

BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF APPROVING THE) RESOLUTION NO. 04-3442A
YEAR 15 PARTNERSHIP PLAN FOR)
WASTE REDUCTION (FISCAL YEAR) Introduced by Michael Jordan, Chief
2004-05)) Operating Officer, with the concurrence
) of David Bragdon, Council President

WHEREAS, the Partnership Plan for Waste Reduction has been a significant part of the Region's waste reduction and recycling programs for the past fourteen years in order to attain state-mandated regional recovery goals (OAR 340-90-050); and,

WHEREAS, the Partnership Plan serves as an implementation tool for the Regional Solid Waste Management Plan; and,

WHEREAS, the Partnership Plan continues to be one of the primary mechanisms for Metro and local governments to establish, maintain and improve recycling and waste reduction efforts throughout the Region; and,

WHEREAS, the means of implementing these waste reduction tasks is through the Partnership Plan, which is adopted by Metro and local governments and defines the work to be completed in the region; and,

WHEREAS, a cooperative process for formulating the Year 15 Partnership Plan was used by Metro and local governments and ensures a coordinated regional effort to reduce waste; and,

WHEREAS, the Year 15 Partnership Plan is consistent with and meets the intent of the goals and objectives in the Regional Solid Waste Management Plan through program maintenance support, new initiatives in waste reduction and competitive grants; and,

WHEREAS, the Partnership Plan funding distribution to local governments for the maintenance section programs is a revenue-sharing program that is tied to adherence to the plan and satisfactory completion of work plan elements; and,

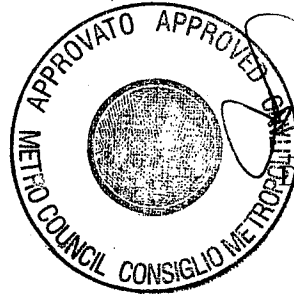
WHEREAS, the Partnership Plan grants are funded in the 2004-05 budget; and,

WHEREAS, the Year 15 Partnership Plan has been reviewed by the Solid Waste Advisory Committee and recommended as presented herein for Metro Council approval; and,

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

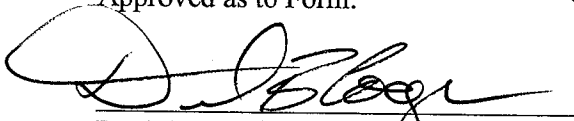
BE IT RESOLVED, that the Metro Council approves the Year 15 Partnership Plan for Waste Reduction (attached hereto as Exhibit "A") and supports increased efforts to reduce waste in the Metro Region.

ADOPTED by the Metro Council this 22nd day of April, 2004.




David Bragdon, Council President

Approved as to Form:


Daniel B. Cooper, Metro Attorney

DRAFT
Year 15 (FY 2004-05)

Metro and Local Government
Annual Waste Reduction Program Plan

February 6, 2004

A. Background:

Since 1990, Metro and its local government partners have developed cooperative plans to implement the region's waste reduction and recycling programs.

These plans, implemented by both Metro and local governments, are designed to:

- build on the foundation of the Regional Solid Waste Management Plan;
- contribute to accomplishing state and regional waste reduction goals;
- provide regional continuity among the various local government and Metro programs.

Through this and other programs, Metro and local governments have worked together to provide programs and services including:

- single and multi-family residential recycling services;
- curbside yard debris collection;
- home composting education;
- waste reduction consultations to businesses;
- in-school programs for students and teachers;
- hazardous waste public outreach and education, and many other valuable programs and services.

Despite demonstrated successes in the residential sector, findings from the State of the Regional Solid Waste Management Plan Report indicated a need to place more emphasis and resources on three critical areas: Commercial waste reduction and recycling; construction and demolition debris management; and recovery of organic wastes. Substantial changes were made to the Annual Plan during 1999-2000, with the Year 11 (2000-01) Plan as the inaugural year for the new format. Year 15 begins the fifth year of this new structure, a focused approach to the three critical areas (commercial, organics and C&D) and continued support and maintenance of existing regional programs.

In rethinking the manner in which programs are planned and implemented, Metro, DEQ and local government partners chose to take a true team-oriented approach to developing new programs and initiatives. Intergovernmental work groups were formed to plan the new strategies and will implement and measure these new strategies as a

team—a truly regional effort. Local jurisdictions and Metro will also continue to maintain and report on independent activities.

This plan brings together three integral pieces of the region’s waste reduction and recycling system: Focused efforts to recover more from the commercial, construction/demolition debris (C&D) and organics sectors; continuation of competitive grants for innovative waste reduction programs; and the maintenance of programs that form the foundation of the region’s recycling infrastructure.

B. Plan Structure and Format:

The Year 15 Partnership Plan is divided into the following three program areas:

- Part I: Initiatives in Commercial, C&D, and Organics
- Part II: Targeted Competitive Grant Program
- Part III: Maintenance Programs

Part I is composed of initiatives in the three focus areas: Commercial, C&D, and commercial organics. These initiatives, now in their fourth year of implementation, form the core of the work and activities to be implemented in the region. Each of the three programs was identified as lagging in recovery levels necessitating intensive, focused planning and implementation efforts over the next few years.

Part II provides competitive grant funds and a structure to target RSWMP practices that are not otherwise addressed in other program plans and for which other sources of funding are not available. This portion of the program also seeks to support creative methods for addressing solid waste issues. Each year, an area or areas of focus will be developed based upon targeted needs or regional priorities. For Year 15, the area of focus will be improving multifamily recycling programs.

Part III tracks the backbone of established programs in the region that must be continually maintained by local government and Metro services. These programs form the foundation of the region’s waste reduction and recycling system and include residential recycling services, regular outreach and education to all residents and businesses, school education programs, household hazardous waste education and outreach, home composting programs, and regional planning support.

C. Annual Work Plan Development and Approval Process Schedule:

The program plan development schedule is incorporated into the Year 15 Annual Plan as “Appendix A”.

D. Link to the Regional Solid Waste Management Plan

Recommended Practices:

The Regional Solid Waste Management Plan (RSWMP) presents a set of recommended solid waste management practices designed to meet the overall goal of the RSWMP: Continue to develop and implement a Solid Waste Management Plan that achieves a regionally balanced, environmentally sound and publicly acceptable solid waste system.

The RSWMP recommended practices embody six broad, integrated strategies:

1. Invest in waste reduction before building additional transfer and disposal capacity.
2. Expand the opportunity to recycle.
3. Emphasize the waste reduction hierarchy.
4. Maintain flexibility and encourage innovation.
5. Set interim target dates, define roles and responsibilities, and focus on implementation issues.
6. Advance cost-effective practices for managing the region's waste.

The RSWMP recommended practices were developed for particular areas of the solid waste system: Residential waste reduction, business waste reduction, building industries waste reduction, solid waste facilities regulation and siting, and transfer and disposal facilities.

Specific activities in this annual plan will be tied to the recommended practices through the annual State of the Regional Solid Waste Management Plan Report published by Metro at the end of each calendar year. The Year 15 Annual Waste Reduction Program Plan addresses all areas of the RSWMP recommended practices through maintenance of established programs, an emphasis on commercial waste reduction and recycling, construction & demolition debris recovery, and commercial organic waste reduction and recovery.

E. Measurement and Evaluation:

Each of the three sections in this plan for waste reduction has an independent progress measurement and reporting scenario tied to the specific tasks involved. At the end of the fiscal year, progress reports for each section will be produced independently. These reports, combined with other important measures such as the State of the Regional Solid Waste Management Plan Report and the Annual DEQ Recycling and Recovery Report will be combined and used to assess regional waste reduction and recycling progress.

Long-term goal:

- To reduce the amount of materials generated and disposed in the Metro wasteshed.

Secondary goals:

- To develop and implement new, focused Metro and local government waste prevention and recycling programs aimed at the largest waste substreams (Waste Reduction Initiatives).
- To target special waste prevention and recycling areas for increased attention (targeted competitive grants).
- To maintain and increase existing Metro and local government waste prevention and recycling programs (foundation support grants).

Measurement (effectiveness):

- Increased regional recovery in total and by RSWMP recommended practice (total tons and per capita tons recovered and disposed).
 - How measured: DEQ recovery and disposal data; DEQ waste composition study (bi-annual); State-of-the-Plan Report.
 - Frequency of reporting: Annual.
 - Metro resources required: Waste Reduction staff, 400 hours; \$85,000 to \$100,000 (bi-annual DEQ waste composition study).

WASTE REDUCTION INITIATIVES

Organics

Objectives:

- Reduce the generation of organic wastes through waste prevention.
- Recover an additional 45,000 tons of organic waste (commercially generated) over 2000 baseline recovery, by 2005.

How?

- By increasing donation of edible food to established food rescue organizations.
- By developing processing infrastructure for commercially generated food waste (with local governments and private processors).

Measurement (accountability):

- The Commercial Organics Work Group will complete 90 percent of its annual work plan activities.

Measurement (effectiveness):

- Increased capacity for donation of edible food and increased donation.
 - How measured: Food rescue organizations will report the additional capacity (by volume) and additional donation (by weight).
 - Frequency of reporting: Annual.
- Increased organics processing infrastructure.

- How measured: Number of facilities in region able to accept vegetative food waste; number of facilities in region able to accept all food waste; tons by facility (capacity and throughput).
- Frequency of reporting: Annual.

Construction & demolition debris

Objectives:

- Reduce the generation of C&D wastes through waste prevention.
- Recover an additional 35,000 tons of C&D materials over 2000 baseline recovery, by 2005.

How?

- By increasing salvage and deconstruction of usable building materials.
- By increasing source-separated recycling and post-collection recovery of C&D materials.

Measurement (accountability):

- The Construction & Demolition Work Group will complete 90 percent of its annual work plan activities.

Measurement (effectiveness):

- Increased salvage and deconstruction of C&D materials.
 - How measured: Increase in quantity of salvage and deconstructed building materials; increase in contractor use of used building materials infrastructure.
 - Frequency of reporting: Annual.
- Increased recovery of source-separated and mixed C&D materials.
 - How measured: DEQ recovery and disposal data (source-separated); Metro facility reports (source-separated and mixed); DEQ waste composition study (bi-annual); State-of-the-Plan Report; survey of contractors.
 - Frequency of reporting: Annual.

Commercial

Objectives:

- Reduce the generation of commercial wastes through waste prevention.
- Recover an additional 97,000 tons of commercial materials over 2000 baseline recovery, by 2005.

How?

- By increasing business waste prevention practices and diversion.
- By increasing the opportunity to recover commercial materials.

Measurement (accountability):

- The Commercial Work Group will complete 90 percent of its annual work plan activities.

Measurement (effectiveness):

- Increased waste prevention activities in businesses.
 - How measured: Each targeted project will be evaluated (potential diversion, participation).
 - Frequency of reporting: At the conclusion of a project.
- Increased technical assistance to businesses for waste prevention, recovery and buy recycled:
 - How measured: By jurisdiction, collection of baseline data through on-site visits, follow-up and progress visits; reports; third-party, in-field evaluations.
 - Frequency of reporting: Annual.
- Increased recovery of commercially generated materials.
 - How measured: DEQ recovery and disposal data; DEQ waste composition study (bi-annual); State-of-the-Plan Report.
 - Frequency of reporting: Annual.

TARGETED COMPETITIVE GRANTS

Objective:

- Target RSWMP recommended practices and Waste Reduction Initiative efforts not addressed in other program areas.

Measurement (accountability):

- Grant recipients will identify and undertake a specific recycling or waste prevention project.
 - How measured: Reports (progress and final) by grant recipient, that describe the planned and actual activities for each grant; annual report by Waste Reduction staff summarizing goals, objectives, activities, measurement and results for all grants.
 - Frequency of reporting: Progress (90-day) and annual reports by grant recipient; annual summary report of all grants.

Measurement (effectiveness)

- Each grant application and resulting scope of work will identify goals, objectives, activities, measurement and anticipated results.
 - How measured: Reports (progress and final) by grant recipient, based on the goals, objectives, activities, measurement and results for each grant; annual report by Metro Waste Reduction staff summarizing goals, objectives, activities, measurement and results for all grants.

- Frequency of reporting: Progress (90-day) and annual reports by grant recipient; annual summary report of all grants.

FOUNDATION SUPPORT GRANTS

Objectives:

- To maintain and increase recovery through existing local government waste reduction and recycling programs.
- To provide an incentive for local governments to participate in regional waste reduction planning activities (Solid Waste Advisory Committee, Local Government Recycling Coordinator group, Organics Waste Reduction Initiative Work Group, Commercial Waste Reduction Initiative Group, Construction & Demolition Work Group).
- To continue to ensure the region is meeting (and exceeding) required state program elements for waste reduction and recycling programs.

Measurement (accountability):

- Local governments will identify and undertake a specific curbside recycling outreach activity for an existing local government program.
- Local government representatives will participate in at least one regional waste reduction planning group (larger jurisdictions will tend to participate in more than one group).
- Local governments will provide jurisdictional solid waste and recycling budget information.
 - How measured: Local government reports.
 - Frequency of reporting: Annual.

Measurement (effectiveness)

- Maintained or increased curbside recovery (total tons and per capita tons recovered and disposed).
 - How measured: DEQ recovery and disposal data; DEQ waste composition study (bi-annual); State-of-the-Plan Report.
 - Frequency of reporting: Annual.
 - Metro resources required: Included in overall program measurement costs, above.

Part I: Initiatives in Commercial, C&D and Organics

Background:

The recent State of the Plan Report for the Regional Solid Waste Management Plan, which evaluated the region's progress toward its waste reduction goals, indicated a need for new initiatives in three solid waste program areas.

In June of 1999, a group of Metro and local government solid waste managers convened to address the issue of the need for new efforts in certain targeted sectors. As a result, three work teams comprised of Metro, local government and DEQ staff were formed to develop new strategies and initiatives in the commercial, construction & demolition debris, and commercial organics sectors. The teams' objectives included:

- Development of a new approach to the waste reduction planning process that results in unified, measurable, accountable and targeted work plans.
- Increase regional recovery by concentrating on the lagging sectors of commercial, organics, and construction and demolition (while continuing to support existing strong recovery from the residential sector.)
- Identify areas within these lagging sectors on which to focus cooperative waste reduction activities.
- Identify emerging issues in waste reduction planning that may need special attention.
- Integrate the results of new initiatives into the State of the Regional Solid Waste Management Plan Report, DEQ Waste Composition Study and other recycling and solid waste data and studies.
- Determine the resources required for these new initiatives and measurement/reporting activities.
- Regular evaluation of the focus areas to ensure they remain relevant.

Fiscal Year 2004-05 Program Overview:

The following is a brief overview of the Waste Reduction Initiatives overall goals and activity highlights for fiscal year 2004-05. The complete text of the initiatives is provided in Appendix B.

Commercial:

In order to reach recovery goals, the region needs to recover an additional 97,000 tons of recyclables and yard debris from businesses, and prevent the generation of an additional 5,000 tons of waste through prevention and reuse programs.

FY 2004-05 Highlights:

- The Commercial Recovery Work Group has developed a program goal to assist with regional program direction taking into consideration the 2005 recovery goals. The goal is to develop and implement strategies to meet the 2005 recovery goals and encourage behavior change in the business sector. Immediate emphasis is

on recovery with importance and long-term emphasis given to waste prevention and buying recycled products.

- The Commercial Technical Assistance Program (CTAP) will continue its funding to local governments to provide one-on-one onsite assistance in recycling, waste prevention and buy-recycled products.
- A new recognition program will be developed that will be incorporated into CTAP. The new program will recognize all businesses meeting a minimum requirement and will be provided with a window decal.
- An evaluation of the current CTAP program will determine business satisfaction with the current service, effectiveness in stimulating waste reduction changes, especially with waste prevention and recycled-product purchases, and provide feedback on the evaluation methodology being used.
- Two business outreach campaigns will be developed. The outreach objectives will be to generate awareness about commercial recycling, provide a seamless service to regional businesses with one phone number to call for assistance (Metro's Recycling Information Center), and to get recycling specialists in the door for additional assistance.
- The City of Portland, DEQ and Metro are implementing a Green Copier Pilot Project to work with one or more local office equipment companies in developing a marketing approach that promotes double-sided copying and use of recycled-content paper in copier machine sales and equipment leases. This study will compare the effectiveness of three approaches: institutionalizing waste reduction into the service chain; the back-end business education approach provided by CTAP; and a combination of the two. The pilot results will provide direction for a broader outreach strategy to other copier service providers.
- Clackamas County (lead), Portland and Metro are contracting with a consultant to develop outreach tools for local property managers and their tenants to increase recycling at multi-tenant office buildings and retail properties.
- The Commercial Recovery Work Group is maintaining and updating the online *Buyers Guide to Recycled Products*, which is designed to allow businesses to easily find recycled-content products near their location.
- The Subcommittee on the Contamination and Loss of Recyclables of the Solid Waste Advisory Committee will reconvene in January 2004 to make recommendations that will be implemented in FY 04-05.

Construction & Demolition Debris:

According to the revised RSWMP recovery rates, the region must recover 35,000 additional tons of C&D debris in order to meet its established goals. The Construction and Demolition Debris Recovery plan is composed of three tracks, designed to increase recycling and recovery in all sectors of the construction industry while adhering to the solid waste hierarchy of reduce, reuse, recycle, recover, landfill.

FY 2004-05 Highlights:

- Continued funding and staff support over the next three years on the Construction Industry Association Partnership project. These partners continue to play a major role in the education of the construction industry to bring about the needed changes in the salvaging, recycling and management of C&D debris.
- Continued yearly measurement of the effect of the Construction Industry Association Partnership project. The survey quantifies industry attitudes towards and awareness of salvage and recycling and self-reported recycling/salvage behavior.
- The implementation of a new ordinance requiring that all Metro region mixed C&D debris loads go through a recovery facility/process before being disposed of. Tualatin Valley Waste Recovery (Hillsboro Landfill) and Lakeside Reclamation will be most affected by this mandate. Once facilities comply with the ordinance, the region-wide “seamless safety net” of recovery facilities will ensure that post-collection recovery occurs on all loads of C&D debris, regardless of which solid waste facility accepts the material.
- Because demolition waste accounts for over 50% of the region’s C&D debris, we will be placing more emphasis on reducing the barriers to deconstruction/salvage and the development of salvage infrastructure. Activities include:
 - Soliciting proposals for a second round of grant funding to help develop the used building material deconstruction, collection and retail infrastructure in the Metro region. Grants assist with used building material retailers and deconstruction contractors with capitol construction projects and materials handling equipment purchases.
 - Creating and beginning implementation of a strategy to increase the commercial construction industries reuse of used commercial used building materials in new construction.

Commercial Organics:

According to the revised RSWMP recovery rates, the region must recover 45,000 tons of organic waste from the commercial sector in order to meet its established goals. This plan is designed to guide the region in the direction of increased recovery while adhering to the solid waste hierarchy of reduce, reuse, recycle, recover, compost, landfill.

This plan takes a two-track approach to organic waste management. The first track emphasizes waste prevention, donation and diversion. This is considered to be a least-cost approach, since preventing the generation of the material in the first place removes the need to manage it as a waste product. Donation is the highest end-use of food that

is produced, and diversion to animal feed is the next step down in the hierarchy. Each of these approaches can be implemented in a relatively rapid fashion in that an existing infrastructure is present in the region, and outreach materials may be produced with short turnaround. While the food donation infrastructure does exist, some assistance and support is necessary to enhance capacity to accommodate new and increasing flow of material.

The second track focuses on developing a processing system to accommodate organic waste that cannot be diverted to higher-end uses. Every effort will be made to utilize existing infrastructure and tailor generator and collection programs to fit within existing operations and regulatory systems.

FY 2004-05 Highlights:

- Metro and the City of Portland developed a grant program to secure food waste processing capacity to serve the region. Grant evaluations have been made and negotiations are underway with a composter located in Boardman, Oregon. Portland is conducting a cost of service study and expects to move forward with its ordinance requiring certain food businesses to separate food waste for recycling.
- Metro is working with a fully licensed and permitted compost facility to receive and process the region's food waste into a beneficial end-product. Discussions with the facility and Metro's transfer station operator for the receipt and reload of organics are underway.
- Local governments and solid waste and recycling haulers in the region have expressed their commitment to work with us to recover organic waste and are completing a cost of service study to determine program costs and logistics.
- A food donation barrier and benefit identification study (using community-based social marketing principles) was completed in FY 2003-04. Results of the study will be used to develop very specific education and outreach methods in early 2004.
- Metro issued an RFP in December 2003 to study the impact of combined residential organics yard debris collection on the existing yard debris composting system. The region will continue to examine the feasibility of implementing residential organic waste management programs.

Program Administration and Reporting:

Because these new initiatives require the work and the support of all regional partners, the day-to-day administration of the various tasks in the Commercial, C&D and Organics programs will be managed by the respective regional intergovernmental work teams that developed these plans. Individual team members will be assigned oversight of particular pieces of the plans, and will be responsible for reporting back to the team when they meet on an ad-hoc basis. Each work team will give a regular update at the monthly Local Government Recycling Coordinators Meeting and will solicit feedback from the group as well as inform the group of progress being made. Data collection, measurement and year-end progress reports will be the responsibility of the work

teams. As part of the overall Year 15 Program Plan, each work team will be responsible for production of a year-end report on the progress made in the region.

2004-05 Budgeted Funds:

Commercial initiatives:	\$455,000
Construction & Demolition Debris Initiatives:	\$248,000
<u>Commercial Organics Initiatives:</u>	<u>\$120,000</u>
Total:	\$823,000

Part II: Targeted Competitive Grant Program

Overview:

The competitive grant program is designed to supplement the program funding available through the Partnership Program. These grants are intended to assist local jurisdictions in targeting the RSWMP practices that are not addressed in other program plans, and for which other sources of funding are not available. This program also seeks to support creative methods for addressing solid waste issues.

Format and Structure:

Each year, Metro will specify focus area(s) or target(s) for this competitive grant program based upon RSWMP needs and priorities. Applicants will have the choice to:

- 1) Submit a proposal in the focus area(s); OR,
- 2) Propose a project outside the focus area(s) and demonstrate that there is a true need for this approach that is not being addressed through new initiatives, maintenance programs or other means. Alternative programs must also demonstrate that they contribute to meeting RSWMP goals.

Local jurisdictions interested in this program must submit an application for funds using a standardized form provided by Metro. Applications must include:

- a clear goal statement;
- a clear justification of need;
- a specific dollar amount requested;
- concise and meaningful measurement tools and methods; and
- a description of intended results.

Applications must identify the specific practices of the RSWMP to which the funds will be applied, demonstrate clear benefits to the region, and should be transferable to other jurisdictions.

Local jurisdictions are required to provide at least a 50% match to funds requested.

This match may be dollars, materials, in-kind services or a combination of these.

Applicants are encouraged to cooperate or develop formal partnerships with nonprofit, volunteer agencies, business associations, chambers of commerce or other groups. In-kind matches may be provided in part by some or all partners.

Reporting:

A 90-day progress report as well as a final report due 30 days from the completion of the project must be submitted to Metro. Reports must demonstrate how the project has met the stated criteria and the impacts the project has had to the prevention, recycling and recovery of waste in the region. Reporting form is attached.

2004-05 Budgeted Funds: \$160,000

Targeted Competitive Waste Reduction Grant Program Final Report Form
 FY 2004-05 Grant Cycle

Grant Program Results Table

Please complete the following table to provide data and information on the intent and actual results of the grant-funded programs for 2004-05. Complete a separate table for each program or project implemented.

JURISDICTION (and partners):				
<u>Program/Project Description:</u>				
Project Goal	Project Objectives	Activities Implemented	Measurement Method	Results

How has the program/project met the following stated criteria?

- **Specific RSWMP practices supported:**
- **Specific targeted generators and waste streams:**
- **Regional benefit and transferability to other jurisdictions:**

Part III: Maintenance of Existing Programs

Overview:

Part III of the Partnership for Waste Reduction focuses on the maintenance of existing and established local and regional waste reduction and recycling programs. Significant progress in waste reduction and recycling has been made over past years through these existing programs. In order to maintain these successes, established programs must continue to be funded, staffed and maintained at the same time that new initiatives are introduced.

Maintenance Program Plan Format, Structure and Timeline:

The Maintenance Program format is intentionally simple and straightforward. Local governments will complete the attached chart, detailing the outreach, education and collection programs currently implemented and the efforts they will engage in to maintain these programs. This will provide a comprehensive regional picture of the existing programs.

The reporting section is to be completed at the end of the fiscal year and submitted to Metro no later than August 1, 2005. This section will detail each task's actual implementation date, as well as relevant status reports, changes and noted results. The reporting section will serve as the basis for integrating existing program status and progress into the recommended practices of the RSWMP, as well as the required annual reporting to the Department of Environmental Quality.

Compliance with State Law and the Regional Solid Waste Management Plan:

All regional partners will continue to be required to comply with the provisions set forth in State Law (OAR 340-90-040) in addition to the tasks listed in the RSWMP. Metro will be the reporting agency for the region's three county area. Metro will also assume responsibility for integrating maintenance programs into the recommended practices set forth in the RSWMP. This integration will be illustrated in the Annual State of the Plan Report section titled Implementation Status of Recommended Practices.

Annual Allocation:

The funding assistance provided to local jurisdictions for the maintenance of existing programs is allocated on a per-capita basis. Each jurisdiction receives an allocation based upon its percent of the region's total population.

The FY 2004-05 allocation for the City/County of _____ equals \$ _____. This represents _____% of the overall City/County solid waste and recycling budget.

Program Overview Narrative:

This section of the Plan provides a more descriptive and encompassing overview of maintenance programs. Local governments and Metro will each provide a short annual narrative describing the range of programs and the principles behind them.

2004-05 Budgeted Funds:

\$649,271

PLANNED MAINTENANCE ACTIVITIES FOR FISCAL YEAR 2004-05

The Program Plan Table is divided into two sections: Planning and Reporting. The planning section lists program areas under the header marked "Tasks" which are to be completed in detail by Metro and local governments. All outreach, education, collection and other existing program efforts are to be listed under each task area with an associated implementation date noted under the heading "Planned Date." The section header "R/WP/B" identifies whether this particular program or activity is primarily recycling (R), waste prevention (WP) or both (B). This notation is to assist Metro in the collection of data for reporting to the Department of Environmental Quality on the region's waste prevention activities. The completed planning section of the table is due to Metro no later than June 1, 2004.

PLANNING			REPORTING	
Tasks	Planned Date	R/WP/B	Implemented Date	Implementation Status/Results
Residential				
<ul style="list-style-type: none"> ▪ Identify and undertake a specific curbside recycling outreach activity for an existing program. <i>(required)</i> 				
Multifamily				
<ul style="list-style-type: none"> ▪ ▪ 				
Home Composting				
<ul style="list-style-type: none"> ▪ ▪ 				
Commercial				
<ul style="list-style-type: none"> ▪ ▪ 				
Construction & Demolition				
<ul style="list-style-type: none"> ▪ ▪ 				
Household Hazardous Waste				
<ul style="list-style-type: none"> ▪ ▪ 				
Regional Planning Support				
<ul style="list-style-type: none"> ▪ ▪ 				
School Outreach and Education				
<ul style="list-style-type: none"> ▪ ▪ 				
Other				
<ul style="list-style-type: none"> ▪ Report jurisdictional solid waste and recycling data to Metro. <i>(required)</i> ▪ Participate in at least one regional waste reduction planning group <i>(required)</i> 				

Appendix A

Fiscal Year 2003-2004 Metro and Local Government Annual Waste Reduction Program Plan for Waste Reduction

PLAN DEVELOPMENT SCHEDULE

Timeline	Annual Work Plan Process
August/September 2003	Metro and local government targeted sector work teams (Organics, C&D, Commercial) review and amend plans and associated budgets
November/December 2003	Draft overall framework developed by Metro and local government staff.
March 2004	Regional public involvement: Metro SWAC review of drafts
March-April 2004	Council approval process: Metro Council consideration and adoption
April-May 2004	Local and Regional Public Involvement: Local SWAC and other public involvement Metro budget hearings Local government budget hearings
June 1, 2004	Local Government Participation Commitment Agreements Drafted
PLAN IMPLEMENTATION	
July 1, 2004	Start of Fiscal Year - Implementation begins
No later than Nov. 30, 2004	Intergovernmental agreements for grant funding approved and funds distributed to local governments to support the maintenance of existing programs.
REPORTING	
Aug. 1, 2004	Local government and Metro assess progress
Feb. 28, 2005	Metro produces annual report for the previous fiscal year period

Appendix B

Commercial Recovery Work Plan FY 2002-2005 March 2003

Overview

In order to meet Metro's watershed recovery goal set by state law, the region must attain a recovery rate of 56% by 2005, not including credits for waste prevention, home composting and reuse. In 2000, the region's recovery rate was 44.6%, having increased only 2 percentage points in the last five years. To meet the region's 2005 recovery goal, an additional 177,000 tons must be diverted from the commercial, C&D and organics sectors.

Commercial waste, excluding organics, comprises more than 40% of the region's total waste. For the commercial sector, the target is to recover an additional 97,000 tons for the region to stay on track to meet its goal.

In addition to recovery, the revised Regional Solid Waste Management Plan for Metro also identifies a waste prevention goal for businesses that is equivalent to 0.5% of regional generation (i.e., recovery plus disposal). With annual regional generation at 2.2 million tons, the commercial waste prevention goal is equivalent to about 11,000 tons of diversion. In 2000, an estimated 18,000 tons was prevented by various activities, meeting this goal. For 2005, the region projects that it can divert an additional 5,000 tons through waste prevention.

To meet these two goals, a Commercial Recovery Work Group (CRWG) comprised of local government, Oregon Department of Environmental Quality and Metro representatives have developed a plan that outlines policy and program options (including resource needs) to reach these goals. This plan represents the second three-year plan developed by this group and covers the period from FY 02-03 through FY 04-05. The plan groups its recommendations in three program tracks: waste prevention, recovery and market development.

