programs. This is a significant accomplishment and represents a substantial improvement over historical recycling levels. In 1986, the regional recovery rate (including recycling and composting) was estimated at about 25%. Over the next 10 years, spurred on by higher goals and by public and private investments, the rate grew to more than 40%, thus achieving the 1995 target set by the state legislature.

The 1995-2005 RSWMP followed on this accomplishment by setting recovery goals of 52% by 2000 and 56% by 2005. In 1997, the state legislature recognized the importance of encouraging waste prevention and passed a statute that allowed wastesheds to receive "credits" for waste prevention efforts. As a result of the 1997 legislation, a wasteshed that implements programs in waste prevention, reuse and home composting could receive a 2% credit for each of those programs. Metro has applied for and received the credits since they have become available. By 2004, the Metro region had achieved a 59% waste reduction rate (53% recovery plus 6% for waste prevention credits).

Figure 3. Recycling and disposal by percent

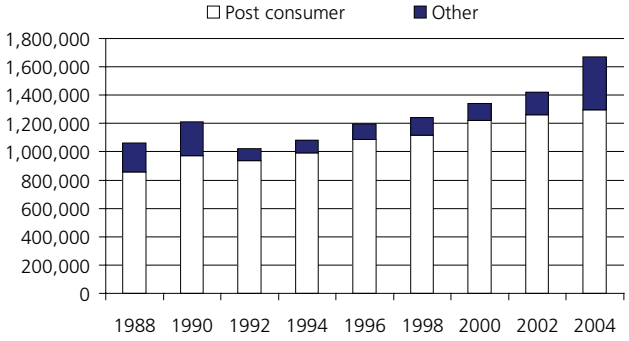


Waste disposal amounts

At the same time that the waste reduction rate was increasing, the amount of waste landfilled each year has also increased. Since 1994, the total amount of waste landfilled annually has grown from about 1.1 million tons to almost 1.7 million tons (see Figure 4). A significant part of this increase has been in the "other waste" category, which includes environmental cleanup wastes and other special wastes that generally originate from industrial activities. These wastes made up only 15% of the disposal tonnage in 1994, but now account for 30% of solid waste disposed.

The "post-consumer" waste shown in Figure 4 includes residential and commercial solid waste, plus construction and demolition debris. This figure is used by DEQ in computing recovery rates.

Figure 4. Historical disposal tonnages

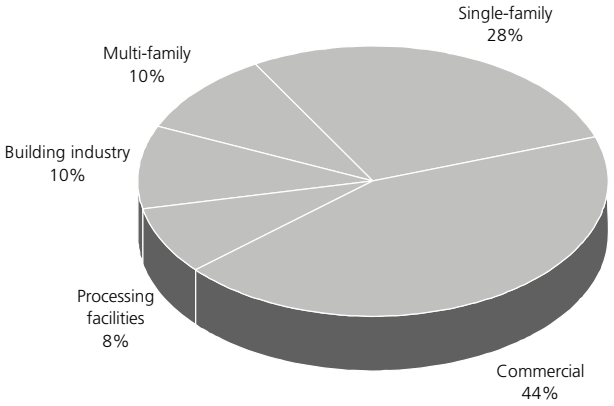


Amount of waste disposed by sector

The amount of waste disposed by each type of generator is shown in Figure 5. Commercial sources (including industrial and institutional waste generators) account for almost half of the waste disposed from the Metro region (44%). Single-family homes are next at 28% (this figure includes the amount of residential self-haul received at the Metro-owned transfer stations, since most of that waste is from single-family homes).

The proportions of these sources' contributions to the region's waste varies locally, depending on the amount of commercial and industrial generators in a given area. The amount of C&D waste generated in a specific area, for example, is related to the amount of construction activity. In the outer suburban areas of the Metro region, where substantial new construction of residences and businesses is currently taking place, C&D may account for half or more of the waste generated there.

Figure 5. Waste disposed by source*



**2002 DEQ Waste Composition Study*

In the long term, the relative proportions of waste from each sector will shift due to changes in the amount recycled or composted. Implementation of the goals and objectives in this Plan should further decrease the amount of waste disposed from business, building industry and residential sources.

Composition of the waste disposed

The portion of the waste stream that is landfilled still contains large amounts of materials that could be recycled or composted. The results of the most recent waste composition study (see Figure 6 and Table 1) show that an additional 344,500 tons of material (30% of the waste currently disposed) could be recycled through existing programs. Another 52,800 tons (4.5%) could be composted through existing programs and facilities.

The composition of waste generated by each sector (residential, business and building industry) is different. The building industry generates many recyclable materials such as wood, concrete, cardboard, metal, sheet rock, and land-clearing debris. Some types of businesses generate large quantities of waste paper, most of which is recyclable when it is separated from the smaller amounts of putrescible and nonrecyclable wastes generated at most locations. Assorted industries generate diverse wastes, such as grits and screenings, scrap from product manufacturing, specialized packaging and other substances that typically require case-by-case evaluation for recycling or reuse.

Residential sources generate a waste stream that contains a wide variety of materials. Among the recyclable residential materials are paper, metal, glass, plastic bottles, motor oil, and yard debris. The largest single material remaining in the residential waste stream is food waste (26% of the waste disposed). Infrastructure development in food waste collection may make it possible to recover that material, and soiled paper, for composting.

Figure 6. Composition of disposed waste

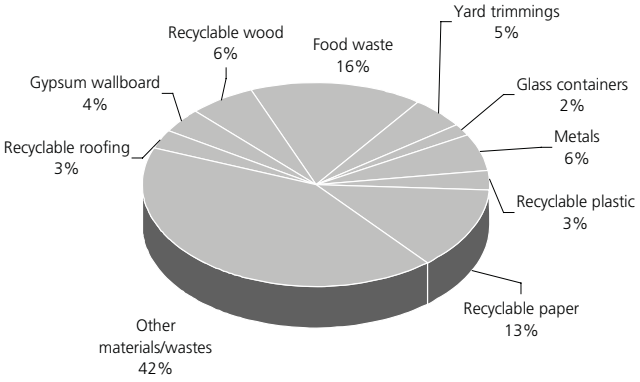


Table 1. Composition of disposed waste by tons*

Paper		Construction and demolition	
Recyclable	155,563	Recyclable wood	70,399
Nonrecyclable	96,648	Nonrecyclable wood	21,246
Plastic		Gypsum wallboard	51,549
Recyclable	33,861	Roofing, recyclable	30,998
Nonrecyclable	104,749	Roofing, nonrecyclable	2,880
Metals		Inerts (rock, concrete, dirt)	37,146
Cans and foil	14,491	Other C&D	36,788
Scrap metal	52,055	Textiles and furnishings	88,111
Glass		Electronics and elec. equip.	23,971
Containers	18,082	Hazardous wastes	10,138
Other glass	6,555	Other materials/wastes	57,912
Rubber	19,015		
Organics		Total	1,165,762
Yard trimmings	52,801		
Food waste	180,804		*2002 Data

The amount of recovery possible for many materials is constrained for various reasons, including factors such as a lack of market infrastructure and/or collection services, poor generator awareness, and certain government regulations. Variations in these factors among the generators give rise to variations in recovery performance. For example, because residential collection and processing infrastructure is well developed, and homeowners tend to be highly aware and motivated recyclers, the recovery rate for some residential materials is relatively high. Typically, about 50% of the waste generated in a single-family residence gets recycled or composted. On the other hand, businesses tend to be more focused on bottom-line financials than on the environmental impacts of their consumption. Despite a highly recoverable waste stream (mostly paper), businesses as a whole separate their recyclables less thoroughly than households and so send a higher proportion of recyclables to the landfill.

The quantities, composition and recovery potential for recyclable materials that are being disposed by various sources within the region have been analyzed and used in setting target goals for different programs and sources, as discussed in the section below on waste reduction goals.

Future trends and goals

This section is designed to show the effect that improved waste reduction programs would have on reducing the amount of wastes generated and disposed over the next 10 years. In this section, the effect of the Plan is measured by comparing regional performance, assuming Plan activities are implemented, with regional performance if waste reduction programs are not improved. The contribution of each of the improved programs to enabling the region to reach the statutory 64% waste reduction goal will be described.

Projecting waste generation

The total amount of waste generated (that is, the sum of what is recovered and disposed) is a function of changes in a number of demographic and economic factors, including population, household size, personal income levels and types of employment. Historically, the trend has been for waste to grow at rate greater than the rate of population growth.

Between 1994 and 2004, regional population grew about 18%, gaining 235,000 residents. Waste generation, however, grew by over 60%. This means that the rate of "per capita" waste generation (that is, total waste divided by population) grew at a rate of about 3.2% each year (see Table 2). During the economic slowdown of the early 2000s, the per capita generation rate flattened out, but it started to rise again in 2003 and 2004.

For this analysis, regional population growth is projected to average 1.75% per year and the "per capita" rate of waste generation is assumed to rise conservatively at 1.3% per year. (DEQ used this waste generation growth rate in its recent study of waste reduction programs and greenhouse gases.) Given these assumptions, by 2015 the region will have an additional 270,000 residents and the annual per capita generation rate will rise from 1.7 tons per person per year in 2004 to 2.0 tons per person per year in 2015.

Projected performance #1 – base case – maintain current programs

Figure 7 (page 13) portrays future waste generation amounts if there are no new waste reduction programs or enhancements to current efforts over the next 10 years. It assumes the population growth and increasing per capita waste generation rates as identified in Table 2. The

Table 2. Population and waste generation growth assumptions

	Actual		Projected		
	1995	2000	2005	2010	2015
Population*	1,305,100	1,451,650	1,550,092	1,696,296	1,821,181
Per capita generation**	1.33	1.50	1.75	1.86	1.99
Total waste generation	1,731,365	2,178,258	2,706,683	3,159,576	3,618,490

*Source: PSU Center for Population actual numbers. Regional forecast for four-county area was used to project annual growth: 1.82% from 2004-2010 and 1.42% from 2010-2015.
**Regional population divided by total waste generated (sum of recovered plus disposed).
Historical data through 2004, then grows at 1.3% per year through 2015.

Table 3. Projected regional performance - base case vs. achieving recovery goal*

	Actual		Projected		Change
	2004	2005	2010	2015	2004-2015
Recovered					
Base case	1,389,526	1,433,194	1,673,002	1,915,998	526,472
Achieve goal	1,389,526	1,515,743	1,832,554	2,098,724	709,198
					182,726
					35%
Disposed					
Base case	1,234,687	1,273,489	1,486,574	1,702,492	467,805
Achieve goal	1,234,687	1,190,941	1,327,022	1,519,766	285,079
					(182,726)
					-39%

*Both scenarios employ Table 2's assumptions on population and per capita waste generation growth.
Base case scenario - maintain 2004 recovery rate of 53% through 2015.
Achieve goal scenario - 58% recovery rate reached in 2009, then maintained through 2015.

projections also assume that the recovery rate achieved in 2004 (53%) will remain the same through 2015.

Under these assumptions, the waste generated over 10+ years will grow by about one-third or by almost one million tons, from 2.6 million tons in 2004 to 3.6 million tons in 2015. Both recovery and disposal will also grow by one-third, with roughly another half-million tons being recovered and disposed by 2015.

Projected performance #2 – achieve goal – implement new waste reduction activities

Figure 8 (page 13) shows future waste generation, recovery and disposal amounts if the program activities described in this Plan are implemented and perform as expected. Achievement of the 2009 goal depends upon successful implementation of enhanced waste reduction programs for commercial organics, business, the building industry and multi-family housing. (Additional detail on these programs is provided in Chapter IV, Program areas.)

