

BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF APPROVING)	RESOLUTION NO. 97-2448A
THE YEAR 8 ANNUAL WASTE)	
REDUCTION WORK PLAN FOR METRO)	Introduced by Mike Burton
AND LOCAL GOVERNMENTS)	Executive Officer
)	

WHEREAS, The Annual Waste Reduction Work Plan for Metro and Local Governments has been an integral part of the region's waste reduction and recycling programs for the past seven years in order to attain state mandated regional recovery goals (OAR 340-90-050); and

WHEREAS, The Annual Waste Reduction Work Plan serves as an implementation tool for the Regional Solid Waste Management Plan; and

WHEREAS, The Annual Waste Reduction Work Plan continues to be one of the primary mechanisms for Metro and local governments to establish and improve recycling and waste reduction efforts throughout the region; and

WHEREAS, The means of implementing these waste reduction tasks is through the Annual Waste Reduction Work Plan, which is adopted by Metro and local governments and defines the work to be completed by each jurisdiction; and

WHEREAS, A cooperative process for formulating and implementing the Year 8 Annual Waste Reduction Work Plan was used by Metro and local governments and ensures a coordinated regional effort to reduce waste; and

WHEREAS, The Year 8 Annual Waste Reduction Work Plan has been through three public comment opportunities and the plan has been amended to reflect input received during this process; and

WHEREAS, The Year 8 Annual Waste Reduction Work Plan is consistent with and meets the intent of the goals and objectives in the Regional Solid Waste Management Plan; and

WHEREAS, The Annual Waste Reduction Work Plan grant fund distribution to local governments is tied to adherence to the plan and satisfactory completion of work plan elements; and

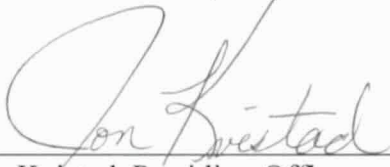
WHEREAS, The Annual Waste Reduction Work Plan grants are funded in the draft 1997-98 budget; and

WHEREAS, the Year 8 Annual Waste Reduction Work Plan has been reviewed by the Solid Waste Advisory Committee and recommended for Metro Council approval; and

WHEREAS, The resolution was submitted to the Executive Officer for consideration and was forwarded to the Council for approval; now therefore,

BE IT RESOLVED, That the Metro Council approves the Year 8 Annual Waste Reduction Work Plan for Metro and Local Governments (attached hereto as Exhibit "A") and supports increased efforts to reduce waste in the Metro region.

ADOPTED by the Metro Council this 6th day of February, 1997.



Jon Kvistad, Presiding Officer

Approved as to Form:



Daniel B. Cooper, General Counsel

STAFF REPORT

IN CONSIDERATION OF RESOLUTION NO. 97-2448 FOR THE PURPOSE OF APPROVING THE YEAR 8 ANNUAL WASTE REDUCTION WORK PLAN FOR METRO AND LOCAL GOVERNMENTS.

Date: January 30, 1997

Presented by: Jennifer Erickson

PROPOSED ACTION

Adopt Resolution No. 97-2448, Approving the Year 8 Annual Waste Reduction Work Plan for Metro and Local Governments.

FACTUAL BACKGROUND AND ANALYSIS

The Annual Waste Reduction Program (formerly known as "Metro Challenge") was established in 1990 to provide local governments with funding assistance they need to implement recycling and waste reduction activities within their jurisdiction. These activities are integral in helping the region meet the objectives of the Regional Solid Waste Management Plan (RSWMP) and State Law.

Through this and other programs, Metro and local governments have worked together to provide single and multi-family residential recycling services, yard debris collection, home composting education, waste reduction consultations to businesses, in-school programs for students and teachers, public outreach and education, and many other valuable programs and services.

Tremendous progress has been made in the region with regard to recycling and waste reduction. The regional recycling rate has jumped from 28% in 1989 to 43% in 1995, all single family residents have the opportunity to recycle at the curb, 85% of the 150,000 multi-family housing units in the region have recycling collection systems in place, and local government comprehensive commercial recycling programs are gearing up to tackle the complex task of providing improved recycling services to the region's businesses.

The RSWMP provides the larger long-term framework for the region's solid waste and recycling infrastructure. The Annual Waste Reduction Implementation Plan is one of many important planning and implementation tools for achieving the goals set forth by the Regional Plan.

The 1997-98 Annual Waste Reduction Program Grants will assist local governments defray the cost of both new and existing waste reduction and recycling programs as required by the RSWMP. The annual work plan which lists the tasks to be completed under the grant program was developed collaboratively with seven local government recycling coordinators representing the twenty-seven jurisdictions in the region, Metro staff and DEQ representatives. The format allows jurisdictions to develop and implement programs based on local circumstances while meeting the intent of the Regional Solid Waste Management Plan goals and objectives. The Plan framework has been through three public comment opportunities, and the plan has been amended to reflect input received during the public process.

The annual work plan framework comes directly from the RSWMP recommended practices. In addition to these recommended practices, there are other supporting programs that are not specifically listed in the RSWMP but are important ongoing implementation programs that provide a valuable contribution to the

RSWMP goals. As with the RSWMP, the Annual Plan recognizes the need for local flexibility in implementing programs.

Each local government will submit a brief description of how each element will be completed. These 1997-98 work plans and 1996-97 final program reports will be due to Metro by August 1, 1997. Work plans will be reviewed by a Metro committee consisting of representatives from the Waste Reduction & Planning Services Division and Metro Council department. Discussions will be held with each local government to review areas of concern, make clarifications and to finalize the elements for that jurisdiction's plan. The review committee is charged with granting administrative approval of the work plan to the jurisdiction. The 1996-97 program final reports will also be reviewed by the committee. Any jurisdictions proposing alternatives to the framework in the Annual Plan will be subject to an independent review process that is currently being developed by staff.

The review committee will meet with local governments at their request throughout the year to review status and assist with amendment of work plans if necessary. At the end of FY 97-98 local governments will submit a final program report which describes how they have accomplished their planned work items. The same Metro committee will review these reports. If any work plan items were not completed or were found to be deficient, the committee will meet with the local government to determine the cause and appropriate action to allow the problem to be remedied. Penalties may be applied if other options for resolution are exhausted.

The Solid Waste Advisory Committee reviewed working and final drafts of the Year 8 Annual Work Plan and has recommended that it be forwarded to the Metro Council for approval.

BUDGET IMPACT

A total of \$600,000 has been budgeted for this program.

EXECUTIVE OFFICER RECOMMENDATION

The Executive Officer recommends approval of Resolution No. 97-2448.