The immediate goal of the CRWG work plan is to develop and implement strategies to meet the 2005 recovery goals and encourage behavior change in the business sector. Immediate emphasis is on recovery with importance and long-term emphasis given to waste prevention and buying recycled products. This goal is what guides the group in prioritizing the work plan.

The plan's first track focuses on waste prevention. A number of projects will have ended in FY 03-04 with recommendations for broader implementation in FY 04-05. The Green Copier Pilot Project, working with a local copier service provider to promote to their customers copying double-sided and purchasing recycled-content paper, may roll-out to other copier service companies the tools and resources needed to incorporate green copier services into their operations. The Packaging Minimization Project,

working with a select group of companies to look at strategies and efficiencies in minimizing excessive packaging, will recommend strategies to assist other companies in reducing packaging waste.

The second track, which is given the highest priority, focuses on recovery. Providing businesses with customized assistance in setting up recycling programs, identifying waste prevention opportunities and providing information on buying-recycled content products is the primary method for recovery. The Commercial Technical Assistance Program (CTAP) funds local governments to hire staff to assist businesses. There are a total of almost seven recycling specialist positions in the region solely responsible for working directly with businesses to increase recycling.

Outreach is a big component to linking the assistance services with recycling specialists. In FY 04-05 there will be two campaigns: one in the fall and one in the spring. In FY 03-04 the campaign targeted commingled paper and was very successful at enlisting businesses to call the Recycling Information Center to request free boxes and assistance. The next campaigns may focus on materials, topics, such as commingling, or business sectors.

Additionally, the Multi-tenant Outreach Project will have resource materials developed that will be supplied to a broad range of multi-tenant buildings in the region to increase recycling levels.

The following draft plan outlines in specific detail the projects and programs and accompanying resources needed to increase recycling levels, promote waste prevention and buying recycled-content materials.

Commercial Recovery Goal - Develop and implement strategies to meet the 2005 recovery goals and encourage behavior change in the business sector. Immediate emphasis is on recovery with importance and long-term emphasis given to waste prevention and buying recycled products

COMMERCIAL WASTE PREVENTION AND RECOVERY

	Staffing	2002-2003 M+S Budget	2003-2004 M+S Budget	2004-2005 M+S Budget
TRACK 1: WASTE PREVENTION Target specific activities for implementation and measurement.				
A. Targeted waste prevention projects.				
1. Green copier project. <ul style="list-style-type: none"> • Hire contractor. • Convene Advisory Group. • Evaluate contractor recommendations. 	Hawley, Apotheker, Allaway, Keller,	X	X	Complete
2. Packaging minimization (DEQ lead): work with 5-7 businesses to increase packaging efficiency and serve as models for others.	Allaway, McGuire	X	X	Complete
3. Legal outreach program.	Apotheker, Allaway	X	X	Complete
4. Waste prevention and reuse resources and grants targeted to recovery and reuse businesses to increase their capacity and effectiveness.			Budget Cut	
	Will reassess development for FY 05-06			
5. Assessment of new opportunities for waste prevention (FY 04-05), implement program based on results of assessment (FY 05-06).	Will reassess development for FY 05-06			
Subtotal (Section A)		\$0	\$0	\$0

X = Activities that will occur in this fiscal year as staff time, but have no associated budget line item.

	Staffing	2002-2003 M+S Budget	2003-2004 M+S Budget	2004-2005 M+S Budget
TRACK 2: RECOVERY Develop a system to ensure effective commercial recovery is in place.				
A. Increased Outreach to Businesses.				
1. Multi-tenant retail outreach. <ul style="list-style-type: none"> Hire a contractor to develop a pilot project. Provide outreach and resource materials to select custodial firms and property managers (FY 2002-03). Evaluate effectiveness of tools and outreach effort (FY 03-04). Based on results of the evaluation, expand scope of project and provide resources to a broader range of property management firms in the region (FY 04-05). 	Ziolko, Hawley, O'Sullivan, Tatham	X	X	\$15,000
2. Business Recycling Awards Group (BRAG). <ul style="list-style-type: none"> Continue general promotion. Provide incentive grants with a goal of increasing membership. Utilize data gained to inform CTAP program efforts. 	McGuire, Cable, Team	\$18,000	<i>Move \$25,000 to 2.B.1. Recognition</i>	<i>Move to 2.B.1. Recognition</i>
3. Outreach to the business community – Two campaigns per year. <ul style="list-style-type: none"> ➤ Focus on specific materials (mixed paper, film plastic, scrap metal, carpet). ➤ Focus on specific topics (convenience of commingling, disposal ban education, IMEX, WRAIN). ➤ Focus on selected business sectors (very targeted and coordinated with CTAP findings). 	Kolberg, Hawley, McGuire, Team, Contractor	\$70,000*	\$40,000	\$80,000 <i>(in outreach budget)</i>
<ul style="list-style-type: none"> Evaluate outreach programs. <ul style="list-style-type: none"> ➤ Assess effectiveness of outreach campaigns. 	Apotheker, Kolberg, Contractor	\$15,000	\$10,000	\$10,000
Subtotal (Section A)		\$103,000	\$50,000	\$25,000

B. Commercial Technical Assistance Program (CTAP).				
1. CTAP waste reduction assistance to businesses.	LG, Hawley, Team	\$400,000	\$400,000	
<ul style="list-style-type: none"> • Provide one-on-one assistance to businesses on recycling, waste prevention and buy-recycled. <ul style="list-style-type: none"> ➢ City of Beaverton – Hire .63 FTE ➢ City of Fairview – Hire .02 FTE ➢ City of Gresham and Wood Village – Hire .38 FTE ➢ City of Portland – Hire 1.85 FTE ➢ City of Troutdale – Hire .1 FTE ➢ Clackamas County – Hire 1.75 FTE ➢ Washington County – Hire 2 FTE 				\$39,171
<ul style="list-style-type: none"> ➢ City of Beaverton – Hire .63 FTE ➢ City of Fairview – Hire .02 FTE ➢ City of Gresham and Wood Village – Hire .38 FTE ➢ City of Portland – Hire 1.85 FTE ➢ City of Troutdale – Hire .1 FTE ➢ Clackamas County – Hire 1.75 FTE ➢ Washington County – Hire 2 FTE 				\$1,290
<ul style="list-style-type: none"> ➢ City of Gresham and Wood Village – Hire .38 FTE ➢ City of Portland – Hire 1.85 FTE ➢ City of Troutdale – Hire .1 FTE ➢ Clackamas County – Hire 1.75 FTE ➢ Washington County – Hire 2 FTE 				\$22,538
<ul style="list-style-type: none"> ➢ City of Portland – Hire 1.85 FTE ➢ City of Troutdale – Hire .1 FTE ➢ Clackamas County – Hire 1.75 FTE ➢ Washington County – Hire 2 FTE 				\$100,000
<ul style="list-style-type: none"> ➢ City of Troutdale – Hire .1 FTE ➢ Clackamas County – Hire 1.75 FTE ➢ Washington County – Hire 2 FTE 				\$4,521
<ul style="list-style-type: none"> ➢ Clackamas County – Hire 1.75 FTE ➢ Washington County – Hire 2 FTE 				\$106,533
<ul style="list-style-type: none"> ➢ Washington County – Hire 2 FTE 				\$125,947
<ul style="list-style-type: none"> • Provide tools and waste evaluator training to support program implementation. 	McGuire, Hawley, Team	\$30,000	\$20,000	\$20,000
<ul style="list-style-type: none"> • Evaluate effectiveness of CTAP program to date. <ul style="list-style-type: none"> ➢ Compare the behaviors of businesses receiving CTAP assistance with those who have not. ➢ Examine the impacts of CTAP visits, level of behavior change and implementation of recommendations. ➢ Determine how many businesses have implemented waste prevention and reuse activities aside from just recycling. 	Apotheker, Contractor	\$35,000	\$35,000	Complete
<ul style="list-style-type: none"> • Recognition Program. <ul style="list-style-type: none"> ➢ Recognize businesses that meet waste reduction criteria. ➢ Provide a window decal that promotes the businesses' waste reduction activities. 	McGuire, Hawley, Team		\$25,000	
<ul style="list-style-type: none"> • Regional business list. <ul style="list-style-type: none"> ➢ Purchase business list for waste evaluators to use to identify businesses by sector, employee size, geographic location, etc. 	Hawley		\$10,000	\$10,000
Subtotal (Section B)		\$465,000	\$490,000	\$430,000
C. Event Recycling				
1. Assist with recycling at events.	Hawley, Team		X	\$0
<ul style="list-style-type: none"> • Assist with updating Event Recycling Guide (FY 03-04). • Evaluate City of Portland and Clackamas County data on their event recycling programs (FY 04-05). 				
Subtotal (Section C)			\$0	\$0

X = Activities that will occur in this fiscal year as staff time, but have no associated budget line item.

	Staffing	2002-2003 M+S Budget	2003-2004 M+S Budget	2004-2005 M+S Budget
D. Ensure commingled processing capacity and standards.				
1. Inventory different commercial commingled sorts and processing facility capacity. <ul style="list-style-type: none"> Utilize results to target problem material streams and residual levels (glass, shredded paper, etc.). 	Apotheker Barrett	X	Complete	
<ul style="list-style-type: none"> Implement recommendations for monitoring facility performance. <ul style="list-style-type: none"> Monitor processing facilities and perform waste sorts. Final Report due in Dec. 2003. 	Apotheker, Barrett	X	\$20,000	Complete
2. Convene Subcommittee on Contamination and Loss of Recyclables (Fall 2002). <ul style="list-style-type: none"> Work with local governments and haulers to prohibit the mixing of fibers and glass in collection vehicles and at recovery facilities. Subcommittee reconvene in Jan. 2004. Recommendations to Council in Mar. 2004. 	Barrett, Apotheker, LG	X	X	
<ul style="list-style-type: none"> Implement policy recommendations from Subcommittee on Contamination and Loss of Recyclables. 	Apotheker, Barrett, LG	\$0	\$0	TBD
Subtotal (Section D)		\$0	\$20,000	\$0
E. Required recycling (Waste Reduction manager to determine additional steps and budget). Renamed Contingency Plan Work Group recommendations on business recycling				
1. Feasibility and recycling requirements.	Apotheker, McGuire	\$15,000	X	TBD
<ul style="list-style-type: none"> Conduct research on feasibility of required recycling and impact on markets 	Apotheker, McGuire	\$15,000	\$0	TBD
2. Stakeholder involvement process. <ul style="list-style-type: none"> Council adopted RSWMP revisions to establish a Contingency Plan process in Spring 2003. Contingency Plan Work Group convened in August 2003. Recommendations to Council in Jan. 2004. Budget for implementation will be determined at that time. 	Barrett, McGuire	\$10,000	X	TBD
<ul style="list-style-type: none"> Stakeholder involvement process – carryover. 	Barrett	\$10,000	\$0	TBD
Subtotal (section E)		\$50,000	TBD	TBD
Total Track 2		\$583,000	\$560,000	\$455,000

X = Activities that will occur in this fiscal year as staff time, but have no associated budget line item.

	Staffing	2002-2003 M+S Budget	2003-2004 M+S Budget	2004-2005 M+S Budget
TRACK 3: MARKET DEVELOPMENT Ensure adequate market capacity is available.				
A. Increase market development efforts.				
1. Commercial end-use market capacity study for mixed paper.	Apotheker, Team	\$20,000	Complete	\$0
2. Commercial end-use market research and pilots (carpet, plastic tubs, textiles. mixed glass).	Team	\$15,000	Budget Cut	\$0

3. Work with vendors to substitute recyclable packaging for waxed corrugated cardboard. • Research vendors that have viable options for substitution.	Hawley, Team	\$ 5,000	<i>Budget Cut</i> X	\$0
4. Materials exchange (IMEX, Nwmaterialsmart) outreach and web site refinement to better serve regional users (<i>moved from Recovery, Track 2</i>). ▪ Assess the effectiveness of outreach. ▪ Identify barriers to use. ▪ Develop and implement improvements to increase utility and use,	Allaway, Kolberg	X	X	Complete
Subtotal (Section A)		\$40,000	\$0	\$0
B. Buy-recycled program (<i>moved from Waste Prevention, Track 1</i>)				
1. Develop business leadership group to promote recycled product use.			<i>Move \$5,000 to 3.B.3. Buy-Recycled Database</i>	
			<i>Will reassess development for FY 05-06</i>	
2. Develop online database of recycled products ➤ Update and product additions. ➤ Market online <i>Buyer's Guide to Recycled Products</i> .	McGuire, Team	X	\$15,000 <i>(includes \$5,000 from 3.B.1.)</i>	
3. Develop and implement evaluation plan to assess impacts of online guide ➤ Identify users, effectiveness of outreach, CTAP usefulness, track business behavior change. ➤ Report on recommendations for future buy-recycled activities	Apotheker, McGuire, Contractor	X	\$15,000	Complete
Subtotal (Section B)		\$40,000	\$30,000	0
Total Track 3		\$40,000	\$30,000	0

X = Activities that will occur in this fiscal year as staff time, but have no associated budget line item.

SUMMARY Materials & Services		2002-2003 M+S Budget	2003-2004 M+S Budget	2004-2005 M+S Budget
TOTAL TRACK 1		\$0	\$0	\$0
TOTAL TRACK 2		\$618,000	\$560,000	\$455,000
TOTAL TRACK 3		\$40,000	\$30,000	\$0
SUB-TOTAL (TRACKS 1,2 3)		\$658,000	\$590,000	\$455,000
LESS Currently Budgeted Funds		\$708,000	NA	NA
TOTAL New Funds Needed For Materials & Services		-\$50,000	\$590,000	\$455,000

* \$15,000 of outreach funds was redirected from the model design tasks from FY01-02 that will no longer be implemented.

Construction & Demolition Debris Recovery Work Plan 2002-2005
March 2003

Overview

The region must recover over 35,000 tons of C&D waste from the construction sector in order to meet its established goals for 2005. This plan was cooperatively developed by the Construction and Demolition Debris Work Group comprised of Metro and local government staff. The plan will guide the region in the direction of increased recovery while adhering to the solid waste hierarchy of reduce, reuse, recycle, recover, compost, then landfill as a last resort.

This plan takes a three-track approach to C&D debris management. The first track emphasizes waste prevention, salvage and reuse. The practices and programs in this section are among the most important in this plan because they are considered to be the lowest cost and most effective methods of managing C&D debris. Salvage and deconstruction practices are one of the few tools available to effectively reduce the 60% of C&D debris coming from demolition activities. The local salvage and deconstruction service provision and retail infrastructure is growing, but several barriers, which are addressed in this plan, keep these practices from becoming widely adopted.

The plan's second track focuses on developing effective C&D debris recycling and processing programs for the debris that is not a candidate for deconstruction and salvage. This plan includes a wide range of tools and tactics being used to improve source-separated and post-collection recovery of C&D debris. Education and incentives are being used in conjunction with processing requirements and disposal bans to recycle and recover the necessary tonnage.

Based on prior years of research, the C&D Work Group is continuing to target these four sectors as the primary generators of salvageable and recyclable C&D debris:

- new commercial (under \$3 million);
 - commercial remodel/tenant improvement;
 - wood-frame building demolition;
 - residential remodeling (performed by licensed contractors).
-
- The C&D Work Group has been receiving feedback from the Local Government Solid Waste directors, salvage and recycling industry representatives and Metro staff on the progress and direction of current and future task force activities. This feedback, along with the lessons learned while implementing the first three years of the C&D Waste Reduction Initiative, provided the basis for the FY 2002-03, 2003-04 and 2004-05 C&D Waste Reduction Initiative.

C&D tonnage diversion objectives:

Metro staff estimates that approximately 35,000 tons additional tons of C&D recovery are needed from the C&D sector by 2005 to meet regional recovery goals. While it is difficult to estimate the effect in tons from waste prevention activities and softer program elements such as education and outreach, the C&D task force assigned tonnage diversion performance estimates to the three tracks to be used as a guideline.

Track	Estimated additional tonnage	Primary sources
I. Waste Prevention	5,000	From increases in salvage and deconstruction in residential and commercial construction
II. Recycling and Post Collection Recovery	35,000	From new recovery at Hillsboro Landfill and Lakeside Reclamation and Metro transfer stations
III. Market Development	2,000	From expected increases in reuse of commercial building materials
Total	42,000	

**The FY 2002-03, 2003-04, 2004-05 Construction and Demolition
Waste Reduction Initiative Work Plan**

TRACK 1: WASTE PREVENTION, SALVAGE AND REUSE

Develop focused outreach and education programs on salvage and deconstruction practices for the region's contractors, developers, architects, material specifiers, property managers and property owners.

A. Waste Prevention Outreach and Education	Staffing	2002-03 M+S Budget	2003-04 M+S Budget	2004-05 M+S Budget
<p>1. Implement three-year communication and marketing program</p> <ul style="list-style-type: none"> • Begin implementing first year of program June 2002. • Follow three-year implementation plan for communication and marketing activities to increase awareness and knowledge of Salvage and Deconstruction practices by: <ul style="list-style-type: none"> ➤ Building partnerships with local industry associations (AIA, ABC, AGC, CSI, HBA, ORA, chambers of commerce and business associations). ➤ Working cooperatively with local plan centers, building permit centers, building material retailers and wholesalers to distribute Metro C&D literature. ➤ Creating direct outreach opportunities through a series of managers' forums ➤ Creating interest in waste reduction by placing articles/case studies in local industry publications such as the Daily Journal of Commerce, NW Construction magazine and the Business Journal. • Collateral materials include the Metro Construction Industry recycling Toolkit and the Toolkit Planners Guide 	Contractor with oversight by C&D Work Group	Year 1 \$95,000 (\$45,000 from carry over)	Year 2 \$50,000 \$20,000	Year 3 \$50,000 \$70,000
<p>2. Evaluate and measure effect</p> <ul style="list-style-type: none"> • Take baseline measurement of target audience's waste-related knowledge and behaviors before official start of first year. • Continue evaluating/measuring effect to determine benefit of continuing program. • Update Metro Council on measurement findings in June of each year starting with 2003. 	Contractor with oversight by C&D Work Group	\$5,000	\$10,000	\$15,000
Subtotal (Track 1-Section A)		\$100,000	\$80,000	\$135,000

TRACK 1: WASTE PREVENTION, SALVAGE AND REUSE , continued

Develop focused outreach and education programs on salvage and deconstruction practices for the region's contractors, developers, architects, material specifiers, property managers and property owners.

B. Reduce the barriers to Deconstruction and Salvage	Staffing	2002-03 M+S Budget	2003-04 M+S Budget	2004-05 M+S Budget
1. Model specifications for government construction contracts <ul style="list-style-type: none"> • Research, establish and implement model government procurement/construction practices that encourage rather than discourage deconstruction over mechanical demolition. • Pilot specifications on Metro and LG projects and monitor results 	<i>Contractor with oversight by C&D Work Group</i>	-0-	0	0
2. Building permit fees <ul style="list-style-type: none"> • Work with building permitting organizations such as the Tri-County Permitting consortium and deconstruction service providers to identify options for reducing the permit fees and waiting periods for demolition jobs where significant quantities of material are being salvaged or deconstructed. • Pilot new fee/incentive schedule at one large and one small jurisdiction building permit center and monitor results. 	C&D Work Group	-0-	0	0
3. Improve reuse options at solid waste facilities <ul style="list-style-type: none"> • Investigate the creation of reuse stations for used building materials being dropped off at transfer stations, landfills and MRF's. • 	C&D Work Group	-0-	0	0
Subtotal (Track 1-Section B)		-0-	0	0
C. Waste Prevention Grants				
1. Promote used building materials * Note that this item has been part of the Metro C&D budget since FY 1995-96	C&D Work Group	\$4,000	\$7,000	\$10,000
Subtotal (Track 1-Section C)		\$4,000	\$7,000	\$10,000
TOTAL (TRACK 1)		\$104,000	\$87,000	\$70,000

TRACK 2: C&D DEBRIS RECYCLING AND PROCESSING

Develop a system to ensure that source-separated recycling or effective post-collection recovery is available or provided to targeted sectors of the C&D industry.

A. Create incentives for generators, haulers, source-separated recyclers and post-collection recovery facilities to increase their recovery of recyclables from the C&D waste stream.	Staffing	2002-03 M+S Budget	2003-04 M+S Budget	2004-05 M+S Budget
1. Continue to monitor the progress of existing incentive programs such as the Metro System Fee Credit Program	C&D Work Group	-0-	-0-	-0-
B. Implement three-year communication and marketing program that supports recycling				
1. As part of the C&D partnership project described in Track 1, motivate the C&D industry to plan for and take part in source separated recycling programs	Contractor with oversight by C&D Work Group	Year 1 Cost included in item 1.A.	Year 2 Cost included in item 1.A.	Year 3 Cost included in item 1.A.
C. Implement the strategy recommendations of the Contingency Work Group.				
1. With direction from Regulatory Affairs staff, C&D Work Group will develop the RSWMP policy, objectives and language, as well as regulatory tools, program SOP's, rules and monitoring methods to require that all eligible mixed C&D loads are processed before disposal. •	SW&R staff, C&D Work Group	-0-	-0-	-0-
2. Implement C&D Processing requirement rules by July 1, 2004 • Assist SW&R Regulatory Affairs staff, with the implementation of the ordinance at affected facilities.	C&D Work Group	-0-	-0-	-0-
TOTAL (TRACK 2)		-0-	-0-	-0-

TRACK 3: MARKET DEVELOPMENT

Assist in the development of markets that support the recycling and salvage of building materials

A. Assist in the development of the local infrastructure for the used building material industry.	Staffing	2002-03 M+S Budget	2003-04 M+S Budget	2004-05 M+S Budget
1. Develop markets for used commercial building materials <ul style="list-style-type: none"> Evaluate what is needed to build this market, code changes, infrastructure, education or promote existing venues for the exchange or resale of commercial building materials 	Contractor with oversight by C&D Work Group	-0-	\$25,000	
2. Promote building with used commercial building materials <ul style="list-style-type: none"> Work with building industry and building code officials to create awareness and approved practices for building with used commercial building materials. 	Contractor with oversight by C&D Work Group	-0-		
3. Soliciting proposals for grant funding to develop the used building material salvage, transport and retail infrastructure. <ul style="list-style-type: none"> . 	C&D Work Group		\$100,000	\$100,000
TOTAL (TRACK 3)		-0-	\$125,000	\$100,000

TOTALS		2002-03 M+S Budget	2003-04 M+S Budget	2004-05 M+S Budget
TRACK 1		\$104,000	\$87,000	\$135,000
TRACK 2		-0-	-0-	-0-
TRACK 3		-0-	\$125,000	\$100,000
GRAND TOTAL		\$104,000	\$212,000	\$235,000

Metro Regional Organics Work Plan 2002-2005
December 2003

Overview

According to the revised Regional Solid Waste Management Plan recovery rates, the region must recover 55,000 tons of organic waste from the commercial sector and 35,000 tons from the residential sector in order to meet its established goals. This plan, cooperatively developed by the Regional Organics Work Team comprised of Metro, DEQ and local government staff, is designed to guide the region in the direction of increased recovery while adhering to the solid waste hierarchy of reduce, reuse, recycle, recover, compost, landfill.

This plan takes a two-track approach to organic waste management. The first track emphasizes waste prevention, donation and diversion. This is considered to be a least-cost approach as preventing the generation of the material in the first place removes the need to manage it as a waste product. Donation is the highest end-use of food that is produced, and an established system to collect and redistribute donated food exists in the region. Additionally, track 1 programs can be implemented in a relatively rapid fashion due to existing infrastructure and the fact that outreach materials may be produced quickly. Emphasizing food donation also helps to address the problems of hunger in the region and the state. Oregon ranks highest in the nation for the incidence of hunger and sixth for food insecurity. In 2000, 650,000 Oregonians ate meals from emergency food boxes at least once during the year. While the food donation infrastructure does exist, continued assistance and support is necessary to enhance capacity to accommodate a new and increased flow of material and to increase the amount of perishable foods donated.

The plan's second track focuses on implementation of a collection and processing system to recover organic waste that cannot be diverted to higher-end uses. The development of permanent organic waste collection and processing systems to serve the region is the emphasis for the next three years of the Organics Plan. Every effort will be made to utilize existing infrastructure and tailor generator and collection programs to fit within existing operations and regulatory systems. In order for the region to reach its recovery goals, organic waste collection and processing must be implemented. However, the development of permanent collection and processing facilities will remain contingent upon economic and environmental feasibility.

A series of outreach efforts including barrier and benefit identification and increased outreach to encourage the donation of edible food will be implemented. Upon the development of permanent collection and processing capabilities, an intensive education program for businesses to properly separate and prepare organic waste for collection and processing will be undertaken in cooperation with the region's local governments. The provision of funds to support the acquisition of appropriate food waste collection containers and equipment will be revisited contingent upon processing system development.

The following draft plan provides the details and the accompanying resources needed for the implementation of the next phase of the regional organic waste management plan. During this second phase, the team has chosen to continue to target large organics-rich businesses and industries and to begin to examine residential programs. These targeted businesses are:

- Large retail grocery stores
- Large restaurants
- Hotels
- Institutional cafeterias*
- Produce wholesale warehouses

(*Institutional cafeterias include food service operations in schools and universities, hospitals, large office buildings, corporate campuses, prisons, etc.)

If commercial collections prove successful, the Organics Team will examine the development and implementation of residential food waste diversion programs.

TRACK 1: WASTE PREVENTION, DONATION AND DIVERSION

Continue and intensify focused outreach and education programs for targeted food-intensive businesses to increase waste prevention, donation and diversion practices.

A. Waste Prevention	FTE	2002-03 Budget	2003-04 Budget	2004-05 Budget
1. Research, development, assessment <ul style="list-style-type: none"> ▪ Identify the barriers to increased waste prevention practices in businesses. ▪ Develop examples of industry practices that encourage waste prevention. ▪ Implement barrier reduction program. 	Contractor		<i>Combined with donation barrier study (Task B. 3.)</i>	<i>Combined with donation barrier study (Task B. 3.)</i>
<ul style="list-style-type: none"> ▪ Assess the progress of the first three years of the organics program implementation. 	Contractor			
<ul style="list-style-type: none"> ▪ Provide funding to DEQ for a second year of specific food waste disposal data as part of the state-wide waste characterization study. Focus on detailed residential food waste characterization as well as success of commercial program implementation. 	DEQ		*	*
<ul style="list-style-type: none"> ▪ Continue partnerships with industry associations to create suitable and effective outreach messages, appropriate outreach methods, and to lend credence to the program (seek out sponsorships or endorsements.) 	Team			
2. Grants for waste prevention programs <ul style="list-style-type: none"> ▪ Grants will provide the means to enable implementation of model waste prevention practices at food businesses (e.g., offer vs. serve, less-wasteful display methods, reusable shipping containers, etc.) 	Team		Canceled/ funds diverted	
3. Continue focused outreach and education on waste prevention coupled with on-site assistance <ul style="list-style-type: none"> ▪ Utilize research results and existing materials currently in use in the region to tailor specific materials for production. ▪ Continue regular presentations a the Western Culinary Institute. ▪ Develop new partnerships to enhance outreach scope and effectiveness. ▪ Coordinate with waste evaluators for outreach methods. ▪ Identify barriers to waste prevention utilizing CBSM. 	McGuire			
SUB-TOTAL (Section A)				0

*Funding for these additional samples are included in a separate area of the Waste Reduction Division's 2003-04 budget.

B. Donation	FTE	2002-03 Budget	2003-04 Budget	2004-05 Budget
1. Enhance donation infrastructure and build capacity <ul style="list-style-type: none"> ▪ Continue grant program to provide funding, property or equipment to qualifying charitable organizations to increase their capability to collect, receive, store, process and distribute perishable foods. 	Team	\$200,000 ‡	\$52,294 (Fresh Alliance)	\$100,000
<ul style="list-style-type: none"> ▪ Examine the need for additional infrastructure improvements such as the development and coordination of an efficient, centralized transportation and distribution system for food collected. Work to develop a tracking database and logistics system. 	McGuire Food Rescue Agencies		<i>research</i>	
<ul style="list-style-type: none"> ▪ Assist food rescue agencies in the development and implementation of partnerships for the long-term preservation, processing, packaging and storage of large quantities of fresh foods. ▪ Gap grants to provide necessary equipment to enable storage capabilities. 	Team, Erickson, McGuire			
2. Create network (organics team members, businesses and food rescue agencies) to assess outreach and coordinate messages, identify areas of further coordination and Metro's role in the edible food recovery system (coordinate with Council of Food Industry Presidents, Chefs' Collaborative and other existing groups).	McGuire, Erickson, Team			
3. Research and development: Identify the barriers and benefits to food donation <ul style="list-style-type: none"> ▪ Rigorous study/survey to identify true barriers, convene focus groups within food industry, develop barrier reduction strategies and pilot them. 	Contractor, McGuire	\$40,000	<i>Implement outreach \$20,000</i>	<i>Assess</i>
4. Education and outreach: based on the findings of barrier identification research, educate targeted businesses about all aspects of food donation in coordination with charitable agencies (utilize Community-Based Social Marketing principles). <ul style="list-style-type: none"> ▪ Develop stronger and more effective outreach methods and messages. ▪ Develop strategies to make donation the first choice over composting or disposal (make donation the rule rather than the exception). ▪ Broad media campaign for food donation message during FY 2003-04. 	Team, Media Consultant, Food Rescue Agencies, McGuire	\$5,000	\$10,000 combined with outreach program listed above	
<ul style="list-style-type: none"> ▪ Work with agencies to refine message regarding Good Samaritan Laws, liability issues, "myths and realities" of food donation. ▪ Work with DEQ and other associations (such as AOR) to develop alternative vehicles for information dissemination regarding food donation and liability throughout the state to enhance knowledge. 	McGuire, Erickson			
<ul style="list-style-type: none"> ▪ Update and print educational materials as needed. 	McGuire	\$3,000	\$10,000	\$5,000

5. Community involvement: provide support and assistance to organizations and associations involved in developing sustainable food systems in the region. <ul style="list-style-type: none"> Actively participate in Community Food Matters forums and committee meetings. Continue membership and active involvement with the development and implementation of the City of Portland/Multnomah County Food Policy Council. Connect and coordinate with local Chefs' Collaborative members. 	Erickson, McGuire				
SUB-TOTAL (Section B)			\$243,000	\$92,294	\$105,000

‡Up to \$100,000 in additional funds may be available in FY 2002-03 from un-spent infrastructure development grant funds.