This projection makes the same assumptions regarding the rates of population growth and waste generation rates as the base case (see Table 2), but the recovery rate is projected to rise from 53% in 2004 to 58% in 2009 and remain there through 2015. Under both projections the total amount of waste generated will grow from 2.6 million tons in 2004 to 3.6 million tons in 2015. In the "achieve goal" projection, however, improved waste reduction programs will capture more of that waste than in the "base case" projection. In 2015, improved programs will have reduced the amount of waste disposed that year by about 185,000 tons – a 40% reduction as compared with the base case (see Table 3).

If waste prevention efforts and other factors keep the per capita generation rate from increasing, then the future amounts to be handled by waste reduction and disposal programs would be significantly less. Table 4 shows the results of the "Achieving goal" projection if the per capita generation rate does not continue to increase. If per capita generation were to level off, by 2015 the total additional amount of waste generated per year would decline by almost 50% and the amounts going to disposal would drop by almost 75%. The Plan incorporates waste prevention elements in all the waste reduction programs, but whether these efforts can significantly reduce the waste generation rate is not known. The DEQ, with Metro's participation, is undertaking a stakeholder process to examine the complex factors behind waste generation and, if possible, design programs that reduce waste generation while preserving future economic vitality.

Table 4. Projected regional performance - achieving goal vs. achieving goal plus constant waste generation growth*

	Actual		Projected		Change
	2004	2005	2010	2015	2004-2015
Recovered					
Achieve goal	1,389,526	1,515,743	1,832,554	2,098,724	709,198
Constant per capita	1,389,526	1,496,291	1,695,900	1,820,755	431,229
					(277,969)
					-39%
Disposed					
Achieve goal	1,234,687	1,190,941	1,327,022	1,519,766	285,079
Constant per capita	1,234,687	1,175,657	1,228,065	1,318,478	83,791
					(201,288)
					-71%
Generated					
Achieve goal	2,624,213	2,706,683	3,159,576	3,618,490	994,277
Constant per capita	2,624,213	2,671,948	2,923,965	3,139,233	515,019
					(479,258)
					-48%

*Achieve goal scenario – Table 2 for population and per capita generation.
Constant per capita scenario - Table 2 population, 2004 per capita generation through 2015.
Both scenarios project 56% recovery rate reached in 2005, 58% in 2009, then maintained through 2015.

Figure 7. Waste disposed and recovered - base case

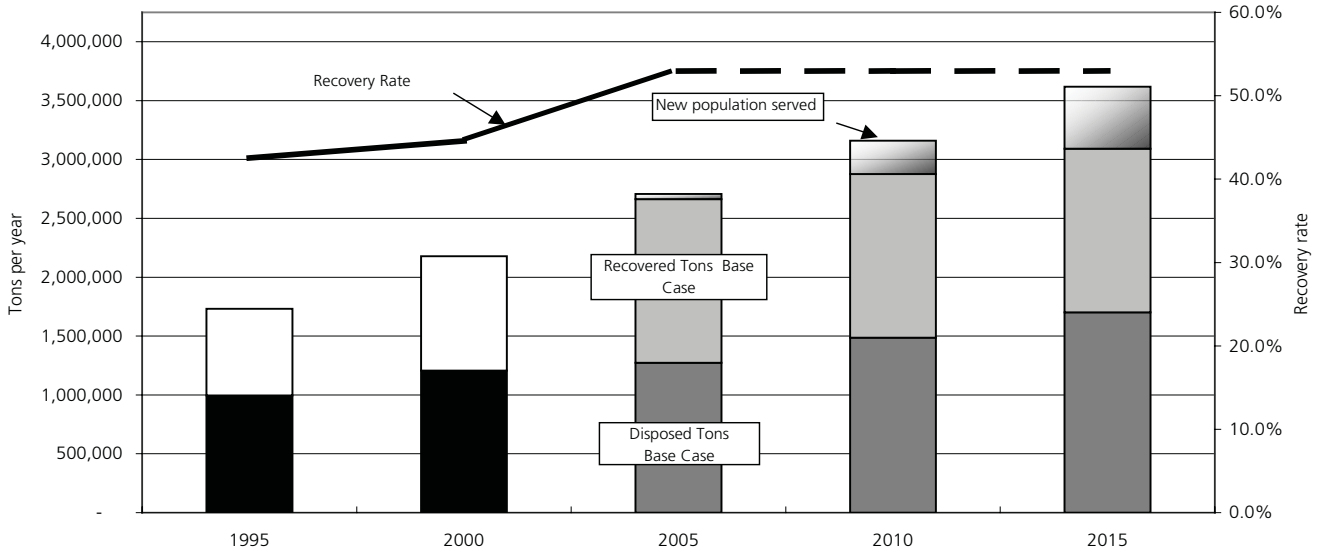


Figure 8. Waste disposed and recovered - achieve goal

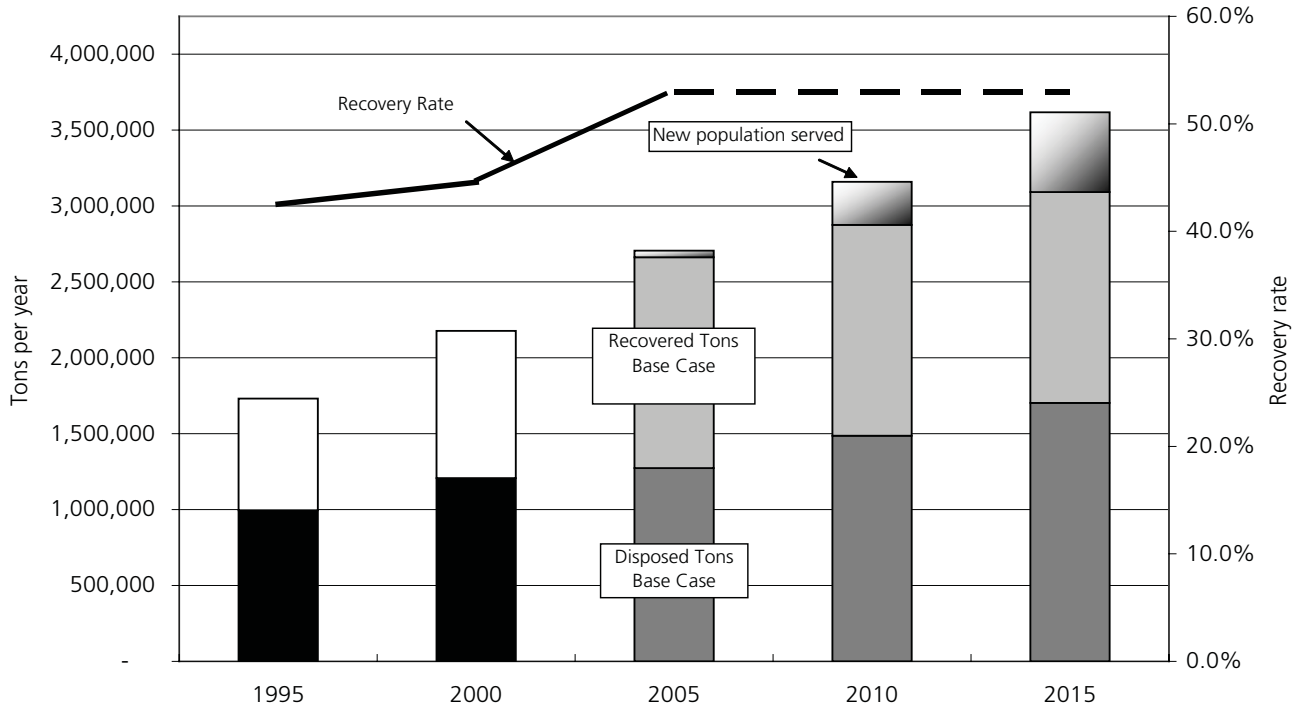


Table 5. Tons needed to achieve the 64% goal

Program areas	Actual 2004	Tons to Goal	Projected 2009
Commercial organics	8,435	37,530	45,964
Building industry	269,868	87,865	357,733
Business	381,554	114,273	495,827
Residential multi-family	13,034	10,170	23,203
Residential single-family	219,428	54,160	273,589
Other recovery	497,207	83,195	580,402
Total recovery	1,389,526	387,192	1,776,718
Disposal	1,234,687	51,902	1,286,589
Generation	2,624,213	439,093	3,063,307
Waste recovery rate	53%		58%
Waste prevention credits	6%		6%
Total Metro waste reduction rate	59%		64%

Achieving the 64% goal

To achieve the 64% waste reduction goal, an additional 387,000 tons of material will need to be recovered annually from the regional waste stream. The additional tonnages can largely be achieved through program activities in five key areas: commercial organics, business, the building industry, single-family housing and multi-family housing. Table 5 shows the additional tons by program area that will be needed to reach the 64% goal.

The projected 2009 performance of program areas listed in Table 5 are based on current estimates of what could reasonably be recovered from the remaining materials in the waste stream, given certain operational and policy developments. The estimate for increased recovery of commercial organics is predicated on expanded participation of large food waste generators in the City of Portland and other jurisdictions in the region, as well as the siting and operation of a food waste composting facility in the region. Estimates for increased recovery in the business and building industry sectors are based on results from other areas of the country where mandatory business recycling or disposal bans have been implemented. The implementation of similar regulatory requirements in this region will be necessary to realize significant increases in dry waste recovery. Increased recovery from the multi-family sector is anticipated to result from region-wide implementation of a uniform collection system (two sort) that will allow for more effective regional outreach targeted to those residents. Finally, the estimate for increased recovery in the single-family residential sector is based on the expanding trend to recycling roll carts in jurisdictions throughout the region. Experience locally and elsewhere in the country provides a clear indication of tonnage to be gained in switching from bins to roll carts for recycling.

Guiding direction for achieving the 64% waste reduction goal is shown in the rest of this Plan, first by establishing the vision, values and policies that guide future decisions and then by identifying specific objectives for ensuring progress in each program area.

Getting to goal: required recycling

In 2003, a regional work group was convened by Metro Council to develop a "contingency plan" containing strategies that would enable the region to reach its waste reduction goal. The work group evaluated contingency strategies for the building industry, business and commercial organics sectors. The strategies reviewed included both methods to improve the current voluntary approach to recycling as well as the implementation of "required recycling," i.e., regulatory approaches that would either require generators to recycle certain materials or ban the disposal of certain materials at landfills.

Strategies were evaluated using criteria including: impact – how much tonnage would each strategy divert; use elsewhere – strategies being used successfully in other communities in the United States and Canada; and ease and cost of implementation – strategies should be legally and financially feasible. Based on this evaluation, the work group recommended that:

- Metro should require building industry wastes to be processed at material recovery facilities before being landfilled.
- Metro should require local governments in the region to adoptstandards that require the recycling of specific materials.

The work groups recommendations were received by Metro Council and implementation programs based on the recommendation for both the business and the building industry sectors are under development. This Plan presumes the programs will be adopted by Metro Council unless additional information is forthcoming that determines the programs are infeasible.

Chapter III
Guiding direction

This chapter presents the long-term vision for regional waste reduction as well as the values and policies that provide direction. As used in this Plan:

- the vision is the ultimate ideal or aspiration;
- the values represent a set of principles held by the region that will guide and shape policies; and
- the policies are statements that guide programs.

Plan vision

The Plan envisions a significant evolution in today's comprehensive solid waste management practices to a future where waste is viewed as an inefficient use of resources. Through cooperation and shared responsibility among producers, consumers and government, the region will contribute to the sustainable use of natural resources to enhance our community, economy and environment for current and future generations.

Regional values

1. Resource conservation

Protecting the environmental quality of the region by conserving resources and reducing toxic and solid waste to ensure adequate resources for future generations.

2. Public health and safety

Ensuring sound waste management operations, eradicating illegal dumps and reducing toxic substances to maintain quality of life for the region's residents.

3. Shared responsibility

Promoting a shift away from managing products after they have become wastes to instead include manufacturers and users in bearing or avoiding the costs associated with product management.

4. Life-long learning

Raising awareness among all age groups of ways to conserve resources and reduce impacts on the environment.