OUTLINE OF YEAR 8 ANNUAL WASTE REDUCTION PLAN TASKS **Adopted February 6, 1997**

Prologue: The following 1997-98 Local Government and Metro implementation plan was developed based on the recommended solid waste practices as listed in the Regional Solid Waste Management Plan (RSWMP). Where applicable, details about the current methods of task implementation are listed as bullet points. Some of the programs listed are established programs that require continued and ongoing support and monitoring.

All tasks listed and implemented by the local jurisdictions are designed to build on the foundation of the RSWMP and contribute to the accomplishment of the regional waste reduction goals. As defined in the plan, local jurisdictions will all contribute to local and regional monitoring, measurement and evaluation of specific programs as well as the measurement and evaluation efforts for the overall solid waste system.

Some of the important intergovernmental coordination efforts that the local governments, Metro and hauler representatives undertake are not specifically addressed in the task list, but are a vital component leading to the successful implementation of the region's waste reduction and recycling programs. Representatives from Metro and local governments meet on a regularly scheduled basis in two work groups to plan programs and coordinate approaches to reduce duplication of effort and to create consistent programs to serve the region's citizens. The two primary work groups are the Local Government Recycling Coordinators and the Commercial Work Group. Both groups have spent considerable time an effort developing and implementing this and past year's programs. Other groups are formed on an ad hoc basis to address particular projects as they arise.

As with the RSWMP, the annual plan provides for a certain degree of local flexibility in the implementation and measurement methods used by local governments to complete tasks. Each local jurisdiction, through completed annual plans, details their own implementation methods that reflect progress toward local and regional goals. Individual jurisdictions' measurement methods will be combined into a regional framework to provide overall measures of the system as a whole.

Compliance with State Law: All local jurisdictions will continue to be required to comply with all provisions set forth in State Law (OAR 340-90-040) in addition to the tasks listed in the RSWMP. Metro will continue to be the reporting agency for the region's three county area.

Public Input Process and Program Plan Development Schedule: The public input process and program plan development schedule are incorporated into the Year 8 Annual Plan as Attachment A. In addition to the program plan development schedule, local government recycling coordinators and Metro staff plan to keep elected officials, advisory committee members and interested parties apprised of the progress of

implemented programs on a quarterly basis via updates to the Metro Council, Metro Solid Waste Advisory Committee and mailings to interested parties.

Regional Waste Evaluation Service Provision Plan Framework: The Regional Waste Evaluation Service Provision Plan Framework and responsibility for conducting waste evaluations is in the process of being developed by a public work group. The work group was first convened on December 13, 1996 and included Metro staff, local government staff, solid waste haulers, businesses, other private sector and volunteer groups and interested general public. The group discussed service provision methods, resources, the information and assistance needs of the businesses, appropriate messages, and the most effective vehicles to deliver the messages. An early draft Service Provision Plan Framework was developed by Metro and local government staff in October 1996 and presented to the public work group. Metro staff will incorporate feedback received at the December meeting, and the revised draft will be taken to the public work group in February 1997 for review and further input. The resulting Service Provision Plan will be incorporated into the Year 8 Plan once the group has agreed upon a final and complete Service Provision Plan (no later than May 1997). Local governments will then submit their independent Waste Evaluation Service Provision Plans for their jurisdictions using the regional framework as part of their Year 8 Plans due to Metro June 15, 1997. The preliminary draft of the Regional Waste Evaluation Service Provision plan is included at the end of this document as Attachment C.

Alternative Practices:

Alternative practices are defined as solid waste management programs or services that are proposed by a local government as an "alternative" to a "recommended practice" in the Regional Solid Waste Management Plan. An alternative practice must demonstrate the same level of expected performance as the recommended practice. Alternative practices allow for local government flexibility in meeting the RSWMP's objective. The specific application, evaluation and approval criteria for alternative practices is currently being developed and the first draft of the proposed application process is included with this document as Attachment D. The Alternative Practices piece will be reviewed and discussed by the SWAC Solid Waste Plan Amendment Task Force; a subcommittee that has been formed to review suggested revisions to the RSWMP. It is expected that the task force will meet six times and will have final recommendations before Council by May 1997. Task force decisions regarding Alternative Practices will be incorporated into the Year 8 Plan after Metro Council approval.

Regional Solid Waste Management Plan Amendments

Input received over the past few months, the Year 8 planning process, market and other external forces as well as closer examination by staff has revealed the need for amendments to some elements of the RSWMP. Most of these amendments concern the need for greater clarification of tasks, and revisions regarding dates and responsible parties assigned to certain tasks. The Year 8 Plan contains several conditional amendments which are noted by underlined italicized text. These conditional amendments will remain in draft form until the RSWMP Amendment Task Force has

made final recommendations and these changes have been approved by the Metro Council. Once the council has approved these amendments, they will be incorporated into the Year 8 Plan. Passage of the Year 8 Plan in its current form does not induce passage of the conditional amendments noted. These proposed changes are included in the Year 8 Plan as place holders for areas in need of clarification and will remain in draft form until the Metro Council reviews and makes a decision on the recommendations made by the RSWMP Amendment Task Force. Attachment B to this document includes an overview of proposed changes to the RSWMP that will affect the Year 8 Plan if approved. Included as Attachment E to this document is the proposed schedule for the RSWMP Amendment Task Force and the proposed composition of the group.

While the timing of the RSWMP amendments and the Year 8 Plan are not ideal, this is the first year that the old Annual Waste Reduction Program Plan and the newly RSWMP have fully converged. Once these initial adjustments are made, it is expected that planning efforts will be much more orderly and sequential in forthcoming years.

Regional Benchmarks

Regional benchmarks are designed to give precise and reliable indicators of system trends that reflect the net effects of all factors that influence the system, including recommended practices. Recommended practices were designed to identify areas of regional interest, set expectations regarding what can be accomplished, and provide a strategy or approach that can also serve as the basis of an alternative practice. The programs and tasks outlined in this plan are based on the recommended practices set forth in the RSWMP.

Three groups of regional benchmarks - system, facility and disposal benchmarks - each containing several quantifiable measures, will track performance of the solid waste system under RSWMP. These benchmarks are listed in the attached table 9.3 from the RSWMP. The expected performance of the recommended practices by the year 2000 and 2005 is shown in the attached table 9.2a and 9.2b from the RSWMP respectively. Each column in the center section of the tables represents a recommended practice, with tonnage impacts on each generator and material type indicated. The tonnages are the amounts of waste that would have been disposed in the absence of the recommended practices. Accordingly, they are shown as reductions in disposal or landfilled quantities from base case¹ disposal.