C. Diversion	FTE	2002-03 Budget	2003-04 Budget	2004-05 Budget
1. Continue to monitor and assess the potential for diversion of food waste to animal feed markets in light of new federal and state regulations for the feeding of food wastes to cattle and hogs. <ul style="list-style-type: none"> Feed Commodities, Inc. Threemile Canyon Dairy 	McGuire, Erickson			
SUB-TOTAL (Section C.)		0	0	0
TOTAL (Track 1)		\$283,000	\$92,294	\$105,000

TRACK 2: ORGANIC WASTE COLLECTION AND PROCESSING INFRASTRUCTURE DEVELOPMENT

Assist with the development of a range of collection and processing options using existing infrastructure to the greatest extent possible.

A. Generator Programs	FTE	2002-03 Budget	2003-04 Budget	2004-05 Budget
1. Develop specific educational materials focused on generator types, geographic area, hauler equipment, and end-use of materials collected. <ul style="list-style-type: none"> Focus outreach and education on commercial collection programs (barrier identification). Provide on-site assistance to generators implementing separation and collection programs. Provide generators with a menu of alternative management options (e.g., link to local farmers) 	Team, McGuire, Erickson		\$4,000 <i>(Design and print)</i>	\$5,000
SUB-TOTAL (Section A.)			\$4,000	\$5,000

B. Development of Collection Infrastructure	FTE	2002-03 Budget	2003-04 Budget	2004-05 Budget
1. Work with area haulers and businesses to determine feasible organics collection routes throughout the region. <ul style="list-style-type: none"> ▪ Research hauler willingness/potential to develop collection cooperatives. ▪ Provide GIS services to haulers to help plot and study potential collection routes. 	LGs, Team, Metro DRC			
2. Develop grant program to assist with the development of the organic waste collection system. <ul style="list-style-type: none"> ▪ Work with haulers to determine equipment needs, collection schedules and assistance required to implement routes. ▪ Provide funds to local governments or directly to haulers to share in the costs of system implementation (collection containers, truck modifications, educational materials, etc.) 	Team, Erickson, McGuire	\$30,000 <i>(LG pass-through)</i>		
3. Assist with implementation of organic waste collection programs. <ul style="list-style-type: none"> ▪ Develop and provide appropriate outreach and educational materials and services. ▪ Provide staff assistance for program roll out, education, on-site assistance/orientation. ▪ Review state and local rules and regulations for commercial solid waste collection frequency to ensure incentives for separation of organics exists. Recommend policy and rule changes to state and local regulators where appropriate. 	Team, McGuire, Erickson		\$15,000	\$5,000
4. Residential food waste management program development.* <ul style="list-style-type: none"> ▪ Research approaches to residential food waste management used throughout the US ▪ Identify barriers to residential food waste prevention management (survey).* ▪ Test strategies to increase residential prevention and management of food waste. ▪ Promote at-home management of food waste via waste prevention, home composting, sale of worm bins at compost bin sales. 	Consultant, Team, McGuire, Erickson		\$20,000 <i>assess macro-level impacts of a collection program</i>	
<ul style="list-style-type: none"> ▪ Develop plan for implementation of residential collection of organic wastes if processing capacity available and economics are favorable. 	Team McGuire		<i>plan development</i>	
<ul style="list-style-type: none"> ▪ Implement large-scale pilot projects and determine true costs of program implementation.** 	Team			
SUB-TOTAL (Section B.)		\$30,000	\$35,000	\$5,000

*Barrier identification will also include food waste collection program barriers as well as prevention and at-home management of food wastes.

**Residential pilots include testing the effectiveness of distribution of home worm bins, education and outreach on home composting of food waste with yard debris, and food waste prevention education.

C. Utilization and Enhancement of Existing Infrastructure for Delivery and Processing of Organic Wastes	FTE	2002-03 Budget	2003-04 Budget	2004-05 Budget
1. Build local infrastructure by working closely with facilities throughout the region to research potential and assist with the implementation of organics reload and transfer. <ul style="list-style-type: none"> ▪ Work with facility operators, local officials, etc. to research and determine feasibility and likelihood of varied degrees of delivery and reload of organics on a case-by-case basis. ▪ Provide organics reload services at Metro transfer stations and other appropriate regional facilities. 	Team Erickson		\$700,000	
2. Processing facility development assistance. <ul style="list-style-type: none"> ▪ Continue to support and assist the City of Portland with the development of an all food waste processing facility. ▪ Provide financial and legal assistance with siting, permitting and land use issues. ▪ Coordinate and consult with local government land use planners to identify the barriers and opportunities, foster understanding, and develop cooperative relationships regarding food waste processing facilities. ▪ Develop a system that will streamline permitting and approval system for applicants. 	Team LU attorney			
3. Processing infrastructure development grants. <ul style="list-style-type: none"> ▪ Continue to administer existing grants. ▪ Continue to offer matching grant funds to yard debris facilities to assist with upgrades to accommodate food wastes. 	Team Erickson	\$320,000		
4. Consider the use of a short-term subsidy to support organics collection and processing until more economically viable local options are developed.	Team			
SUB-TOTAL (Section C.)		\$320,000	\$700,000	0
TOTAL (Track 2)		\$350,000	\$739,000	\$10,000

	FY 2002-03	FY 2003-04	FY 2004-05
Subtotal Section A	\$40,000	\$0	0
Subtotal Section B	\$243,000	\$92,294	\$105,000
Subtotal Section C	0	0	0
TOTAL TRACK 1	\$283,000	\$92,294	\$105,000
Subtotal Section A	0	\$4,000	\$5,000
Subtotal Section B	\$30,000	\$35,000	\$10,000
Subtotal Section C	\$320,000	\$700,000	0
TOTAL TRACK 2	\$350,000	\$739,000	\$15,000
SUB-TOTAL (Tracks 1 and 2)	\$633,000	\$831,294	\$120,000
Less Currently Budgeted Funds	\$633,000	\$700,000	0
GRAND TOTAL New Funds Needed	0	\$131,294	\$120,000

Other consideration:

Track 1:

- Peer education, publish case studies and newsletters, etc.
- Have businesses call peers to encourage donation.

Track 2:

- Identify potential generators who may benefit from on-site processing options.
- Consider public/private purchase and development of processing facilities if existing infrastructure proves unsuitable/insufficient.

April 2004

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STAFF REPORT

IN CONSIDERATION OF RESOLUTION NO. 04-3442A, FOR THE PURPOSE OF APPROVING THE YEAR 15 PARTNERSHIP PLAN FOR WASTE REDUCTION (FISCAL YEAR 2004-05)

Date: February 3, 2004 (revised April 19, 2004)

Prepared by: Jennifer Erickson

BACKGROUND

Each year since 1990, Metro staff and local government staff have prepared a work plan for the region's waste reduction activities in the upcoming fiscal year. The plan is designed to provide a regional framework for programs that lend continuity throughout the region, as well as to partner in our efforts to meet state requirements and work toward reaching regional goals.

The plan for the 2004-05 fiscal year is the fifth year of a revised format plan developed in response to lower-than-anticipated recovery rates in the region. The Year 15 Partnership Plan is the third year in which a measurement system designed to assess both the accountability and the effectiveness of program elements has been incorporated. The completed assessment for the 2002-03 fiscal year (Year 13) is included with this staff report as Attachment "A".

The plan includes three program areas: maintenance, targeted competitive grants, and initiatives in commercial, construction and demolition debris, and organics recovery.

- *Maintenance* provides baseline support (on a per capita basis) for the foundation of regional recycling through a joint work plan and funding for established local and regional waste reduction and recycling programs.
- *Targeted competitive grants* supplement maintenance funding by helping local governments target Regional Solid Waste Management Plan practices that are not addressed elsewhere and for which other sources of funding are not available, especially for "lagging" waste sectors. Local governments provide matching funds. The area of focus for Year 15 is multifamily recycling programs.
- *New initiatives in waste reduction* for the commercial, construction and demolition debris, and organics sectors will receive increased focus. The State-of-the-Plan Report found that significant amounts of recoverable materials are present in those sectors and that recovery in these sectors was lagging. Three work groups, one group for each sector, and comprised of Metro and local government staff, developed separate work plans for three fiscal years beginning in 1999-2000 and have developed a subsequent three-year plan, beginning in 2002-03. Fiscal Year 2004-05 will be the third year of these three-year plans.

Solid Waste Advisory Committee (SWAC) Review: The plan has been to SWAC for review, comment and approval and received its unanimous endorsement as presented herein without amendments on April 19, 2004.

ANALYSIS/INFORMATION

1. Known Opposition

There is no known opposition.

2. Legal Antecedents

ORS 459A "Opportunity to Recycle Act" requires "that the city, county or metropolitan service district responsible for solid waste management" provide recycling services, public education programs, and 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 (a functional plan) adopted by Council via Ordinance 95-624, "For the Purpose of Adopting the Regional Solid Waste Management Plan." The Partnership Plan, adopted by resolution annually, is one of the implementation tools developed to fulfill the recommended practices of the Regional Solid Waste Management Plan.

3. Anticipated Effects

This resolution will approve the format and framework for the Annual Partnership Plan for Waste Reduction between local governments and Metro. This enables local jurisdictions to complete their portion of the plan and for Metro and local jurisdictions to begin the annual waste reduction program implementation process.

4. Budget Impacts

A total of \$1,619,271 has been proposed in the FY 2004-05 draft budget for the three parts of this program:

\$649,271 for maintenance programs
\$160,000 for the Targeted Competitive Grants
\$810,000 for the Waste Reduction Initiatives

RECOMMENDED ACTION

The Chief Operating Officer recommends approval of Resolution No. 04-3442.

Year 13 Performance Measures Assessment Report
(Fiscal Year 2002-03)

March 2004

Introduction

The purpose of the report is to evaluate the progress of the Annual Waste Reduction Program (AWRP) for Metro and local governments. Each of the three sections in the plan has an independent progress measurement and reporting scenario tied to the specific tasks involved. At the end of the fiscal year, progress reports for each section are produced independently. These reports, combined with other important measures such as the State of the Regional Solid Waste Management Plan Report (RSWMP) and the Annual DEQ Recycling and Recovery Report, are brought together to assess regional waste reduction and recycling progress.

In 2002, the Metro region had a 54% recovery rate as reported by the Oregon Department of Environmental Quality. This reflects 6% credits from waste prevention, reuse and composting programs and a calculated 48% recovery rate from recycling and composting collection activities. Progress toward the region's goals faltered in 2002, with a drop in the regional recovery rate of one percentage point, from 55%, in 2001. (The most recent full year of recovery data available from DEQ is 2002.)

Based on 2002 data, an additional 290,000 tons must be recovered in 2005 to meet the 62% recovery goal given the projected waste generation for that year. Of the total new tons of recovery needed, about 70%, or 201,000 tons, are expected to come from initiatives in the commercial, construction & demolition and organics sectors. The remaining recovery to meet the 2005 goal is anticipated to come from curbside recycling collection programs and current bottle bill efforts.

Background

Since 1990, Metro and its local government partners have developed cooperative plans to implement the region's waste reduction and recycling programs. The AWRP for Fiscal Year 2002-03 (known as Year 13 in Annual Waste Reduction Plan parlance) brings together three integral pieces of the region's waste reduction and recycling system: New and focused efforts to recover more from the commercial, construction/demolition debris (C&D) and organics sectors; continuation of competitive grants for innovative waste reduction programs; and the maintenance of programs that form the foundation of the region's recycling infrastructure.

The long-term goal of the AWRP is to reduce the amount of materials generated and disposed in the Metro watershed. Secondary goals include:

- Developing and implementing new, focused waste prevention and recycling programs aimed at the largest remaining waste substreams.
- Targeting special waste prevention and recycling areas for increased attention.
- Maintaining and increasing existing Metro and local government waste prevention and recycling programs.

Program effectiveness is measured by increased regional recovery in total and by RSWMP recommended practice (total tons and per capita tons recovered and disposed). Data used to determine effectiveness are derived from DEQ recovery and disposal data and the DEQ waste composition study.

Progress Overview

In 2002, the region's solid waste prevention and recovery rate grew to approximately 54% — one of the highest recovery rates in the nation — and the combined Metro and local government waste reduction programs have played a pivotal role in achieving that success to date. This achievement, however, is diminished somewhat by the fact that the annual prevention and recovery rate for the region decreased by 1% in 2002 from 2001. Prevention and recovery efforts were affected by weak economic conditions, low energy prices relative to 2001, loss of markets (wood) and undercapitalized processors that went out of business (roofing and wallboard).

Program-specific Highlights

The success or progress of the Annual Waste Reduction Program is measured by looking at two aspects of program performance: accountability and effectiveness. In other words, whether a program's work elements are being undertaken and completed and whether the outcome of those work elements reflects the desired outcome.

Foundation/Maintenance Support Grant Program

Per-capita grants have successfully helped local jurisdictions implement waste prevention and recycling activities within their jurisdictions, provide regular outreach to citizens and businesses, maintain waste reduction progress to date, and participate in regional waste reduction work groups.

For the region to reach its 62% recovery goal by 2005, curbside recycling collection programs need to recover 255,000 tons, an increase of 57,000 tons over the 2000 baseline. Program recovery data from Oregon Department of Environmental Quality allow Metro to track progress toward this goal.

Local governments provide a variety of information to Metro Waste Reduction staff in annual plans and annual reports. In addition to a full range of waste prevention and recycling activities, local governments provide specific outreach efforts, participate in

one or more regional waste reduction planning groups and submit solid waste and recycling budget information.

Targeted Competitive Grant Program

Due to the wide variety of projects undertaken, it is difficult to assess the grants with an overall measurement. Each grant is evaluated based on program criteria and individual performance goals established by the grant applicant. A complete report of the grants is provided in Appendix B. Some highlights of the 2002-03 grants are as follows:

- City of Gresham and Portland State University undertook an intensive program to improve recycling at 27 selected underperforming multi-family complexes. Twenty-five complexes were provided with recycling services and intensive outreach and educational materials (93% success rate).
- Clackamas County held two electronics collection events that recovered 893 monitors and 28,214 pounds of other electronic components delivered by 373 participants.
- The cities of Portland and Beaverton developed a Green Tenant Improvement Guide to increase recycling, waste reduction and use of green building techniques in commercial renovations.
- City of Portland tested four pilot strategies to increase recycling commercial recycling participation from 101 businesses located in a low-participation area on Martin Luther King, Jr. Boulevard. Nearly 13% of businesses in the program increased their recycling service, with the strategy of a mailer followed by a phone call yielding the highest response.
- City of Portland and Oregon Museum of Science and Industry implemented an on-site composting program with two worm bins and an education program. Using the two bins, OMSI is processing 600 pounds of food scraps per month.

The results of the projects will be summarized and presented at a quarterly meeting of the Local Government Recycling Coordinators to encourage adoption of successful programs. Targeted grants have been a useful tool for innovation, but their contribution to long-term waste prevention and recovery progress is uncertain.

Waste Reduction Initiatives

All three Waste Reduction Initiative work groups met or exceeded their *accountability* benchmark of completing 90% of their annual work plans for FY 2002-03.

Some highlights of the *effectiveness* measures from each initiative are listed below. Complete assessments for each initiative are included in the Appendix C.

- The **organics waste reduction initiative** has achieved its greatest success to date in the diversion of edible food waste to food rescue agencies and the region's hungry. In FY 02-03, local agencies recovered 16,558 tons of edible food, an increase of 3,151 tons from the previous fiscal year. Holiday party food donation mailers reached over 350,000 people via a direct mail card, website hits, and an Oregonian article and advertisements. The region is making frustratingly slow,

but nevertheless steady, progress in developing an all-food-waste composting facility to recover food waste unfit for human consumption.

- The **construction and demolition (C&D) waste reduction initiative** work group awarded two grants totaling \$100,000 to increase the capacity to handle used building materials, although actual payment was deferred to the FY 03-04 budget cycle. A phone survey of the largest deconstruction contractors and used building materials retailers saw sales of 7,339 tons of used building materials in 2003, up 34% from the previous year. The materials have an estimated value of \$5 million. Metro distributed 25,000 toolkits on C&D recycling opportunities in the region. A survey of contractors indicated strong awareness and participation levels in C&D recycling. In 2002, however, recycling levels for key C&D materials fell back after large jumps in 2001. The wood recovery rate of 72% remains one of the highest of all recovered materials. The falling recycling rates for gypsum wallboard (6%) and roofing (25%) may indicate infrastructure problems that need further review if the private sector does not respond.
- The **commercial waste reduction initiative** work group has increased waste prevention practices for recycled-content copy paper and duplexing at about one-third of the 400 businesses that received waste evaluations in these areas by the end of 2003. The improvement was based on follow-up visits completed at more than 100 businesses. Implementation of recycling recommendations for office paper and other scrap paper had a success rate of about 70%. Commercial recovery tonnage increased to 586,000 tons in 2002, an increase of 3,000 tons over 2001. A major outreach to promote commingled office paper recycling through provision of free deskside paper recycling collection boxes to businesses kicked off in June 2003 via billboard, radio spots and electronic newsletter distribution. (The campaign will continue through the end of December 2003.)

Appendices

- Foundation/Maintenance Support Grant Program Performance Measurement
- Targeted Competitive Grant Program Performance Measurement
- Waste Reduction Initiatives Performance Measurement (Organics, Construction & Demolition, and Commercial)
- Data Tables:
 - Table 1 -- Progress Toward Revised RSWMP System Benchmarks in 2005
 - Table 2 – Progress in Meeting RSWMP Diversion Targets in 2005
 - Table 3 – Metro Recovery and Disposal 1995-2002, in Tons
- Tons of New Recovery Needed to Meet 56% Goal for 2005

APPENDIX A

FOUNDATION/MAINTENANCE SUPPORT GRANT PROGRAM PERFORMANCE MEASUREMENT

Prepared by Steve Apotheker

Objectives

- To maintain and increase recovery through existing local government waste reduction and recycling programs.
- To provide an incentive for local governments to participate in regional waste reduction planning activities (Solid Waste Advisory Committee, Local Government Recycling Coordinator group, Organics Waste Reduction Initiative Work Group, Commercial Waste Reduction Initiative Group, Construction & Demolition Work Group).
- To continue to ensure the region is meeting (and exceeding) required state program elements for waste reduction and recycling programs.

Measurement (accountability)

- Local governments will identify and undertake a specific curbside recycling outreach activity for an existing local government program.
- Local government representatives will participate in at least one regional waste reduction planning group (larger jurisdictions will tend to participate in more than one group).
- Local governments will provide jurisdictional solid waste and recycling budget information.

Measurement (effectiveness)

- Maintain or increase curbside recycling recovery for the region (total tons recovered and disposed)

EFFECTIVENESS

Between 1998 and 2002, curbside recycling collection in the Metro region increased in total recovered tons and recovery rate using data supplied by the Oregon Department of Environmental Quality (See Curbside Recycling in the Metro Region table). The curbside recycling rate in 2002 of 41.6% is up from 39.7% in 1998.

The curbside recycling rate would increase to about 50% if the 70,000 tons of diversion from home composting and the Bottle Bill were included in the calculation. In states without bottles bills, soft drink and beer containers that are easily recyclable contribute about two to three percentage points to a curbside recovery rate, but in Oregon the majority of these containers are redeemed at grocery stores via the Bottle Bill. Unlike other states, however, Oregon does provide a “credit” for home composting, which is included in the wasteshed’s recovery rate. In 2002, the Metro wasteshed earned the full 2% credit for home composting.

A better representation of the level of success of curbside recycling is to look at just the recovery of those recyclable items that the public could set out, often called the capture rate. In 2002, curbside recycling had a capture rate of 71%, which is the product of 90% household participation (from

regional surveys) and a sorting effectiveness of almost 80% for materials eligible to be set out for recycling. About 30% of curbside garbage is recyclable material disposed by the 10% of non-participating households and by the participating households that did not recycle all the materials that they could. Three common curbside recyclables with lower capture rates are mixed scrap paper, plastic bottles generated outside the kitchen and scrap metal.

Although residential curbside collection programs operate at a very high level of participation and there has been progress over the 1998-2002 four-year period, the data for 2000 suggest program recovery peaked that year before falling off over the next two years. The regional recovery rate for 2000 of 47% represents a seven percentage-point jump from 1998. This peak in 2000 curbside recovery coincided with the first full year of commingled collection of recyclables. Several factors may have contributed to the high recovery in 2000, including:

- Rollout of commingling was accompanied by a greater outreach effort in the region, including a month-long media campaign by Metro and local governments.
- Manual sorting of commingled residential recyclables had a lower material loss compared to automated screen separation systems that have been implemented in 2001-2003.
- Possible reporting errors by haulers to DEQ in 2000 may have overstated recovery attributed to the curbside program that should have gone to commercial recycling. (City of Portland hauler recycling collection data showed an increase in 2000, but not the same magnitude of increase as DEQ data.

In FY 2002-03, the frequency of outreach efforts to households by local governments has been generally commensurate with previous years, with the focus on how to communicate to the public information on commingled material preparation and sorting into curbside bins. On average, local governments are providing households with two written communications each year on curbside material preparation. DEQ administrative rules state that households should receive annually four written communications or effective alternatives (e.g., media campaign).

If 2003 recovery from curbside recycling does not indicate an increase in tonnage over 2002, Metro and local governments may wish to examine various alternatives to increase curbside recovery. Some of these alternatives might include:

- Mailing information on material preparation and sorting to household more frequently, i.e., three or four times a year.
- Conduct a regionwide media campaign coordinated by Metro.
- Distribute roll carts or additional curbside bins to household for more recycling storage capacity.
- Target outreach to new household accounts as identified by haulers.
- Target special materials and outreach efforts to non-English speaking households.
- Target outreach to low-participation areas.

Based on anticipated growth in the waste stream, to meet our regional goal of 62% in 2005, the projected contribution from curbside recycling collection is 255,000 tons (see Appendix D, Table 1); the region is at 179,000 in 2002. The Metro watershed cannot reach its 2005 recovery goal by increases in curbside recovery alone; additional and substantial recovery is needed from the organics, C&D and commercial sectors – 43,000 tons, 56,000 tons and 102,000 tons, respectively.

Curbside Recycling in the Metro Region 1998-2002 (1)

Curbside Recycling	<u>1998</u>	<u>2000 (2)</u>	<u>2002</u>
Recycling, tons	160,669	198,701	178,916
Recycling rate	39.7%	46.9%	41.6%
Capture rate	67.5%	73.8%	70.6%

- (1) Garbage and recyclables, including yard trimmings, set out at the curb.
- (2) Curbside recycling in this analysis does not include tonnage for wood and roofing as reported by DEQ.

ACCOUNTABILITY

Jurisdiction	Curbside Outreach Activity	Work Group Participation	Total Solid Waste & Recycling Budget (Metro share)
Beaverton	<ul style="list-style-type: none"> ▪ <i>Your City</i> newsletter featured recycling in a 16-page Spring 2003 issue sent to all 45,000 households and businesses. 	<ul style="list-style-type: none"> ▪ Local Government Recycling Coordinators ▪ Commercial Work Group ▪ C&D Work Group ▪ Organics Work Group 	\$137,088 (24%)

Jurisdiction	Curbside Outreach Activity	Work Group Participation	Solid Waste & Recycling Budget
Clackamas County*	<ul style="list-style-type: none"> ▪ <i>Trash Talk</i> mailer sent to all 159,000 residential households in Fall 2002 and Spring 2003. ▪ Recycle Prep Brochures customized for franchised haulers to provide to households. 	<ul style="list-style-type: none"> ▪ Local Government Recycling Coordinators ▪ Organics Work Group ▪ Commercial Work Group ▪ C&D Work Group ▪ Solid Waste Advisory Committee 	\$1,372,495 (9%)
Fairview	<ul style="list-style-type: none"> ▪ Waste prevention and recycling information included in rate mailing to all households in September 2002. ▪ Information on recycling included in six City of Fairview newsletters mailed to all residents. 	<ul style="list-style-type: none"> ▪ Local Government Recycling Coordinators ▪ Commercial Work Group 	\$11,470 (30%)

Gresham**	<ul style="list-style-type: none"> ▪ <i>News to Reuse</i> contained recycling information in mailing to all residents in Gresham and Wood Village in November 2002 and April 2003. ▪ Wood Village provided recycling information to its residents in six editions of its <i>Wood Village Newsletter</i>. 	<ul style="list-style-type: none"> ▪ Local Government Recycling Coordinators ▪ Organics Work Group ▪ Commercial Work Group ▪ C&D Work Group ▪ Solid Waste Advisory Committee 	<p>\$410,274 (10%)</p>
Milwaukie	<ul style="list-style-type: none"> ▪ <i>Trash Talk</i> distributed to all residents in October and April. 	<ul style="list-style-type: none"> ▪ Local Government Recycling Coordinators ▪ C&D Work Group 	<p>\$51,535 (17%)</p>
Portland	<ul style="list-style-type: none"> ▪ <i>Curbsider</i> distributed to all 132,000 households in December 2002. The June 2003 issue was delayed until July 2003. ▪ Yard debris calendar distributed to all households in March 2003 contains recycling and yard debris information. ▪ Outreach program to non-English speaking residents. 	<ul style="list-style-type: none"> ▪ Local Government Recycling Coordinators ▪ Commercial Work Group ▪ Organics Work Group ▪ C&D Work Group ▪ Solid Waste Advisory Committee 	<p>\$3,571,428 (7%)</p>

Jurisdiction	Curbside Outreach Activity	Work Group Participation	Solid Waste & Recycling Budget
Troutdale	<ul style="list-style-type: none"> ▪ Fall rate mailing to all residents contains recycling information. ▪ <i>The Troutdale Spring Recycler</i> goes to all residents with information on recycling, waste prevention and buy recycled. ▪ <i>The Troutdale Champion</i> city newsletter is mailed six times per year to all residents and includes waste reduction information. 	<ul style="list-style-type: none"> ▪ Local Government Recycling Coordinators ▪ C&D Work Group 	\$40,000 (15%)
Washington County ***	<ul style="list-style-type: none"> ▪ <i>The WasteLine</i> newsletter with recycling preparation information mailed to all residents in November 2002. [Normally, the newsletter is mailed twice a year, but due to management and staffing turnover the spring newsletter was not mailed.] 	<ul style="list-style-type: none"> ▪ Local Government Recycling Coordinators ▪ Commercial Work Group ▪ Organics Work Group ▪ C&D Work Group ▪ Solid Waste Advisory Committee 	\$942,337 (18%)

*Within the county urban services boundary and cities of Oregon City, Gladstone, West Linn, Sandy, Molalla, Happy Valley and Lake Oswego.

**Includes the City of Wood Village.

*** Within the county urban services boundary and the cities of Hillsboro, Tigard, Tualatin, Forest Grove, Cornelius, Wilsonville, Sherwood, King City, North Plains, Durham and Banks.

APPENDIX B

TARGETED COMPETITIVE GRANT PROGRAM PERFORMANCE MEASUREMENT

Prepared by Jennifer Erickson

Background

The Regional Solid Waste Management Plan (RSWMP) and State of the Plan Report emphasize the need for comprehensive commercial, organics and C&D waste reduction and recycling programs for the region to reach its recovery goals. Outreach and education, waste prevention, recovery infrastructure improvements and the provision of appropriate collection services to these sectors are key elements in increasing recycling and recovery. The competitive grant program is designed to supplement the baseline funding available through the Annual Partnership Plan for Waste Reduction. These grants are intended to assist local jurisdictions and their partners in targeting the RSWMP waste reduction practices for which local governments are primarily responsible, and to look for creative methods for addressing solid waste issues. A total of \$185,000 was spent on this program in fiscal 2002-03.

Area of Focus

Each year, Metro specifies focus area(s) or target(s) for this competitive grant program based upon RSWMP needs and priorities. Applicants have the choice to either:

- 1) Submit a proposal in the focus area(s), or
- 2) Propose a project outside the focus area(s) and demonstrate that there is a true need for this approach, which is not being addressed through the Annual Waste Reduction Plan programs or other means. Alternative programs must also demonstrate that they contribute to meeting RSWMP goals.

The areas of focus for 2002-03 were waste reduction and recycling programs or initiatives that:

- 1) Bolster efforts in the organics, construction & demolition debris, and commercial sectors;
- 2) Are not otherwise funded or supported; and
- 3) Are innovative.

Eligibility Criteria and Reporting Requirements

This grant program is designed primarily for local governments, but is also open to school districts and non-governmental organizations partnered with local governments. Partnerships are strongly encouraged. Historically, the majority of the funds have gone to local governments and public school districts.

Applications must identify the specific practices of the Regional Solid Waste Management Plan to which the funds will be applied, must demonstrate clear benefits to the region and describe how project results would be transferable to other jurisdictions. Applicants are required to provide a 50% match to funds requested. This match may be dollars, in-kind services or a combination of both. Applicants are encouraged to cooperate or develop formal partnerships with nonprofit, volunteer agencies, business associations, chambers of commerce or other groups. In-kind matches may be provided in part by some or all partners. Applications are evaluated by Metro staff and greater weight is given to proposals that begin to move up the hierarchy from recycling to waste prevention.

Interim reports are due to Metro within 90 days of agreement execution and a final report is due 30 days after the completion of the project. Reports must demonstrate how the project has met the stated criteria and the impacts the project has had on the prevention, recycling and recovery of waste.