5. Coordination and cooperation

Addressing regional issues and developing regional programs in partnership with local government, the private sector, citizens and other key parties.

6. Performance

Emphasizing outcomes in programs and services to maximize efficiency and effectiveness.

7. Access to services

Providing residential and commercial customers with access to a range of collection and facility service options.

Waste reduction policies

Policy 1.0, Preferred practices

Solid waste management practices will be guided by the following hierarchy:

- First, reduce the amount of solid waste generated;
- Second, reuse material for the purpose for which it was originally intended;
- Third, recycle or compost material that cannot be reduced or reused;
- Fourth, recover energy from material that cannot be reduced, reused, recycled or composted so long as the energy recovery facility preserves the quality of air, water and land resources;
- Fifth, landfill solid waste that cannot be reduced, reused, recycled, composted or from which energy cannot be recovered.

Policy 2.0, Sustainability alternatives evaluation

Waste reduction or other sustainability alternatives identified for business practices or programs will be evaluated based on (a) technological feasibility; (b) economic comparison to current practice; and (c) net environmental benefits.

Policy 3.0, Recycling service provision

Recycling services will be offered as a component of residential and commercial waste collection in the region.

Policy 4.0, Source separation

Source separation is the preferred approach in the region for ensuring quality secondary materials for recycling markets, but other forms of material recovery, such as post-collection separation, will not be precluded.

Policy 5.0, Market development

Enterprises that can significantly expand end-use opportunities for reuse or recycling will be fostered by the region.

Chapter IV
Program areas

This chapter outlines specific goals and objectives to guide the direction of waste reduction programs for the next 10 years. It is organized into four sections: Waste reduction, Education services, Toxicity reduction and Product stewardship. The objectives in these four sections are designed to achieve the region's goals, and will be used to guide the annual work plans produced by Metro and local governments.

Many of the programs will continue to focus on sectors where the most recoverable tonnage remains, as these will provide the greatest opportunity for achieving our statutory goal. These programs will be designed in the direction of recovery, while adhering to the solid waste hierarchy of reduce, reuse, recycle/compost, recover energy and landfill. Other programs will look beyond generator-based strategies and will focus on the toxicity or recyclability of products by addressing their design and manufacture (i.e., product stewardship).

These waste reduction efforts will require coordination and collaboration among Metro, local governments, service providers, the Oregon Department of Environmental Quality and the public. The coordination of efforts between those providing education and outreach services, for example, is important to avoid duplication of services and to reach the largest audiences. Collaboration can also assist in addressing complex environmental problems that cannot be solved by one agency, such as partnerships between hazardous waste and water quality programs to achieve the goals of protecting and restoring streams and critical habitat.

Waste reduction

Goal: Increase the sustainable use of natural resources by achieving the waste reduction goal of 64% by 2009.*

Achieving the region's vision of a future where waste is viewed as an inefficient use of resources requires residents and businesses to increase their use of practices that reduce waste. Waste reduction practices aim to reduce the amount of waste generated and disposed, using strategies such as waste prevention, reuse, recycling, composting or energy recovery. Over the past 10 years, the region has made significant progress in reducing waste and achieving a 59% waste reduction rate in 2004. More can be done, but how much more? If 90% of recyclable material could be collected, the waste reduction rate could be as high as 78%. For at least the next four years, however, regional program efforts will be focused on meeting the statutory waste reduction goal of 64%.

Specific objectives describing how each sector (single-family residential, multi-family residential, business, building industry and commercial organics) will contribute to this goal are described in the pages that follow. The creation of regionally coordinated plans with services accessible to all is the foundation of each set of objectives.

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*This goal is consistent with state law requiring the counties of Clackamas, Multnomah, and Washington to meet a 64% "recovery rate." The state's "recovery rate" term is somewhat of a misnomer since recovery typically refers to recycling, composting, and energy recovery, while this three county region is also allowed 6% in "credits" for waste prevention programs. Given that our current 59% rate is a combination of tons recovered and credits for programs that prevent waste, this Plan uses the umbrella terms "waste reduction rate" and "waste reduction goal" when referring to what state law calls a "recovery rate."

Single-family residential

Following a boost to curbside recycling rates when commingled collection was introduced, increases to the recycling rate have tapered off recently. In 2004, about 50% of residential waste was recycled through curbside services. To stimulate additional participation and to ensure steady progress toward the waste reduction goal, the region has identified the objectives shown below.

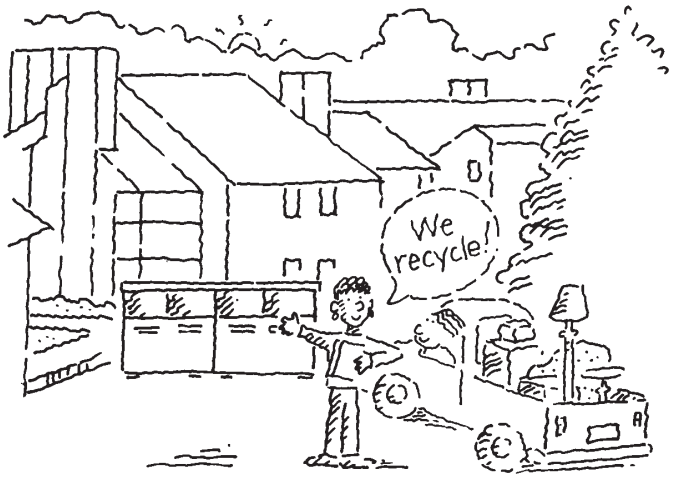
1.0	**Conduct annual outreach campaigns that focus on preventing waste, reducing toxicity and/or increasing the quantity and quality of recycling setouts.**	To increase the quantity and quality of materials set out for recycling in regional recycling programs, regular campaigns will be undertaken. Regional campaigns will be cooperative in nature and will use a clear and consistent message across the region.
2.0	**Identify and implement service provision changes and incentives to increase recycling, and identify and evaluate new collection technologies.**	Incentives in the form of monetary savings or convenience can encourage residents to participate in waste reduction programs. Currently, collection rates are structured to provide some degree of savings with increased recycling and reduced solid waste (e.g., mini-can rates, monthly collection, etc.). With emerging solid waste collection technologies, it is important to evaluate new collection techniques and options that may increase efficiencies and recycling rates. Research will be conducted on a cooperative regionwide basis to identify potential new collection options and opportunities for additional incentives through the residential rate structure, service options or other means.
3.0	**Expand curbside service by adding new materials as markets and systems allow.**	The region's residents continue to seek more opportunities to recycle additional materials at the curb. Markets for recycled materials can be volatile, and it is vital to ensure that it is technically and economically feasible to collect and process any new materials before they are added to curbside collection.
4.0	**Promote home composting and appropriate on-site management of yard debris and food waste.**	Composting and other on-site management is the least expensive and most environmentally sound option for handling yard debris and food scraps. Half of the region's residents participate in this activity and divert more than 50,000 tons of organics annually. Future activities in this area will include providing technical support for current on-site composters and developing more cost-effective home compost bin promotions that target interested residents.
5.0	**Develop residential organics collection programs when economically and technically feasible.**	Although home composting of vegetative food waste and yard debris is the preferred method of managing yard debris and food scraps, the region will also examine the economic and technical feasibility of implementing curbside collection of residential food wastes to further increase organics recovery.

Monitoring and implementation methods

Detailed program planning and implementation of these objectives will be coordinated through the Local Government Recycling Coordinators group, which includes local governments, Metro and Oregon DEQ staff. Implementation plans will be presented for review to the Regional Solid Waste Advisory Committee and Metro Council annually. The plans will detail annual programs, costs, and roles and responsibilities. Local governments and Metro will be jointly responsible for the implementation of these plans.

Multi-family residential

Recycling services for residents living in dwellings of five or more units ("multi-family" buildings) currently contribute to regional recovery levels but could be collecting more material. These households, which range from suburban garden apartments to high-rise buildings in dense urban areas, present a number of challenges and opportunities for recycling. Although technically these are defined as residential dwellings, most multi-family units share common garbage and recycling areas and are serviced as commercial accounts by garbage haulers. Turnover in multi-family dwellings is much higher than in single-family housing, making more frequent education and outreach especially important. According to the 2002 American Housing Survey, people who rent (either apartments or houses) typically stay in the same location for less than two years while homeowners stay at the same location for about seven years.



The following objectives are designed to increase the efficiency and effectiveness of multi-family residential recycling programs.

1.0 Implement a program suited to the needs of multi-family housing that is uniform and consistent throughout the region.

The region will cooperatively develop a program tailored to the needs of multi-family housing.

2.0 Provide annual regional education and outreach targeting multi-family housing.

Outreach materials will be designed to address the barriers and benefits of recycling in a multi-family setting and will be adapted to a variety of conditions and collection systems.

3.0 Identify and evaluate new collection technologies for implementation on a cooperative regionwide basis.

Multi-family recycling presents many unique challenges. Emerging collection technologies will be evaluated on a cooperative regionwide basis to identify potential opportunities to enhance and improve collection.

Monitoring and implementation methods

Implementation of these objectives will be coordinated through the intergovernmental Multi-Family Waste Reduction Work Group. This work group will present its implementation plans for review to the Regional Solid Waste Advisory Committee and Metro Council annually. The plans will detail annual programs, costs, and roles and responsibilities. Local governments and Metro will be jointly responsible for the implementation of these plans.

Business

Businesses hold the greatest potential for increasing material recovery in the region, as they generate nearly half the region's waste. For example, 25% of the garbage businesses throw away (more than 120,000 tons annually) is paper that is fully recyclable. An additional 68,000 tons of paper and containers are needed to meet the 2009 waste reduction goal. To help achieve this goal, programs for this sector focus on providing businesses with direct assistance to develop and improve their waste reduction programs.

The following objectives are intended to help non-residential waste generators improve their recycling programs, initiate waste prevention practices, increase their purchases of recycled-content products and incorporate sustainable practices into their operations.

1.0	**Provide businesses with annual education and technical assistance programs focused on waste reduction and sustainable practices.**	The business community has indicated in a variety of forums that tailored one-on-one education and assistance is a preferred approach to increase recycling rates. By offering a comprehensive education and technical assistance program to businesses, the region addresses the needs of businesses that want to start or improve their waste reduction programs. It also focuses attention on a waste stream that generates a large percentage of the region's waste.
2.0	**Develop information and resource materials that demonstrate the benefits of waste reduction and sustainable practices to support the business assistance program.**	Information and resources, such as fact sheets, recycling containers, decals and Internet tools, provide additional tools to help businesses participate in the assistance program and improve their waste reduction practices.
3.0	**Conduct annual regional outreach campaigns to increase participation in the business assistance program and to promote recycling opportunities and other sustainable practices.**	Outreach campaigns stimulate individual business interest and broadly promote waste reduction ideas to a large portion of the business sector.
4.0	**Implement waste reduction and sustainable practices at government facilities.**	Government facilities make up a large portion of the business waste stream in the region. Improving practices at government facilities shows a commitment to serve as a model for the business community.

5.0 Identify and implement opportunities for increasing recovery in the business sector, including service provision options, incentives for recycling and regulation.

Incentives in the form of monetary savings, increased convenience and a variety of service options can encourage businesses to participate in waste reduction programs. Currently, collection rates and service standards are set by some, but not all, jurisdictions in the region. Research will be conducted on a cooperative regionwide basis to identify potential opportunities for additional incentives through commercial rate structures, service standards or other means. In addition, many municipalities around the country (including Portland and Seattle) have passed laws that either require items to be recycled or that ban them from landfill disposal. These regulatory approaches will be pursued if regional implementation is feasible.

6.0 Periodically review end-use markets to assess cost-effectiveness, material quality and capacity.

Conducting periodic market studies and reviewing end-use markets to ascertain the viability of recycling various materials can help provide businesses with up-to-date information on recycling opportunities and preparation guidelines. Many businesses generate materials that have historically had little opportunity for recycling, and need to be informed in a timely fashion if new materials become recyclable.