¹The base case is intended to draw out the tonnage implications of "no change" to the solid waste system. It serves as a "reference scenario" for solid waste programs that affect rates of generation, recycling and disposal. The base case is derived by applying current recycling and disposal rates (specific to the type of generator, material and location in the region) to population and employment projections over the entire planning horizon. Under the base case, changes in recycling and disposal tonnages are due solely to changes in the trend and structure of regional growth. Regional growth projections are from Metro's Region 2040 Plan.

I. RESIDENTIAL WASTE PREVENTION

1. Education and Information

- a) Regional media campaign focused on waste prevention. (M/LG) funding plan 10/96
- b) Testing of waste prevention message. (M/LG) 7/97
- c) Earth-wise purchasing and waste prevention programs focused on households. (M/LG) evaluate 7/98
 - Assist with "Earth-Wise" purchasing and waste prevention programs targeted at households.
- d) Expand local education programs and shift to waste prevention emphasis. (LG/M) evaluate 7/98

2. Home Composting

- a) Continue home composting workshops Spring and Fall. (M/LG) ongoing
 - Promote home composting and Metro home composting workshops.
 - Assist with the development of new venues to promote and teach home composting (i.e. satellite or special events).
- b) Develop demonstration sites to serve all of region. (M/LG) new sites as-needed by 7/97

3. Other Supporting Programs*

- a) Include information about household hazardous waste prevention and proper disposal in public education pieces where appropriate. (LG/M)
- b) Participate in any mobile household hazardous waste collection events held in your jurisdiction (M/LG).
 - Promote, publicize, assist with securing collection sites.

*"Other Supporting Programs" are not specifically listed tasks in the RSWMP but are important ongoing implementation programs that provide a valuable contribution to the RSWMP goals.

- c) Continue to promote the purchase of recycled products and provide educational and promotional materials and resources. (M/LG)

II. RESIDENTIAL RECYCLING

1. Expand existing residential curbside programs

- a) Weekly curbside collection (or equivalent) of YD and scrap paper. (LG/H) maintain/continue
 - Investigate and report on the addition of new materials and access to recycling for non-curbside materials.
- b) Assess scrap paper efforts. (M/LG) 7/97-98
 - measurement plan utilizing a combination of tonnage reports and regularly scheduled waste characterization studies by 7/97, actual measurement by 12/98.
- c) Multi-family containers (4+ materials). (LG/H/M) max feasible 7/97 then maintain
 - Ensure placement of containers for at least 4 materials (scrap paper included where feasible) to substantially all (85%) of multi-family units by 12/96. Maximum feasible by 7/97.
 - Update and distribute educational materials.
 - Provide data to Metro to help maintain accurate database annually until 85% reached then thereafter only as needed.
 - Modify/improve existing systems in place on an ongoing basis.
 - Conduct surveys of program effectiveness as needed (Cooperative with Metro).
 - Investigate inclusion of additional materials in collection programs (optional).
- d) Target low participation neighborhoods w/special education. (~~M/LG/H~~)(LG/M/H) every other year beginning 97-98
criteria: identify/define neighborhoods, develop strategy, implement, report.
- e) Target reduction of YD in drop boxes and self haul at disposal facilities. (M/LG/H) implement 96-97, 97-98
criteria: identify/define problem, develop strategy, implement, report.

2. Other Supporting Programs

- a) Continue cooperative research into promising new technologies such as co-collection, etc. (optional).

III. COMMERCIAL WASTE PREVENTION AND RECYCLING

1. Education, information and market development

- a) Waste evaluations with a goal of reaching 80% of targeted** businesses by 2000. (LG/H/M) service plan 5/97-10/96
40% of businesses by 7/98
assess programs by 7/98
- Service Provision Plan regional framework developed by 5/97
 - Ensure provision of waste evaluations utilizing a standardized approach within each local jurisdiction consistent with the regional objectives.
 - Local government Waste Evaluation Service Provision Plans due to Metro by 6/15/97.
- b) Model waste prevention programs for ~~different types of~~ targeted businesses. (M/LG/H) 45% of targets by 7/00
60% of targets by 7/05
- LG continue to assist with targeting business groups.
 - Metro to define the universe of targets and select annually.
 - Results of the commercial generator study to be used to determine the best range of targets.
- c) Coordinated regional and local media waste prevention campaigns. (M/LG) funding plan 10/96
- Participate in coordinated regional and local media campaigns emphasizing business-waste prevention.
 - Participate in commercial work group to develop program goals, standards and baselines for program measurement.
- d) Earth-Wise programs (promo campaigns, model procurement policies, recycled product guides, market development). (M/LG)
- Participate in "Earth-Wise" programs including promotion campaigns, model procurement policies for targeted generators, and recycled product guides that assist in the development of markets for recycled materials.
- e) Analysis of use of recycled feedstock in manufacturing. (M/LG) 2-year revision cycle

** Targeted businesses are defined as business types (i.e. warehousing, strip malls, restaurants) that generate significant amounts of recoverable or recyclable materials. Metro has developed a draft list of targeted businesses for FY 1997-98. Please see Attachment F for further information regarding targets and goals.

2. Expand source-separated recycling

a) Collection of paper and containers (glass, tin, aluminum, PET & HDPE) or other prevalently disposed materials from businesses. (LG/H/PS/M)

50% of businesses 1/96

- For businesses that do not generate significant amounts of paper and containers, assure collection of other prevalent materials consistent with the regional objectives in the RSWMP.

100% of businesses 1/99

b) Appropriate recycling containers provided to all small businesses. (LG/M)

50% provided by 1/97

This section will be clarified with regard to intent and costs via the RSWMP revision process scheduled for January 1997.

100% provided by 1/00

c) Business recycling recognition programs. (PS/M/LG) (LG/M/PS)

expanded efforts start 7/95

- Continue to provide BRAG business recycling recognition programs.

3. Other Supporting Programs

a) Implement and monitor data collection programs designed to provide at a minimum:

-annual baseline of the percent of commercial customer accounts who recycle through their regulated solid waste hauler.

-an annual and a 1999 target increase in commercial customers recycling.

-annual report to Metro on the status of the target and any findings related to successes or failures and proposed changes to the current approach to increase effectiveness.

Tons diverted will be measured using several statistically valid methods including tons diverted from disposal from commercial generators regionally over time, commercial generator studies, waste characterization studies and surveys.

b) Participate in the Commercial Work Group to develop program goals, standards and baselines for program measurement as well as ensure regional continuity of programs.

c) Continue to provide and support government in-house waste prevention, reduction, reuse, recycling and buy recycled programs.