Applications and Awards

The following table illustrates the applicants, projects and funds awarded during the fiscal year 2002-03 grant cycle.

APPLICANT AND PARTNERS	PROJECT	AMOUNT REQUESTED	AMOUNT GRANTED
Gresham-Barlow Schools/Sodexo Corporation	Replace disposable dishware with permanent dishware.	\$6,000	\$6,000
City of Gresham/PSU	Increase waste diversion and recycling at selected multi-family complexes.	\$25,345	\$22,450
Clackamas County (Clackamas School District Foundation, Clackamas County Schools, AmeriCorps)	<ol style="list-style-type: none"> 1. Purchase large format scanner to reduce paper use during plan review process. 2. Sponsor AmeriCorps worker for school waste reduction assistance. 3. Computer/electronics collection event in partnership with Clackamas School District Foundation. 	\$44,600	\$33,000
Washington County*	Evaluate the feasibility of a C&D deposit system.	\$50,000	\$35,000
City of Portland (City of Beaverton, OMSI)	<ol style="list-style-type: none"> 1. Test low-participation commercial recycling outreach on Martin Luther King, Jr. Boulevard. 2. Undertake Green Building initiatives with City of Beaverton, focusing on tenant improvements. 3. Install on-site vermicomposting systems at OMSI. 	\$98,554	\$88,554
Portland Public Schools	Provide additional funding for the PPS food diversion program.	\$23,515	\$0
<u>TOTAL</u>		\$248,014	\$185,094

*Project canceled by request of Washington County on August 4, 2003.

Grant Program Results

The following tables provide data and information on the intent and actual results of the grant-funded programs for 2002-03.

GRESHAM-BARLOW SCHOOLS with Sodexo Corporation

Cafeteria reusable dishware project

Goals	Objectives	Activities	Measurement	Results
<ul style="list-style-type: none"> ▪ To reduce and prevent waste generated by school cafeterias and to practice waste prevention behaviors so that they become second nature to students. 	<ul style="list-style-type: none"> ▪ Replace disposable plates, bowls and cutlery at two established high schools. ▪ Place reusable products in the cafeterias of two newly constructed schools. ▪ Educate students, staff and cafeteria employees about waste prevention. ▪ Provide a model replacement program that may be emulated by other school districts. 	<ul style="list-style-type: none"> ▪ Purchase reusable products, develop plan to introduce products into school operations, train cafeteria employees. ▪ Educate students about waste prevention activities. ▪ Purchase permanent signage and specially designed to prevent the loss of reusables. ▪ Implement student incentives to reduce the loss of reusables. 	<ul style="list-style-type: none"> ▪ Estimate the quantity of avoided disposal. ▪ Track changes in garbage collection service. ▪ Inventory reusable dishware monthly to determine loss and breakage. ▪ Evaluate effects of cafeteria layout and implementation method on participation level and degree of success. 	<ul style="list-style-type: none"> ▪ Three of the four schools implemented reusables very successfully. ▪ One school measured a 25% reduction in cafeteria waste as compared to previous year (two other schools were new, so had no baselines). ▪ Other benefits included resource conservation lessons and avoided costs for purchase of disposables. ▪ Lessons learned included having an effective reusables retrieval system to reduce loss, and that cafeteria layout and eating schedules have a big impact on success.

CITY OF GRESHAM with Portland State University

Increase waste diversion and recycling at selected multi-family complexes

Goals	Objectives	Activities	Measurement	Results
<ul style="list-style-type: none"> ▪ Increase waste diversion from selected under-performing multifamily complexes. 	<ul style="list-style-type: none"> ▪ Continue and improve efforts to increase waste diversion efforts at selected properties. ▪ Provide continuing monitoring and followup to improve the likelihood of success. ▪ Ensure adequate recycling systems are in place. ▪ Educate residents about proper preparation of recyclables through printed materials and on-site training. ▪ Identify barriers to participation. ▪ Inventory the recycling systems in place across Gresham and Wood Village. 	<ul style="list-style-type: none"> ▪ Monitor and adjust recycling programs at 27 low-participation properties. ▪ Survey representative sample of tenants to identify knowledge levels and barriers to recycling participation. ▪ Conduct field observations of other complexes to determine the variety of collection systems in place. 	<ul style="list-style-type: none"> ▪ Track recycling program changes at each new complex. ▪ Document findings regarding contamination levels and quantity of recyclables in collection containers. ▪ Collect subjective evaluations from property managers and haulers. ▪ Document survey results on knowledge levels and barriers to recycling. ▪ Create a database that includes information for each property on type, quantity and placement of collection receptacles, as well as suggestions for improvements. 	<ul style="list-style-type: none"> ▪ Twenty-five of the 27 sites were brought to good standing with regard to recycling system placement, labeling and proper use. ▪ Sixty-one surveys were completed from tenants at the 27 sites: 52% said they could recycle more, 50% said they had received recycling information in the past, 85% could accurately name a few materials being collected. ▪ 349 multi-family complexes were visited and data were collected on recycling systems in place: 109 did not have adequate labeling, 55 were recycling 1 or fewer items, 63 are not easily accessible to all tenants. ▪ Recommendations include outreach to complexes with little recycling; standardized recycling sort systems to the greatest extent possible considering collectors' needs; outreach in English, Spanish and Russian; and clear and consistent system labeling.

CLACKAMAS COUNTY with Clackamas County Schools and Clackamas County School District Foundation

1. Purchase large format scanner to reduce paper use during plan review process

Goals	Objectives	Activities	Measurement	Results
<ul style="list-style-type: none"> ▪ Reduce the number of documents copies submitted to and circulated by the County permit offices. 	<ul style="list-style-type: none"> ▪ Create a system to scan and share large-format documents electronically between departments. ▪ Reduce the need for storage space for printed materials. 	<ul style="list-style-type: none"> ▪ Purchase a large format scanner/printer. ▪ Fund a temporary position to image documents submitted with building and development proposals and troubleshoot. 	<ul style="list-style-type: none"> ▪ Track reduction in pages submitted by applicant and tracking copies needed by staff. ▪ Track changes in storage space required. ▪ Evaluate problems encountered and solutions implemented. 	<ul style="list-style-type: none"> ▪ Scanner and computer system purchased. ▪ Some resistance was encountered by staff as there was a lack of understanding regarding the purpose. ▪ Contracted firm is developing an interface for the scanner and software used to track permit applications. ▪ Community Environment section has taken over responsibility for project management rather than the records section. ▪ Several design meetings held with affected staff and outside agencies. Staff training to begin in March 2004. ▪ All temporary and home occupation permit applications will be processed with this system; it will later be expanded. ▪ Outside agencies commenting on the plans are very positive about receiving and sending their comments electronically.

2. Sponsor AmeriCorps worker for school waste reduction assistance

Goals	Objectives	Activities	Measurement	Results
<ul style="list-style-type: none"> ▪ Implement waste reduction projects in elementary and middle schools. 	<ul style="list-style-type: none"> ▪ Implement in-vessel food composting project at one elementary school. ▪ Help schools become Green Schools-certified. ▪ Assist with waste reduction outreach at 150 county schools. 	<ul style="list-style-type: none"> ▪ Assist View Acres Elementary School with composting system education, installation, training, production of educational materials and signs, and troubleshooting. ▪ Provide 30 hours per week of waste reduction program assistance. 	<ul style="list-style-type: none"> ▪ Weigh pounds of food disposed before and after installation of composting unit. ▪ Measure amount of compost produced and used. ▪ Track number of school contacts, schools participating in programs, Oregon Green Schools, student/ staff involvement. 	<ul style="list-style-type: none"> ▪ AmeriCorps member hired. ▪ In-vessel composting system installed and operating. ▪ Assiated schools in becoming Green Schools members.

3. Computer/electronics collection event in partnership with Clackamas School District Foundation

Goals	Objectives	Activities	Measurement	Results
<ul style="list-style-type: none"> ▪ Implement one electronics collection event. 	<ul style="list-style-type: none"> ▪ Collect usable computers for the North Clackamas School District Foundation fundraiser. ▪ Collect and properly dispose of or recycle non-usable computers. 	<ul style="list-style-type: none"> ▪ Schedule event where computers can be collected, screened for use by the Foundation, reused or refurbished by local organizations, recycle all possible, and safely dispose of the remainder. ▪ Provide educational materials to explain the hazardous components of computers, how they are currently processed, and what is being done locally and nationally regarding producer responsibility. 	<ul style="list-style-type: none"> ▪ Track the number of electronic components collected, how many reused, how many recycled and how many disposed. ▪ Track the number of homes the equipment came from. ▪ Ask owners about collection options. ▪ Solicit feedback on the \$10 collection fee charged. 	<ul style="list-style-type: none"> ▪ Two events were held (November 2002 and May 2003). ▪ Stations were set up to test computers for reuse potential. The remainder was recycled by Total Reclaim. ▪ November participants totaled 120, May event totaled 253. ▪ 427 monitors and 15,422 pounds of other components collected. ▪ 366 monitors and 12,782 pounds of components were recycled; the remainder were reused. ▪ Survey results indicated most people would have tried to find an alternative recycling option if event were not held but felt that manufacturers should be responsible for recycling. ▪ Attendees were fine with the fee being charged; only one complaint was received.

WASHINGTON COUNTY

Feasibility study for a C&D deposit system

Goals	Objectives	Activities	Measurement	Results
<ul style="list-style-type: none"> ▪ Create an incentive for C&D contractors and self-haulers to recycle construction waste. ▪ 	<ul style="list-style-type: none"> ▪ Determine feasibility of implementing a C&D deposit system in Washington County. 	<ul style="list-style-type: none"> ▪ Investigate feasibility of charging an advance recycling fee at time of project permit issue. ▪ Determine deposit fee to charge to provide sufficient incentive. ▪ Ensure that costs of recycling will be competitive with disposal. ▪ Analyze effects of deposit on building and housing industry. ▪ Determine the type of program that would elicit greatest participation rates. ▪ Examine impact of transporting materials to processing facilities. ▪ Analyze diversion levels at various deposit rates. 	<ul style="list-style-type: none"> ▪ Complete an analysis and framework developed for deposit system developed for Washington County. 	<ul style="list-style-type: none"> ▪ Project canceled by Washington County.

CITY OF PORTLAND with City Of Beaverton and Oregon Museum Of Science And Industry (OMSI)

1. Low-participation commercial recycling outreach on Martin Luther King, Jr. Boulevard

Goals	Objectives	Activities	Measurement	Results
<ul style="list-style-type: none"> ▪ Increase commercial recycling participation rates in inner North/Northeast Portland. 	<ul style="list-style-type: none"> ▪ Identify and implement a strategy of interventions with commercial businesses along Martin Luther King, Jr. Boulevard to increase recycling participation. 	<ul style="list-style-type: none"> ▪ Develop pilot project for business recycling to run concurrently with a series of residential outreach pilots. ▪ Survey businesses in a selected area to determine baseline participation. ▪ Send letter (with poster) from community leaders to all businesses. One group to receive the letter only; one group to receive visit from community staff; one group to receive visit from PSU staff who offer recycling assistance; one group to receive phone call offering in-person assistance. 	<ul style="list-style-type: none"> ▪ Conduct baseline survey. ▪ Repeat survey after the three interventions have been completed to document any changes to recycling behaviors. ▪ Keep records will be kept of all responses to the various strategies. ▪ Apply successful strategies to other low-participation areas. 	<ul style="list-style-type: none"> ▪ Four pilot strategies implemented in April & May 2003 among randomly selected group of 101 businesses. ▪ Eighty received a letter from community leaders and poster. ▪ From the 80, three groups of 20 were formed at random for additional contact; one group remained the control. ▪ One group received a visit from community staff, one group received a visit from PSU students and the third received a phone call. ▪ The mailed packet and the follow-up phone call proved most effective and was the least expensive approach aside from the mailing alone. ▪ Nearly 13% of the businesses in the program increased their recycling level. Sixty-four percent of this increase came from the group receiving a mailer and a phone call only.

2. Green Building initiatives with City of Beaverton, focusing on tenant improvements

Goals	Objectives	Activities	Measurement	Results
<ul style="list-style-type: none"> ▪ Reduce the amount of construction and demolition debris generated in the commercial tenant improvement sector. 	<ul style="list-style-type: none"> ▪ Increase recycling and waste reduction in commercial renovations. ▪ Build demand for Green Building techniques that reduce energy. ▪ Create a program that can be useful across jurisdictional boundaries. 	<ul style="list-style-type: none"> ▪ Use the Green Tenant Improvement Guide as a basis for the project. ▪ Develop a measurement tool for the guide to allow businesses to know when they have accomplished a “green office” project. ▪ Require businesses to provide proof of accomplishment; they will be certified and receive a plaque and recognition. ▪ Design certification to be as close to the LEED program as possible to avoid duplication. ▪ Pilot two one-day trainings on green tenant improvements to train “preferred provider” recycling expert contractors. ▪ Publicize the list of “preferred providers” certified through the program. 	<ul style="list-style-type: none"> ▪ Develop self-certification system, publish guidebook and monitor results. ▪ Design and deliver training to 50 people and monitor projects submitted for certification. 	<ul style="list-style-type: none"> ▪ Project is behind schedule, but proceeding. ▪ Tenant improvement guide has been revised and edited to provide measurement tool and create versions for use in both Portland and Beaverton. Printing will begin soon. ▪ Training workshops will be held once the guide is produced.

3. On-site vermicomposting systems at OMSI

Goals	Objectives	Activities	Measurement	Results
<ul style="list-style-type: none"> ▪ Reduce OMSI’s food waste and educate the public about how to replicate the activity at home. ▪ Implement programs that meet OMSI’s strategic value: organizational decisions should have economic, social and environmental value. 	<ul style="list-style-type: none"> ▪ Reduce the food waste going to landfill from OMSI by four tons in the first project year and up to 17 tons in subsequent years. ▪ Educate visitors about the vermicomposting process while encouraging and enabling visitors to try vermicomposting at home. 	<ul style="list-style-type: none"> ▪ Purchase and install two working worm bins to process food wastes from café food preparation area and staff offices. ▪ One bin will be a large commercial-sized system capable of processing up to 100 pounds per day. The other will be a smaller bin that handles 3 to 5 pounds per day. ▪ Create a demonstration and education program around the bins to educate OMSI visitors and encourage them to take the practice home. 	<ul style="list-style-type: none"> ▪ Weigh the waste being kept out of the waste stream; display the waste reduction results to the public. ▪ Evaluate the effectiveness of the display, as well as the interest level of visitors before and after viewing the exhibit. ▪ Determine the educational effectiveness of the worm bins through visitor surveys. 	<ul style="list-style-type: none"> ▪ Bin installed in June 2003 and processed 600 pounds per month of food waste from the kitchen, equaling 3.6 tons per year for the first year. Goal is to add food waste from school groups during the next five years, which would increase the composting volume to reach 17 tons per year. ▪ 750,000 people per year will see the worm bin and the demonstration system each year. ▪ Overwhelming staff support has resulted in several staff starting home worm bins. ▪ School districts have inquired about starting bins at school after field trips to the museum.

APPENDIX C

WASTE REDUCTION INITIATIVES PERFORMANCE MEASUREMENT

ORGANICS

Prepared by Jennifer Erickson

EFFECTIVENESS

Increased capacity for donation of edible food and increased levels of donation

An assessment of the Food Donation Program was completed in April 2002. An assessment of holiday donation outreach was completed in January 2003.

- Since 1999, \$780,000 in grants have been awarded to food rescue agencies for the purchase of trucks, refrigerators and freezers to enable the increased recovery of perishable prepared foods.
- Estimated 16,558 tons of edible food was recovered in FY 02-03, an increase of 3,151 tons from the previous fiscal year.
- For every \$1 in Metro funds, food rescue agencies benefited by \$31.
- Food rescue agencies increased the amount of food they collected and redistributed.
- Holiday party food donation mailers reached over 350,000 people via a direct mail card, web site hits, and an *Oregonian* article and advertisements. Four of the five listed agencies saw an increase in donations and secured new donors, and the Metro web page saw increased hits.

Increased organics processing infrastructure

- Metro and the City of Portland cooperatively developed a \$1 million grant program to assist with infrastructure development and the capital costs of establishing a facility. Twelve applications from 10 different companies were received and evaluated by a seven-member committee. Three finalists were identified (two composters—Threemile Canyon Farm, Boardman, OR and Columbia Resource Company, Vancouver, WA; and one reload—Forest Grove Transfer Station, Forest Grove, OR). As of August 2003, only one composter remained in the grant pool: Threemile Canyon Farm.
- In FY 02-03, staff prepared preliminary rate information, data and methodology for later review by the Metro Rate Review Committee on a proposed rate for compostable organic wastes delivered to Metro Central Station for composting
- According to the DEQ recovery data for 2002, the Metro region has increased food waste recovery from 9,646 tons in 2001 to 11,958 in 2002. These numbers do not include edible food recovered for food rescue agencies.

ACCOUNTABILITY

Goal: Work group will complete 90% of its annual work plan.

Actual: Work group completed 94% of its annual work plan.

WORK PLAN TASK	COMPLETION STATUS
TRACK 1	
A.1.) Research, development, assessment: <ul style="list-style-type: none"> ▪ Identify barriers to increased waste prevention. ▪ Develop examples of industry practices that encourage waste prevention. ▪ Implement barrier reduction program. 	<u>Complete.</u> This task was combined with task B.3. below for implementation.
A.3.) Continue focused outreach and education on waste prevention coupled with on-site assistance.	<u>Complete/ongoing.</u> Metro and local government staff have provided a wide range of outreach to food businesses on waste prevention coupled with food donation strategies including websites, brochures, newsletter articles, newspaper ads and articles, displays. Metro staff teaches classes every six weeks at Western Culinary Institute (Cordon Bleu).
B.1.) Enhance donation infrastructure and build capacity.	<u>Complete:</u> Since 1999, \$780,000 in grants have been let to food rescue agencies for the purchase of trucks, refrigerators and freezers. Estimated tons of edible food recovered in the region for fiscal year 2002-03 are 16,558 tons, an increase of 3,151 tons from the previous fiscal year. 2002-03 was the final year for the grant program. Reestablishment of the grants for FY 2004-05 will be considered during the budget process.
B.3.) Research and development: Identify the barriers and benefits to food donation: <ul style="list-style-type: none"> ▪ Rigorous study/survey to identify true barriers, convene focus groups within food industry, develop barrier reduction strategies and pilot them. 	<u>Complete:</u> A comprehensive study of the barriers and benefits to food waste prevention and donation behaviors was completed in the 02-03 fiscal year; the final report was completed in Fall 2003. Surveys of 72 food businesses, interviews with food rescue agencies, regulators and industry professional organizations, and observational visits of 10 businesses were completed. (Recommendations are being implemented via multimedia outreach program scheduled for early 2004.)
B.4.) Update and print educational materials as needed.	<u>Complete:</u> <i>Restaurant and Food Service Guide to Food Donation</i> was updated and reprinted in 2003. New case studies were added to the Metro web site, new traveling display board for food donation featuring model businesses was developed and is in use. Holiday donation reminder cards were reprinted and mailed in November 2002.
B.5.) Community involvement: Provide support and assistance top organizations and associations	<u>Complete/ongoing:</u> Metro staff are actively involved with the development of the Portland/Multnomah Food Policy Council, as well as serving as a member of Coalition for a

involved in developing sustainable food systems in the region.	Livable Future's Community Food Matters.
C. 1.) Continue to monitor and assess the potential for diversion of food waste to animal feed markets in light of new federal and state regulations for the feeding of food wastes to cattle and hogs.	<u>Complete/ongoing:</u> Despite changes in laws regarding feed additives, the region has been able to connect food manufacturers with animal feed operations and dairy/hog farms on a case-by-case basis to divert food from the landfill.

TRACK 2	
B.1.) Work with haulers and businesses to determine feasible organics collection routes throughout the region.	<u>Partially complete:</u> Metro provided funding for an organics rate review/cost of service study for the franchised areas of the region; the study will be completed in the 03-04 fiscal year. (The City of Portland will implement a separate cost of service study in 2004 for its non-franchised system. Due to delays in the implementation of a food waste collection and processing system for the region, determination of routes and associated costs of collection programs has only begun to be examined.)

CONSTRUCTION AND DEMOLITION

Prepared by Bryce Jacobson

EFFECTIVENESS

Increased salvage and deconstruction of C&D by used building material facilities

- In FY 2002-03, Metro created a one-time grant program to assist with the development of the used building material reclamation infrastructure. Staff administered a competitive process to select grant recipients and created the contracts to distribute \$85,000 to The ReBuilding Center and \$15,000 to the Habitat for Humanity ReStore. The actual expenditure, however, was deferred to FY 2003-04 budget to accommodate some financial issues related to bond repayment on the transfer stations.
- A phone survey of the largest deconstruction contractors and used building material retailers operating in 2003 was completed in February 2004:
Key findings:
 - The number of firms surveyed increased from 13 in 2002 to 20 for 2003.
 - Overall measured regional salvage tonnage increased 34%, from 5,470 tons in CY 2002 to 7,339 tons in CY 2003.
 - All of the facilities reporting higher tonnages maintained or increased their salvage tonnage, while two of the smaller firms revised their business plan and stopped accepting used building materials all together.
 - The majority of building materials salvaged were residential.

Surveyed firms provided the following data on gross sales and pounds of Metro region used building materials* sold in CY 2003. (Gross sales and tonnage data was collected under the condition of anonymity and is listed without identifying individual firms.)

Firm Number	2003 Metro Region Pounds	2003 Metro Region Gross Sales
1.	176,000	\$60,000
2.	29,000	\$10,000
3.	588,000	\$200,000
4.	1,529,800	\$520,000
5.	30,000	\$10,204
6.	490,000	\$175,000
7.	176,400	\$60,000
8.	1,117,200	\$380,000
9.	0	\$0
10.	388,080	\$132,000
11.	1,176,000	\$400,000
12.	0	\$0
13.	294,000	\$100,000
14.	1,323,000	\$450,000
15.	8,820	\$3,000

16.	29,400	\$10,000		
17.	735,000	\$250,000		
18.	661,500	\$225,000		
19.	3,502,157	\$1,191,210		
20.	2,400,000	\$816,326		
			2002 Metro Region Total Metro Region Pounds (tons)	2002 Metro Region Total Metro Region Gross Sales
Totals	14,678,657 (7,339 tons)	\$4,992,740	10,939,501 (5,470 tons)	\$3,720,918
% change from 2002	+34%			

Conversion data:

\$1 in reported gross sales = 2.94 lbs. of material

*Used building materials definition:

Reusable commercial and residential building materials, including, but not limited to windows, doors, millwork, architectural ornamentation, lumber, plywood, flooring, cabinets, structural steel sold for reuse, plumbing and electrical fixtures, whole cleaned and stacked red brick for reuse, factory seconds, returned or misordered building materials, building materials generated by the closure of a building material store, and other previously used building materials that are bound for reuse markets. This definition excludes un-cleaned and broken brick, concrete, rock, boulders, asphalt, clay roofing tile, concrete block, gravel, sand, soil, organics, metal piping, steel and other materials bound for scrap/recycling markets.

Increased recovery of C&D materials

- DEQ data for C&D materials indicated recovery of 261,253 tons in 2002, which represented a decrease of 20,000 tons from the previous year. Double-digit decreases over 2001 recovery were registered by the three primary C&D materials: wood, 210,763 tons, down 10%; gypsum wallboard, 3,159 tons, down 70%; and asphalt roofing, 11,181 tons, down 42%. These decreases reflected lower hog fuel demand because of lower energy prices, and some instability with regional roofing and wallboard processors. In 2001, DEQ first allowed brick to count toward the wasteshed recovery rate. In 2002, Metro brick recovery of 19,910 tons represented an increase of 146% over the previous year.
- Metro transfer stations reported a total recovery of 33,477 tons in 2002, an increase of 4 percent over the previous year. Other mixed solid waste sorting facilities reported recovery of 53,727 tons in 2002, a decrease of 2% from the previous year. It is estimated that the majority of the recovery from Metro transfer stations and mixed solid waste sorting facilities is from construction and demolition materials.
- A phone survey of construction industry association members was conducted in May 2003 and compared to a baseline survey in June 2002. The purpose of the survey was to measure recycling attitudes and behavior among members of these groups in the wake of Metro's communication efforts targeted at industry associations. Compared to the response gathered in the baseline study, the 2003 survey data show that the respondents remained favorably disposed to recycling and salvage, reported increased recycling activity for some materials, and reported that they are implementing one of the key recommendations in this project, i.e., planning for recycling and salvage before the start of construction.

ACCOUNTABILITY

Goal: Work group will complete 90% of its annual work plan.

Actual: Group completed 100% of its annual work plan.

WORK PLAN TASK	COMPLETION STATUS
TRACK 1	
A.1.) Develop and implement three- year waste prevention and recycling education program for construction industry.	<p><u>Complete.</u> The C&D work group hired a contractor to implement the first year of this three-year program. Scope of work emphasized partnerships with construction industry associations, taking advantage of earned media and the distribution of the Metro Toolkits. Chose contractor and began work on the first year in June 2001.</p> <p>Highlights included:</p> <ol style="list-style-type: none">1. Formed partnerships with five industry associations (Associated General Contractors, Associated Builders & Contractors, Home Builders Association , Oregon Remodelers Association, Construction Specification Institute).<ul style="list-style-type: none">-Monthly columns on salvage and recycling in association newsletters.-Seminars.-Awards programs.-Linking of association web sites to Metro Toolkit web site.-Distribution of the MetroToolkit directory and the Metro construction planners guide.2. Created partnerships with permit and plan centers.<ul style="list-style-type: none">-Distribution of Toolkit literature.3. Created partnerships with the City of Portland Office of Sustainable Development for green building activities. Provided technical assistance for:<ul style="list-style-type: none">-Build It Green! Home tour.-ReThink lecture series.4. Created retail partnership with Parr Lumber:<ul style="list-style-type: none">-Distribution of Toolkit literature.5. Implemented an earned media campaign:<ul style="list-style-type: none">-Daily Journal of Commerce, NW Builder and Portland Business Journal.

WORK PLAN TASK	COMPLETION STATUS
A.3.) Evaluate and measure effect	<p><u>Complete.</u> Tracked the evaluation criteria identified in the partnership project contract. These include: The number of partnerships formed with targeted industry associations, quantities of Toolkits (25,000) and Planners Guides (5,000) distributed, number of articles placed (seven) and seminars held (six).</p> <p>Administered two surveys:</p> <ul style="list-style-type: none"> • The first was a one-year follow up phone survey to construction industry partner association members in May 2003. Will repeat this survey again in May 2004 to evaluate changes in attitudes, awareness and behaviors related to C&D recycling and reuse. • The second survey was a phone survey to the retailers of use and salvaged building materials
<p>B.1.) Oregon Remodelers Association (ORA), Annual Builders Yard Sale</p> <ul style="list-style-type: none"> • Funding assists ORA in promoting and managing the annual Builders Yard Sale. <p>(This item has been part of the Metro C&D budget since FY 1995-96.)</p>	<p><u>Complete.</u> Since 1995, a yearly \$4,000 grant has assisted with the implementation and promotion of the annual Builders Yard Sale. Through the sale of used building materials donated by ORA member contractors and suppliers, this event promotes the value and availability of used building materials to the public.</p> <p>In 2002, provided \$10,000 in sponsorship to the Portland Office of Sustainable Development for the Build It Green! Home tour and the ReThink lecture series. This sponsorship and Metro participation helped to demonstrate the ways in which used building materials can be used in construction and to educate the construction industry about C&D waste reduction techniques.</p>

WORK PLAN TASK	COMPLETION STATUS
TRACK 2	<u>No tasks were scheduled for completion in FY 2002-03</u>

WORK PLAN TASK	COMPLETION STATUS
TRACK 3	
A.3.) Provide technical assistance to Metro market development program. Assist Metro market development coordinator with the evaluation of proposals and monitoring of funded projects.	<p><u>Complete.</u> C&D Work Group provided some initial assistance in identifying potential recipients in FY 2002-03, but the Recycling Market Development Loan Fund and the coordinator's position was eliminated in the FY 2003-04 budget.</p>

COMMERCIAL
Prepared by Steve Apotheker

EFFECTIVENESS

Increased waste prevention activities

Have implemented:

▪ **Business Recycling Awards Group (BRAG)**

“Take the Next Step” initiatives in waste reduction funded by Metro included reusable dishware, a shredder to reuse paper discards as packaging material, recycled-content paper, software for online report editing, rag-cutting machine for reuse, digital fax and establishment of an employee incentive to reduce and recycle..

▪ **Recycled product database**

An interactive database with more than 1,000 locally available recycled-content products was launched on Metro’s web site in January 2003. The Buyer’s Guide is getting 500 to 700 hits per month. CTAP evaluators use this tool when they provide buy recycled recommendations to businesses. It is also a resource in the Green Copier project that Ikon, a copier equipment vendor, provides to its customers on where to purchase recycled-content copy paper, as part of a demonstration project funded by Metro and City of Portland.

▪ **Commercial Technical Assistance Program**

Metro’s FY 02-03 budget of \$400,000 for the Commercial Technical Assistance Program (CTAP) funds local government waste reduction evaluations and general assistance to businesses, governments and other institutions for calendar year 2003. Accomplishments of the different local government programs are illustrated by the following examples:

- Clackamas County. Provided 434 recommendations to 115 companies, which received evaluations in recycling (81%), waste prevention (34%) and buy recycled (30%). Followup visits then document progress in implementation. Over the last 2½ years, evaluations of Clackamas County businesses indicate that 66% were recycling corrugated cardboard compared to 35% for office paper and other scrap paper. Companies that were not recycling these materials were provided instruction and resources on how to get started. Followup visits to about 40% of these companies indicate that over 85% have implemented these recycling recommendations.