Monitoring and implementation methods

Implementation of these objectives will be coordinated by Metro through the intergovernmental Business Recovery Work Group. The work group will present its implementation plans for review to the Regional Solid Waste Advisory Committee and Metro Council annually. The plans will detail annual programs, costs, and roles and responsibilities. Local governments and Metro will be jointly responsible for the implementation of these plans.

Building industry

Regional efforts to manage construction and demolition debris follow a three-pronged approach:

- preventing waste through salvage, deconstruction and reuse;
- developing effective construction and demolition debris recovery programs for debris that is not suitable for deconstruction and salvage; and
- maintaining and supporting viable and diverse markets for recyclable and reusable building materials.

The primary targets for increased recovery of construction and demolition debris include new commercial construction under $3 million, commercial remodel/tenant improvement, complete and selective building demolition, and residential remodeling performed by licensed contractors.

The following objectives are designed to support the building industry in its efforts to develop sustainable practices promoting environmental protection and resource conservation.

1.0 Develop a regionwide system to ensure that recoverable construction and demolition debris is salvaged for reuse or is recycled.

The region's building industry currently enjoys a full range of waste reduction options and choices, including salvage and reuse, source-separated recycling, post-collection recovery and disposal. The existence of low-cost disposal at two regional landfills severely constrains the growth of salvage and recycling. The region will work with stakeholders to develop a program that ensures construction and demolition debris in the region is processed before disposal and recovered to the maximum extent possible.

2.0 Provide the building industry with annual outreach, education and technical assistance programs that demonstrate the benefits of green building, including building material reuse and recycling.

The building industry generally supports reuse and recycling, but often lacks information on these opportunities. Maintaining an ongoing outreach, education and technical assistance program helps builders make more informed decisions about managing their waste. Green building is a growing enterprise and it is important to work cooperatively with local green building programs to promote reuse and recycling.

3.0 Include sustainable practices and products in the development, construction, renovation and operation of government buildings, facilities and lands.

Construction, renovation and maintenance of government buildings and facilities represents a large portion of the construction activity in the region. These projects result in significant quantities of construction and demolition debris and present an opportunity to serve as models and demonstration projects for businesses in the region.

4.0	**Support the development of and access to viable end-use markets for construction and demolition materials.**	Periodic market studies will be conducted to assess the viability and diversity of local salvage markets or markets for materials typically found in construction and demolition waste. If markets appear weakened, then technical, monetary or research assistance may be provided to strengthen, maintain and diversify markets for construction and demolition materials.

Monitoring and implementation methods
Implementation of these objectives will be coordinated through the intergovernmental Construction and Demolition Recovery Work Group. The work group will present its implementation plans for review to the Regional Solid Waste Advisory Committee and Metro Council annually. The plans will detail annual programs, costs, and roles and responsibilities. Local governments and Metro will be jointly responsible for the implementation of these plans.

Commercial organics

The region follows a two-track approach to organic waste management. The first track emphasizes preventing waste by donating usable food to food banks and other uses such as animal feed when appropriate. The second track focuses on implementing a collection and processing system to recover (i.e., compost) organic waste that cannot be diverted to those higher end uses. Regional efforts currently target large organics-rich businesses and industries, such as large retail grocery stores, restaurants, hotels, institutional cafeterias, wholesale produce warehouses and food processors.

The following objectives are designed to support the use of sustainable practices by businesses generating organic wastes.

1.0	**Provide outreach and education programs for targeted businesses to support and increase organic waste prevention and diversion practices.**	Donation is the highest end use for surplus food, and an established system to collect and redistribute donated food exists in the region. Emphasizing food donation also helps to address the problems of hunger in the region and the state.
2.0	**Enhance access to organics recovery services throughout the region.**	Organic waste that cannot be diverted to higher end uses may be collected for composting. The region will focus on increasing the composting opportunities that are available to businesses; every effort will be made to use existing infrastructure and to tailor generator and collection programs to fit within existing operations and regulatory systems.
3.0	**Implement organic waste recovery programs at government facilities where feasible.**	Government facilities that generate significant quantities of organic waste will serve as models for businesses in the region by adopting organics recovery programs.

4.0	**Work to ensure that compost products are specified for use in government projects.**	Metro and local governments will coordinate with other government agencies to incorporate the standard use of compost products for landscaping, soil conditioning and erosion control on publicly-funded projects.
5.0	**Periodically review the viability of end-use markets and assist with market development efforts.**	Conducting periodic market studies to assess the viability of local compost markets is an important activity. If market trends indicate a weakening in demand, Metro and others can assist regional compost facilities with market development as needed to strengthen and maintain the marketability of compost and soil amendment products made from organic materials.

Monitoring and implementation methods

Implementation of these objectives will be coordinated through the intergovernmental Organics Recovery Work Group. The work group will present its implementation plans for review to the Regional Solid Waste Advisory Committee and Metro Council annually. The plans will detail annual programs, costs, and roles and responsibilities. Local governments and Metro will be jointly responsible for the implementation of these plans.

Education services

Goal: Increase the adoption of sustainable behaviors by households and businesses through increased knowledge, motivation and commitment.

Achieving the region's vision of a sustainable community will require strong public support. Regional education and outreach efforts help build this support by supplying the information that residents and businesses need to make environmentally responsible choices in their daily lives. Metro and local governments also provide a wide range of information through a variety of media. The Metro Recycling Information hotline responds to nearly 100,000 calls per year and the companion website has a host of tools and resources available. Local governments provide ongoing outreach and education through mailed materials and events.

Education and outreach efforts also build and reinforce the resource conservation and environmental protection ethics that are essential to creating a sustainable community. Regional education efforts start in the schools. Targeted education in schools, including elementary and secondary programs provide age-appropriate information and concepts about resource conservation and environmental awareness, as well as programs designed to help teachers incorporate resource conservation concepts into their teaching. There are free classroom presentations and educational materials on waste prevention, recycling, composting and household hazardous waste reduction for elementary and secondary schools. In addition, technical assistance is available to help schools set up a waste reduction and recycling program or expand existing programs.

Metro and local governments also provide a wide variety of adult education programs. In particular, governments and Metro have been promoting household hazardous waste (HHW) prevention and proper disposal education and outreach to the region for many years. Education targeted to adults about household hazardous chemical use and less toxic alternatives are ongoing through efforts such as the natural gardening program.

Information services and adult education

Numerous organizations within the region, including local governments, private businesses and non-profit agencies, provide disposal, recycling and other waste reduction services. Offering residents and businesses easily accessible and accurate referrals to these services is critical to reaching regional waste reduction goals.

1.0	**Provide a regional information clearinghouse and referral service.**	Maintaining communication with and providing education to residents and businesses about waste reduction programs and services offered within the region is essential to help them make environmentally responsible choices.
2.0	**Provide education and information services for residents and businesses that are targeted to specific waste streams, materials or generators.**	Information services are more effective when they address specific needs and use methods that match how generators receive and respond to information on waste reduction opportunities. Education services are critical part of each waste reduction program area (Single-family, Multi-family, Business, Building Industry and Commercial organics) targeted in the Plan.

Monitoring and implementation methods

Metro and local governments will work cooperatively to develop and distribute education materials for households and businesses. Metro will research and provide technical assistance on the most effective methods to educate households and businesses on waste reduction options. Local governments, haulers and Metro will cooperate and communicate on the implementation of these education programs. Implementation of these objectives will be coordinated through the intergovernmental work groups.

School education

Life-long learning about the value of resource conservation and the importance of protecting the environment begins with children in elementary and secondary schools. The guiding approach is to develop curriculums and programs that are appropriate for each age group and that cumulatively help build an environmental stewardship ethic.

1.0 Provide education programs that help teachers incorporate resource conservation concepts, including waste prevention and toxicity reduction, into their teaching.

Today's teachers have a multitude of demands on their time and resources. Providing teachers with assistance on curriculums and programs helps teachers meet their needs while simultaneously assisting the region in meeting its waste reduction goals.

1.1 Provide programs at the elementary level that establish fundamental concepts of resource conservation and environmental awareness through active learning experiences.

Elementary students are often eager to learn about ways that can help make the world a better place. Providing age-appropriate information and concepts about resource conservation that encourage awareness and participation will build a strong foundation for life-long sustainable behaviors.

1.2 Provide programs at the secondary level (middle and high school) that will extend concepts established at the elementary level and prepare students for making responsible environmental choices in everyday adult life.

By middle and high school, students can begin to make connections between their daily choices and behaviors and how they impact the environment. By providing opportunities to encourage their critical thinking skills, students can gain an appreciation for and a sense of stewardship for the environment that can carry over into adulthood.

2.0 Work with schools and teachers to increase support for regional solid waste programs and create opportunities for partnerships.

Schools are vital institutions within our community. Working and partnering with schools provides an opportunity to educate the next generation about resource conservation programs. Schools are also large resource users and waste generators and need to be active participants in waste reduction programs.

Monitoring and implementation methods

Metro and local governments will continue to provide school waste reduction education programs. Metro and local governments will provide technical assistance to school recycling programs and will collaborate on the development and distribution of education materials to meet local needs. Implementation of these objectives will be coordinated with various waste reduction work groups and the Regional Solid Waste Advisory Committee.

Hazardous waste management

Goal: Reduce the use and improper disposal of products generating hazardous waste in order to protect the environment and human health.

Homeowners use a variety of products in their daily life, some of which pose risks to human health and the environment during use, storage and disposal. Examples of these risks include fires or child poisonings due to improper storage; injuries to disposal system workers (haulers, transfer station or landfill workers); contamination of streams and fish from runoff of lawn and garden care products; and pollution of streams or groundwater from improper disposal of auto products such as used oil or antifreeze.

Historically, the region's approach to dealing with the problem has been to provide disposal alternatives for the public through collection facilities and events. Collection programs are costly to operate, however, and waste volumes continue to increase, while only a portion of the total waste generated each year comes into the collection program. As a result, in recent years there has been growing interest in preventing the generation of household hazardous waste through increased education and outreach. In addition, the region is looking toward product stewardship to transfer responsibility from local governments back to manufacturers and retailers (see the section on product stewardship).

Hazardous waste reduction

Changing the way people use products in their home is a very challenging undertaking. Traditional education techniques such as informational brochures can be ineffective in getting people to change long-standing behavior. The large number of households in the region, wide array of products, and competing messages from manufacturers and retailers all pose barriers to encouraging residents to change their behavior. Given these challenges, regional education and outreach efforts are paying increased attention to new methods to get residents to engage in more environmentally sustainable behavior.

The objectives for achieving hazardous waste reduction are shown below.

1.0 Provide hazardous waste education programs that focus on behavior change.

The region will pursue methods to tailor education messages to more effectively bring about behavioral changes in ways that can benefit public health and the environment. Programs will include learning about and targeting specific audiences that use hazardous products, identifying barriers to changing these behaviors, and overcoming these barriers. Education on hazardous products in the home will also be a part of Metro's school age education programs.

1.1 Provide hazardous waste education programs that focus on those products whose toxic and hazardous characteristics pose the greatest risks to human health and the environment, or that are very costly to properly dispose or recycle.

With limited resources available for hazardous waste reduction efforts, it is important to focus on the types of waste that have the greatest health, environmental, and financial impacts. Focusing on pesticides, mercury and other persistent bioaccumulative toxins (PBTs), for instance, is consistent with these priorities. As more understanding is gained on the health and environmental impacts of hazardous wastes, education programs will focus on those wastes that are the most detrimental to human and environmental health.