- d) Continue to provide Green Schools Recognition Program.
- e) Investigate and report on the development of non-residential yard debris programs.
- f) Investigate and report on regulations (ordinances, franchises) and funding sources for commercial recycling to establish new or improved business recycling services (optional).
- g) Investigate and report on weight-based collection systems for waste and recyclables (optional).
- h) Continue to promote buy recycled programs and provide promotional and educational materials and resources.
- i) Metro assume responsibility for gathering and analyzing information regarding the extent of commercial accounts served by private recyclers instead of or in addition to services provided by regulated solid waste and recycling haulers.

IV. COMMERCIAL ORGANICS

1. Collection and off-site recovery of source separated food and non-recyclable paper from businesses

- a) Pilot project to develop and site processing capacity. (M/PS/LG/DEQ/H) *7/95-6/96 1/97 - 1/98*
 - Participate with Metro to develop collection and off-site processing of source-separated food and non-recyclable paper from businesses.
- b) Collection from larger food generators within three to five years*. (LG/H/PS/M) *(contingent) develop routes 7/96*
 - Plan collection systems for larger food generators (first year of 3-5 year project).
 - Assist with siting and development of processing capacity for regional organic wastes.

**Implementation is contingent upon processing capacity.*

3. Other Supporting Programs

- a) Increase efforts in the area of waste prevention, donation, and community partnerships for organic waste generators. (M/LG/PS)

V. POST-COLLECTION RECOVERY

1. Regional processing facilities for mixed dry waste

- a) Develop sufficient capacity to serve the entire region. (PS, M, LG) Metro annual assessment
- b) Provide reasonable access for all haulers. (PS, M, LG) Metro annual assessment
- c) Maintain current fee waivers on recovered material; processing facilities pay fees to Metro only on disposed residuals. (M) new rate structure 7/96
- d) Support & develop markets for recovered materials through technical assistance to processors and end users of recovered materials. (PS, M, LG) Metro annual assessment
- e) Consider policies that could allow vertical integration. For example, allow processing facilities to accept materials from more than their own company. (M) new rate structure 7/96

2. Fiber-based fuel

- a) Continue to support development of fiber-based fuel facilities when economically feasible as an alternative to landfilling. (PS, M) Metro examine feasibility annually

3. Other Supporting Programs

- a) Assist with the development of markets for recovered materials through technical assistance to processors and end users of recovered materials. (M/PS)

VI. BUILDING INDUSTRY WASTE PREVENTION

1. Develop targeted technical and educational programs

- a) ~~Earth-Wise building program~~ Using existing building industry associations and networks including "Earth Wise Builders" to train builders about salvage, WR, recycling, buy recycled and other environmental building practices. (M/LG) expand efforts 7/95
- b) On-site audits at construction & demolition sites to promote waste prevention. (M/LG/H/PS) ongoing
- Metro will continue to promote and offer on-site audits as a method to promote recycling and waste prevention.
 - Metro will continue to provide educational tools and training to local governments.
- c) Technical assistance and educational information for builders and others on waste prevention practices for the building trades (M/LG/H/PS) ongoing
- Assist with the provision of technical assistance and educational information for builders and others on waste prevention practices for building trades waste.
 - Tie "Earth-Wise" building to local government environmental programs, i.e., on-site water management, etc.

VII. BUILDING INDUSTRY RECYCLING

1. On-site source separation at construction and demolition sites

- a) Local governments ~~assure availability of~~ ensure that generators requesting hauling services for C&D sites are made aware of and offered on-site services for two or more materials. (LG/H/PS/M) develop strategies 7/96
implement 7/97 ongoing
- b) Promotion of and education about on-site recycling collection services. (M/LG/LG/M/H/PS) coordinate with above task
- c) Develop educational materials that target new recoverable materials for source separation when markets are available. (M/LG/H/PS) develop materials 7/98 99
implement FY98-99 99-00*

*Dates contingent upon markets.

VIII. SOLID WASTE FACILITIES

Regulation and Siting:

1. Yard debris processing system

- a) Establish facility performance standards franchising or otherwise authorizing yard debris processors. (M, PS, LG, DEQ) standards by 1/96
- b) Metro program for franchising or otherwise authorizing yard debris processors. (M, PS, LG) new facilities by 2/96
existing facilities by 1/97
- c) Local governments adopt clear and objective siting standards that do not effectively prohibit the siting of facilities. (LG, M, DEQ) adoptions by 1/97_98

2. Organic waste regulatory system

- a) Develop a Metro regulation system for processors of food and other organic waste. This system could include a Metro franchise with performance standards similar to the standards proposed for yard debris facilities. (M, PS, LG) by 7/97
- b) Local governments adopt clear and objective siting standards that do not effectively prohibit the siting of organic waste facilities. (LG, M, DEQ) adoptions by 1/97_98

Transfer and Disposal System:

1. Maintain existing system of three transfer stations

- a) Successful implementation of waste reduction practices. (M, LG, PS) capital improvement plan 7/96
new South and Central contracts 10/96
Metro biannual assessment
- b) Modifications of existing facilities required to maintain service levels.

- c) When necessary implement waste handling practices sufficient to reduce demand on transfer facilities. (LG, PS, H, M)
 - d) Modify the existing stations as needed to coordinate with any changes in collection technologies (e.g. co-collection of waste and recyclables). (M, LG, H, PS) Metro biannual assessment
 - e) Examine service options to include reuse, recycling, and disposal for households and businesses that self-haul their waste. (M, LG, H, PS) Metro biannual assessment
- 2. Maintain the existing system of private general and limited purpose landfills**
- 3. Maintain options for haulers to choose among disposal alternatives**
- a) Designated out-of-region landfills for accepting limited types of waste. (M) maintain current system
 - b) Franchised in-region system of private landfills and processing facilities. (LG, M) maintain current system
 - c) Non-system user licenses for individual haulers delivering limited types of waste to other facilities. (M) maintain current system
- 4. Reload facilities**
- a) Addition of reload capacity to existing private processing facilities to serve areas distant from existing transfer stations or to address capacity problems at existing facilities. (M, LG, H, PS) Metro biannual assessment
 - b) Reload options to be evaluated on a case-by-case basis depending on future tonnages and costs. (M)
 - c) New reload facilities. Ownership and operation determined on a case-by-case basis. (M)
 - d) Low level recovery activities at reload facilities. (M, LG, H, PS) Metro biannual assessment

ATTACHMENT A

Year 8 Metro / Local Government Waste Reduction Work Plan

Year 8 = July 1, 1997 through June 30, 1998

Regional Public Involvement Process

Project Coordinator: Jennifer Ness Erickson (797-1647)