Buy recycled recommendations see a lower rate of adoption. Only 17% of the 152 companies that received buy recycled evaluations were already buying recycled copier paper. Of the 126 companies that received information on how to buy recycled copier paper, 26 were given a followup evaluation, which indicated a 50% adoption rate by this group. Two-sided copying showed similar response, with only 24 out of 141 companies successfully duplexing at the baseline evaluation; of the 117 that received this recommendation, 37 were given followup visits, and 35% of those companies had started duplexing at that time.

- Gresham. Provided site visits to 107 companies, which received evaluations in recycling (85%), waste prevention (52%) and buy recycled (36%). Gresham provides a resource efficiency program to its businesses, which include energy and water conservation, stormwater and wastewater management, as well as CTAP waste reduction services. Because Gresham receives funding for these other resource areas, it is able to leverage the CTAP dollars to bring the waste reduction assistance to a greater number of businesses. At the end of 2003, 75% of the companies that had received cardboard recycling baseline evaluations were already recovering that material. By contrast, adoption of office paper and other scrap paper recycling was in place at only about one-third of businesses on the initial baseline visit. Of those businesses that were given followup visits,

about two-thirds had gone on to successfully implement recycling programs for office paper and other scrap paper. Assistance with buy recycled copier paper and two-sided copying resulted in improvement by 26% and 22%, respectively, of those businesses that had received followup evaluations at the end of 2003.

- City of Portland. Provided site visits in 2003 to 92 companies, which received evaluations in recycling (87%), waste prevention (55%) and buy recycled (46%). At the end of 2003, 70% of the companies evaluated for cardboard recycling were already doing it successfully. Of the remaining 30%, one-quarter was given followup visits that indicated 79% had implemented cardboard recycling. Of the 170 companies evaluated for office paper recycling by the end of 2003, 49% already had successful programs. After receiving assistance, followup visits indicated that 92% of this group had implemented full office paper recycling. The “All Paper, One Box” outreach program that Metro funded generated contacts for many of the Portland businesses that received CTAP assistance. A total of 325 Portland businesses responded to the outreach effort, representing 63% of the total requests received in response to the regional outreach effort.
- Washington County. Provided sites visits in 2003 to 105 companies, which received evaluations in recycling (74%), waste prevention (54%) and buy recycled (22%). At the end of 2003, slightly over 75% of the companies with baseline visits were already doing corrugated cardboard, which is similar to other jurisdictions. However, of the companies visited for office paper and other scrap paper recycling, more than 55% were already recovering these materials. Of the 120 companies that could improve, one-third were given followup visits, which found that 65% had implemented recommendations to recycle this material. In terms of buying recycled copier paper, 124 companies had received evaluations, of which 35% were already purchasing it. Followup visits to 29 of these companies indicate that 28% of them were now purchasing recycled-content paper. Results for adopting two-sided copying were similar.

Increased recovery of commercial recyclables

- DEQ data indicate that Metro region recovery of commercial materials (including depots) totaled 586,000 tons in 2002, an increase of 0.5% over the previous year. Paper and glass container recovery increased slightly in 2002.
- Beaverton’s recycling box project (funded through CTAP and the City of Beaverton) continued to focus on recycling, because only half of the businesses in the city were recycling paper other than cardboard. Of 1,019 businesses visited between October 2002 and December 2003, 483 businesses took 3,900 desktide boxes. The success of Beaverton’s recycling box project was used as a model for a regional campaign. One recycling processor attributes a 10% to15% increase in commercial fiber recovery due to promotion of commingling and desktide boxes to Beaverton businesses.
- The regional outreach campaign to promote desktide paper recycling collection boxes distributed 1,700 boxes in the first month of the campaign. It is estimated that each employee that uses a box will divert about 100 pounds per year of office paper. (The campaign was continued through December 2003.)
- Work with materials recovery facilities identified opportunities to increase recycling. One processor that initially disposed of scrap metal representing thousands of pounds per year is now separating it for recycling markets.

ACCOUNTABILITY

Goal: Work group will complete 90% of its annual work plan.

Actual: Work group completed 94% of its annual work plan for which it was responsible.

WORK PLAN TASK	COMPLETION STATUS
TRACK 1	
A. Targeted waste prevention projects:	
A.1.) Implement first waste prevention project.	<u>Complete/ongoing.</u> Funding was provided to City of Portland for multi-year Green Copier Project. Initially planned as a one-year project, the timeline was revised to a multi-year project that would incorporate principles of community-based social marketing in its implementation. Ikon, the region’s largest copier equipment vendor, has agreed to participate in the project. It will provide information to their customers on the ease and benefits of double-sided copying and recycled-content paper. Customers that receive this marketing would be surveyed to determine participation in these activities. Project completion is June 2004.
A.2.) Evaluate first project.	<u>Complete/ongoing.</u> City of Portland will conduct evaluation of the Green Copier project.
A.3.) Implement second waste prevention project.	<u>Complete/ongoing.</u> Funding was provided to Oregon Department of Environmental Quality to conduct a packaging technical assistance project. DEQ will work with five to seven companies in Metro region to evaluate packaging alternatives to reduce resources and to increase recycled content. Case studies and tools will be developed. Also, DEQ is completing a life cycle analysis of different packaging materials used for “soft” mail order products. Project completion date is June 2004.
A.4.) Legal outreach project.	<u>Incomplete.</u> Promotion of use of recycled-content paper and double-sided submissions to Oregon courts via advertising in legal journals and direct mail to lawyers and legal personnel. A survey of law firms provided an evaluation of the outreach efforts. With assistance from the Portland State University Mathematics Department, the results of the 2002 survey were then compared to a previous survey in 1997. In 2003, a review of waste reduction by regional circuit courts estimated reductions in paper use of more than 200 cases/year (five tons) and associated savings in paper, printing, postage, and labor costs of more than \$35,000/year. The project is complete, but the final report has not been issued.

B. Buy recycled program:	
B.2.) Develop and implement an evaluation plan to assess impact of buy recycled database efforts.	<u>Deferred.</u> Evaluation was postponed to FY 03-04 because of delay in releasing Buyer's Guide on Metro's web site, due to staffing constraints.
B.3.) Update buy recycled database and develop marketing plan.	<u>Complete.</u> More than 1,000 products from 200 vendors are featured in Metro's online Buyer's Guide, which was released in January 2003 and updated in late Spring 2003. Implementation was delayed for four months because Metro Creative Services was backlogged with work. In June 2003, a postcard was sent to more than 10,000 businesses announcing the Buyers Guide. Gilmore Research Group conducted a business survey to determine the demand for a printed guide and interest in buy-recycled information for development of a marketing plan.

TRACK 2	
A. Increased outreach to businesses:	
A.1.) Material exchange.	<u>Complete.</u> Funding was provided to Oregon DEQ to conduct a promotion campaign and evaluation. Draft evaluation was completed in FY 02-03. Final evaluation will be released in early FY 03-04.
A.2.) Multi-tenant retail outreach.	<u>Complete/ongoing.</u> Contract was provided to Clackamas County for a multi-year effort working with property managers and businesses to increase recycling and communication at their properties. Startup was delayed when the Clackamas County staff person assigned to the project left to take a job with a private paper recycling company. An RFP was issued and Kies Strategies was hired to implement the project.
A.3.) Business Recycling Awards Group.	<u>Complete.</u> Take the Next Step awards of \$150 to \$2,000 to assist their new waste reduction efforts were presented to 18 businesses at a recognition breakfast in June 2003.
A.4.) Outreach campaign evaluation.	<u>Deferred.</u> Because the outreach campaign started at the end of the 02-03 fiscal year and was extended to December 2003, the evaluation was postponed until FY 03-04.
A.5.) Regional outreach program to businesses.	<u>Complete/ongoing.</u> A regional outreach program to promote paper commingling by providing deskside paper recycling collection boxes was initiated in June 2003. Billboards, radio spots and wzines (emailed newsletters) to 3,500 businesses marked the first phase of this outreach. More than 160 businesses called Metro, requesting almost 1,700 boxes in the just the first month of the promotion. The business' contact information was referred to local government Commercial Technical Assistance Program recycling staff who contacted the business and arranged for delivery of the boxes. At the same time, the recycling staff was able to see if the business wanted

	additional waste reduction assistance. The good initial response resulted in extension of the outreach campaign to FY 03-04.
B. Commercial Technical Assistance Program:	
B.1.) Evaluate technical assistance program.	Evaluation was postponed for one year because department needed to defer expenses in the 02-03 fiscal year and because a better evaluation could be conducted after City of Portland had had some time to implement its program that began in January 2003.
B.2.) Expand technical assistance program.	<u>Complete.</u> In FY 2002-03, funding was increased to \$400,000 to allow the City of Portland to join the Commercial Technical Assistance Program, which is now a regional effort that any business can access. Funding to local governments allows them to hire 6.5 FTE staff to implement waste reduction technical assistance program for recycling, waste prevention and buy recycled actions for calendar year 2003.
B.3.) Develop web site and support material for recycling information.	<u>Complete.</u> In January 2003, Metro launched an online interactive database of vendors for recycled-content products on its web site. In May, a mailing to 20,000 regional businesses advertised the availability of the database. In addition, local government recycling staff promoted the availability of the database to their CTAP businesses.
C. Ensure commingled processing capacity and standards:	
C.1.) Inventory of different commingled sorts and processing capacity.	<u>Complete.</u> Evaluation of regional processing capacity and capability consisted of sampling study at eight facilities to look at residue levels and composition, loss of recyclables and contamination in paper commodities. A survey of regional paper and glass markets examined capacity and trends for additional volumes of recovered recyclables. The sampling study and consultant's report were completed in June 2002. (Analysis and final report, with draft recommendations, was completed in October 2002.)
C.2.) Stakeholder review of commingled processing standards.	<u>Complete.</u> Subcommittee on Contamination and Loss of Recyclables met in Fall 2002 and submitted recommendations to SWAC in February 2003.
C.3.) Implement recommendations for monitoring facility performance.	<u>Complete.</u> Subcommittee on Contamination and Loss of Recyclables recommended monthly reports on MRF disposed residue and sampling of paper and residue composition during 2003. (Final report will be issued in Spring 2004 at completion of year-long reporting and sampling program.)
D. Required recycling:	
D.1.) Conduct stakeholder review to identify issues with implementing disposal bans.	Metro Council approved the creation of an RSWMP Contingency Plan Work Group in FY 02-03. (Stakeholders were selected and approved in early FY 03-04.)

D.2.) Review market and implementation issues with bans.	<u>Complete.</u> Metro hired Moore Associates to interview 35 industry and government representatives in five communities that had implemented required recycling, disposal bans or incentives to increase recovery of materials from businesses and construction and demolition activities. Moore found increased paper recovery, a limited impact on the quality of paper and no impact on the price of commercial paper. Final report issued in April 2003.
Track 3	
A. Increase market development efforts.	
A.1.) Commercial end-use market capacity study for mixed paper.	<u>Complete.</u> Hired Andover International to conduct capacity study of Pacific Northwest and export market capacity for scrap paper. Final report and public presentation of findings occurred in June 2003.
A.2.) Commercial end-use market research and pilots.	No market initiatives have been identified.
A.3.) Work with vendors to substitute recyclable packaging for waxed corrugated cardboard.	Funding for this program was eliminated in the FY 02-03 budget.

APPENDIX D

Table 1 -- Progress in Meeting RSWMP Diversion Targets in 2002, in tons

	2000 Actual	2001 Actual	2002 Actual	2002 Target	2005 Target (1)	2002 Actual less 2002 Target	2002 Actual to Target (percent)
Practices							
Waste Prevention							
Home Composting Bins	6,458	7,606	8,555	9,075	13,000	-520	94%
Home Composting Other (2)	NA	8,018	8,558	8,000	8,000	558	107%
Commercial (3)	18,510	17,501	25,966	20,706	24,000	5,260	125%
Deconstruction	1,600	4,253	4,744	2,960	5,000	1,784	160%
Waste Prevention Subtotal	26,568	37,378	47,824	40,741	50,000	7,083	117%
Recovery							
Expanded Residential Curbside	200,670	178,812	178,916	222,402	255,000	-43,486	80%
Expanded Multi-family Collection	11,820	8,806	10,448	14,292	18,000	-3,844	73%
Bottle Bill	35,204	35,142	24,852	36,322	38,000	-11,470	68%
Depot	55,615	23,169	3,773	56,169	57,000	-52,396	7%
Source-separated Business Recyclables	409,083	560,500	582,321	494,822	623,431	87,499	118%
Commercial Organics (4)	4,395	9,646	11,958	24,637	55,000	-12,679	49%
On-site Construction & Demolition	168,000	194,311	174,049	179,529	196,823	-5,481	97%
Post-collection (5)	86,063	87,023	87,204	99,639	120,003	-12,435	88%
Recovery Subtotal	970,850	1,097,409	1,073,520	1,127,813	1,363,258	-54,293	80%
Total, Prevention and Recovery	997,418	1,134,786	1,121,344	1,168,554	1,413,258	-47,210	80%

NA = Not applicable.

(1) Revised using 2001 DEQ recovery survey data that included new materials and new markets.

(2) Composting technologies other than Metro bins.

(3) Includes food reuse, thrifts and rebuilt computers.

(4) Includes food and non-recyclable paper.

(5) Recovery from mixed solid waste processing facilities and regional transfer stations, of which construction and demolition materials represent the bulk of recovery.

Source: Metro, November 2003.

Resolution No. 04-3442A

Attachment "A" to Staff Report

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Table 2 -- Progress toward Revised RSWMP System Benchmarks in 2002

<u>System Benchmarks</u>	Year 1995 Actual	Year 2000 Actual	Year 2001 <u>Actual</u>	Year 2002 Actual	Year 2005 Target
Recycling Rate (1)	37.8%	37.2%	38.6%	38.4%	48%
Energy Recovery Rate (2)	<u>4.7%</u>	<u>7.4%</u>	<u>10.2%</u>	<u>9.6%</u>	<u>8%</u>
Total Recovery Rate	42.5%	44.6%	48.8%	47.9%	56%
Per Capita					
Recovery (t/cap/yr)	0.56	0.67	0.75	0.72	0.89
Disposal (t/cap/yr)	<u>0.76</u>	<u>0.83</u>	<u>0.78</u>	<u>0.79</u>	<u>0.70</u>
Generation (t/cap/yr)	1.33	1.50	1.53	1.51	1.59
Solid Waste Hierarchy					
Prevention	N.A.	1.2%	1.6%	2.1%	2%
Recycling (3)	30.9%	29.6%	31.3%	29.2%	35%
Composting	6.9%	7.2%	6.7%	8.3%	12%
Energy/Fuel	4.7%	7.3%	10.1%	9.4%	8%
Disposal	<u>57.5%</u>	<u>54.8%</u>	<u>50.4%</u>	<u>51.0%</u>	<u>43%</u>
Projected Generation (4)	100.0%	100.0%	100.0%	100.0%	100%

NOTES

Columns may not add due to rounding.

t/cap/yr = tons per capita per year.

N.A. = Not applicable.

- (1) Recycling Rate includes contributions from recycling and composting.
- (2) Energy Recovery Rate measures diversion of source-separated material into fuel end uses.
- (3) Recycling includes recycling and inventory in stock.
- (4) Projected generation is prevention plus actual generation (i.e., recovery plus disposal).

Sources: Oregon Department of Environmental Quality 2002 recovery and disposal data, October 2003;
Metro waste prevention inventory, February 2003 and November 2003.

<u>Management</u>	1998 Tons	1998 Percent	2000 Tons	2000 Percent	2001 Tons	2001 Percent	2002 Tons	2002 Percent
Prevention	6,160.0	0.3%	26,568.0	1.2%	37,377.5	1.6%	47,824.0	2.1%
Recycling	613,550.6	29.0%	647,777.3	29.4%	715,415.7	31.3%	666,469.3	29.1%
Composting	138,324.0	6.5%	158,238.5	7.2%	152,234.0	6.7%	190,476.9	8.3%
Stock (3)	<u>54.5</u>	<u>0.0%</u>	<u>4,575.5</u>	<u>0.2%</u>	<u>0.1</u>	<u>0.0%</u>	<u>2,123.0</u>	<u>0.1%</u>
SubRecycling	751,929.1	35.6%	810,591.2	36.8%	867,649.7	38.0%	859,069.1	37.6%
Energy	<u>160,088.8</u>	<u>7.6%</u>	<u>160,258.4</u>	<u>7.3%</u>	<u>229,758.9</u>	<u>10.1%</u>	<u>214,451.2</u>	<u>9.4%</u>
Recovery total	912,017.9	43.1%	970,849.6	44.0%	1,097,408.7	48.0%	1,073,520.3	46.9%
Disposal	<u>1,196,485.7</u>	<u>56.6%</u>	<u>1,207,348.0</u>	<u>54.8%</u>	<u>1,151,338.5</u>	<u>50.4%</u>	<u>1,165,761.9</u>	<u>51.0%</u>
Generation	<u>2,108,503.6</u>	<u>99.7%</u>	<u>2,178,197.6</u>	<u>98.8%</u>	<u>2,248,747.2</u>	<u>98.4%</u>	<u>2,239,282.2</u>	<u>97.9%</u>
Generation+Prevention	2,114,663.6	100.0%	2,204,765.6	100.0%	2,286,124.7	100.0%	2,287,106.3	100.0%

2000 waste prevention total includes more activities than 1998 report.
The 1998 report was not adjusted to include these other activities.

Year	Population	T/per/year
2000	1,451,650	1.50
2001	1,467,300	1.53
2002	1,484,150	1.51

Table 3 – Metro Recovery and Disposal, 1995-2002, in Tons

Management	1995 tons	1995 percent	1996 tons	1996 percent	1997 tons	1997 percent	1998 tons	1998 percent	1999 tons	1999 percent	2000 tons	2000 percent	2001 tons	2001 percent	2002 tons	2002 percent	Change tons	Change percent
Recycling	534,583.4	30.9%	478,022.2	25.8%	580,712.2	28.9%	613,550.6	29.1%	637,638.7	29.3%	647,777.3	29.7%	715,415.7	31.8%	666,469.3	29.8%	48,946.4	-6.8%
Composting	118,947.6	6.9%	144,861.5	7.8%	136,993.9	6.8%	138,324.0	6.6%	123,432.0	5.7%	158,238.5	7.3%	152,234.0	6.8%	190,476.9	8.5%	38,242.8	25.1%
Stock (1) Recycling	<u>8.6</u>	<u>0.0%</u>	<u>25.0</u>	<u>0.0%</u>	<u>1.1</u>	<u>0.0%</u>	<u>54.5</u>	<u>0.0%</u>	<u>194.1</u>	<u>0.0%</u>	<u>4,575.5</u>	<u>0.2%</u>	<u>0.1</u>	<u>0.0%</u>	<u>2,123.0</u>	<u>0.1%</u>	<u>2,122.9</u>	3538188.3 %
Subtotal	653,539.6	37.8%	622,908.7	33.7%	717,707.2	35.7%	751,929.1	35.7%	761,264.8	35.0%	810,591.2	37.2%	867,649.7	38.6%	859,069.1	38.4%	-8,580.6	-1.0%
Energy	<u>81,691.2</u>	<u>4.7%</u>	<u>129,561.0</u>	<u>7.0%</u>	<u>117,886.0</u>	<u>5.9%</u>	<u>160,088.8</u>	<u>7.6%</u>	<u>171,623.7</u>	<u>7.9%</u>	<u>160,258.4</u>	<u>7.4%</u>	<u>229,758.9</u>	<u>10.2%</u>	<u>214,451.2</u>	<u>9.6%</u>	<u>15,307.7</u>	-6.7%
Recovery Total	735,230.8	42.5%	752,469.7	40.7%	835,593.2	41.6%	912,017.9	43.3%	932,888.5	42.9%	970,849.6	44.6%	1,097,408.	48.8%	1,073,520.3	47.9%	23,888.4	-2.2%
Disposal	<u>995,035.0</u>	<u>57.5%</u>	<u>0</u>	<u>59.3%</u>	<u>0</u>	<u>58.4%</u>	<u>7</u>	<u>56.7%</u>	<u>7</u>	<u>57.1%</u>	<u>0</u>	<u>55.4%</u>	<u>5</u>	<u>51.2%</u>	<u>1,165,761.9</u>	52.1%	<u>14,423.4</u>	1.3%
Generation	1,730,265.	100.0%	1,849,715.	100.0%	2,009,186.	100.0%	2,108,503.	100.0%	2,173,321.	100.0%	2,178,197.	100.0%	2,248,747.	100.0%	2,239,282.2	100.0%	-9,465.0	-0.4%

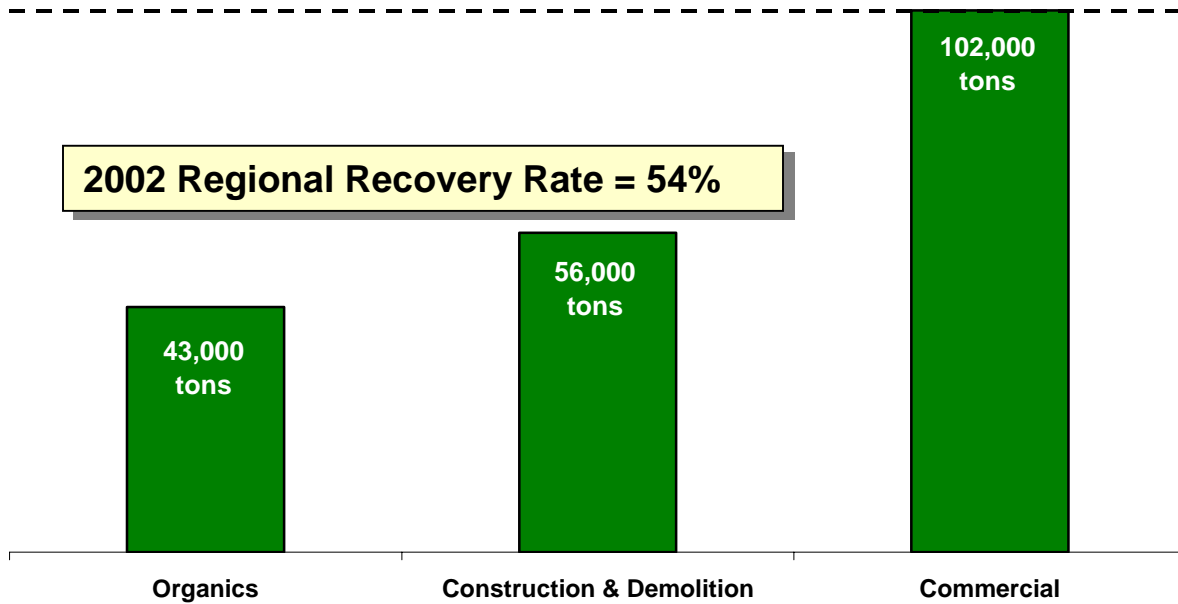
(1) Represents change in inventory of materials to be marketed.

Source: Oregon Department of Environmental Quality, October 2003.

APPENDIX E

Tons of New Recovery Needed to Meet 62% Recovery Goal by 2005 (1)

Total additional tons needed from initiatives: 201,000



Source: Oregon Department of Environmental Quality, 2002 Recovery and Waste Composition Studies, November 2003.

(1) An additional 89,000 tons from curbside recycling collection and bottle bill programs is needed with the waste reduction initiatives to reach the 2005 recovery goal, assuming projected growth in the waste stream for that year.

March 22, 2004

BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF APPROVING THE) RESOLUTION NO. 04-3442
YEAR 15 PARTNERSHIP PLAN FOR)
WASTE REDUCTION (FISCAL YEAR) Introduced by Michael Jordan, Chief
2004-05)) Operating Officer, with the concurrence
) of David Bragdon, Council President

WHEREAS, the Partnership Plan for Waste Reduction has been a significant part of the Region’s waste reduction and recycling programs for the past fourteen years in order to attain state-mandated regional recovery goals (OAR 340-90-050); and,

WHEREAS, the Partnership Plan serves as an implementation tool for the Regional Solid Waste Management Plan; and,

WHEREAS, the Partnership Plan continues to be one of the primary mechanisms for Metro and local governments to establish, maintain and improve recycling and waste reduction efforts throughout the Region; and,

WHEREAS, the means of implementing these waste reduction tasks is through the Partnership Plan, which is adopted by Metro and local governments and defines the work to be completed in the region; and,

WHEREAS, a cooperative process for formulating the Year 15 Partnership Plan was used by Metro and local governments and ensures a coordinated regional effort to reduce waste; and,

WHEREAS, the Year 15 Partnership Plan is consistent with and meets the intent of the goals and objectives in the Regional Solid Waste Management Plan through program maintenance support, new initiatives in waste reduction and competitive grants; and,

WHEREAS, the Partnership Plan funding distribution to local governments for the maintenance section programs is a revenue-sharing program that is tied to adherence to the plan and satisfactory completion of work plan elements; and,

WHEREAS, the Partnership Plan grants are funded in the 2004-05 budget; and,

WHEREAS, the Year 15 Partnership Plan has been reviewed by the Solid Waste Advisory Committee and recommended for Metro Council approval; and,

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

BE IT RESOLVED, that the Metro Council approves the Year 15 Partnership Plan for Waste Reduction (attached hereto as Exhibit “A”) and supports increased efforts to reduce waste in the Metro Region.

ADOPTED by the Metro Council this _____ day of _____, 2004.

David Bragdon, Council President

Approved as to Form:

Daniel B. Cooper, Metro Attorney

DRAFT
Year 15 (FY 2004-05)

Metro and Local Government
Annual Waste Reduction Program Plan

February 6, 2004

A. Background:

Since 1990, Metro and its local government partners have developed cooperative plans to implement the region's waste reduction and recycling programs.

These plans, implemented by both Metro and local governments, are designed to:

- build on the foundation of the Regional Solid Waste Management Plan;
- contribute to accomplishing state and regional waste reduction goals;
- provide regional continuity among the various local government and Metro programs.

Through this and other programs, Metro and local governments have worked together to provide programs and services including:

- single and multi-family residential recycling services;
- curbside yard debris collection;
- home composting education;
- waste reduction consultations to businesses;
- in-school programs for students and teachers;
- hazardous waste public outreach and education, and many other valuable programs and services.

Despite demonstrated successes in the residential sector, findings from the State of the Regional Solid Waste Management Plan Report indicated a need to place more emphasis and resources on three critical areas: Commercial waste reduction and recycling; construction and demolition debris management; and recovery of organic wastes. Substantial changes were made to the Annual Plan during 1999-2000, with the Year 11 (2000-01) Plan as the inaugural year for the new format. Year 15 begins the fifth year of this new structure, a focused approach to the three critical areas (commercial, organics and C&D) and continued support and maintenance of existing regional programs.

In rethinking the manner in which programs are planned and implemented, Metro, DEQ and local government partners chose to take a true team-oriented approach to developing new programs and initiatives. Intergovernmental work groups were formed

to plan the new strategies and will implement and measure these new strategies as a team—a truly regional effort. Local jurisdictions and Metro will also continue to maintain and report on independent activities.

This plan brings together three integral pieces of the region’s waste reduction and recycling system: Focused efforts to recover more from the commercial, construction/demolition debris (C&D) and organics sectors; continuation of competitive grants for innovative waste reduction programs; and the maintenance of programs that form the foundation of the region’s recycling infrastructure.

B. Plan Structure and Format:

The Year 15 Partnership Plan is divided into the following three program areas:

- Part I: Initiatives in Commercial, C&D, and Organics
- Part II: Targeted Competitive Grant Program
- Part III: Maintenance Programs

Part I is composed of initiatives in the three focus areas: Commercial, C&D, and commercial organics. These initiatives, now in their fourth year of implementation, form the core of the work and activities to be implemented in the region. Each of the three programs was identified as lagging in recovery levels necessitating intensive, focused planning and implementation efforts over the next few years.

Part II provides competitive grant funds and a structure to target RSWMP practices that are not otherwise addressed in other program plans and for which other sources of funding are not available. This portion of the program also seeks to support creative methods for addressing solid waste issues. Each year, an area or areas of focus will be developed based upon targeted needs or regional priorities. For Year 15, the area of focus will be improving multifamily recycling programs.

Part III tracks the backbone of established programs in the region that must be continually maintained by local government and Metro services. These programs form the foundation of the region’s waste reduction and recycling system and include residential recycling services, regular outreach and education to all residents and businesses, school education programs, household hazardous waste education and outreach, home composting programs, and regional planning support.

C. Annual Work Plan Development and Approval Process Schedule:

The program plan development schedule is incorporated into the Year 15 Annual Plan as “Appendix A”.

D. Link to the Regional Solid Waste Management Plan

Recommended Practices:

The Regional Solid Waste Management Plan (RSWMP) presents a set of recommended solid waste management practices designed to meet the overall goal of the RSWMP: Continue to develop and implement a Solid Waste Management Plan that achieves a regionally balanced, environmentally sound and publicly acceptable solid waste system.

The RSWMP recommended practices embody six broad, integrated strategies:

1. Invest in waste reduction before building additional transfer and disposal capacity.
2. Expand the opportunity to recycle.
3. Emphasize the waste reduction hierarchy.
4. Maintain flexibility and encourage innovation.
5. Set interim target dates, define roles and responsibilities, and focus on implementation issues.
6. Advance cost-effective practices for managing the region's waste.

The RSWMP recommended practices were developed for particular areas of the solid waste system: Residential waste reduction, business waste reduction, building industries waste reduction, solid waste facilities regulation and siting, and transfer and disposal facilities.

Specific activities in this annual plan will be tied to the recommended practices through the annual State of the Regional Solid Waste Management Plan Report published by Metro at the end of each calendar year. The Year 15 Annual Waste Reduction Program Plan addresses all areas of the RSWMP recommended practices through maintenance of established programs, an emphasis on commercial waste reduction and recycling, construction & demolition debris recovery, and commercial organic waste reduction and recovery.