1.2	**Provide hazardous waste reduction messages and information to all customers bringing waste to household hazardous waste collection sites.**	A large number of the region's residents are already taking one step by bringing their leftover hazardous products to collection sites. This audience is likely to be receptive to information about the hazards of those products and the use of less toxic alternatives.
1.3	**Coordinate hazardous waste education efforts with related efforts conducted by government agencies and community groups in the region and in other areas.**	Along with the hazardous waste reduction efforts conducted by Metro, a number of other organizations in the region, such as water and air quality agencies, are involved in similar efforts. Coordination can eliminate duplication of efforts and can help solve problems that are too complex for any one group to address. Coordinating with hazardous waste education efforts in other areas can help keep local educators informed of the latest research and the successes of approaches that others have tried.
2.0	**Research and develop tools to measure the generation, impacts and reduction of hazardous waste, when this can be accomplished at a reasonable cost.**	To reduce the environmental and health impacts of hazardous products, it is important to fully characterize their effect, but data are limited on many important aspects of household hazardous waste use and disposal. When it can be done at a reasonable cost, the region will acquire quantitative information on aspects such as purchasing, generation and disposal practices; repeat users; specific environmental and health impacts; consumer attitudes and behaviors; and the effectiveness of behavior change programs.

Monitoring and implementation methods
Metro will continue to provide annual reports as required by permits. Implementation of these objectives will be coordinated with various waste reduction work groups and the Regional Solid Waste Advisory Committee.

Hazardous waste collection

Even with significant efforts invested in preventing the generation of hazardous wastes, substantial volumes of hazardous wastes will still need to be managed and properly disposed. The region should provide convenient, safe, efficient and environmentally sound collection and disposal services for hazardous waste that cannot be eliminated through prevention and education.

Hazardous waste collection objectives are shown below.

1.0	**Manage collected waste in accordance with the hazardous waste hierarchy: reduce, reuse, recycle, energy recovery, treatment, incineration and landfill.**	The hazardous waste hierarchy differs from the solid waste hierarchy in that composting is not an option for hazardous waste. In addition, the options of treatment and incineration (without energy recovery) are acceptable for hazardous waste. For certain types of waste, treatment and incineration are the most environmentally sound options. To maximize the environmental soundness of the disposal methods selected, this hierarchy will be used when procuring contractors for ultimate disposal of collected household hazardous wastes.

2.0	**Coordinate collection programs with waste reduction and product stewardship efforts.**	When waste reduction efforts target particular wastes due to toxicity or cost concerns, collection programs will be available for disposal of the targeted waste. In some cases, however, Metro will not undertake collection but instead will pursue waste prevention or product stewardship solutions. In other cases, the convenience of Metro's collection efforts may need to be increased when this is consistent with waste reduction goals and can be done in a cost-effective
3.0	**Conduct waste screening programs at solid waste facilities to minimize the amount of hazardous waste disposed with solid waste.**	In spite of the availability of collection programs, some hazardous waste is still put into the trash. Effective screening programs will be used at solid waste facilities to keep this hazardous waste from the landfill.
4.0	**Use solid waste facilities efficiently and effectively for the delivery of collection services.**	Existing solid waste facilities that serve the public will be used as collection points for household hazardous waste. In some cases, these facilities may serve as the site of permanent collection depots; in others, they may serve only as occasional sites as a part of a schedule of temporary events.
5.0	**Maximize the efficiency of public collection operations, search for the most cost-effective methods and place a high priority on worker health and safety.**	To maximize the amount of waste properly managed with limited financial resources, collection programs must operate in an efficient manner. Program operators will continue to identify ways to reduce expenditures for materials, labor and disposal contractors, while maintaining high standards for environmental protection, worker health and safety, and customer service. Wastes brought to household hazardous waste collection centers can pose a wide variety of risks to the workers handling them. It is important to have a comprehensive health and safety program in place to properly protect these workers.
6.0	**Offer a Conditionally Exempt Generator (CEG) program to manage waste from small businesses.**	Although while federal and state laws allow small businesses that are classified as Conditionally Exempt Generators (CEGs) to dispose of their hazardous waste in the trash, Metro discourages this practice. As part of the effort to keep this waste out of the solid waste system, Metro operates a disposal program that provides a convenient and economical way for these generators to properly dispose of their wastes.
7.0	**Implement bans on disposal of specific hazardous products as needed to address public health and environmental concerns.**	Some localities around the country have passed laws to ban the disposal of some or all hazardous products. When disposal of specific products poses a known risk to public health or the environment in the region, and there are convenient collection services available for such products, disposal bans will be implemented.

Monitoring and implementation methods

Metro will continue to provide annual reports as required by permits for hazardous waste collection methods. Implementation of these objectives will also be coordinated with various waste reduction work groups and through annual reports to the Regional Solid Waste Advisory Committee.

Product stewardship

Goal: Shift responsibility to manufacturers, distributors and retailers for ensuring that products are designed to be nontoxic and recyclable, and incorporate the cost of the product's end-of-life management in the purchase price.

Over the past decade, state and local governments have been faced with finding solutions to rising waste quantities, strong competition for limited fiscal resources, and a growing amount of expensive and difficult-to-recycle products. These problems resist traditional solid waste management methods, which focus primarily on improving end-of-life management through better recycling and disposal programs. Product stewardship has emerged as a way to help deal with these problems.

Product stewardship is defined as: a approach to managing the lifecycle costs of a product in which a product's designer, producer, seller and user share the responsibility for minimizing the product's environmental impact throughout all stages of the product's life cycle. The greatest responsibility lies with whomever has the greatest ability to affect the overall environmental impacts of the product.

This concept aspires to recast the system of product responsibility from resting primarily on governments to having others – consumers, retailers and manufacturers – share in reducing the product's life cycle impacts. "Products" in this sense are defined to include durable goods, nondurable goods and packaging.

The burden on government resources will be eased when manufacturers design, businesses distribute and sell, and consumers purchase products that are less toxic and are more durable, reusable and recyclable. Product stewardship shifts responsibilities "upstream" from government to a product's users, retailers, distributors and manufacturers. These parties then take greater responsibility for ensuring that products are collected and recycled and that markets exist for the recovered materials. If there are costs to recycle or dispose of a product, those costs should be part of the product's original price. This could be achieved by including a visible fee (i.e., an advance recycling fee) or by the manufacturer internalizing the costs of recovering, reusing and recycling. These "front-end" fee approaches are much preferable to "drop-off" or "end-of-life" fees which may increase illegal or improper disposal. Both "front-end" approaches are likely to increase the cost of a product in the near term, but could reduce the growth in solid waste management costs for ratepayers.

Objectives to achieve the product stewardship goal are shown below.

1.0 Prioritize product stewardship activities by evaluating products based on the significance of environmental impact (e.g., resource value, toxicity), current barriers to recycling, and financial burdens on governments for recovery programs.

The region will focus its resources on product stewardship activities that will have the greatest impact on decreasing local burdens, such as the need for government to provide special and costly collection programs. The region will coordinate with others at state, regional and national levels that are also seeking to set product stewardship priorities.

2.0	**Implement industry-wide product stewardship agreements or individual company stewardship programs in the region.**	Product stewardship agreements require the support of local and state governments to ensure that programs are effectively implemented. A number of national industry stewardship programs are currently in place and progress is being made in others (e.g., household batteries, carpet, paint, cell phones, and office products such as recycled content paper, ink cartridges, and computers). Local efforts can assist these programs by promoting product take-back opportunities and other activities.
3.0	**Educate public and private sector consumers about product stewardship and, in particular, their role in purchasing environmentally preferable products.**	Product stewardship encourages changes in thinking and behavior from a consumption and use perspective toward waste minimization and sustainable production. Such changes are enhanced by educating public and private consumers about the environmental impacts of their purchases and encouraging them to consider those impacts when making purchasing and disposal decisions. When businesses, institutions and governments adopt policies and purchase products that are part of product stewardship programs, they provide direct and visible support to stewardship programs. A program such as the electronic product environmental assessment tool (EPEAT) for electronic products is a good example.
4.0	**Work at the local, regional, state and national level to develop and implement policies, such as recycled-content requirements, deposits, disposal bans and advance recycling fees, that encourage product stewardship programs.**	Local, regional, state and national policies can provide the necessary incentives or legislative foundation required to make stewardship programs efficient, effective and sustainable. Because local governments are responsible for ensuring an environmentally sound and efficient solid waste disposal and recycling system, they directly benefit when product stewardship solutions result in manufacturers and others sharing that responsibility. Local governments are encouraged to support the product stewardship approach and to adopt product-specific policies. For example, a jurisdiction could include a provision in computer procurements that requires the sellers to take them back for recycling at the end of their useful life.

Monitoring and implementation methods

Metro will provide annual reports as appropriate and implementation of these objectives will be coordinated with various waste reduction work groups and the Regional Solid Waste Advisory Committee.

Chapter V
Plan implementation

This chapter describes the processes for plan implementation, performance measurement and plan revision. Success in all these efforts will require continued cooperation among stakeholders – cities, counties, Metro, DEQ, the solid waste industry and citizens.

Overview

Implementation efforts will be guided by the need to:

- Maintain consistency with the Plan's program direction, as well as the State of Oregon's solid waste goals and requirements.
- Allow flexibility in developing programs that may need to be adapted to local conditions.

The previous chapter identifies the goals and objectives for each of the Plan's program areas – waste reduction, education services, hazardous waste management and product stewardship. The focus of this implementation chapter is solely on the programs and activities that will implement the waste reduction goals and objectives. The process for ensuring that the other three plan programs areas (education services, hazardous waste management and product stewardship) also achieve their goals and objectives will include coordinating efforts with the various waste reduction work groups and the regional solid waste advisory committee, and regular reporting on their programs' performances.

Waste reduction goals and objectives are identified for five sectors: single-family residential; multi-family residential; business; building industry; and commercial organics. Meeting these objectives requires that basic recycling services are accessible to households and businesses throughout the region. Oregon's "Opportunity to Recycle Act" (see Appendix B) specifically mandates a minimum set of services that are required. The Plan will ensure that these state requirements are met or exceeded within the region.

Beyond the provision of basic services, Chapter IV identifies the direction that waste reduction programs will take. An emphasis on prioritizing and targeting specific waste generators as a way to achieve regional waste reduction goal took root in the 1999 "Waste Reduction Initiatives," and this Plan continues that strategy. Implementation of all waste reduction program area objectives is intended to take the region to its 64% waste reduction goal.

Implementation schedule

Appendix E provides a timetable for the Plan. For each of the five waste reduction program areas, the table shows the time period (ongoing, near, middle or long term) when the programs will be implemented.

Annual work plan

The Metro and local government annual work plan is the primary means for ensuring that basic waste reduction services are provided, and for developing the specific programs and activities necessary to reach regional recovery goals. The annual work plan is developed in cooperation with regional work groups and the regional solid waste advisory committee (see the annual work plan time line, Appendix F).

Basic services

Local governments and Metro currently provide basic recycling collection and education services that generally exceed minimum state requirements. During the development of the annual work plan, Metro and local governments will review the status of these basic programs, looking at ways to improve services and ensure continued compliance with minimum state requirements. Significant progress in waste reduction and recycling has been made over past years through these basic service programs. Metro provides funding assistance to local jurisdictions to assist with maintaining such programs.

Regional program areas

Within the annual work plan, regional work groups will develop programs and activities designed to achieve the waste reduction goals and objectives as specified in Chapter IV. Each year the annual work plan will identify which sector or sectors to focus upon: single-family residential, multi-family residential, business, building industry, commercial organics or potentially another area.

These plans will address the individual needs, barriers and particular circumstances affecting each sector and provide specific action steps, staffing and budgets for achieving the objectives within the Plan. This annual planning process allows for a flexible and rapid response to changing conditions. The process also enables the region to quickly phase out those programs or activities tasks that prove less effective and allows for shifting efforts and resources between areas as the need arises.