First Draft	Public Involvement Timeline	Oct. 1 through Oct. 25, 1996
Public Review	First mailing to interested parties: <ul style="list-style-type: none"> . Copy of Plan - 1st draft . Explanation of public involvement process . Public meeting schedule 	Oct. 1, 1996
SWAC Meeting	Review and comment on Plan - 1st draft	Oct. 16, 1996
RECom Meeting	Council work session	Oct. 23, 1996
	Deadline for comments on 1st draft	Oct. 25, 1996

Second Draft	Public Involvement Timeline	Nov. 12 through Dec. 6, 1996
Public Review	Second mailing to interested parties: <ul style="list-style-type: none"> . Copy of Plan - 2nd draft . Summary of comments received on 1st draft . Explanation of public involvement process . Public meeting schedule 	Nov. 12, 1996
SWAC Meeting	Review and comment on Plan - 2nd draft	Nov. 20, 1996
RECom Meeting	Public meeting Review and comment on Plan - 2nd draft	Nov. 20, 1996
	Deadline for comments on 2nd draft	Dec. 6, 1996

Final Approval	Public Involvement Timeline	Dec. 18, 1996 through Jan. 31, 1997
Public Review	Third mailing to interested parties: <ul style="list-style-type: none"> . Copy of Plan - Final Draft . Report on the results of public involvement during 1st and 2nd draft phases . Public meeting schedule 	Dec. 18, 1996
SWAC Meeting	Recommend Council approval of the Plan	Jan. 15, 1997
RECom Meeting	Consideration of the Plan - final draft	Jan. 22, 1997
Full Council Meeting	Consideration of the Plan as recommended by RECom	February 6, 1997

	Adopted Plan made available to interested parties	Feb. 1997
	Year 8 Plan Implementation Quarterly updates on progress to the Executive Officer, Regional SWAC and RECom	Jul. 1, 1997 through June 30, 1998

RECom: Regional Environmental Management Committee, a subcommittee of the Metro Council
SWAC: Regional Solid Waste Advisory Committee; advisory to the Metro Executive Officer and Council

Interested Parties: Metro Executive Officer and Council, state, regional and local government solid waste advisory groups, hauler groups, recycling industry, government and business sector representatives, neighborhood groups, and the interested public.

ATTACHMENT B

OVERVIEW OF ADDITIONAL CHANGES TO 1997-98 ANNUAL WASTE REDUCTION PLAN

BASED UPON PROPOSED CHANGES TO THE REGIONAL SOLID WASTE MANAGEMENT PLAN

All changes to the Plan that are noted by strikeouts and *underlined italicized* language are a direct result of proposed language changes to the Regional Solid Waste Management Plan (RSWMP) that affect this annual plan. All proposed changes to the Annual Plan that are a result of RSWMP language changes are contingent upon the acceptance of amendments to the RSWMP. It is expected that RSWMP revisions will be concluded in January-February 1997.

The following is a listing of proposed Plan changes that are a direct result of possible RSWMP amendments. All changes that were a result of public comment are listed in the attached table and are noted as AP in the code section.

Page 2., Waste Evaluation Service Provision Plan

Due to the impending public work group meeting, wording has been changed to reflect current status.

Page 2., Alternative Practices

The Alternative Practices piece is in the process of being developed.

Page 4., II. 1. b)

Date change corresponds with proposed RSWMP amendments. Acceptance of the date change is contingent upon separate acceptance RSWMP amendments.

Page 4., II. 1. d)

Lead role change corresponds with proposed RSWMP amendments. Acceptance of the lead role change is contingent upon separate acceptance RSWMP amendments.

Page 4., II. 1. e)

Wording addition corresponds with proposed RSWMP amendments. Acceptance of the wording addition is contingent upon separate acceptance RSWMP amendments.

Page 5., III. 1. a)

The word "targeted" added to correspond with proposed RSWMP amendments. Acceptance of the wording addition is contingent upon separate acceptance RSWMP amendments.

Page 5., III. 1. b)

Wording changes correspond with proposed RSWMP amendments. Acceptance of the wording changes are contingent upon separate acceptance RSWMP amendments.

Page 6. III. 2. a) and b)

Wording changes correspond with proposed RSWMP amendments. Acceptance of the wording changes are contingent upon separate acceptance RSWMP amendments.

Page 6., III. 2. c)

Lead role change corresponds with proposed RSWMP amendments. Acceptance of the lead role change is contingent upon separate acceptance RSWMP amendments.

Page 6., III. 3. a)

Wording changes are contingent upon decisions made by the public work group convened to develop measurement methods and a measurement plan for the RSWMP.

Page 7., IV. 1. a)

Date change corresponds with proposed RSWMP amendments. Acceptance of the date change is contingent upon separate acceptance RSWMP amendments.

Page 7., IV. 1. b)

Wording changes correspond with proposed RSWMP amendments. Acceptance of the wording changes are contingent upon separate acceptance RSWMP amendments.

Page 9., VI. 1. a)

Wording changes correspond with proposed RSWMP amendments. Acceptance of the wording changes are contingent upon separate acceptance RSWMP amendments.

Page 9., VI. 1. b) and c)

Wording deleted as RSWMP notes sunset of these programs in 1996-97. This is the Annual Plan for 1997-98, therefore these programs no longer apply.

Page 9., VIII. 1. a)

Wording and date changes correspond with proposed RSWMP amendments. Acceptance of the wording and date changes are contingent upon separate acceptance RSWMP amendments.

Page 9. VII. 1.b)

Lead role change corresponds with proposed RSWMP amendments. Acceptance of the lead role change is contingent upon separate acceptance RSWMP amendments.

Page 9. VII. 1. c)

Date changes and added footnote correspond with proposed RSWMP amendments. Acceptance of the wording and date changes are contingent upon separate acceptance RSWMP amendments.

Page 10. VIII. 1. c)

Date change corresponds with proposed RSWMP amendments. Acceptance of the date change is contingent upon separate acceptance RSWMP amendments.

Page 10. VIII. 2. b)

Date change corresponds with proposed RSWMP amendments. Acceptance of the date change is contingent upon separate acceptance RSWMP amendments.

ATTACHMENT C

REGIONAL STANDARDS FOR WASTE PREVENTION, DIVERSION & PROCUREMENT EVALUATIONS

REVISION #1
October 28, 1996

I. Introduction:

The Regional Solid Waste Management Plan (RSWMP) states that "waste prevention, diversion and procurement evaluations will be conducted with a goal of reaching 80 percent of all businesses by the year 2000." This tool is one element of the waste prevention and recycling education, information and market development recommended practice. The Business Waste Reduction Practices were designed to guide the region toward increased waste prevention and recycling and decreased waste generation and disposal levels in the commercial sector. The RSWMP also notes that a waste evaluation service provision plan should be developed by Metro and Local governments by October of 1996. The following has been developed to satisfy that need.