E. Measurement and Evaluation:

Each of the three sections in this plan for waste reduction has an independent progress measurement and reporting scenario tied to the specific tasks involved. At the end of the fiscal year, progress reports for each section will be produced independently. These reports, combined with other important measures such as the State of the Regional Solid Waste Management Plan Report and the Annual DEQ Recycling and Recovery Report will be combined and used to assess regional waste reduction and recycling progress.

Long-term goal:

- To reduce the amount of materials generated and disposed in the Metro watershed.

Secondary goals:

- To develop and implement new, focused Metro and local government waste prevention and recycling programs aimed at the largest waste substreams (Waste Reduction Initiatives).
- To target special waste prevention and recycling areas for increased attention (targeted competitive grants).
- To maintain and increase existing Metro and local government waste prevention and recycling programs (foundation support grants).

Measurement (effectiveness):

- Increased regional recovery in total and by RSWMP recommended practice (total tons and per capita tons recovered and disposed).
 - How measured: DEQ recovery and disposal data; DEQ waste composition study (bi-annual); State-of-the-Plan Report.
 - Frequency of reporting: Annual.
 - Metro resources required: Waste Reduction staff, 400 hours; \$85,000 to \$100,000 (bi-annual DEQ waste composition study).

WASTE REDUCTION INITIATIVES

Organics

Objectives:

- Reduce the generation of organic wastes through waste prevention.
- Recover an additional 45,000 tons of organic waste (commercially generated) over 2000 baseline recovery, by 2005.

How?

- By increasing donation of edible food to established food rescue organizations.
- By developing processing infrastructure for commercially generated food waste (with local governments and private processors).

Measurement (accountability):

- The Commercial Organics Work Group will complete 90 percent of its annual work plan activities.

Measurement (effectiveness):

- Increased capacity for donation of edible food and increased donation.
 - How measured: Food rescue organizations will report the additional capacity (by volume) and additional donation (by weight).
 - Frequency of reporting: Annual.

- Increased organics processing infrastructure.
 - How measured: Number of facilities in region able to accept vegetative food waste; number of facilities in region able to accept all food waste; tons by facility (capacity and throughput).
 - Frequency of reporting: Annual.

Construction & demolition debris

Objectives:

- Reduce the generation of C&D wastes through waste prevention.
- Recover an additional 35,000 tons of C&D materials over 2000 baseline recovery, by 2005.

How?

- By increasing salvage and deconstruction of usable building materials.
- By increasing source-separated recycling and post-collection recovery of C&D materials.

Measurement (accountability):

- The Construction & Demolition Work Group will complete 90 percent of its annual work plan activities.

Measurement (effectiveness):

- Increased salvage and deconstruction of C&D materials.
 - How measured: Increase in quantity of salvage and deconstructed building materials; increase in contractor use of used building materials infrastructure.
 - Frequency of reporting: Annual.
- Increased recovery of source-separated and mixed C&D materials.
 - How measured: DEQ recovery and disposal data (source-separated); Metro facility reports (source-separated and mixed); DEQ waste composition study (bi-annual); State-of-the-Plan Report; survey of contractors.
 - Frequency of reporting: Annual.

Commercial

Objectives:

- Reduce the generation of commercial wastes through waste prevention.
- Recover an additional 97,000 tons of commercial materials over 2000 baseline recovery, by 2005.

How?

- By increasing business waste prevention practices and diversion.

- By increasing the opportunity to recover commercial materials.

Measurement (accountability):

- The Commercial Work Group will complete 90 percent of its annual work plan activities.

Measurement (effectiveness):

- Increased waste prevention activities in businesses.
 - How measured: Each targeted project will be evaluated (potential diversion, participation).
 - Frequency of reporting: At the conclusion of a project.
- Increased technical assistance to businesses for waste prevention, recovery and buy recycled:
 - How measured: By jurisdiction, collection of baseline data through on-site visits, follow-up and progress visits; reports; third-party, in-field evaluations.
 - Frequency of reporting: Annual.
- Increased recovery of commercially generated materials.
 - How measured: DEQ recovery and disposal data; DEQ waste composition study (bi-annual); State-of-the-Plan Report.
 - Frequency of reporting: Annual.

TARGETED COMPETITIVE GRANTS

Objective:

- Target RSWMP recommended practices and Waste Reduction Initiative efforts not addressed in other program areas.

Measurement (accountability):

- Grant recipients will identify and undertake a specific recycling or waste prevention project.
 - How measured: Reports (progress and final) by grant recipient, that describe the planned and actual activities for each grant; annual report by Waste Reduction staff summarizing goals, objectives, activities, measurement and results for all grants.
 - Frequency of reporting: Progress (90-day) and annual reports by grant recipient; annual summary report of all grants.

Measurement (effectiveness)

- Each grant application and resulting scope of work will identify goals, objectives, activities, measurement and anticipated results.

- How measured: Reports (progress and final) by grant recipient, based on the goals, objectives, activities, measurement and results for each grant; annual report by Metro Waste Reduction staff summarizing goals, objectives, activities, measurement and results for all grants.
- Frequency of reporting: Progress (90-day) and annual reports by grant recipient; annual summary report of all grants.

FOUNDATION SUPPORT GRANTS

Objectives:

- To maintain and increase recovery through existing local government waste reduction and recycling programs.
- To provide an incentive for local governments to participate in regional waste reduction planning activities (Solid Waste Advisory Committee, Local Government Recycling Coordinator group, Organics Waste Reduction Initiative Work Group, Commercial Waste Reduction Initiative Group, Construction & Demolition Work Group).
- To continue to ensure the region is meeting (and exceeding) required state program elements for waste reduction and recycling programs.

Measurement (accountability):

- Local governments will identify and undertake a specific curbside recycling outreach activity for an existing local government program.
- Local government representatives will participate in at least one regional waste reduction planning group (larger jurisdictions will tend to participate in more than one group).
- Local governments will provide jurisdictional solid waste and recycling budget information.
 - How measured: Local government reports.
 - Frequency of reporting: Annual.

Measurement (effectiveness)

- Maintained or increased curbside recovery (total tons and per capita tons recovered and disposed).
 - How measured: DEQ recovery and disposal data; DEQ waste composition study (bi-annual); State-of-the-Plan Report.
 - Frequency of reporting: Annual.
 - Metro resources required: Included in overall program measurement costs, above.

Part I: Initiatives in Commercial, C&D and Organics

Background:

The recent State of the Plan Report for the Regional Solid Waste Management Plan, which evaluated the region's progress toward its waste reduction goals, indicated a need for new initiatives in three solid waste program areas.

In June of 1999, a group of Metro and local government solid waste managers convened to address the issue of the need for new efforts in certain targeted sectors. As a result, three work teams comprised of Metro, local government and DEQ staff were formed to develop new strategies and initiatives in the commercial, construction & demolition debris, and commercial organics sectors. The teams' objectives included:

- Development of a new approach to the waste reduction planning process that results in unified, measurable, accountable and targeted work plans.
- Increase regional recovery by concentrating on the lagging sectors of commercial, organics, and construction and demolition (while continuing to support existing strong recovery from the residential sector.)
- Identify areas within these lagging sectors on which to focus cooperative waste reduction activities.
- Identify emerging issues in waste reduction planning that may need special attention.
- Integrate the results of new initiatives into the State of the Regional Solid Waste Management Plan Report, DEQ Waste Composition Study and other recycling and solid waste data and studies.
- Determine the resources required for these new initiatives and measurement/reporting activities.
- Regular evaluation of the focus areas to ensure they remain relevant.

Fiscal Year 2004-05 Program Overview:

The following is a brief overview of the Waste Reduction Initiatives overall goals and activity highlights for fiscal year 2004-05. The complete text of the initiatives is provided in Appendix B.

Commercial:

In order to reach recovery goals, the region needs to recover an additional 97,000 tons of recyclables and yard debris from businesses, and prevent the generation of an additional 5,000 tons of waste through prevention and reuse programs.

FY 2004-05 Highlights:

- The Commercial Recovery Work Group has developed a program goal to assist with regional program direction taking into consideration the 2005 recovery goals. The goal is to develop and implement strategies to meet the 2005 recovery goals and encourage behavior change in the business sector. Immediate emphasis is

on recovery with importance and long-term emphasis given to waste prevention and buying recycled products.

- The Commercial Technical Assistance Program (CTAP) will continue its funding to local governments to provide one-on-one onsite assistance in recycling, waste prevention and buy-recycled products.
- A new recognition program will be developed that will be incorporated into CTAP. The new program will recognize all businesses meeting a minimum requirement and will be provided with a window decal.
- An evaluation of the current CTAP program will determine business satisfaction with the current service, effectiveness in stimulating waste reduction changes, especially with waste prevention and recycled-product purchases, and provide feedback on the evaluation methodology being used.
- Two business outreach campaigns will be developed. The outreach objectives will be to generate awareness about commercial recycling, provide a seamless service to regional businesses with one phone number to call for assistance (Metro's Recycling Information Center), and to get recycling specialists in the door for additional assistance.
- The City of Portland, DEQ and Metro are implementing a Green Copier Pilot Project to work with one or more local office equipment companies in developing a marketing approach that promotes double-sided copying and use of recycled-content paper in copier machine sales and equipment leases. This study will compare the effectiveness of three approaches: institutionalizing waste reduction into the service chain; the back-end business education approach provided by CTAP; and a combination of the two. The pilot results will provide direction for a broader outreach strategy to other copier service providers.
- Clackamas County (lead), Portland and Metro are contracting with a consultant to develop outreach tools for local property managers and their tenants to increase recycling at multi-tenant office buildings and retail properties.
- The Commercial Recovery Work Group is maintaining and updating the online *Buyers Guide to Recycled Products*, which is designed to allow businesses to easily find recycled-content products near their location.
- The Subcommittee on the Contamination and Loss of Recyclables of the Solid Waste Advisory Committee will reconvene in January 2004 to make recommendations that will be implemented in FY 04-05.

Construction & Demolition Debris:

According to the revised RSWMP recovery rates, the region must recover 35,000 additional tons of C&D debris in order to meet its established goals. The Construction and Demolition Debris Recovery plan is composed of three tracks, designed to increase recycling and recovery in all sectors of the construction industry while adhering to the solid waste hierarchy of reduce, reuse, recycle, recover, landfill.

FY 2004-05 Highlights:

- Continued funding and staff support over the next three years on the Construction Industry Association Partnership project. These partners continue to play a major role in the education of the construction industry to bring about the needed changes in the salvaging, recycling and management of C&D debris.
- Continued yearly measurement of the effect of the Construction Industry Association Partnership project. The survey quantifies industry attitudes towards and awareness of salvage and recycling and self-reported recycling/salvage behavior.
- The implementation of a new ordinance requiring that all Metro region mixed C&D debris loads go through a recovery facility/process before being disposed of. Tualatin Valley Waste Recovery (Hillsboro Landfill) and Lakeside Reclamation will be most affected by this mandate. Once facilities comply with the ordinance, the region-wide “seamless safety net” of recovery facilities will ensure that post-collection recovery occurs on all loads of C&D debris, regardless of which solid waste facility accepts the material.
- Because demolition waste accounts for over 50% of the region’s C&D debris, we will be placing more emphasis on reducing the barriers to deconstruction/salvage and the development of salvage infrastructure. Activities include:
 - Soliciting proposals for a second round of grant funding to help develop the used building material deconstruction, collection and retail infrastructure in the Metro region. Grants assist with used building material retailers and deconstruction contractors with capitol construction projects and materials handling equipment purchases.
 - Creating and beginning implementation of a strategy to increase the commercial construction industries reuse of used commercial used building materials in new construction.

Commercial Organics:

According to the revised RSWMP recovery rates, the region must recover 45,000 tons of organic waste from the commercial sector in order to meet its established goals. This plan is designed to guide the region in the direction of increased recovery while adhering to the solid waste hierarchy of reduce, reuse, recycle, recover, compost, landfill.

This plan takes a two-track approach to organic waste management. The first track emphasizes waste prevention, donation and diversion. This is considered to be a least-cost approach, since preventing the generation of the material in the first place removes

the need to manage it as a waste product. Donation is the highest end-use of food that is produced, and diversion to animal feed is the next step down in the hierarchy. Each of these approaches can be implemented in a relatively rapid fashion in that an existing infrastructure is present in the region, and outreach materials may be produced with short turnaround. While the food donation infrastructure does exist, some assistance and support is necessary to enhance capacity to accommodate new and increasing flow of material.

The second track focuses on developing a processing system to accommodate organic waste that cannot be diverted to higher-end uses. Every effort will be made to utilize existing infrastructure and tailor generator and collection programs to fit within existing operations and regulatory systems.

FY 2004-05 Highlights:

- Metro and the City of Portland developed a grant program to secure food waste processing capacity to serve the region. Grant evaluations have been made and negotiations are underway with a composter located in Boardman, Oregon. Portland is conducting a cost of service study and expects to move forward with its ordinance requiring certain food businesses to separate food waste for recycling.
- Metro is working with a fully licensed and permitted compost facility to receive and process the region's food waste into a beneficial end-product. Discussions with the facility and Metro's transfer station operator for the receipt and reload of organics are underway.
- Local governments and solid waste and recycling haulers in the region have expressed their commitment to work with us to recover organic waste and are completing a cost of service study to determine program costs and logistics.
- A food donation barrier and benefit identification study (using community-based social marketing principles) was completed in FY 2003-04. Results of the study will be used to develop very specific education and outreach methods in early 2004.
- Metro issued an RFP in December 2003 to study the impact of combined residential organics yard debris collection on the existing yard debris composting system. The region will continue to examine the feasibility of implementing residential organic waste management programs.

Program Administration and Reporting:

Because these new initiatives require the work and the support of all regional partners, the day-to-day administration of the various tasks in the Commercial, C&D and Organics programs will be managed by the respective regional intergovernmental work teams that developed these plans. Individual team members will be assigned oversight of particular pieces of the plans, and will be responsible for reporting back to the team when they meet on an ad-hoc basis. Each work team will give a regular update at the monthly Local Government Recycling Coordinators Meeting and will solicit feedback

from the group as well as inform the group of progress being made. Data collection, measurement and year-end progress reports will be the responsibility of the work teams. As part of the overall Year 15 Program Plan, each work team will be responsible for production of a year-end report on the progress made in the region.

2004-05 Budgeted Funds*:

Commercial initiatives:	\$465,000
Construction & Demolition Debris Initiatives:	\$178,000
<u>Commercial Organics Initiatives:</u>	<u>\$20,000</u>
Total:	\$663,000

*An additional \$1,707,000 in funding is requested in budget add packages. All funding is dependent upon Metro Council approval.

Part II: Targeted Competitive Grant Program

Overview:

The competitive grant program is designed to supplement the program funding available through the Partnership Program. These grants are intended to assist local jurisdictions in targeting the RSWMP practices that are not addressed in other program plans, and for which other sources of funding are not available. This program also seeks to support creative methods for addressing solid waste issues.

Format and Structure:

Each year, Metro will specify focus area(s) or target(s) for this competitive grant program based upon RSWMP needs and priorities. Applicants will have the choice to:

- 1) Submit a proposal in the focus area(s); OR,
- 2) Propose a project outside the focus area(s) and demonstrate that there is a true need for this approach that is not being addressed through new initiatives, maintenance programs or other means. Alternative programs must also demonstrate that they contribute to meeting RSWMP goals.

Local jurisdictions interested in this program must submit an application for funds using a standardized form provided by Metro. Applications must include:

- a clear goal statement;
- a clear justification of need;
- a specific dollar amount requested;
- concise and meaningful measurement tools and methods; and
- a description of intended results.

Applications must identify the specific practices of the RSWMP to which the funds will be applied, demonstrate clear benefits to the region, and should be transferable to other jurisdictions.

Local jurisdictions are required to provide at least a 50% match to funds requested. This match may be dollars, materials, in-kind services or a combination of these. Applicants are encouraged to cooperate or develop formal partnerships with nonprofit, volunteer agencies, business associations, chambers of commerce or other groups. In-kind matches may be provided in part by some or all partners.

Reporting:

A 90-day progress report as well as a final report due 30 days from the completion of the project must be submitted to Metro. Reports must demonstrate how the project has met the stated criteria and the impacts the project has had to the prevention, recycling and recovery of waste in the region. Reporting form is attached.

2004-05 Budgeted Funds: \$210,000

Targeted Competitive Waste Reduction Grant Program Final Report Form
FY 2004-05 Grant Cycle

Grant Program Results Table

Please complete the following table to provide data and information on the intent and actual results of the grant-funded programs for 2004-05. Complete a separate table for each program or project implemented.

JURISDICTION (and partners):				
<u>Program/Project Description:</u>				
Project Goal	Project Objectives	Activities Implemented	Measurement Method	Results

How has the program/project met the following stated criteria?

- **Specific RSWMP practices supported:**
- **Specific targeted generators and waste streams:**
- **Regional benefit and transferability to other jurisdictions:**

Part III: Maintenance of Existing Programs

Overview:

Part III of the Partnership for Waste Reduction focuses on the maintenance of existing and established local and regional waste reduction and recycling programs. Significant progress in waste reduction and recycling has been made over past years through these existing programs. In order to maintain these successes, established programs must continue to be funded, staffed and maintained at the same time that new initiatives are introduced.

Maintenance Program Plan Format, Structure and Timeline:

The Maintenance Program format is intentionally simple and straightforward. Local governments will complete the attached chart, detailing the outreach, education and collection programs currently implemented and the efforts they will engage in to maintain these programs. This will provide a comprehensive regional picture of the existing programs.

The reporting section is to be completed at the end of the fiscal year and submitted to Metro no later than August 1, 2005. This section will detail each task's actual implementation date, as well as relevant status reports, changes and noted results. The reporting section will serve as the basis for integrating existing program status and progress into the recommended practices of the RSWMP, as well as the required annual reporting to the Department of Environmental Quality.

Compliance with State Law and the Regional Solid Waste Management Plan:

All regional partners will continue to be required to comply with the provisions set forth in State Law (OAR 340-90-040) in addition to the tasks listed in the RSWMP. Metro will be the reporting agency for the region's three county area. Metro will also assume responsibility for integrating maintenance programs into the recommended practices set forth in the RSWMP. This integration will be illustrated in the Annual State of the Plan Report section titled Implementation Status of Recommended Practices.

Annual Allocation:

The funding assistance provided to local jurisdictions for the maintenance of existing programs is allocated on a per-capita basis. Each jurisdiction receives an allocation based upon its percent of the region's total population.

The FY 2004-05 allocation for the City/County of _____ equals \$_____. This represents _____% of the overall City/County solid waste and recycling budget.

Program Overview Narrative:

This section of the Plan provides a more descriptive and encompassing overview of maintenance programs. Local governments and Metro will each provide a short annual narrative describing the range of programs and the principles behind them.

2004-05 Budgeted Funds:

\$649,271

PLANNED MAINTENANCE ACTIVITIES FOR FISCAL YEAR 2004-05

The Program Plan Table is divided into two sections: Planning and Reporting. The planning section lists program areas under the header marked "Tasks" which are to be completed in detail by Metro and local governments. All outreach, education, collection and other existing program efforts are to be listed under each task area with an associated implementation date noted under the heading "Planned Date." The section header "R/WP/B" identifies whether this particular program or activity is primarily recycling (R), waste prevention (WP) or both (B). This notation is to assist Metro in the collection of data for reporting to the Department of Environmental Quality on the region's waste prevention activities. The completed planning section of the table is due to Metro no later than June 1, 2004.

PLANNING			REPORTING	
Tasks	Planned Date	R/WP/B	Implemented Date	Implementation Status/Results
Residential				
<ul style="list-style-type: none"> ▪ Identify and undertake a specific curbside recycling outreach activity for an existing program. <i>(required)</i> 				
Multifamily				
<ul style="list-style-type: none"> ▪ ▪ 				
Home Composting				
<ul style="list-style-type: none"> ▪ ▪ 				
Commercial				
<ul style="list-style-type: none"> ▪ ▪ 				
Construction & Demolition				
<ul style="list-style-type: none"> ▪ ▪ 				
Household Hazardous Waste				
<ul style="list-style-type: none"> ▪ ▪ 				
Regional Planning Support				
<ul style="list-style-type: none"> ▪ ▪ 				
School Outreach and Education				
<ul style="list-style-type: none"> ▪ ▪ 				
Other				
<ul style="list-style-type: none"> ▪ Report jurisdictional solid waste and recycling data to Metro. <i>(required)</i> ▪ Participate in at least one regional waste reduction planning group <i>(required)</i> 				

Appendix A

Fiscal Year 2003-2004 Metro and Local Government Annual Waste Reduction Program Plan for Waste Reduction

PLAN DEVELOPMENT SCHEDULE

Timeline	Annual Work Plan Process
August/September 2003	Metro and local government targeted sector work teams (Organics, C&D, Commercial) review and amend plans and associated budgets
November/December 2003	Draft overall framework developed by Metro and local government staff.
March 2004	Regional public involvement: Metro SWAC review of drafts
March-April 2004	Council approval process: Metro Council consideration and adoption
April-May 2004	Local and Regional Public Involvement: Local SWAC and other public involvement Metro budget hearings Local government budget hearings
June 1, 2004	Local Government Participation Commitment Agreements Drafted
PLAN IMPLEMENTATION	
July 1, 2004	Start of Fiscal Year - Implementation begins
No later than Nov. 30, 2004	Intergovernmental agreements for grant funding approved and funds distributed to local governments to support the maintenance of existing programs.
REPORTING	
Aug. 1, 2004	Local government and Metro assess progress
Feb. 28, 2005	Metro produces annual report for the previous fiscal year period

Appendix B

Commercial Recovery Work Plan **FY 2002-2005** **March 2003**

Overview

In order to meet Metro's watershed recovery goal set by state law, the region must attain a recovery rate of 56% by 2005, not including credits for waste prevention, home composting and reuse. In 2000, the region's recovery rate was 44.6%, having increased only 2 percentage points in the last five years. To meet the region's 2005 recovery goal, an additional 177,000 tons must be diverted from the commercial, C&D and organics sectors.

Commercial waste, excluding organics, comprises more than 40% of the region's total waste. For the commercial sector, the target is to recover an additional 97,000 tons for the region to stay on track to meet its goal.

In addition to recovery, the revised Regional Solid Waste Management Plan for Metro also identifies a waste prevention goal for businesses that is equivalent to 0.5% of regional generation (i.e., recovery plus disposal). With annual regional generation at 2.2 million tons, the commercial waste prevention goal is equivalent to about 11,000 tons of diversion. In 2000, an estimated 18,000 tons was prevented by various activities, meeting this goal. For 2005, the region projects that it can divert an additional 5,000 tons through waste prevention.

To meet these two goals, a Commercial Recovery Work Group (CRWG) comprised of local government, Oregon Department of Environmental Quality and Metro representatives have developed a plan that outlines policy and program options (including resource needs) to reach these goals. This plan represents the second three-year plan developed by this group and covers the period from FY 02-03 through FY 04-05. The plan groups its recommendations in three program tracks: waste prevention, recovery and market development.

The immediate goal of the CRWG work plan is to develop and implement strategies to meet the 2005 recovery goals and encourage behavior change in the business sector. Immediate emphasis is on recovery with importance and long-term emphasis given to waste prevention and buying recycled products. This goal is what guides the group in prioritizing the work plan.

The plan's first track focuses on waste prevention. A number of projects will have ended in FY 03-04 with recommendations for broader implementation in FY 04-05. The Green Copier Pilot Project, working with a local copier service provider to promote to their customers copying double-sided and purchasing recycled-content paper, may roll-out to other copier service companies the tools and resources needed to incorporate

green copier services into their operations. The Packaging Minimization Project, working with a select group of companies to look at strategies and efficiencies in minimizing excessive packaging, will recommend strategies to assist other companies in reducing packaging waste.

The second track, which is given the highest priority, focuses on recovery. Providing businesses with customized assistance in setting up recycling programs, identifying waste prevention opportunities and providing information on buying-recycled content products is the primary method for recovery. The Commercial Technical Assistance Program (CTAP) funds local governments to hire staff to assist businesses. There are a total of almost seven recycling specialist positions in the region solely responsible for working directly with businesses to increase recycling.

Outreach is a big component to linking the assistance services with recycling specialists. In FY 04-05 there will be two campaigns: one in the fall and one in the spring. In FY 03-04 the campaign targeted commingled paper and was very successful at enlisting businesses to call the Recycling Information Center to request free boxes and assistance. The next campaigns may focus on materials, topics, such as commingling, or business sectors.

Additionally, the Multi-tenant Outreach Project will have resource materials developed that will be supplied to a broad range of multi-tenant buildings in the region to increase recycling levels.

The following draft plan outlines in specific detail the projects and programs and accompanying resources needed to increase recycling levels, promote waste prevention and buying recycled-content materials.

Commercial Recovery Goal - Develop and implement strategies to meet the 2005 recovery goals and encourage behavior change in the business sector. Immediate emphasis is on recovery with importance and long-term emphasis given to waste prevention and buying recycled products

COMMERCIAL WASTE PREVENTION AND RECOVERY

	Staffing	2002-2003 M+S Budget	2003-2004 M+S Budget	2004-2005 M+S Budget
TRACK 1: WASTE PREVENTION Target specific activities for implementation and measurement.				
A. Targeted waste prevention projects.				
1. Green copier project. <ul style="list-style-type: none"> Hire contractor. Convene Advisory Group. Evaluate contractor recommendations. 	Hawley, Apotheker, Allaway, Keller,	X	X	Complete
2. Packaging minimization (DEQ lead): work with 5-7 businesses to increase packaging efficiency and serve as models for others.	Allaway, McGuire	X	X	Complete
3. Legal outreach program.	Apotheker, Allaway	X	X	Complete
4. Waste prevention and reuse resources and grants targeted to recovery and reuse businesses to increase their capacity and effectiveness.			Budget Cut	
5. Assessment of new opportunities for waste prevention (FY 04-05), implement program based on results of assessment (FY 05-06).	Will reassess development for FY 05-06			
Subtotal (Section A)		\$0	\$0	\$0

X = Activities that will occur in this fiscal year as staff time, but have no associated budget line item.

	Staffing	2002-2003 M+S Budget	2003-2004 M+S Budget	2004-2005 M+S Budget
TRACK 2: RECOVERY Develop a system to ensure effective commercial recovery is in place.				
A. Increased Outreach to Businesses.				
1. Multi-tenant retail outreach. <ul style="list-style-type: none"> Hire a contractor to develop a pilot project. Provide outreach and resource materials to select custodial firms and property managers (FY 2002-03). Evaluate effectiveness of tools and outreach effort (FY 03-04). Based on results of the evaluation, expand scope of project and provide resources to a broader range of property management firms in the region (FY 04-05). 	Ziolko, Hawley, O'Sullivan, Tatham	X	X	\$15,000
2. Business Recycling Awards Group (BRAG). <ul style="list-style-type: none"> Continue general promotion. Provide incentive grants with a goal of increasing membership. Utilize data gained to inform CTAP program efforts. 	McGuire, Cable, Team	\$18,000	<i>Move \$25,000 to 2.B.1. Recognition</i>	<i>Move to 2.B.1. Recognition</i>
3. Outreach to the business community – Two campaigns per year. <ul style="list-style-type: none"> ➤ Focus on specific materials (mixed paper, film plastic, scrap metal, carpet). ➤ Focus on specific topics (convenience of commingling, disposal ban education, IMEX, WRAIN). ➤ Focus on selected business sectors (very targeted and coordinated with CTAP findings). 	Kolberg, Hawley, McGuire, Team, Contractor	\$70,000*	\$40,000	\$80,000
<ul style="list-style-type: none"> Evaluate outreach programs. <ul style="list-style-type: none"> ➤ Assess effectiveness of outreach campaigns. 	Apotheker, Kolberg, Contractor	\$15,000	\$10,000	\$10,000
Subtotal (Section A)		\$103,000	\$50,000	\$105,000

B. Commercial Technical Assistance Program (CTAP).				
1. CTAP waste reduction assistance to businesses.	LG, Hawley, Team	\$400,000	\$400,000	
<ul style="list-style-type: none"> • Provide one-on-one assistance to businesses on recycling, waste prevention and buy-recycled. <ul style="list-style-type: none"> ➢ City of Beaverton – Hire .63 FTE ➢ City of Fairview – Hire .02 FTE ➢ City of Gresham and Wood Village – Hire .38 FTE ➢ City of Portland – Hire 1.85 FTE ➢ City of Troutdale – Hire .1 FTE ➢ Clackamas County – Hire 1.75 FTE ➢ Washington County – Hire 2 FTE 				\$39,171
				\$1,290
				\$22,538
				\$100,000
				\$4,521
				\$106,533
• Provide tools and waste evaluator training to support program implementation.	McGuire, Hawley, Team	\$30,000	\$20,000	\$20,000
• Evaluate effectiveness of CTAP program to date.	Apotheker, Contractor	\$35,000	\$35,000	Complete
<ul style="list-style-type: none"> ➢ Compare the behaviors of businesses receiving CTAP assistance with those who have not. ➢ Examine the impacts of CTAP visits, level of behavior change and implementation of recommendations. ➢ Determine how many businesses have implemented waste prevention and reuse activities aside from just recycling. 				
• Recognition Program.				
<ul style="list-style-type: none"> ➢ Recognize businesses that meet waste reduction criteria. ➢ Provide a window decal that promotes the businesses' waste reduction activities. 				
• Regional business list.	Hawley		\$10,000	\$10,000
<ul style="list-style-type: none"> ➢ Purchase business list for waste evaluators to use to identify businesses by sector, employee size, geographic location, etc. 				
Subtotal (Section B)		\$465,000	\$490,000	\$435,000
C. Event Recycling				
1. Assist with recycling at events.	Hawley, Team		X	\$0
<ul style="list-style-type: none"> • Assist with updating Event Recycling Guide (FY 03-04). • Evaluate City of Portland and Clackamas County data on their event recycling programs (FY 04-05). 				
Subtotal (Section C)			\$0	\$0

X = Activities that will occur in this fiscal year as staff time, but have no associated budget line item.