Plan performance

This section describes how regional waste reduction progress will be monitored and measured as well as the methods for assessing programs and activities implemented under the Plan. The following approaches will guide these efforts:

- Use indicators that allow early identification of potential problems.
- Support continued development of simple, timely and consistent reporting systems.
- Require appropriate levels of information from local governments and the private sector.

Measuring progress

Historically, the regional waste reduction rate has been the primary measure of regional progress. This Plan continues an emphasis on that measure, but other means of assessing the solid waste system's performance will be reviewed in the near future, such as reducing the toxicity of the waste stream and the generation of greenhouse gases. New goals may be established as a result, in which case the Plan would be amended.

Table 5 in Chapter II shows the Plan's design to reach the 64% waste reduction goal through targeting efforts in the single- and multi-family, business, building industry and commercial organics sectors. The Plan will also monitor performance through per capita measures (for generation, disposal and recycling) and in terms of the waste reduction hierarchy (i.e., prevention, recycling, composting, energy recovery and disposal).

Program monitoring and evaluation

The programs and activities developed and implemented as part of the Metro and local government annual work plan are critical to reaching regional goals and objectives. In recognition of that fact, implementation schedules and monitoring and evaluation components are incorporated within the annual work plan. Using qualitative and quantitative measures, performance on the annual work plan is evaluated for both accountability and effectiveness. These performance measures, combined with the annual DEQ material recovery survey report, are used to assess progress, and reported to the regional solid waste advisory committee and Metro Council annually.

For the basic services provided under the annual work plan, local governments' annual reports document their efforts completed during each year. The report details each task's actual implementation date, as well as relevant status reports and results noted. These annual reports serve as the basis for monitoring the status of existing programs and progress with regard to the Plan, as well as required annual reporting to the Oregon DEQ.

Additional program evaluations

Additional program evaluations will be conducted when greater information is required about the efficiency and effectiveness of programs designed to implement the Plan's recommendations. Evaluations may also be conducted when alternative policies or programs are proposed to replace what is recommended by the Plan. The evaluation studies may also look at how the regional system can operate better as a whole. Recent studies of contamination issues at material recovery processing facilities are one example of such evaluation studies.

Alternative programs

An alternative program is a solid waste management program or service that is proposed by a local government and differs from those referenced by and being implemented under this Plan. Alternative programs allow for flexibility in meeting the Plan goals and objectives.

An alternative program process needs to be employed when a local government proposes programs or services that would depart from:

(a) the state Opportunity to Recycle requirements as specified under state law and requiring an approved alternative program from the DEQ; or

(b) the regional service standard as described in Appendix C.

Appendix D lays out the process to be followed.

Compliance and enforcement

The success of the Plan depends on maintaining cooperative working relationships among Metro, DEQ, local governments and the private sector. There may be occasions, however, when reviews or assessments reveal a lack of compliance or adequate contribution to achieving regional goals.

Local government compliance with the Plan is primarily ensured through the Metro and local government annual work plan process. Funding for local governments under this Plan is contingent upon receipt of a satisfactory plans and reports from the local jurisdictions.

All local jurisdictions are also required to comply with the provisions set forth in state law (OAR 340-090-0040 and ORS 459A), in addition to compliance with Metro's waste reduction plan. Metro has been designated by

the state as the reporting agency for the region's three-county area and local jurisdictions are to provide data to Metro to assist with this annual reporting responsibility. As part of the annual work plan, local jurisdictions must provide documentation indicating they are continuing to fully implement the program elements required as part of the Opportunity to Recycle Act (OAR 340-090-0040 and ORS 459A). Metro will review annual reports for compliance with state law. Those programs that appear to be out of compliance will be reviewed with the local jurisdiction and, if not resolved satisfactorily, Metro will work to resolve the matter in conjunction with the DEQ. In addition, Metro may amend Metro Code to include additional Plan enforcement provisions to deal with non-compliance issues as they arise.

Plan revisions

The Plan, including the performance program, is intended to allow sufficient flexibility for those charged with its implementation to adjust programs before needing to amend or revise the Plan itself. Measurements of regional progress, program monitoring and evaluation, and special evaluation studies will all help determine whether the Plan may require a mid-course correction, and should be amended.

This Plan is not intended to continue as an independent document, but will be integrated into the RSWMP by 2007. As part of the RSWMP, elements of this Plan will undergo periodic review and amendment as needed, with major updates expected every 10 years.

Appendix A

Goals and objectives of the interim waste reduction plan

Waste reduction

Goal: Increase the sustainable use of natural resources by achieving the waste reduction goal of 64% by 2009.

Single-family residential objectives

1.0 Conduct annual outreach campaigns that focus on preventing waste, reducing toxics and/or increasing the quantity and quality of recycling setouts.

2.0 Identify and implement service provision changes and incentives to increase recycling, and identify and evaluate new collection technologies.

3.0 Expand curbside service by adding new materials as markets and systems allow.

4.0 Promote home composting and appropriate on-site management of yard debris and food waste.

5.0 Develop residential organics collection programs when economically and technically feasible.

Multi-family residential objectives

1.0 Implement a program suited to the needs of multi-family housing that is uniform and consistent throughout the region.

2.0 Provide annual regional education and outreach targeting multi-family housing.

3.0 Identify and evaluate new collection technologies for implementation on a cooperative regionwide basis.

Business objectives

1.0 Provide businesses with annual education and technical assistance programs focused on waste reduction and sustainable practices.

2.0 Develop information and resource materials that demonstrate the benefits of waste reduction and sustainable practices to support the assistance program.

3.0 Conduct annual regional outreach campaigns to increase participation in the business assistance program and to promote recycling opportunities and sustainable business practices.

4.0 Implement waste reduction and sustainable practices at government facilities.

5.0 Identify and implement opportunities for increasing recovery in the business sector, including service provision options, incentives for recycling and regulation.

6.0 Periodically review end-use markets to assess cost-effectiveness, material quality and capacity.

Building industry objectives

1.0 Develop a regionwide system to ensure that recoverable construction and demolition debris is salvaged for reuse or is recycled.

2.0 Provide the building industry with annual outreach, education and technical assistance programs that demonstrate the benefits of green building, including building material reuse and recycling.

3.0 Include sustainable practices and products in the development, construction, renovation and operation of government buildings, facilities and lands.

4.0 Support the development of and access to viable end-use markets for construction and demolition materials.

Commercial organics objectives

1.0 Provide focused outreach and education programs for targeted businesses to support and increase organic waste prevention and diversion practices.

2.0 Enhance access to organics recovery services throughout the region.

3.0 Implement organic waste recovery programs at government facilities where feasible.

4.0 Work to ensure that compost products are specified for use in government projects.

5.0 Periodically review the viability of end-use markets and assist with market development efforts.

Education services

Goal: Increase the adoption of sustainable behaviors by households and businesses through increased knowledge, motivation and commitment.

Information services and adult education objectives

1.0 Provide a regional information clearinghouse and referral service.

2.0 Provide education and information services for residents and businesses that are targeted to specific waste streams, materials or generators.

Appendix A (cont.)

School education objectives

1.0 Provide education programs that help teachers incorporate resource conservation concepts, including waste prevention and toxicity reduction, into their teaching.

1.1 Provide programs at the elementary level that establish fundamental concepts of resource conservation and environmental awareness through active learning experiences.

1.2 Provide programs at the secondary level (middle and high school) that will extend concepts established at the elementary level and prepare students for making responsible environmental choices in everyday adult life.

2.0 Work with schools and teachers to increase support for regional solid waste programs and create opportunities for partnerships.

Hazardous waste management

Goal: Reduce the use and improper disposal of products generating hazardous waste in order to protect the environment and human health.

Hazardous waste reduction objectives

1.0 Provide hazardous waste education programs that focus on behavior change.

1.1 Provide hazardous waste education programs that focus on those products whose toxic and hazardous characteristics pose the greatest risks to human health and the environment, or that are very costly to properly dispose or recycle.

1.2 Provide hazardous waste reduction messages and information to all customers bringing waste to household hazardous waste collection sites.

1.3 Coordinate hazardous waste education efforts with related efforts conducted by government agencies and community groups in the region and in other areas.

2.0 Research and develop tools to measure the generation, impacts and reduction of hazardous waste, when this can be accomplished at a reasonable cost.

Hazardous waste collection objectives

1.0 Manage collected waste in accordance with the hazardous waste hierarchy: reduce, reuse, recycle, energy recovery, treatment, incineration and landfill.

2.0 Coordinate collection programs with waste reduction and product stewardship efforts.

3.0 Conduct waste screening programs at solid waste facilities to minimize the amount of hazardous waste disposed with solid waste.

4.0 Use solid waste facilities efficiently and effectively for the delivery of collection services.

5.0 Maximize the efficiency of public collection operations, search for the most cost-effective methods and place a high priority on worker health and safety.

6.0 Offer a Conditionally Exempt Generator (CEG) program to manage waste from small businesses.

7.0 Implement bans on disposal of specific hazardous products as needed to address public health and environmental concerns.

Product stewardship

Goal: Shift responsibility to manufacturers, distributors and retailers for ensuring that products are designed to be nontoxic and recyclable, and incorporate the cost of the product's end-of-life management in the purchase price.

Product stewardship objectives

1.0 Prioritize product stewardship activities by evaluating products based on the significance of environmental impact (e.g., resource value, toxicity), current barriers to recycling, and financial burdens on governments recovery programs.

2.0 Implement industry-wide product stewardship agreements or individual company stewardship programs in the region.

3.0 Educate public and private sector consumers about product stewardship and, in particular, their role in purchasing environmentally preferable products.

4.0 Work at the local, regional, state and national level to develop and implement policies, such as recycled-content requirements, deposits, disposal bans and advance recycling fees, that encourage product stewardship programs.

Appendix B
Key solid waste laws

There are several state laws that help give perspective and direction to the activities in this Plan.

The Oregon Bottle Bill. The Oregon legislature passed the Oregon Bottle Bill in 1971 and it took effect on October 1, 1972. This bottle bill was the first of its kind in the nation. Its purpose was to reduce litter and divert all beer and carbonated beverage containers from the waste stream so that they could be reused or recycled. The bill requires that a refund be paid to any person who returns empty soft drink or beer bottles or cans to a retail store.

1983 Opportunity to Recycle Act. The Opportunity to Recycle Act, passed by the Oregon legislature in 1983, was ground-breaking legislation that required:

- Residential on-route (curbside) recycling collection in cities of 4,000 or more people.
- Recycling at solid waste disposal sites.
- Education and promotion programs designed to make all Oregonians aware of opportunities to recycle and the reasons for recycling.

Although Oregon already had an extensive recycling infrastructure, both private and public, before the passage of the act, the system was enhanced through this legislation. The recycling programs called for have been implemented throughout the state.

1991 Oregon Recycling Act. In 1991, the Oregon Legislature took recycling legislation a step further and passed the Oregon Recycling Act. Among other things, the Oregon Recycling Act established a recovery level goal of 50% by the year 2000. The Metro region was required to achieve a recovery level of 40% by 1995.

The Oregon Recycling Act also mandated the development of a statewide solid waste plan by 1994 and the performance of waste composition studies and required cities with a population greater than 10,000 population and the Metro area to implement certain waste reduction practices. Certain materials, such as whole tires and lead-acid batteries, were banned from landfills. The act also specified purchasing preferences by government agencies for materials with high percentages of recycled content and high degrees of reusability/recyclability.

Finally, the act established minimum recycled-content requirements for newsprint, telephone directories, glass containers and rigid plastic containers sold in Oregon.

1997 2% Credits for Waste Prevention. The session produced a bill that provided a means of enabling local governments to obtain credit for more than just their recycling programs. The program allows 2% credits for wastesheds such as Metro that establish and maintain programs in waste prevention, reuse and backyard composting. DEQ has established guidelines and evaluation criteria for wastesheds that allow them to earn up to 6% total credits toward their recovery goals for qualifying programs.