Service Provision Plan components:

The service provision plan is composed of three basic elements: service provision methods, materials used in promotion and education, and measurement means. Each jurisdiction has provided information regarding their methods, materials and means of measurement [see attachment].

Definition of a waste evaluation:

A waste evaluation is one of many tools used to increase the waste reduction and recycling behavior of commercial entities in the Metro region.

Waste evaluations seek to:

- inform
- educate
- assist business owners and managers with waste management, waste prevention and recycling options available
- achieve higher levels of waste diversion

Waste evaluations help businesses develop programs using simple and successful key elements that make waste prevention and recycling programs cost effective. Evaluations also provide the business with basic ideas for making small changes in their daily activities that have a large impact on the waste they create.

II. Standards:

Required minimum elements of a waste evaluation

In order to be in compliance with the regional standard, waste evaluations must include the following elements:

- examination and explanation of the business' waste stream,
- teaching waste prevention and recycling,
- providing resources for buying recycled products,
- helping the business understand and utilize the current local solid waste and recycling services and infrastructure,
- providing resources such as educational materials and signs,
- providing recognition programs for those businesses that successfully reduce their waste.

Methods acceptable for conducting waste evaluations:

Waste evaluations may take the following forms:

- on-site visits to the business by a local government recycling coordinator or waste and recycling hauler (preferred method),
- evaluations conducted over the telephone and accompanied by follow-up written materials and additional monitoring calls,
- self-audit conducted by the business with an approved and complete packet of materials supplied by local governments or haulers.

All evaluations that are not conducted at the business' site of operation must clearly communicate and promote the availability of on-site visits. Approved and complete waste evaluation packets that address all basic minimum standards must be included in all evaluations.

Many businesses prefer to conduct their own waste evaluations to maintain confidentiality or because they may only need to improve upon an existing program. Telephone evaluations are an effective tool for the busy professional who wants a few quick answers and some follow-up written materials to be received later.

III. Goals and Measurement:**Goals of regional waste evaluation standards:**

The goal of the service provision plan is to provide basic criteria for the methods and materials used in a waste evaluation and to ensure that the approaches used throughout the region provide a complete and consistent message. The standards also seek to ensure that waste evaluations yield measurable results in the diversion of waste from the landfill. And finally, to develop a variety of measurement means that provide the necessary data within a reasonable framework of resources and available information.

Goal of individual local government waste evaluation service provision plans:

Each local jurisdiction has tailored a waste evaluation program that best fits their waste and recycling collection infrastructure and their particular circumstances. Each program, though somewhat different, must include the required minimum elements stated below:

- examination of waste streams,
- waste prevention and reduction,
- reuse,
- recycling, and
- buying recycled products.

Measurement:

Each jurisdiction will collect data on the numbers of waste evaluations performed by government personnel, franchised or licensed haulers and trained volunteers. Methods of tracking and data collection will vary from jurisdiction to jurisdiction depending on available sources of information. Local jurisdictions in partnership with franchised and licensed haulers will provide Metro with data regarding the number of waste evaluations conducted annually, the number of business provided recycling services by franchised or licensed haulers, and materials collected. Metro will assist jurisdictions at all points necessary to collect and analyze the available data. Ultimately, Metro will use local information supported by other sources available to determine the regional level of waste evaluation provision and program effectiveness on an annual basis.

ATTACHMENT D

Alternative Practices DRAFT

Background:

An "alternative practice" is a solid waste management program or service that is proposed by a local government as an alternative to one or more of the recommended practices stated in the plan. Alternative practices were designed to allow for greater local government flexibility in implementing programs that meet the goals of the region's solid waste plan. Local jurisdictions may submit applications for an alternative practice in any area of the plan, and there is no limit to the number of proposals submitted. Metro is available to assist with the planning and implementation of alternative practices via grant funds for specific needs, technical/data services, printed materials, staff assistance or other resources as requested by local jurisdictions. A Metro staff contact for issues regarding alternative practices will be designated by the Waste Reduction & Planning Services Manager.

Proposal Process:

A brief one-page "discussion draft" of the proposed alternative should be submitted no later than June 1st of the current year. The discussion draft should address all of the following criteria:

- estimated participation levels
- estimated amount of waste that will be prevented, recycled, recovered or disposed
- consistency with the waste reduction hierarchy and source separation priority
- economic and technical feasibility
- impact on other waste reduction activities

Metro staff including the Waste Reduction & Planning Services Manager, a Metro Council Analyst, and Waste Reduction division staff will meet with the local jurisdiction to discuss the proposal prior to the submittal of the full application. The local jurisdiction may also choose to have the proposal discussed and evaluated at the Local Government Recycling Coordinator's Meeting or by the Commercial Work Group. If Metro and the local jurisdiction agree that the alternative is feasible, the local jurisdiction will be asked to submit a more detailed application concurrently with the Annual Waste Reduction Program Plans due August 1. To be considered complete, the final application should also include the following:

- implementation timeline
- evaluation/measurement plan
- addresses questions raised by the draft review group

Evaluation process:

Metro staff will review the full proposal and forward it with a recommendation to the Waste Reduction & Planning Services Manager. The Manager has the following options:

- approve the proposal as submitted
- require that the proposal be implemented on a pilot scale for the first year to demonstrate feasibility/ability to meet equal goals
- deny the request

The Manager may request assistance from SWAC before making a recommendation, but SWAC and Metro Council approval is not required.

The Manager will approve or deny the request in writing within 30 days of submittal.

NOTE: Any approved alternative practice that fails to meet the stated criteria will be subject to corrective action recommended by the REM Director.

Any alternative practices previously approved for implementation in other jurisdictions which have proved successful, will be considered pre-approved and will not necessitate the use of the formal proposal and evaluation process.

ATTACHMENT E

**SOLID WASTE PLAN
AMENDMENT TASK FORCE**

FAX NUMBER:

Lee Barrett	City of Portland	823-4562
JoAnn Herrigel or Susan Ziolko	Clackamas County	652-4433 557-6355
Scott Klag Jennifer Erickson (Alt.)	Metro	797-1795
Dave Kunz	DEQ	229-6957
Tom Miller	Waste Haulers	643-3462
Mike Misovetz	Citizen, Business (Halton Co.)	638-5585
	Business	
Jeff Murray	Recycling Industry	255-2299
Jeanne Roy and Betty Patton	Recycling Advocates	no fax fax #?
Lynne Storz	Washington County	693-4490
To be determined	Solid Waste Industry	
Tam Driscoll *	East Multnomah County	661-5927

* Tam Driscoll will not attend task force meetings but will receive agendas and will offer comments and suggestions to the task force as necessary.