	Staffing	2002-2003 M+S Budget	2003-2004 M+S Budget	2004-2005 M+S Budget
D. Ensure commingled processing capacity and standards.				
1. Inventory different commercial commingled sorts and processing facility capacity. • Utilize results to target problem material streams and residual levels (glass, shredded paper, etc.).	Apotheker Barrett	X	Complete	
• Implement recommendations for monitoring facility performance. ➤ Monitor processing facilities and perform waste sorts. ➤ Final Report due in Dec. 2003.	Apotheker, Barrett	X	\$20,000	Complete
2. Convene Subcommittee on Contamination and Loss of Recyclables (Fall 2002). ➤ Work with local governments and haulers to prohibit the mixing of fibers and glass in collection vehicles and at recovery facilities. ➤ Subcommittee reconvene in Jan. 2004. ➤ Recommendations to Council in Mar. 2004.	Barrett, Apotheker, LG	X	X	
• Implement policy recommendations from Subcommittee on Contamination and Loss of Recyclables.	Apotheker, Barrett, LG	\$0	\$0	TBD
Subtotal (Section D)		\$0	\$20,000	\$0
E. Required recycling (Waste Reduction manager to determine additional steps and budget). Renamed Contingency Plan Work Group recommendations on business recycling				
1. Feasibility and recycling requirements.	Apotheker, McGuire	\$15,000	X	TBD
• Conduct research on feasibility of required recycling and impact on markets	Apotheker, McGuire	\$15,000	\$0	TBD
2. Stakeholder involvement process. ➤ Council adopted RSWMP revisions to establish a Contingency Plan process in Spring 2003. ➤ Contingency Plan Work Group convened in August 2003. ➤ Recommendations to Council in Jan. 2004. Budget for implementation will be determined at that time.	Barrett, McGuire	\$10,000	X	TBD
• Stakeholder involvement process – carryover.	Barrett	\$10,000	\$0	TBD
Subtotal (section E)		\$50,000	TBD	TBD
Total Track 2		\$583,000	\$560,000	\$540,000

X = Activities that will occur in this fiscal year as staff time, but have no associated budget line item.

	Staffing	2002-2003 M+S Budget	2003-2004 M+S Budget	2004-2005 M+S Budget
TRACK 3: MARKET DEVELOPMENT Ensure adequate market capacity is available.				
A. Increase market development efforts.				
1. Commercial end-use market capacity study for mixed paper.	Apotheker, Team	\$20,000	Complete	\$0
2. Commercial end-use market research and pilots (carpet, plastic tubs, textiles. mixed glass).	Team	\$15,000	Budget Cut	\$0

3. Work with vendors to substitute recyclable packaging for waxed corrugated cardboard. • Research vendors that have viable options for substitution.	Hawley, Team	\$ 5,000	<i>Budget Cut</i> X	\$0
4. Materials exchange (IMEX, Nwmaterialsmart) outreach and web site refinement to better serve regional users (<i>moved from Recovery, Track 2</i>). ▪ Assess the effectiveness of outreach. ▪ Identify barriers to use. ▪ Develop and implement improvements to increase utility and use,	Allaway, Kolberg	X	X	Complete
Subtotal (Section A)		\$40,000	\$0	\$0
B. Buy-recycled program (<i>moved from Waste Prevention, Track 1</i>)				
1. Develop business leadership group to promote recycled product use.			<i>Move \$5,000 to 3.B.3. Buy-Recycled Database</i>	
			<i>Will reassess development for FY 05-06</i>	
2. Develop online database of recycled products ➤ Update and product additions. ➤ Market online <i>Buyer's Guide to Recycled Products</i> .	McGuire, Team	X	\$15,000 <i>(includes \$5,000 from 3.B.1.)</i>	\$5,000
3. Develop and implement evaluation plan to assess impacts of online guide ➤ Identify users, effectiveness of outreach, CTAP usefulness, track business behavior change. ➤ Report on recommendations for future buy-recycled activities	Apotheker, McGuire, Contractor	X	\$15,000	Complete
Subtotal (Section B)		\$40,000	\$30,000	\$5,000
Total Track 3		\$40,000	\$30,000	\$5,000

X = Activities that will occur in this fiscal year as staff time, but have no associated budget line item.

SUMMARY Materials & Services	2002-2003 M+S Budget	2003-2004 M+S Budget	2004-2005 M+S Budget
TOTAL TRACK 1	\$0	\$0	\$0
TOTAL TRACK 2	\$618,000	\$560,000	\$540,000
TOTAL TRACK 3	\$40,000	\$30,000	\$5,000
SUB-TOTAL (TRACKS 1,2 3)	\$658,000	\$590,000	\$545,000
LESS Currently Budgeted Funds	\$708,000	NA	NA
TOTAL New Funds Needed For Materials & Services	-\$50,000	\$590,000	\$545,000

* \$15,000 of outreach funds was redirected from the model design tasks from FY01-02 that will no longer be implemented.

Construction & Demolition Debris Recovery Work Plan 2002-2005

March 2003

Overview

The region must recover over 35,000 tons of C&D waste from the construction sector in order to meet its established goals for 2005. This plan was cooperatively developed by the Construction and Demolition Debris Work Group comprised of Metro and local government staff. The plan will guide the region in the direction of increased recovery while adhering to the solid waste hierarchy of reduce, reuse, recycle, recover, compost, then landfill as a last resort.

This plan takes a three-track approach to C&D debris management. The first track emphasizes waste prevention, salvage and reuse. The practices and programs in this section are among the most important in this plan because they are considered to be the lowest cost and most effective methods of managing C&D debris. Salvage and deconstruction practices are one of the few tools available to effectively reduce the 60% of C&D debris coming from demolition activities. The local salvage and deconstruction service provision and retail infrastructure is growing, but several barriers, which are addressed in this plan, keep these practices from becoming widely adopted.

The plan's second track focuses on developing effective C&D debris recycling and processing programs for the debris that is not a candidate for deconstruction and salvage. This plan includes a wide range of tools and tactics being used to improve source-separated and post-collection recovery of C&D debris. Education and incentives are being used in conjunction with processing requirements and disposal bans to recycle and recover the necessary tonnage.

Based on prior years of research, the C&D Work Group is continuing to target these four sectors as the primary generators of salvageable and recyclable C&D debris:

- new commercial (under \$3 million);
 - commercial remodel/tenant improvement;
 - wood-frame building demolition;
 - residential remodeling (performed by licensed contractors).
-
- The C&D Work Group has been receiving feedback from the Local Government Solid Waste directors, salvage and recycling industry representatives and Metro staff on the progress and direction of current and future task force activities. This feedback, along with the lessons learned while implementing the first three years of the C&D Waste Reduction Initiative, provided the basis for the FY 2002-03, 2003-04 and 2004-05 C&D Waste Reduction Initiative.

C&D tonnage diversion objectives:

Metro staff estimates that approximately 35,000 tons additional tons of C&D recovery are needed from the C&D sector by 2005 to meet regional recovery goals. While it is difficult to estimate the effect in tons from waste prevention activities and softer program elements such as education and outreach, the C&D task force assigned tonnage diversion performance estimates to the three tracks to be used as a guideline.

Track	Estimated additional tonnage	Primary sources
I. Waste Prevention	5,000	From increases in salvage and deconstruction in residential and commercial construction
II. Recycling and Post Collection Recovery	35,000	From new recovery at Hillsboro Landfill and Lakeside Reclamation and Metro transfer stations
III. Market Development	2,000	From expected increases in reuse of commercial building materials
Total	42,000	

**The FY 2002-03, 2003-04, 2004-05 Construction and Demolition
Waste Reduction Initiative Work Plan**

TRACK 1: WASTE PREVENTION, SALVAGE AND REUSE

Develop focused outreach and education programs on salvage and deconstruction practices for the region's contractors, developers, architects, material specifiers, property managers and property owners.

A. Waste Prevention Outreach and Education	Staffing	2002-03 M+S Budget	2003-04 M+S Budget	2004-05 M+S Budget
1. Implement three-year communication and marketing program <ul style="list-style-type: none"> • Begin implementing first year of program June 2002. • Follow three-year implementation plan for communication and marketing activities to increase awareness and knowledge of Salvage and Deconstruction practices by: <ul style="list-style-type: none"> ➤ Building partnerships with local industry associations (AIA, ABC, AGC, CSI, HBA, ORA, chambers of commerce and business associations). ➤ Working cooperatively with local plan centers, building permit centers, building material retailers and wholesalers to distribute Metro C&D literature. ➤ Creating direct outreach opportunities through a series of managers' forums ➤ Creating interest in waste reduction by placing articles/case studies in local industry publications such as the Daily Journal of Commerce, NW Construction magazine and the Business Journal. • Collateral materials include the Metro Construction Industry recycling Toolkit and the Toolkit Planners Guide 	Contractor with oversight by C&D Work Group	Year 1 \$95,000 (\$45,000 from carry over)	Year 2 \$50,000 \$20,000	Year 3 \$50,000 \$70,000
2. Evaluate and measure effect <ul style="list-style-type: none"> • Take baseline measurement of target audience's waste-related knowledge and behaviors before official start of first year. • Continue evaluating/measuring effect to determine benefit of continuing program. • Update Metro Council on measurement findings in June of each year starting with 2003. 	Contractor with oversight by C&D Work Group	\$5,000	\$10,000	\$10,000
Subtotal (Track 1-Section A)		\$100,000	\$80,000	\$130,000

TRACK 1: WASTE PREVENTION, SALVAGE AND REUSE , continued

Develop focused outreach and education programs on salvage and deconstruction practices for the region's contractors, developers, architects, material specifiers, property managers and property owners.

B. Reduce the barriers to Deconstruction and Salvage	Staffing	2002-03 M+S Budget	2003-04 M+S Budget	2004-05 M+S Budget
1. Model specifications for government construction contracts <ul style="list-style-type: none"> • Research, establish and implement model government procurement/construction practices that encourage rather than discourage deconstruction over mechanical demolition. • Pilot specifications on Metro and LG projects and monitor results 	<i>Contractor with oversight by C&D Work Group</i>	-0-	0	0
2. Building permit fees <ul style="list-style-type: none"> • Work with building permitting organizations such as the Tri-County Permitting consortium and deconstruction service providers to identify options for reducing the permit fees and waiting periods for demolition jobs where significant quantities of material are being salvaged or deconstructed. • Pilot new fee/incentive schedule at one large and one small jurisdiction building permit center and monitor results. 	C&D Work Group	-0-	0	0
3. Improve reuse options at solid waste facilities <ul style="list-style-type: none"> • Investigate the creation of reuse stations for used building materials being dropped off at transfer stations, landfills and MRF's. • 	C&D Work Group	-0-	0	0
Subtotal (Track 1-Section B)		-0-	0	0
C. Waste Prevention Grants				
1. Promote used building materials * Note that this item has been part of the Metro C&D budget since FY 1995-96	C&D Work Group	\$4,000	\$7,000	\$10,000
Subtotal (Track 1-Section C)		\$4,000	\$7,000	\$10,000
TOTAL (TRACK 1)		\$104,000	\$87,000	\$70,000

TRACK 2: C&D DEBRIS RECYCLING AND PROCESSING

Develop a system to ensure that source-separated recycling or effective post-collection recovery is available or provided to targeted sectors of the C&D industry.

A. Create incentives for generators, haulers, source-separated recyclers and post-collection recovery facilities to increase their recovery of recyclables from the C&D waste stream.	Staffing	2002-03 M+S Budget	2003-04 M+S Budget	2004-05 M+S Budget
1. Continue to monitor the progress of existing incentive programs such as the Metro System Fee Credit Program	C&D Work Group	-0-	-0-	-0-
B. Implement three-year communication and marketing program that supports recycling				
1. As part of the C&D partnership project described in Track 1, motivate the C&D industry to plan for and take part in source separated recycling programs	Contractor with oversight by C&D Work Group	Year 1 Cost included in item 1.A.	Year 2 Cost included in item 1.A.	Year 3 Cost included in item 1.A.
C. Implement the strategy recommendations of the Contingency Work Group.				
1. With direction from Regulatory Affairs staff, C&D Work Group will develop the RSWMP policy, objectives and language, as well as regulatory tools, program SOP's, rules and monitoring methods to require that all eligible mixed C&D loads are processed before disposal. •	SW&R staff, C&D Work Group	-0-	-0-	-0-
2. Implement C&D Processing requirement rules by July 1, 2004 • Assist SW&R Regulatory Affairs staff, with the implementation of the ordinance at affected facilities.	C&D Work Group	-0-	-0-	-0-
TOTAL (TRACK 2)		-0-	-0-	-0-

TRACK 3: MARKET DEVELOPMENT

Assist in the development of markets that support the recycling and salvage of building materials

A. Assist in the development of the local infrastructure for the used building material industry.	Staffing	2002-03 M+S Budget	2003-04 M+S Budget	2004-05 M+S Budget
1. Develop markets for used commercial building materials <ul style="list-style-type: none"> Evaluate what is needed to build this market, code changes, infrastructure, education or promote existing venues for the exchange or resale of commercial building materials 	Contractor with oversight by C&D Work Group	-0-	\$25,000	\$5,000
2. Promote building with used commercial building materials <ul style="list-style-type: none"> Work with building industry and building code officials to create awareness and approved practices for building with used commercial building materials. 	Contractor with oversight by C&D Work Group	-0-		\$25,000
3. Soliciting proposals for grant funding to develop the used building material salvage, transport and retail infrastructure.	C&D Work Group		\$100,000	\$100,000
TOTAL (TRACK 3)		-0-	\$125,000	\$130,000

TOTALS		2002-03 M+S Budget	2003-04 M+S Budget	2004-05 M+S Budget
TRACK 1		\$104,000	\$87,000	\$130,000
TRACK 2		-0-	-0-	-0-
TRACK 3		-0-	\$125,000	\$130,000
GRAND TOTAL		\$104,000	\$212,000	\$260,000

Metro Regional Organics Work Plan 2002-2005
December 2003

Overview

According to the revised Regional Solid Waste Management Plan recovery rates, the region must recover 55,000 tons of organic waste from the commercial sector and 35,000 tons from the residential sector in order to meet its established goals. This plan, cooperatively developed by the Regional Organics Work Team comprised of Metro, DEQ and local government staff, is designed to guide the region in the direction of increased recovery while adhering to the solid waste hierarchy of reduce, reuse, recycle, recover, compost, landfill.

This plan takes a two-track approach to organic waste management. The first track emphasizes waste prevention, donation and diversion. This is considered to be a least-cost approach as preventing the generation of the material in the first place removes the need to manage it as a waste product. Donation is the highest end-use of food that is produced, and an established system to collect and redistribute donated food exists in the region. Additionally, track 1 programs can be implemented in a relatively rapid fashion due to existing infrastructure and the fact that outreach materials may be produced quickly. Emphasizing food donation also helps to address the problems of hunger in the region and the state. Oregon ranks highest in the nation for the incidence of hunger and sixth for food insecurity. In 2000, 650,000 Oregonians ate meals from emergency food boxes at least once during the year. While the food donation infrastructure does exist, continued assistance and support is necessary to enhance capacity to accommodate a new and increased flow of material and to increase the amount of perishable foods donated.

The plan's second track focuses on implementation of a collection and processing system to recover organic waste that cannot be diverted to higher-end uses. The development of permanent organic waste collection and processing systems to serve the region is the emphasis for the next three years of the Organics Plan. Every effort will be made to utilize existing infrastructure and tailor generator and collection programs to fit within existing operations and regulatory systems. In order for the region to reach its recovery goals, organic waste collection and processing must be implemented. However, the development of permanent collection and processing facilities will remain contingent upon economic and environmental feasibility.

A series of outreach efforts including barrier and benefit identification and increased outreach to encourage the donation of edible food will be implemented. Upon the development of permanent collection and processing capabilities, an intensive education program for businesses to properly separate and prepare organic waste for collection and processing will be undertaken in cooperation with the region's local governments. The provision of funds to support the acquisition of appropriate food waste collection containers and equipment will be revisited contingent upon processing system development.

The following draft plan provides the details and the accompanying resources needed for the implementation of the next phase of the regional organic waste management plan. During this second phase, the team has chosen to continue to target large organics-rich businesses and industries and to begin to examine residential programs. These targeted businesses are:

- Large retail grocery stores
- Large restaurants
- Hotels
- Institutional cafeterias*
- Produce wholesale warehouses

(*Institutional cafeterias include food service operations in schools and universities, hospitals, large office buildings, corporate campuses, prisons, etc.)

If commercial collections prove successful, the Organics Team will examine the development and implementation of residential food waste diversion programs.

TRACK 1: WASTE PREVENTION, DONATION AND DIVERSION

Continue and intensify focused outreach and education programs for targeted food-intensive businesses to increase waste prevention, donation and diversion practices.

A. Waste Prevention	FTE	2002-03 Budget	2003-04 Budget	2004-05 Budget
1. Research, development, assessment <ul style="list-style-type: none"> ▪ Identify the barriers to increased waste prevention practices in businesses. ▪ Develop examples of industry practices that encourage waste prevention. ▪ Implement barrier reduction program. 	Contractor		<i>Combined with donation barrier study (Task B. 3.)</i>	<i>Combined with donation barrier study (Task B. 3.)</i>
<ul style="list-style-type: none"> ▪ Assess the progress of the first three years of the organics program implementation. 	Contractor			
<ul style="list-style-type: none"> ▪ Provide funding to DEQ for a second year of specific food waste disposal data as part of the state-wide waste characterization study. Focus on detailed residential food waste characterization as well as success of commercial program implementation. 	DEQ		*	*
<ul style="list-style-type: none"> ▪ Continue partnerships with industry associations to create suitable and effective outreach messages, appropriate outreach methods, and to lend credence to the program (seek out sponsorships or endorsements.) 	Team			
2. Grants for waste prevention programs <ul style="list-style-type: none"> ▪ Grants will provide the means to enable implementation of model waste prevention practices at food businesses (e.g., offer vs. serve, less-wasteful display methods, reusable shipping containers, etc.) 	Team		Canceled/ funds diverted	
3. Continue focused outreach and education on waste prevention coupled with on-site assistance <ul style="list-style-type: none"> ▪ Utilize research results and existing materials currently in use in the region to tailor specific materials for production. ▪ Continue regular presentations a the Western Culinary Institute. ▪ Develop new partnerships to enhance outreach scope and effectiveness. ▪ Coordinate with waste evaluators for outreach methods. ▪ Identify barriers to waste prevention utilizing CBSM. 	McGuire			
SUB-TOTAL (Section A)				0

*Funding for these additional samples are included in a separate area of the Waste Reduction Division's 2003-04 budget.

B. Donation	FTE	2002-03 Budget	2003-04 Budget	2004-05 Budget
1. Enhance donation infrastructure and build capacity <ul style="list-style-type: none"> ▪ Continue grant program to provide funding, property or equipment to qualifying charitable organizations to increase their capability to collect, receive, store, process and distribute perishable foods. 	Team	\$200,000 ‡	\$52,294 (Fresh Alliance)	
<ul style="list-style-type: none"> ▪ Examine the need for additional infrastructure improvements such as the development and coordination of an efficient, centralized transportation and distribution system for food collected. Work to develop a tracking database and logistics system. 	McGuire Food Rescue Agencies		<i>research</i>	
<ul style="list-style-type: none"> ▪ Assist food rescue agencies in the development and implementation of partnerships for the long-term preservation, processing, packaging and storage of large quantities of fresh foods. ▪ Gap grants to provide necessary equipment to enable storage capabilities. 	Team, Erickson, McGuire			
2. Create network (organics team members, businesses and food rescue agencies) to assess outreach and coordinate messages, identify areas of further coordination and Metro's role in the edible food recovery system (coordinate with Council of Food Industry Presidents, Chefs' Collaborative and other existing groups).	McGuire, Erickson, Team			
3. Research and development: Identify the barriers and benefits to food donation <ul style="list-style-type: none"> ▪ Rigorous study/survey to identify true barriers, convene focus groups within food industry, develop barrier reduction strategies and pilot them. 	Contractor, McGuire	\$40,000	<i>Implement outreach \$20,000</i>	<i>Assess</i>
4. Education and outreach: based on the findings of barrier identification research, educate targeted businesses about all aspects of food donation in coordination with charitable agencies (utilize Community-Based Social Marketing principles). <ul style="list-style-type: none"> ▪ Develop stronger and more effective outreach methods and messages. ▪ Develop strategies to make donation the first choice over composting or disposal (make donation the rule rather than the exception). ▪ Broad media campaign for food donation message during FY 2003-04. 	Team, Media Consultant, Food Rescue Agencies, McGuire	\$5,000	\$10,000 combined with outreach program listed above	
<ul style="list-style-type: none"> ▪ Work with agencies to refine message regarding Good Samaritan Laws, liability issues, "myths and realities" of food donation. ▪ Work with DEQ and other associations (such as AOR) to develop alternative vehicles for information dissemination regarding food donation and liability throughout the state to enhance knowledge. 	McGuire, Erickson			
<ul style="list-style-type: none"> ▪ Update and print educational materials as needed. 	McGuire	\$3,000	\$10,000	\$5,000

5. Community involvement: provide support and assistance to organizations and associations involved in developing sustainable food systems in the region. <ul style="list-style-type: none"> ▪ Actively participate in Community Food Matters forums and committee meetings. ▪ Continue membership and active involvement with the development and implementation of the City of Portland/Multnomah County Food Policy Council. ▪ Connect and coordinate with local Chefs' Collaborative members. 	Erickson, McGuire				
SUB-TOTAL (Section B)			\$243,000	\$92,294	\$5,000

‡Up to \$100,000 in additional funds may be available in FY 2002-03 from un-spent infrastructure development grant funds.

C. Diversion	FTE	2002-03 Budget	2003-04 Budget	2004-05 Budget
1. Continue to monitor and assess the potential for diversion of food waste to animal feed markets in light of new federal and state regulations for the feeding of food wastes to cattle and hogs. <ul style="list-style-type: none"> ▪ Feed Commodities, Inc. ▪ Threemile Canyon Dairy 	McGuire, Erickson			
SUB-TOTAL (Section C.)		0	0	0
TOTAL (Track 1)		\$283,000	\$92,294	\$5,000

<u>TRACK 2: ORGANIC WASTE COLLECTION AND PROCESSING INFRASTRUCTURE DEVELOPMENT</u>				
Assist with the development of a range of collection and processing options using existing infrastructure to the greatest extent possible.				
A. Generator Programs	FTE	2002-03 Budget	2003-04 Budget	2004-05 Budget
1. Develop specific educational materials focused on generator types, geographic area, hauler equipment, and end-use of materials collected. <ul style="list-style-type: none"> ▪ Focus outreach and education on commercial collection programs (barrier identification). ▪ Provide on-site assistance to generators implementing separation and collection programs. ▪ Provide generators with a menu of alternative management options (e.g., link to local farmers) 	Team, McGuire, Erickson		\$4,000 <i>(Design and print)</i>	\$5,000

SUB-TOTAL (Section A.)			\$4,000	\$5,000	
B. Development of Collection Infrastructure		FTE	2002-03 Budget	2003-04 Budget	2004-05 Budget
1. Work with area haulers and businesses to determine feasible organics collection routes throughout the region. <ul style="list-style-type: none"> ▪ Research hauler willingness/potential to develop collection cooperatives. ▪ Provide GIS services to haulers to help plot and study potential collection routes. 		LGs, Team, Metro DRC			
2. Develop grant program to assist with the development of the organic waste collection system. <ul style="list-style-type: none"> ▪ Work with haulers to determine equipment needs, collection schedules and assistance required to implement routes. ▪ Provide funds to local governments or directly to haulers to share in the costs of system implementation (collection containers, truck modifications, educational materials, etc.) 		Team, Erickson, McGuire	\$30,000 <i>(LG pass-through)</i>		\$350,000
3. Assist with implementation of organic waste collection programs. <ul style="list-style-type: none"> ▪ Develop and provide appropriate outreach and educational materials and services. ▪ Provide staff assistance for program roll out, education, on-site assistance/orientation. ▪ Review state and local rules and regulations for commercial solid waste collection frequency to ensure incentives for separation of organics exists. Recommend policy and rule changes to state and local regulators where appropriate. 		Team, McGuire, Erickson		\$15,000	\$10,000
4. Residential food waste management program development.* <ul style="list-style-type: none"> ▪ Research approaches to residential food waste management used throughout the US ▪ Identify barriers to residential food waste prevention management (survey).* ▪ Test strategies to increase residential prevention and management of food waste. ▪ Promote at-home management of food waste via waste prevention, home composting, sale of worm bins at compost bin sales. 		Consultant, Team, McGuire, Erickson		\$20,000 <i>assess macro-level impacts of a collection program</i>	
<ul style="list-style-type: none"> ▪ Develop plan for implementation of residential collection of organic wastes if processing capacity available and economics are favorable. 		Team McGuire		<i>plan development</i>	
<ul style="list-style-type: none"> ▪ Implement large-scale pilot projects and determine true costs of program implementation.** 		Team			
SUB-TOTAL (Section B.)			\$30,000	\$35,000	\$360,000

*Barrier identification will also include food waste collection program barriers as well as prevention and at-home management of food wastes.

**Residential pilots include testing the effectiveness of distribution of home worm bins, education and outreach on home composting of food waste with yard debris, and food waste prevention education.

C. Utilization and Enhancement of Existing Infrastructure for Delivery and Processing of Organic Wastes	FTE	2002-03 Budget	2003-04 Budget	2004-05 Budget
1. Build local infrastructure by working closely with facilities throughout the region to research potential and assist with the implementation of organics reload and transfer. <ul style="list-style-type: none"> ▪ Work with facility operators, local officials, etc. to research and determine feasibility and likelihood of varied degrees of delivery and reload of organics on a case-by-case basis. ▪ Provide organics reload services at Metro transfer stations and other appropriate regional facilities. 	Team Erickson		\$700,000	
2. Processing facility development assistance. <ul style="list-style-type: none"> ▪ Continue to support and assist the City of Portland with the development of an all food waste processing facility. ▪ Provide financial and legal assistance with siting, permitting and land use issues. ▪ Coordinate and consult with local government land use planners to identify the barriers and opportunities, foster understanding, and develop cooperative relationships regarding food waste processing facilities. ▪ Develop a system that will streamline permitting and approval system for applicants. 	Team LU attorney			
3. Processing infrastructure development grants. <ul style="list-style-type: none"> ▪ Continue to administer existing grants. ▪ Continue to offer matching grant funds to yard debris facilities to assist with upgrades to accommodate food wastes. 	Team Erickson	\$320,000		
4. Consider the use of a short-term subsidy to support organics collection and processing until more economically viable local options are developed.	Team			
SUB-TOTAL (Section C.)		\$320,000	\$700,000	0
TOTAL (Track 2)		\$350,000	\$739,000	0

	FY 2002-03	FY 2003-04	FY 2004-05
Subtotal Section A	\$40,000	\$0	0
Subtotal Section B	\$243,000	\$92,294	\$5,000
Subtotal Section C	0	0	0
TOTAL TRACK 1	\$283,000	\$92,294	\$5,000
Subtotal Section A	0	\$4,000	\$5,000
Subtotal Section B	\$30,000	\$35,000	\$360,000
Subtotal Section C	\$320,000	\$700,000	0
TOTAL TRACK 2	\$350,000	\$739,000	\$365,000
SUB-TOTAL (Tracks 1 and 2)	\$633,000	\$831,294	\$370,000
Less Currently Budgeted Funds	\$633,000	\$700,000	0
GRAND TOTAL New Funds Needed	0	\$131,294	\$370,000

Other consideration:

Track 1:

- Peer education, publish case studies and newsletters, etc.
- Have businesses call peers to encourage donation.

Track 2:

- Identify potential generators who may benefit from on-site processing options.
- Consider public/private purchase and development of processing facilities if existing infrastructure proves unsuitable/insufficient.

DRAFT February 6, 2004

STAFF REPORT

IN CONSIDERATION OF RESOLUTION NO. 04-3442, FOR THE PURPOSE OF APPROVING THE YEAR 15 PARTNERSHIP PLAN FOR WASTE REDUCTION (FISCAL YEAR 2004-05)

Date: February 3, 2004

Prepared by: Jennifer Erickson

BACKGROUND

Each year since 1990, Metro staff and local government staff have prepared a work plan for the region's waste reduction activities in the upcoming fiscal year. The plan is designed to provide a regional framework for programs that lend continuity throughout the region, as well as to partner in our efforts to meet state requirements and work toward reaching regional goals.

The plan for the 2004-05 fiscal year is the fifth year of a revised format plan developed in response to lower-than-anticipated recovery rates in the region. The Year 15 Partnership Plan is the third year in which a measurement system designed to assess both the accountability and the effectiveness of program elements has been incorporated. The completed assessment for the 2002-03 fiscal year (Year 13) is included with this staff report as Attachment "A".

The plan includes three program areas: maintenance, targeted competitive grants, and initiatives in commercial, construction and demolition debris, and organics recovery.

- *Maintenance* provides baseline support (on a per capita basis) for the foundation of regional recycling through a joint work plan and funding for established local and regional waste reduction and recycling programs.
- *Targeted competitive grants* supplement maintenance funding by helping local governments target Regional Solid Waste Management Plan practices that are not addressed elsewhere and for which other sources of funding are not available, especially for "lagging" waste sectors. Local governments provide matching funds. The area of focus for Year 15 is multifamily recycling programs.
- *New initiatives in waste reduction* for the commercial, construction and demolition debris, and organics sectors will receive increased focus. The State-of-the-Plan Report found that significant amounts of recoverable materials are present in those sectors and that recovery in these sectors was lagging. Three work groups, one group for each sector, and comprised of Metro and local government staff, developed separate work plans for three fiscal years beginning in 1999-2000 and have developed a subsequent three-year plan, beginning in 2002-03. Fiscal Year 2004-05 will be the third year of these three-year plans.