2001 State and Wasteshed Goals. In 2001, although most of the wastesheds in the state were meeting their individual required recovery goals, the DEQ confirmed to the legislature that these accomplishments were nevertheless not going to produce a statewide recovery goal of 50%. The legislature responded with HB 3744 (amending ORS 459.010) that set a statewide recovery goal of 45% for 2005 and 50% for 2009 and adjusted individual wasteshed goals. Metro's goal became 62% by 2005 and 64% by 2009 (these rates can include any credits received under the "2% waste prevention credits" program).

The bill set out review procedures regarding the goal:

If a wasteshed does not achieve its 2005 or 2009 waste recovery goal, the wasteshed shall conduct a technical review of existing policies or programs and determine revisions to meet the recovery goal. The department shall, upon the request of the wasteshed, assist in the technical review. The wasteshed may request, and may assist the department in conducting, a technical review to determine whether the wasteshed goal is valid (ORS 450.010(6)(e)).

In addition, HB 3744 established statewide waste generation goals:

- By 2005, there will be no annual increase in per capita municipal solid waste generation;
- By 2009, there will be no annual increase in total municipal solid waste generation.

Metro's Solid Waste Obligations and Authorizations under State Law and the Metro Code. In addition to the key solid waste laws noted above, Metro has additional obligations and authorizations related to solid waste management for the wasteshed. Oregon Revised Statutes (ORS) Chapter 459 covers solid waste management administration roles, disposal sites, hazardous waste management, enforcement and penalties.

ORS 459A covers reuse and recycling program requirements in the state. Oregon Administrative Rules (OAR) Chapter 340 sets out implementation standards, reporting requirements, recovery rate requirements, recovery rate calculation methods, etc. Title V of the Metro Code governs solid waste related policies and programs. The following state law chapters and sections specifically pertain to the region's waste and toxicity reduction plans, policies and programs. A complete list of legislation affecting the region's solid waste system will be presented in the revised overall Regional Solid Waste Management Plan.

ORS 459.055
: Prepare and adopt a waste reduction program

ORS 459.250
: Provide recycling collection at transfer stations

ORS 459.340
: Implement the program required by 459.055

ORS 459.413(1)
: Establish permanent HHW depots

ORS 459.413(2)
: Encourage use of HHW collection

ORS 459A.010
: Required waste reduction program elements and reporting

ORS 459A.750
: School curriculum and teacher's guide components

OAR Chapter 340, Division 90
: Implementation standards & reporting requirements

ORS 268.317(5)-(7) & 268.318
: Solid waste regulatory authority

ORS 268.390
: Functional planning authority

ORS 459.095
: Local government compliance with RSWMP

Appendix C

Local government compliance with state recycling requirements and the regional service standard

Under state law, local jurisdictions in the Metro region must select and comply with the program elements set forth in Oregon Administrative Rules (OAR) chapter 340-090-0040. All local jurisdictions with populations over 4,000 residents have chosen to implement program elements (3) a, b, c and e, with the exception of unincorporated Washington County and the cities within the Washington County Cooperative (Cornelius, Forest Grove, Hillsboro, Sherwood, Tigard and Tualatin), which have chosen program elements (3) a, b, c and d.

In addition to meeting these state requirements, all jurisdictions in the Metro wasteshed with populations over 4,000 residents have implemented additional elements in sub-section (3), such that these jurisdictions are now providing program elements (a), (b), (c), (d), (e), and (f). All of these elements, summarized below, constitute the regional service standard under this Plan.

a) Provide at least one recycling container to residential customers.

b) Provide weekly collection of source-separated principal recyclable materials[1] to residential customers.

c) Provide expanded recycling education and promotion to residential customers.

d) Provide multi-family dwelling recycling collection.

e) Provide a weekly or equivalent residential yard debris program (collection and composting of residential yard debris).[2]

f) Provide on-site collection of source separated principal recyclable materials from commercial entities.

[1]Principal recyclable materials include: newspaper, ferrous scrap metal, non-ferrous scrap metal, used motor oil, corrugated cardboard and kraft paper, aluminum, container glass, high-grade office paper, tin cans, and yard debris. All local jurisdictions provide curbside collection of all principal recyclable materials and in addition also collect mixed scrap paper, milk cartons, plastic bottles, phonebooks, magazines, and empty aerosol cans.

[2] In addition, jurisdictions within the Metro wasteshed (Clackamas, Multnomah and Washington counties in aggregate) must comply with OAR 340-090-0070 (4), (13)(a), and (14) which states that the opportunity to recycle must be provided for each of the principal recyclable materials as designated by the state. Because yard debris is a principal recyclable material in the Metro wasteshed, all jurisdictions must establish and implement an effective residential yard debris program that meets the requirements of 340-090-0040(3)(e) whether or not they have chosen it as a program element.

Appendix D

Alternative programs - review and approval process

An alternative program is a solid waste management program or service that is proposed by a local government and differs from those referenced by and being implemented under this Plan. Alternative programs allow for flexibility in meeting the Plan goals and objectives.

As the Plan's waste reduction program and activities are developed through a collaborative approach, this approach should be maintained when a local government is considering undertaking an alternative program. The local government should consult with Metro, DEQ and other local government partners in early planning stages. These consultations may provide information or generate options that would eliminate consideration of an alternative program. If an alternative program is still sought after this recommended informal process, however, the local government must follow the alternative program process outlined below, which is intended to ensure that programs related to the Plan are consistent with Plan direction, and at minimum, demonstrate the same level of expected performance as the Plan program.

Use of alternative program process

An alternative program process needs to be employed when a local government proposes programs or services that would depart from:

- The state Opportunity to Recycle requirements as specified under state law and requiring an approved alternative program from the DEQ; or
- The regional service standard as described in Appendix C.

Process for application and review of an alternative program

1. **Departures from state requirements**
   For proposals involving a departure from state requirements, local governments may contact either the DEQ or Metro. DEQ and Metro will work together and coordinate review. State requirements are part of the regional standard; therefore, all programs that receive approval by the DEQ must also be reviewed and approved by Metro via the process detailed below.

2. **Departures from the regional service standard**
   Any local government seeking alternative program approval will submit an application to the Metro solid waste and recycling director that demonstrates how the alternative program will perform at the same level as the Plan program. This performance standard will be based on criteria that will include, as appropriate, the following:
   - Estimated participation levels;
   - Estimated amounts of waste prevented, recycled, recovered or disposed;
   - Consistency with the waste reduction hierarchy and the source separation priority;
   - Economic and technical feasibility;
   - Estimated impact on other waste reduction activities.

The application will contain a description of the existing program and the proposed alternative program. (Metro may require a pilot program to evaluate the performance of a proposed alternative.) The applicant will provide information comparing the existing and proposed alternatives for:

- Types of materials collected;
- Frequency of collection for each material;
- Levels of recovery by material.

Metro's solid waste and recycling director must approve the proposal. Metro will include the DEQ in the review. If the approval is accompanied by a revision to the Plan, such an amendment will be submitted to the DEQ.

Appendix E

Interim waste reduction plan, draft timetable

Program areas	Ongoing	Near term (2006-08)	Middle term (2008-2011)	Long term (2011-2015)
Residential	1.0 Outreach campaign. OP (see key below)	4.0 Improve the quantity and quality of residential setouts. RP	2.0 Identify service provision changes and incentives to increase recycling. NP	5.0 Evaluate new collection technologies. NP
	3.0 New materials as markets allow. OP	6.0 Educate residents about management of yard debris and food waste. RP	4.0 Continue	7.0 Develop residential organics collection. NP
			6.0 Continue	
Multi-family		1.0 Needs assessment. NP		
		2.0 Education & outreach program. NP	2.0 Continue	2.0 Program assessment
		3.0 Evaluate new collection technologies. RP		
Business	3.0 Outreach campaign. OP	1.0 "Recycle at Work" program. RP	1.0 Continue	1.0 Program assessment
	6.0 Review end markets. OP	2.0 Develop information and resource materials. RP	2.0 Continue	2.0 Program assessment
		4.0 Planning phase	4.0 Implement waste reduction & sustainable practices at government facilities. RP	
		5.0 Identify opportunities for increasing recovery. RP		
		7.0 Evaluate required recycling policies. NP		
Building industry	2.0 Outreach campaign. OP	1.0 Develop regionwide construction & demolition system. NP	1.0 Continue	1.0 Program assessment
		4.0 Include sustainable practices and products at government facilities. NP	4.0 Continue	4.0 Program assessment
	3.0 Review end markets. OP			
Commercial organics	3.0 Review end markets. RP	1.0 Outreach and education programs. RP	4.0 Continue	
		2.0 Enhance access to organics recovery services. NP	5.0 Implement organic waste recovery at government facilities. NP	
		4.0 Compost products specified for use in government projects. NP		
		5.0 Planning phase		

Numbered programs correspond to those in Appendix A.
OP = Ongoing Program, RP = Revised Program, NP = new program

Appendix F

Metro and local government - annual waste reduction plan schedule

Plan development

August/September

Metro and local government program area work groups (Organics, Building industry, Business, Multi-family) and local government recycling coordinators work group review and amend plans and associated budgets

November/December

Draft overall framework of the annual plan developed by Metro and local government staff

March

Regional public involvement - regional SWAC review of drafts

March-April

Council approval process

Metro Council consideration and adoption

April-May

Local and regional public involvement

Local SWAC and other public involvement

Metro budget hearings

Local government budget hearings

June-July

June 1 - Annual Plans due from local governments

Intergovernmental agreements drafted

Plan implementation

July

Start of fiscal year - Implementation begins

November

Intergovernmental agreements for grant funding approved and funds distributed to local governments to support the maintenance of existing programs

Reporting

April-May

Interim reports from jurisdictions receiving over $100,000 in funding allocations

August 1

Final program progress reports on previous fiscal year's activities due from local governments

February 28

Metro, with local government assistance, produces annual report to DEQ

Appendix G
Glossary of terms

These definitions are provided to assist the reader and should not be construed as policies, goals or practices of the Plan, or as amendments to the Metro Code.

Alternative program – A solid waste management program or service that is proposed by a local government and differs from those referenced by and being implemented under this plan. An alternative program must demonstrate the same level of expected performance as the plan program. Alternative programs allow for local government flexibility in meeting the plan goals and objectives.

Collection service – A service that provides for collection of solid waste or recyclable material or both. (OAR 340-90-010)

Commercial organics – Waste generated by food processing operations, restaurants and institutions.

Commingled recyclables – A source-separated mixture of several recyclable materials into one collection container.

Compost – The controlled biological decomposition of organic material or the product resulting from such a process. (OAR 340-90-010)

Conditionally exempt generator (CEG) – Small businesses that generate small amounts of hazardous waste, as defined by state and federal law.

Construction and demolition waste – Solid waste resulting from the construction, repair, or demolition of buildings, roads and other structures, and debris from the clearing of land, but not including clean fill when separated from other construction and demolition wastes and used as fill materials or otherwise land disposed. Such waste typically consists of materials including concrete, bricks, bituminous concrete, asphalt paving, untreated or chemically treated wood, glass, masonry, roofing, siding, plaster; and soils, rock, stumps, boulders, brush, and other similar material. (OAR 340-93-030)

Curbside collection – Programs where recyclable materials are collected at the curb for single-family units and on-site depots for multi-family units.

End-use markets – Outlets for materials such as post-consumer paper, which are manufactured into a finished product or materials such as scrap tires that are incinerated by recover energy.

Energy recovery – The process in which all or part of the solid waste materials are processed to use the heat content or other forms of energy of or from the material. (ORS 459.005)

Franchise –The authority given by a local government (including Metro) to operate a solid waste and recycling collection service, a disposal site, a processing facility, a transfer station or a resource recovery facility. Often includes the establishment of rates by the local government.

Garbage – A general term for all products and materials discarded and intended for disposal.