Regional Solid Waste Management Plan Consideration of Proposed Amendments

Proposed Process and Schedule Public Involvement Timelines

(Draft: 1/23/97)

NOTE: Dates subject to change.

SWAC	Assign Task Force to develop recommendations for Executive Officer and Council consideration; representation includes diverse interests	Jan. 15
Task Force	Task Force meets to develop recommendations (6 meetings proposed)	Feb. 1 - Mar. 28
Task Force SWAC	Task Force presents preliminary recommendations to SWAC	Mar. 19
Public Review and comment on draft	Mailing to interested parties summarizing the recommendations and informing them of the public involvement process and schedule	early April
Public	Deadline for public comments	late April
Task Force	Meets to consider results of public involvement phase; forms final recommendation to SWAC	early May
SWAC	Final review of proposed amendments; recommendation to the Executive Officer and Council	May 21
Executive Officer	Review and Recommendation to the Council	May
Council	1st reading of the ordinance* to adopt the amendments into the RSWMP	late May
Council REMCom Meeting	Public hearing on the ordinance* to adopt the amendments; REMCom forms its recommendation to the Council	June
Full Council Meeting	2nd reading of the ordinance,* consideration of whether to adopt the amendments into the RSWMP	June
DEQ approval	DEQ approval of the amendments	July
	Adopted Plan distributed to interested parties	July
Metro / Local Govts.	Year 8 Annual Work Plans due to Metro	Jun 15-30, 1997

REMCom: Regional Environmental Management Committee, a subcommittee of the Metro Council.

SWAC: Regional Solid Waste Advisory Committee; advisory to the Metro Executive Officer and Council.

Meeting times and places - Call the Metro Council Office (797-1540) for information about REMCom meeting times and places. Call Connie Kinney about SWAC meeting times and places (797-1643).

ATTACHMENT F

**Business Targeting Assumptions
for
Commercial Waste Prevention
RSWMP Simulation Model
Model Runs Fall—Winter 1994**

Business Types

Office-related
Education
Dry Goods Retail
Wholesale/Warehousing

Target Materials

High grade paper
Mixed paper packaging
Other rigid plastic packaging & lids
Film packaging
Wood pallets and crates

Business sizes and contact targets

Large.....	50+ employees.....	all
Medium	11 — 50 employees.....	$\frac{3}{4}$
Small.....	up to 10 employees.....	$\frac{2}{3}$

Table 9.2a
Effect of Recommended Practices on RSWMP Disposal Benchmarks, Year 2000

	Base Case* Disposal, Year 2000		Waste Reduction by Practice										Net Effect of Recommended Practices (Reductions in Delivery)		Disposal with Recommended Practices, Year 2000		Post-Collection Recovery from Mixed Waste (MRFs, T.Stations, Reloads)	Landfilled Tonnage with Recom- mended Practices, Year 2000
			Waste Prevention		Source Separation													
			Home Composting	Waste Audits	Expand Curbside	Commingled Plastics	Business Paper	Business Paper&Containers	Onsite C&D Separation	Business Organics/Hi Tech Process	Business Organics/Lo Tech Process	Residential Organics Recovery****						
yes	yes	yes	no	no	yes	yes	no	yes	no	Tons**	Rate**	Tons**	Rate**	yes				
Recommended? Program Cost/Ton*** System Cost/Ton***	na	\$150	\$47	\$55	\$43	\$402	\$136	\$115	\$144	\$385	\$333	\$339	-	-	-	-	\$149	-
			\$148	\$151	\$150	\$153	\$151	\$151	\$152	\$154	\$153	\$162	-	-	-	-	\$152	-
Refuse by Generator & Material																		
Single Family																		
Food Waste	107,900	9.1	-8,500										-8,500	-0.7	99,400	8.4	-	-
Recyclables	115,900	9.7		-10,500									-10,500	-0.9	105,400	8.8	-	-
Yard Debris	34,400	2.9	-2,600										-2,600	-0.2	31,800	2.7	-	-
Other Waste	95,300	8.0													95,300	8.0	-	-
Total SF Refuse	353,500	29.7	-11,100	-10,500									-21,600	-1.8	331,900	27.9	-	-
Multifamily																		
Food Waste	21,000	7.4													21,000	7.4	-	-
Recyclables	25,300	9.0		-10,300									-10,300	-3.7	15,000	5.3	-	-
Yard Debris	5,400	1.9		-2,300									-2,300	-0.8	3,100	1.1	-	-
Other Waste	15,100	5.4													15,100	5.4	-	-
Total MF Refuse	66,800	23.7		-12,600									-12,600	-4.5	54,200	19.2	-	-
Business																		
Food Waste	111,600	4.6													69,900	2.9	-	-
Recyclables	199,600	8.2		-9,200				-66,400					-41,700	-1.7	124,000	5.1	-	-
Yard Debris	18,100	0.7													18,100	0.7	-	-
Other Waste	166,700	6.9													166,700	6.9	-	-
Total Business Refuse	496,000	20.4		-9,200				-66,400					-41,700	-4.8	378,700	15.8	-	-
Construction & Demolition																		
Total C&D Refuse	267,200	na							-31,400				-31,400	na	235,800	na	-	-
Total Delivery of Refuse by Material Type																		
Food Waste	241,500	na	-8,500										-50,200	na	191,300	na	0	191,300
Recyclables	445,700	na		-9,200	-20,800			-66,400	-24,100				-120,500	na	325,200	na	-40,500	284,700
Yard Debris	67,800	na	-2,600		-2,300				-100				-5,000	na	62,800	na	-3,500	59,300
Other Waste	428,400	na							-17,000				-17,000	na	411,400	na	-20,300	391,100
Total Disposal	1,183,400	na	-11,100	-9,200	-23,100			-66,400	-41,200				-192,700	na	990,700	na	-64,300	826,400

* The Base Case shows the tonnage implications of "no change" to the solid waste system, simulated by freezing recycling and disposal rates. See the Technical Appendix for more information.

** The disposal rate is in pounds per household per week for residential, and in pounds per employee per week for businesses. These figures include self-hauled waste.

*** Program and System Costs include costs of administration (public and private), collection, hauling, transfer, processing, and disposal for waste and recyclables.

na = not applicable

The system cost for each program indicates the effect of that program alone on the system—that is, the effect in isolation of other programs.

**** Source-separated residential organics are to be phased in after successful implementation of commercial organics programs; successful siting of processing capacity, and cost-effective collection.