Generator – A person who last uses a material and makes it available for disposal or recycling. (OAR 340-90-010)

Grits and screenings – Solids derived from primary, secondary or advanced treatment of domestic wastewater which have been treated through one or more controlled processes that significantly reduce pathogens and reduce volatile solids or chemically stabilize solids to the extent that they do not attract vectors.

Hauler – Interchangeable with "collector"; the person who provides collection services.

Hog fuel – Biomass fuel, usually consisting of wood waste that has been prepared by processing through a "hog" (a mechanical shredder or grinder). It usually consists of a mixture of bark, wood, sawdust, shavings or secondary materials such as pallets and construction or demolition wood.

Household hazardous waste (HHW) or hazardous waste – Any discarded, useless or unwanted chemical materials or products that are or may be hazardous or toxic to the public or the environment and are commonly used in or around households. Residential waste which is ignitable, corrosive, reactive, or toxic. Examples include solvents, pesticides, cleaners, and paints.

Local governments – For the purposes of this document, a local government is defined as a city or county within the Metro boundaries.

Material recovery or recovery – Any process of obtaining from solid waste, by presegregation or otherwise, materials that still have useful physical or chemical properties after serving a specific purpose and can, therefore, be reused or recycled for the same or other purpose. (OAR 340-90-010, ORS 459.005)

Material recovery facility (MRF) – A solid waste management facility that separates materials for the purposes of recycling from an incoming source-separated or mixed solid waste stream.

Mixed waste – Solid waste containing a variety of recyclable and nonrecyclable material.

Multi-family – Residential dwellings of five or more units.

Non-putrescible waste – Commercial, residential or industrial solid waste, that does not contain food wastes or other putrescible wastes. Non-putrescible mixed solid waste (also called dry waste) includes only waste that does not require disposal at a municipal solid waste landfill (also referred to as a general purpose landfill), as that term is defined by the Oregon Administrative Rules. This category of waste excludes source-separated recyclables.

Organics – Yard debris, land clearing and food waste material.

Principal recyclable materials – These are as follows: newspaper, ferrous scrap metal, non-ferrous scrap metal, motor oil, corrugated cardboard and kraft paper, aluminum, glass, high-grade office paper, tin cans, and yard debris.

Product stewardship – An approach to managing the lifecycle costs of a product in which a product's designer, producer, seller and user share the responsibility for minimizing the product's environmental impact throughout all stages of the product's life cycle.

Putrescible waste – Solid waste (other than uncontaminated or only slightly contaminated cardboard and paper products) containing organic material that can be rapidly decomposed by microorganisms, and which may give rise to foul smelling, offensive products during such decomposition or which is capable of attracting or providing food for birds and potential disease vectors such as rodents and flies.

Recovered – Material diverted from disposal to recycling, composting or energy recovery systems.

Recovery rate – The percent of total solid waste generated that is recovered from the municipal solid waste stream.

Recyclable material – Any material or group of materials that can be collected and sold for recycling at a net cost equal to or less than the cost of collection and disposal of the same material. (OAR 340-90-010, ORS 459.005)

Recycling – Any process by which solid waste materials are transformed into new products in such a manner that the original products may lose their identity. (OAR 340-90-010, ORS 459.005)

Reuse – The return of a commodity into the economic stream for use in the same kind of application as before without change in its identity. (OAR 340-90-010, ORS 459.005)

Solid waste – All putrescible and non-putrescible wastes, including but not limited to garbage, rubbish, refuse, ashes, waste paper, and cardboard; sewage sludge, septic tank and cesspool pumpings or other sludge; commercial, industrial, demolition and construction wastes; discarded or abandoned vehicles or parts thereof; discarded home and industrial appliances; manure; vegetable or animal solid and semi-solid wastes, dead animals, infectious waste, and other wastes; but the term does not include: (a) hazardous wastes as defined in ORS 466.005; (b) materials used for fertilizer, or for other productive purposes or that are salvageable for these purposes and are used on land in agricultural operations and the growing or harvesting of crops and the raising of fowls or animals, provided the materials are used at or below agronomic application rates. (OAR 340-90-010, ORS 459.005, Metro Code 5.01.101)

Solid waste management – Prevention or reduction of solid waste; management of the storage, collection, transportation, treatment, utilization, processing and final disposal of solid waste; or resource recovery from solid waste; and facilities necessary or convenient to such activities. Also see "State hierarchy."

Source-separated material – Material that has been kept from being mixed with solid waste by the generator in order to reuse or recycle that material.

State hierarchy – An established state priority (ORS 459.015) for managing solid waste in order to conserve energy and natural resources. The priority methods are as follows: reduce, reuse, recycle, compost, recover (energy), landfill.

Subtitle C – The hazardous waste section of the Resource Conservation and Recovery Act (RCRA).

Subtitle D – Solid, non-hazardous waste section of the federal Resource Conservation and Recovery Act (RCRA).

Sustainable, sustainability, sustainable practices – Using, developing and protecting resources in a manner that enables people to meet current needs and provides that future generations can also meet future needs, from the joint perspective of environmental, economic, and community objectives. [ORS 184.421(4)]

Sustainability principles – Considers use of all economic, environmental and societal resources and is consistent with the Natural Step system conditions so that nature is not subject to systematically increasing:

1. Concentrations of substances from the Earth's crust,
2. Concentrations of substances produced by society, or
3. Degradation by physical means; and in that system
4. Human needs are met worldwide.

Waste generator types are defined as follows:

- Commercially-hauled residential waste – generated from single and multi-family housing units and hauled to disposal facilities in rear, side or front loaders, drop boxes or self-dumping trucks.
- Self-hauled residential waste – generated from single and multi-family housing units and hauled to disposal facilities in autos, vans, pickup trucks and trailers attached to small vehicles.
- Business waste – generated from retail and wholesale businesses, offices, food and lodging businesses, food stores, education institutions, and service-related businesses.
- Industrial waste – generated from manufacturing businesses, the construction and demolition industry (but not loads containing construction waste materials), agriculture and other industrial businesses.
- Construction and demolition waste – generated from residential, business, and industrial sources containing mostly bricks, concrete, gypsum wallboard, land-clearing debris, roofing and tarpaper, wood, insulation, and other building materials.

Waste prevention (source reduction) – Prevention or elimination of waste prior to generation, including where the product is manufactured, purchased or utilized (consumed). The design, manufacture, acquisition, and reuse of materials so as to reduce the quantity and toxicity of waste produced at the place of origin. Also used to describe practices that reduce the amount of materials that need to be managed by either recycling or disposal methods. Home composting of yard debris is generally termed waste prevention, since the material is kept out of both yard debris processing or disposal facilities. Examples also include reducing office paper use through double-sided copying and buying in bulk to reduce packaging waste.

Waste prevention credits – Provision in state law that allows wastesheds to receive up to 6% on the recovery rate for programs in waste prevention, reuse and backyard composting.

Waste reduction – A term used to encompass waste prevention, reuse, and recovery; all practices that either prevent the generation of waste or divert it from landfill disposal.

Waste stream – A term describing the total flow of solid waste from homes, businesses, institutions and manufacturing plants that must be recycled, burned, or disposed of in landfills; or any segment thereof, such as the "residential waste stream" or the "recyclable waste stream."

Yard debris – Vegetative and woody material generated from residential property or from commercial landscaping activities. Includes grass clippings, leaves, hedge trimmings, stumps, and similar vegetative waste. (OAR 340-90-010)

Zero waste - Designing and managing products and processes to reduce the volume and toxicity of waste and materials, conserve and recover all resources, and not burn or bury them. Zero Waste is intended to eliminate all discharges to land, water or air that may be a threat to planetary, human, animal or plant health.

STAFF REPORT

In Consideration of Resolution No. 06-3722 for the purpose of approving the Interim Waste Reduction Plan to provide direction for regional waste reduction programs pending the completion of the updated Regional Solid Waste Management Plan.

August 17, 2006 Prepared by: Marta McGuire

BRIEF DESCRIPTION OF RESOLUTION

This resolution approves the Interim Waste Reduction Plan, which will provide direction for coordinating regional waste reduction programs pending the completion of the updated Regional Solid Waste Management Plan.

EXISTING LAW

ORS Chapter 459A, the "Opportunity to Recycle Act," requires the city, county or metropolitan service district responsible for solid waste management to provide recycling services, public education programs, and to contribute to the statewide solid waste recovery goals. OAR 340-90-040 sets forth the administrative requirements for such programs. In response to state requirements and more aggressive regional goals, Metro developed a Regional Solid Waste Management Plan, which was adopted by Council via Ordinance No. 95-624 on November 30, 1995. The Plan serves as a regional framework for the identification of solid waste policy and coordination of programs. It also satisfies state law requiring implementation of a waste reduction plan for the Metro region (See ORS 459.055 and ORS 459.340 through .350).

BACKGROUND

The Regional Solid Waste Management Plan (RSWMP) is now being updated for the next ten years. Plan direction is being shaped through an extensive public involvement process that includes Metro, local governments, businesses, citizens, and the solid waste industry -- all of whom are affected by the Plan and whose cooperative efforts are vital to Plan implementation. Waste reduction goals and objectives were drafted as a part of the developing RSWMP, but ongoing discussions about Metro's role in the disposal system have delayed the completion of the Plan. In order to continue the momentum on waste reduction work accomplished with stakeholders, Metro Council directed staff to provide the region with an Interim Waste Reduction Plan (IWRP). In April 2006, staff completed the draft IWRP.

The IWRP is intended to provide direction for waste reduction programs pending the completion of the RSWMP. In addition, the IWRP meets state requirements for a plan that shows how the 64% statutory waste reduction goal for 2009 will be met.

During a 45-day comment period held in the spring of 2006, more than 400 people provided input, either through an on-line survey or in writing, on the draft IWRP. Cogan Owens Cogan produced a report, "Waste Reduction Survey Results," which summarizes the major themes from comments received. Metro staff prepared a responsiveness summary responding to the major themes identified by Cogan and detailing revisions made to the IWRP in response to the input. Both reports are available on Metro's website at: **http://www.metro-region.org/article.cfm?ArticleID=20241**

The IWRP contains:

- An overview of current regional waste reduction performance, and strategies identified for achieving the 2009 waste reduction goal.
- A guiding framework, including Plan vision, regional values, and waste reduction policies.
- Goals and objectives for program activities in waste reduction, hazardous waste management, education and product stewardship.

The primary change in policy direction recommended by the IWRP is an emphasis on implementing regulatory-based program approaches in order to boost material recovery from commercial sources – primarily material generated by businesses and the building industry. Over 200,000 additional tons of material from these two sectors can be recovered rather than disposed. Voluntary programs alone, however, are not leading to increased recycling of these material resources.

Completely new areas of emphasis in the Plan include sections on education (information services, adult education, school education) and product stewardship.

The IWRP will be merged into the draft RSWMP document late this year. After public comment and further Plan revision, the RSWMP is expected to be ready for Metro Council consideration in early 2007.

ANALYSIS/INFORMATION

1. Known Opposition

One member of the public has characterized the final draft plan as "weak."

2. Legal Antecedents

Council adopted the Regional Solid Waste Management Plan (Plan) by its approval Ordinance No. 95-624, "For the purpose of adopting the Regional Solid Waste Management Plan." The Plan serves as a regional framework for the coordination of solid waste programs and to satisfy state law requiring development of a waste reduction plan for the Metro region (ORS 459).

3. Anticipated Effects

Adoption of the resolution will provide direction for the region's waste reduction programs and ensure programs are aligned with the vision and policies in the updated RSWMP. The IWRP will be merged into the draft RSWMP document later this year.

4. Budget Impacts

Adoption of the proposed resolution will not have a direct fiscal impact. Any fiscal impact would occur through Council's regular program planning and budget processes for the Solid Waste and Recycling Department.

RECOMMENDED ACTION

The Chief Operating Officer recommends approval of Resolution No. 06-3722.