Table 9.2b

Effect of Recommended Practices on RSWMP Disposal Benchmarks, Year 2005

	Base Case* Disposal, Year 2005		Waste Reduction by Practice										Net Effect of Recommended Practices (Reductions in Delivery)		Disposal with Recommended Practices, Year 2005		Post-Collection Recovery from Mixed Waste (MRFs, T-Stations, Reloads)	Landfilled Tonnage with Recom- mended Practices, Year 2005	
			Waste Prevention		Source Separation														
			Home Composting	Waste Audits	Expand Curbside	Commingled Plastics	Business Paper	Business Paper&Containers	Onsite C&D Separation	Business Organics/Hi Tech Process	Business Organics/Lo Tech Process	Residential Organics Recovery****							Tons**
Tons**	Rate**	yes	yes	yes	no	no	yes	yes	no	yes	yes	Tons**	Rate**	Tons**	Rate**	yes	-		
Recommended? Program Cost/Ton*** System Cost/Ton***	-	na	\$45	\$52	\$40	\$393	\$134	\$113	\$143	\$379	\$333	\$337	-	-	-	-	\$147	-	
		\$150	\$148	\$150	\$149	\$151	\$150	\$149	\$150	\$152	\$152	\$160	-	-	-	-	\$150	-	
Refuse by Generator & Material																			
Single Family																			
Food Waste	118,400	9.1	-9,500										-55,200	-64,700	-5.0	53,700	4.1	-	-
Recyclables	127,300	9.7			-11,500									-11,500	-0.9	115,800	8.8	-	-
Yard Debris	37,800	2.9	-2,900		-6,400									-22,400	-1.7	15,400	1.2	-	-
Other Waste	104,600	8.0														104,600	8.0	-	-
Total SF Refuse	388,100	29.7	-12,400		-17,900									-98,600	-7.6	289,500	22.1	-	-
Multifamily																			
Food Waste	22,300	7.4														22,300	7.4	-	-
Recyclables	26,900	9.0			-11,200									-11,200	-3.7	15,700	5.3	-	-
Yard Debris	5,800	1.9			-2,500									-2,500	-0.8	3,300	1.1	-	-
Other Waste	16,100	5.4														16,100	5.4	-	-
Total MF Refuse	71,100	23.7			-13,700									-13,700	-4.5	57,400	19.2	-	-
Business																			
Food Waste	124,100	4.6														75,500	2.8	-	-
Recyclables	222,000	8.2														139,100	5.1	-	-
Yard Debris	20,100	0.7														20,100	0.7	-	-
Other Waste	185,400	6.9														185,400	6.9	-	-
Total Business Refuse	551,600	20.4			-10,100									-72,800	-4.9	420,100	15.5	-	-
Construction & Demolition																			
Total C&D Refuse	295,000	na												-41,200	na	253,800	na	-	-
Total Delivery of Refuse by Material Type																			
Food Waste	265,900	na	-9,500													152,600	na	0	152,600
Recyclables	492,100	na			-10,100	-22,700										362,400	na	-65,400	297,000
Yard Debris	74,600	na	-2,900		-8,900											49,600	na	-5,700	43,900
Other Waste	473,200	na														456,200	na	-32,700	423,500
Total Disposal	1,305,800	na	-12,400	-10,100	-31,600									-285,000	na	1,020,800	na	-103,900	917,000

* The Base Case shows the tonnage implications of "no change" to the solid waste system, simulated by freezing recycling and disposal rates. See the Technical Appendix for more information.

** The disposal rate is in pounds per household per week for residential, and in pounds per employee per week for businesses. These figures include self-hauled waste.

*** Program and System Costs include costs of administration (public and private), collection, hauling, transfer, processing, and disposal for waste and recyclables.

na = not applicable

The system cost for each program indicates the effect of that program alone on the system—that is, the effect in isolation of other programs.

**** Source-separated residential organics are shown phased in after successful implementation of commercial organics programs, successful siting of processing capacity, and cost-effective collection.

Table 9.3 - RSWMP Solid Waste Regional Benchmarks

	Year 1995 Baseline	Year 2000 Indicator	Year 2005 Indicator	Units
System Benchmarks				
Recycling Level	39%	48%	53%	percent
Recovery Level	42%	52%	56%	percent
Per Capita:				
Generation*	1.34	1.36	1.38	tons/capita/year
Recycling*	0.58	0.71	0.78	tons/capita/year
Disposal*	0.76	0.65	0.60	tons/capita/year
Solid Waste Hierarchy				
Prevention	n/a	1%	1%	percent
Recycling	28%	35%	37%	percent
Composting	6%	9%	12%	percent
Energy/Fuel	8%	7%	7%	percent
Disposal	58%	48%	43%	percent
Facility Benchmarks				
Direct-Haul Tonnage	1,088,700	990,700	1,020,800	tons/year
Transfer Stations	820,900	679,800	700,600	tons/year
MRFs	113,500	157,300	222,100	tons/year
Ltd. Purpose Landfill	154,300	153,600	98,100	tons/year
Access to Transfer Stations	20	20	20	minutes
Multnomah County	18.6	19.0	19.1	minutes
Clackamas County	18.1	18.0	18.1	minutes
Washington County	23.2	23.3	23.3	minutes
Landfilled Solid Waste	1,023,100	926,400	917,000	tons/year
Food	222,600	191,300	152,600	tons/year
Recyclables	366,100	291,700	304,000	tons/year
Yard Debris	60,000	59,300	43,900	tons/year
Other	374,400	384,100	416,500	tons/year
Disposal Benchmarks				
Single Family*	30	28	22	lbs/HH/week
Food*	9.1	8.4	4.1	lbs/HH/week
Recyclables*	9.7	8.8	8.8	lbs/HH/week
Yard Debris*	2.9	2.7	1.2	lbs/HH/week
Other*	8.0	8.0	8.0	lbs/HH/week
Multifamily*	24	19	19	lbs/HH/week
Food*	7.4	7.4	7.4	lbs/HH/week
Recyclables*	9.0	5.3	5.3	lbs/HH/week
Yard Debris*	1.9	1.1	1.1	lbs/HH/week
Other*	5.4	5.4	5.4	lbs/HH/week
Business*	20	16	16	lbs/emp/week
Food*	4.6	2.9	2.8	lbs/emp/week
Recyclables*	8.2	5.1	5.1	lbs/emp/week
Yard Debris*	0.7	0.7	0.7	lbs/emp/week
Other*	6.9	6.9	6.9	lbs/emp/week
Construction & Demo*	234,000	235,800	253,800	tons/year
C&D per capita*	0.18	0.17	0.17	tons/capita/year

*Baseline to be verified or established within one year of plan adoption.