Solid Waste Advisory Committee (SWAC) Review: The plan has been to SWAC for review, comment and approval and received its unanimous endorsement without amendments on [April 19?], 2004.

ANALYSIS/INFORMATION

1. Known Opposition

There is no known opposition.

2. Legal Antecedents

ORS 459A "Opportunity to Recycle Act" requires "that the city, county or metropolitan service district responsible for solid waste management" provide recycling services, public education programs, and 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 (a functional plan) adopted by Council via Ordinance 95-624, "For the Purpose of Adopting the Regional Solid Waste Management Plan." The Partnership Plan, adopted by resolution annually, is one of the implementation tools developed to fulfill the recommended practices of the Regional Solid Waste Management Plan.

3. Anticipated Effects

This resolution will approve the format and framework for the Annual Partnership Plan for Waste Reduction between local governments and Metro. This enables local jurisdictions to complete their portion of the plan and for Metro and local jurisdictions to begin the annual waste reduction program implementation process.

4. Budget Impacts

A total of \$1,522,271 has been proposed in the FY 2003-04 draft budget for the three parts of this program:

\$649,271 for maintenance programs

\$210,000 for the Targeted Competitive Grants

\$663,000 for the Waste Reduction Initiatives*

(*An additional \$1,707,000 in funding has been proposed in add packages to the draft 2004-05 budget.)

RECOMMENDED ACTION

The Chief Operating Officer recommends approval of Resolution No. 04-3442.

Year 13 Performance Measures Assessment Report
(Fiscal Year 2002-03)

March 2004

Introduction

The purpose of the report is to evaluate the progress of the Annual Waste Reduction Program (AWRP) for Metro and local governments. Each of the three sections in the plan has an independent progress measurement and reporting scenario tied to the specific tasks involved. At the end of the fiscal year, progress reports for each section are produced independently. These reports, combined with other important measures such as the State of the Regional Solid Waste Management Plan Report (RSWMP) and the Annual DEQ Recycling and Recovery Report, are brought together to assess regional waste reduction and recycling progress.

In 2002, the Metro region had a 54% recovery rate as reported by the Oregon Department of Environmental Quality. This reflects 6% credits from waste prevention, reuse and composting programs and a calculated 48% recovery rate from recycling and composting collection activities. Progress toward the region's goals faltered in 2002, with a drop in the regional recovery rate of one percentage point, from 55%, in 2001. (The most recent full year of recovery data available from DEQ is 2002.)

Based on 2002 data, an additional 290,000 tons must be recovered in 2005 to meet the 62% recovery goal given the projected waste generation for that year. Of the total new tons of recovery needed, about 70%, or 201,000 tons, are expected to come from initiatives in the commercial, construction & demolition and organics sectors. The remaining recovery to meet the 2005 goal is anticipated to come from curbside recycling collection programs and current bottle bill efforts.

Background

Since 1990, Metro and its local government partners have developed cooperative plans to implement the region's waste reduction and recycling programs. The AWRP for Fiscal Year 2002-03 (known as Year 13 in Annual Waste Reduction Plan parlance) brings together three integral pieces of the region's waste reduction and recycling system: New and focused efforts to recover more from the commercial, construction/demolition debris (C&D) and organics sectors; continuation of competitive grants for innovative waste reduction programs; and the maintenance of programs that form the foundation of the region's recycling infrastructure.

The long-term goal of the AWRP is to reduce the amount of materials generated and disposed in the Metro watershed. Secondary goals include:

- Developing and implementing new, focused waste prevention and recycling programs aimed at the largest remaining waste substreams.
- Targeting special waste prevention and recycling areas for increased attention.
- Maintaining and increasing existing Metro and local government waste prevention and recycling programs.

Program effectiveness is measured by increased regional recovery in total and by RSWMP recommended practice (total tons and per capita tons recovered and disposed). Data used to determine effectiveness are derived from DEQ recovery and disposal data and the DEQ waste composition study.

Progress Overview

In 2002, the region's solid waste prevention and recovery rate grew to approximately 54% — one of the highest recovery rates in the nation — and the combined Metro and local government waste reduction programs have played a pivotal role in achieving that success to date. This achievement, however, is diminished somewhat by the fact that the annual prevention and recovery rate for the region decreased by 1% in 2002 from 2001. Prevention and recovery efforts were affected by weak economic conditions, low energy prices relative to 2001, loss of markets (wood) and undercapitalized processors that went out of business (roofing and wallboard).

Program-specific Highlights

The success or progress of the Annual Waste Reduction Program is measured by looking at two aspects of program performance: accountability and effectiveness. In other words, whether a program's work elements are being undertaken and completed and whether the outcome of those work elements reflects the desired outcome.

Foundation/Maintenance Support Grant Program

Per-capita grants have successfully helped local jurisdictions implement waste prevention and recycling activities within their jurisdictions, provide regular outreach to citizens and businesses, maintain waste reduction progress to date, and participate in regional waste reduction work groups.

For the region to reach its 62% recovery goal by 2005, curbside recycling collection programs need to recover 255,000 tons, an increase of 57,000 tons over the 2000 baseline. Program recovery data from Oregon Department of Environmental Quality allow Metro to track progress toward this goal.

Local governments provide a variety of information to Metro Waste Reduction staff in annual plans and annual reports. In addition to a full range of waste prevention and recycling activities, local governments provide specific outreach efforts, participate in

one or more regional waste reduction planning groups and submit solid waste and recycling budget information.

Targeted Competitive Grant Program

Due to the wide variety of projects undertaken, it is difficult to assess the grants with an overall measurement. Each grant is evaluated based on program criteria and individual performance goals established by the grant applicant. A complete report of the grants is provided in Appendix B. Some highlights of the 2002-03 grants are as follows:

- City of Gresham and Portland State University undertook an intensive program to improve recycling at 27 selected underperforming multi-family complexes. Twenty-five complexes were provided with recycling services and intensive outreach and educational materials (93% success rate).
- Clackamas County held two electronics collection events that recovered 893 monitors and 28,214 pounds of other electronic components delivered by 373 participants.
- The cities of Portland and Beaverton developed a Green Tenant Improvement Guide to increase recycling, waste reduction and use of green building techniques in commercial renovations.
- City of Portland tested four pilot strategies to increase recycling commercial recycling participation from 101 businesses located in a low-participation area on Martin Luther King, Jr. Boulevard. Nearly 13% of businesses in the program increased their recycling service, with the strategy of a mailer followed by a phone call yielding the highest response.
- City of Portland and Oregon Museum of Science and Industry implemented an on-site composting program with two worm bins and an education program. Using the two bins, OMSI is processing 600 pounds of food scraps per month.

The results of the projects will be summarized and presented at a quarterly meeting of the Local Government Recycling Coordinators to encourage adoption of successful programs. Targeted grants have been a useful tool for innovation, but their contribution to long-term waste prevention and recovery progress is uncertain.

Waste Reduction Initiatives

All three Waste Reduction Initiative work groups met or exceeded their *accountability* benchmark of completing 90% of their annual work plans for FY 2002-03.

Some highlights of the *effectiveness* measures from each initiative are listed below. Complete assessments for each initiative are included in the Appendix C.

- The **organics waste reduction initiative** has achieved its greatest success to date in the diversion of edible food waste to food rescue agencies and the region's hungry. In FY 02-03, local agencies recovered 16,558 tons of edible food, an increase of 3,151 tons from the previous fiscal year. Holiday party food donation mailers reached over 350,000 people via a direct mail card, website hits, and an Oregonian article and advertisements. The region is making frustratingly slow, but nevertheless

steady, progress in developing an all-food-waste composting facility to recover food waste unfit for human consumption.

- The **construction and demolition (C&D) waste reduction initiative** work group awarded two grants totaling \$100,000 to increase the capacity to handle used building materials, although actual payment was deferred to the FY 03-04 budget cycle. A phone survey of the largest deconstruction contractors and used building materials retailers saw sales of 7,339 tons of used building materials in 2003, up 34% from the previous year. The materials have an estimated value of \$5 million. Metro distributed 25,000 toolkits on C&D recycling opportunities in the region. A survey of contractors indicated strong awareness and participation levels in C&D recycling. In 2002, however, recycling levels for key C&D materials fell back after large jumps in 2001. The wood recovery rate of 72% remains one of the highest of all recovered materials. The falling recycling rates for gypsum wallboard (6%) and roofing (25%) may indicate infrastructure problems that need further review if the private sector does not respond.
- The **commercial waste reduction initiative** work group has increased waste prevention practices for recycled-content copy paper and duplexing at about one-third of the 400 businesses that received waste evaluations in these areas by the end of 2003. The improvement was based on follow-up visits completed at more than 100 businesses. Implementation of recycling recommendations for office paper and other scrap paper had a success rate of about 70%. Commercial recovery tonnage increased to 586,000 tons in 2002, an increase of 3,000 tons over 2001. A major outreach to promote commingled office paper recycling through provision of free deskside paper recycling collection boxes to businesses kicked off in June 2003 via billboard, radio spots and electronic newsletter distribution. (The campaign will continue through the end of December 2003.)

Appendices

- Foundation/Maintenance Support Grant Program Performance Measurement
- Targeted Competitive Grant Program Performance Measurement
- Waste Reduction Initiatives Performance Measurement (Organics, Construction & Demolition, and Commercial)
- Data Tables:
 - Table 1 -- Progress Toward Revised RSWMP System Benchmarks in 2005
 - Table 2 – Progress in Meeting RSWMP Diversion Targets in 2005
 - Table 3 – Metro Recovery and Disposal 1995-2002, in Tons
- Tons of New Recovery Needed to Meet 56% Goal for 2005

APPENDIX A

FOUNDATION/MAINTENANCE SUPPORT GRANT PROGRAM PERFORMANCE MEASUREMENT

Prepared by Steve Apotheker

Objectives

- To maintain and increase recovery through existing local government waste reduction and recycling programs.
- To provide an incentive for local governments to participate in regional waste reduction planning activities (Solid Waste Advisory Committee, Local Government Recycling Coordinator group, Organics Waste Reduction Initiative Work Group, Commercial Waste Reduction Initiative Group, Construction & Demolition Work Group).
- To continue to ensure the region is meeting (and exceeding) required state program elements for waste reduction and recycling programs.

Measurement (accountability)

- Local governments will identify and undertake a specific curbside recycling outreach activity for an existing local government program.
- Local government representatives will participate in at least one regional waste reduction planning group (larger jurisdictions will tend to participate in more than one group).
- Local governments will provide jurisdictional solid waste and recycling budget information.

Measurement (effectiveness)

- Maintain or increase curbside recycling recovery for the region (total tons recovered and disposed)

EFFECTIVENESS

Between 1998 and 2002, curbside recycling collection in the Metro region increased in total recovered tons and recovery rate using data supplied by the Oregon Department of Environmental Quality (See Curbside Recycling in the Metro Region table). The curbside recycling rate in 2002 of 41.6% is up from 39.7% in 1998.

The curbside recycling rate would increase to about 50% if the 70,000 tons of diversion from home composting and the Bottle Bill were included in the calculation. In states without bottles bills, soft drink and beer containers that are easily recyclable contribute about two to three percentage points to a curbside recovery rate, but in Oregon the majority of these containers are redeemed at grocery stores via the Bottle Bill. Unlike other states, however, Oregon does provide a “credit” for home composting, which is included in the wasteshed’s recovery rate. In 2002, the Metro wasteshed earned the full 2% credit for home composting.

A better representation of the level of success of curbside recycling is to look at just the recovery of those recyclable items that the public could set out, often called the capture rate. In 2002, curbside recycling had a capture rate of 71%, which is the product of 90% household participation (from regional surveys) and a sorting effectiveness of almost 80% for materials eligible to be set out for

recycling. About 30% of curbside garbage is recyclable material disposed by the 10% of non-participating households and by the participating households that did not recycle all the materials that they could. Three common curbside recyclables with lower capture rates are mixed scrap paper, plastic bottles generated outside the kitchen and scrap metal.

Although residential curbside collection programs operate at a very high level of participation and there has been progress over the 1998-2002 four-year period, the data for 2000 suggest program recovery peaked that year before falling off over the next two years. The regional recovery rate for 2000 of 47% represents a seven percentage-point jump from 1998. This peak in 2000 curbside recovery coincided with the first full year of commingled collection of recyclables. Several factors may have contributed to the high recovery in 2000, including:

- Rollout of commingling was accompanied by a greater outreach effort in the region, including a month-long media campaign by Metro and local governments.
- Manual sorting of commingled residential recyclables had a lower material loss compared to automated screen separation systems that have been implemented in 2001-2003.
- Possible reporting errors by haulers to DEQ in 2000 may have overstated recovery attributed to the curbside program that should have gone to commercial recycling. (City of Portland hauler recycling collection data showed an increase in 2000, but not the same magnitude of increase as DEQ data.

In FY 2002-03, the frequency of outreach efforts to households by local governments has been generally commensurate with previous years, with the focus on how to communicate to the public information on commingled material preparation and sorting into curbside bins. On average, local governments are providing households with two written communications each year on curbside material preparation. DEQ administrative rules state that households should receive annually four written communications or effective alternatives (e.g., media campaign).

If 2003 recovery from curbside recycling does not indicate an increase in tonnage over 2002, Metro and local governments may wish to examine various alternatives to increase curbside recovery. Some of these alternatives might include:

- Mailing information on material preparation and sorting to household more frequently, i.e., three or four times a year.
- Conduct a regionwide media campaign coordinated by Metro.
- Distribute roll carts or additional curbside bins to household for more recycling storage capacity.
- Target outreach to new household accounts as identified by haulers.
- Target special materials and outreach efforts to non-English speaking households.
- Target outreach to low-participation areas.

Based on anticipated growth in the waste stream, to meet our regional goal of 62% in 2005, the projected contribution from curbside recycling collection is 255,000 tons (see Appendix D, Table 1); the region is at 179,000 in 2002. The Metro wasteshed cannot reach its 2005 recovery goal by increases in curbside recovery alone; additional and substantial recovery is needed from the organics, C&D and commercial sectors – 43,000 tons, 56,000 tons and 102,000 tons, respectively.

Curbside Recycling in the Metro Region 1998-2002 (1)

<u>Curbside Recycling</u>	<u>1998</u>	<u>2000 (2)</u>	<u>2002</u>
Recycling, tons	160,669	198,701	178,916
Recycling rate	39.7%	46.9%	41.6%
Capture rate	67.5%	73.8%	70.6%

(1) Garbage and recyclables, including yard trimmings, set out at the curb.

(2) Curbside recycling in this analysis does not include tonnage for wood and roofing as reported by DEQ.

ACCOUNTABILITY

Jurisdiction	Curbside Outreach Activity	Work Group Participation	Total Solid Waste & Recycling Budget (Metro share)
Beaverton	<ul style="list-style-type: none"> ▪ <i>Your City</i> newsletter featured recycling in a 16-page Spring 2003 issue sent to all 45,000 households and businesses. 	<ul style="list-style-type: none"> ▪ Local Government Recycling Coordinators ▪ Commercial Work Group ▪ C&D Work Group ▪ Organics Work Group 	<p>\$137,088 (24%)</p>

Jurisdiction	Curbside Outreach Activity	Work Group Participation	Solid Waste & Recycling Budget
Clackamas County*	<ul style="list-style-type: none"> ▪ <i>Trash Talk</i> mailer sent to all 159,000 residential households in Fall 2002 and Spring 2003. ▪ Recycle Prep Brochures customized for franchised haulers to provide to households. 	<ul style="list-style-type: none"> ▪ Local Government Recycling Coordinators ▪ Organics Work Group ▪ Commercial Work Group ▪ C&D Work Group ▪ Solid Waste Advisory Committee 	<p>\$1,372,495 (9%)</p>
Fairview	<ul style="list-style-type: none"> ▪ Waste prevention and recycling information included in rate mailing to all households in September 2002. ▪ Information on recycling included in six City of Fairview newsletters mailed to all residents. 	<ul style="list-style-type: none"> ▪ Local Government Recycling Coordinators ▪ Commercial Work Group 	<p>\$11,470 (30%)</p>

Gresham**	<ul style="list-style-type: none"> ▪ <i>News to Reuse</i> contained recycling information in mailing to all residents in Gresham and Wood Village in November 2002 and April 2003. ▪ Wood Village provided recycling information to its residents in six editions of its <i>Wood Village Newsletter</i>. 	<ul style="list-style-type: none"> ▪ Local Government Recycling Coordinators ▪ Organics Work Group ▪ Commercial Work Group ▪ C&D Work Group ▪ Solid Waste Advisory Committee 	<p>\$410,274 (10%)</p>
Milwaukie	<ul style="list-style-type: none"> ▪ <i>Trash Talk</i> distributed to all residents in October and April. 	<ul style="list-style-type: none"> ▪ Local Government Recycling Coordinators ▪ C&D Work Group 	<p>\$51,535 (17%)</p>
Portland	<ul style="list-style-type: none"> ▪ <i>Curbsider</i> distributed to all 132,000 households in December 2002. The June 2003 issue was delayed until July 2003. ▪ Yard debris calendar distributed to all households in March 2003 contains recycling and yard debris information. ▪ Outreach program to non-English speaking residents. 	<ul style="list-style-type: none"> ▪ Local Government Recycling Coordinators ▪ Commercial Work Group ▪ Organics Work Group ▪ C&D Work Group ▪ Solid Waste Advisory Committee 	<p>\$3,571,428 (7%)</p>

Jurisdiction	Curbside Outreach Activity	Work Group Participation	Solid Waste & Recycling Budget
Troutdale	<ul style="list-style-type: none"> ▪ Fall rate mailing to all residents contains recycling information. ▪ <i>The Troutdale Spring Recycler</i> goes to all residents with information on recycling, waste prevention and buy recycled. ▪ <i>The Troutdale Champion</i> city newsletter is mailed six times per year to all residents and includes waste reduction information. 	<ul style="list-style-type: none"> ▪ Local Government Recycling Coordinators ▪ C&D Work Group 	\$40,000 (15%)
Washington County ***	<ul style="list-style-type: none"> ▪ <i>The WasteLine</i> newsletter with recycling preparation information mailed to all residents in November 2002. [Normally, the newsletter is mailed twice a year, but due to management and staffing turnover the spring newsletter was not mailed.] 	<ul style="list-style-type: none"> ▪ Local Government Recycling Coordinators ▪ Commercial Work Group ▪ Organics Work Group ▪ C&D Work Group ▪ Solid Waste Advisory Committee 	\$942,337 (18%)

*Within the county urban services boundary and cities of Oregon City, Gladstone, West Linn, Sandy, Molalla, Happy Valley and Lake Oswego.

**Includes the City of Wood Village.

*** Within the county urban services boundary and the cities of Hillsboro, Tigard, Tualatin, Forest Grove, Cornelius, Wilsonville, Sherwood, King City, North Plains, Durham and Banks.

APPENDIX B

TARGETED COMPETITIVE GRANT PROGRAM PERFORMANCE MEASUREMENT

Prepared by Jennifer Erickson

Background

The Regional Solid Waste Management Plan (RSWMP) and State of the Plan Report emphasize the need for comprehensive commercial, organics and C&D waste reduction and recycling programs for the region to reach its recovery goals. Outreach and education, waste prevention, recovery infrastructure improvements and the provision of appropriate collection services to these sectors are key elements in increasing recycling and recovery. The competitive grant program is designed to supplement the baseline funding available through the Annual Partnership Plan for Waste Reduction. These grants are intended to assist local jurisdictions and their partners in targeting the RSWMP waste reduction practices for which local governments are primarily responsible, and to look for creative methods for addressing solid waste issues. A total of \$185,000 was spent on this program in fiscal 2002-03.

Area of Focus

Each year, Metro specifies focus area(s) or target(s) for this competitive grant program based upon RSWMP needs and priorities. Applicants have the choice to either:

- 1) Submit a proposal in the focus area(s), or
- 2) Propose a project outside the focus area(s) and demonstrate that there is a true need for this approach, which is not being addressed through the Annual Waste Reduction Plan programs or other means. Alternative programs must also demonstrate that they contribute to meeting RSWMP goals.

The areas of focus for 2002-03 were waste reduction and recycling programs or initiatives that:

- 1) Bolster efforts in the organics, construction & demolition debris, and commercial sectors;
- 2) Are not otherwise funded or supported; and
- 3) Are innovative.

Eligibility Criteria and Reporting Requirements

This grant program is designed primarily for local governments, but is also open to school districts and non-governmental organizations partnered with local governments. Partnerships are strongly encouraged. Historically, the majority of the funds have gone to local governments and public school districts.

Applications must identify the specific practices of the Regional Solid Waste Management Plan to which the funds will be applied, must demonstrate clear benefits to the region and describe how project results would be transferable to other jurisdictions. Applicants are required to provide a 50% match to funds requested. This match may be dollars, in-kind services or a combination of both. Applicants are encouraged to cooperate or develop formal partnerships with nonprofit, volunteer agencies, business associations, chambers of commerce or other groups. In-kind matches may be provided in part by some or all partners. Applications are evaluated by Metro staff and greater weight is given to proposals that begin to move up the hierarchy from recycling to waste prevention.

Interim reports are due to Metro within 90 days of agreement execution and a final report is due 30 days after the completion of the project. Reports must demonstrate how the project has met the stated criteria and the impacts the project has had on the prevention, recycling and recovery of waste.

Applications and Awards

The following table illustrates the applicants, projects and funds awarded during the fiscal year 2002-03 grant cycle.

APPLICANT AND PARTNERS	PROJECT	AMOUNT REQUESTED	AMOUNT GRANTED
Gresham-Barlow Schools/Sodexo Corporation	Replace disposable dishware with permanent dishware.	\$6,000	\$6,000
City of Gresham/PSU	Increase waste diversion and recycling at selected multi-family complexes.	\$25,345	\$22,450
Clackamas County (Clackamas School District Foundation, Clackamas County Schools, AmeriCorps)	<ol style="list-style-type: none"> 1. Purchase large format scanner to reduce paper use during plan review process. 2. Sponsor AmeriCorps worker for school waste reduction assistance. 3. Computer/electronics collection event in partnership with Clackamas School District Foundation. 	\$44,600	\$33,000
Washington County*	Evaluate the feasibility of a C&D deposit system.	\$50,000	\$35,000
City of Portland (City of Beaverton, OMSI)	<ol style="list-style-type: none"> 1. Test low-participation commercial recycling outreach on Martin Luther King, Jr. Boulevard. 2. Undertake Green Building initiatives with City of Beaverton, focusing on tenant improvements. 3. Install on-site vermicomposting systems at OMSI. 	\$98,554	\$88,554
Portland Public Schools	Provide additional funding for the PPS food diversion program.	\$23,515	\$0
TOTAL		\$248,014	\$185,094

*Project canceled by request of Washington County on August 4, 2003.

Grant Program Results

The following tables provide data and information on the intent and actual results of the grant-funded programs for 2002-03.

GRESHAM-BARLOW SCHOOLS with Sodexo Corporation				
Cafeteria reusable dishware project				
Goals	Objectives	Activities	Measurement	Results
<ul style="list-style-type: none"> ▪ To reduce and prevent waste generated by school cafeterias and to practice waste prevention behaviors so that they become second nature to students. 	<ul style="list-style-type: none"> ▪ Replace disposable plates, bowls and cutlery at two established high schools. ▪ Place reusable products in the cafeterias of two newly constructed schools. ▪ Educate students, staff and cafeteria employees about waste prevention. ▪ Provide a model replacement program that may be emulated by other school districts. 	<ul style="list-style-type: none"> ▪ Purchase reusable products, develop plan to introduce products into school operations, train cafeteria employees. ▪ Educate students about waste prevention activities. ▪ Purchase permanent signage and specially designed to prevent the loss of reusables. ▪ Implement student incentives to reduce the loss of reusables. 	<ul style="list-style-type: none"> ▪ Estimate the quantity of avoided disposal. ▪ Track changes in garbage collection service. ▪ Inventory reusable dishware monthly to determine loss and breakage. ▪ Evaluate effects of cafeteria layout and implementation method on participation level and degree of success. 	<ul style="list-style-type: none"> ▪ Three of the four schools implemented reusables very successfully. ▪ One school measured a 25% reduction in cafeteria waste as compared to previous year (two other schools were new, so had no baselines). ▪ Other benefits included resource conservation lessons and avoided costs for purchase of disposables. ▪ Lessons learned included having an effective reusables retrieval system to reduce loss, and that cafeteria layout and eating schedules have a big impact on success.

CITY OF GRESHAM with Portland State University

Increase waste diversion and recycling at selected multi-family complexes

Goals	Objectives	Activities	Measurement	Results
<ul style="list-style-type: none"> ▪ Increase waste diversion from selected under-performing multifamily complexes. 	<ul style="list-style-type: none"> ▪ Continue and improve efforts to increase waste diversion efforts at selected properties. ▪ Provide continuing monitoring and followup to improve the likelihood of success. ▪ Ensure adequate recycling systems are in place. ▪ Educate residents about proper preparation of recyclables through printed materials and on-site training. ▪ Identify barriers to participation. ▪ Inventory the recycling systems in place across Gresham and Wood Village. 	<ul style="list-style-type: none"> ▪ Monitor and adjust recycling programs at 27 low-participation properties. ▪ Survey representative sample of tenants to identify knowledge levels and barriers to recycling participation. ▪ Conduct field observations of other complexes to determine the variety of collection systems in place. 	<ul style="list-style-type: none"> ▪ Track recycling program changes at each new complex. ▪ Document findings regarding contamination levels and quantity of recyclables in collection containers. ▪ Collect subjective evaluations from property managers and haulers. ▪ Document survey results on knowledge levels and barriers to recycling. ▪ Create a database that includes information for each property on type, quantity and placement of collection receptacles, as well as suggestions for improvements. 	<ul style="list-style-type: none"> ▪ Twenty-five of the 27 sites were brought to good standing with regard to recycling system placement, labeling and proper use. ▪ Sixty-one surveys were completed from tenants at the 27 sites: 52% said they could recycle more, 50% said they had received recycling information in the past, 85% could accurately name a few materials being collected. ▪ 349 multi-family complexes were visited and data were collected on recycling systems in place: 109 did not have adequate labeling, 55 were recycling 1 or fewer items, 63 are not easily accessible to all tenants. ▪ Recommendations include outreach to complexes with little recycling; standardized recycling sort systems to the greatest extent possible considering collectors' needs; outreach in English, Spanish and Russian; and clear and consistent system labeling.

CLACKAMAS COUNTY with Clackamas County Schools and Clackamas County School District Foundation

1. Purchase large format scanner to reduce paper use during plan review process

Goals	Objectives	Activities	Measurement	Results
<ul style="list-style-type: none"> ▪ Reduce the number of documents copies submitted to and circulated by the County permit offices. 	<ul style="list-style-type: none"> ▪ Create a system to scan and share large-format documents electronically between departments. ▪ Reduce the need for storage space for printed materials. 	<ul style="list-style-type: none"> ▪ Purchase a large format scanner/printer. ▪ Fund a temporary position to image documents submitted with building and development proposals and troubleshoot. 	<ul style="list-style-type: none"> ▪ Track reduction in pages submitted by applicant and tracking copies needed by staff. ▪ Track changes in storage space required. ▪ Evaluate problems encountered and solutions implemented. 	<ul style="list-style-type: none"> ▪ Scanner and computer system purchased. ▪ Some resistance was encountered by staff as there was a lack of understanding regarding the purpose. ▪ Contracted firm is developing an interface for the scanner and software used to track permit applications. ▪ Community Environment section has taken over responsibility for project management rather than the records section. ▪ Several design meetings held with affected staff and outside agencies. Staff training to begin in March 2004. ▪ All temporary and home occupation permit applications will be processed with this system; it will later be expanded. ▪ Outside agencies commenting on the plans are very positive about receiving and sending their comments electronically.

2. Sponsor AmeriCorps worker for school waste reduction assistance

Goals	Objectives	Activities	Measurement	Results
<ul style="list-style-type: none"> ▪ Implement waste reduction projects in elementary and middle schools. 	<ul style="list-style-type: none"> ▪ Implement in-vessel food composting project at one elementary school. ▪ Help schools become Green Schools-certified. ▪ Assist with waste reduction outreach at 150 county schools. 	<ul style="list-style-type: none"> ▪ Assist View Acres Elementary School with composting system education, installation, training, production of educational materials and signs, and troubleshooting. ▪ Provide 30 hours per week of waste reduction program assistance. 	<ul style="list-style-type: none"> ▪ Weigh pounds of food disposed before and after installation of composting unit. ▪ Measure amount of compost produced and used. ▪ Track number of school contacts, schools participating in programs, Oregon Green Schools, student/staff involvement. 	<ul style="list-style-type: none"> ▪ AmeriCorps member hired. ▪ In-vessel composting system installed and operating. ▪ Assiated schools in becoming Green Schools members.

3. Computer/electronics collection event in partnership with Clackamas School District Foundation

Goals	Objectives	Activities	Measurement	Results
<ul style="list-style-type: none"> ▪ Implement one electronics collection event. 	<ul style="list-style-type: none"> ▪ Collect usable computers for the North Clackamas School District Foundation fundraiser. ▪ Collect and properly dispose of or recycle non-usable computers. 	<ul style="list-style-type: none"> ▪ Schedule event where computers can be collected, screened for use by the Foundation, reused or refurbished by local organizations, recycle all possible, and safely dispose of the remainder. ▪ Provide educational materials to explain the hazardous components 	<ul style="list-style-type: none"> ▪ Track the number of electronic components collected, how many reused, how many recycled and how many disposed. ▪ Track the number of homes the equipment came from. ▪ Ask owners about collection options. ▪ Solicit feedback on the 	<ul style="list-style-type: none"> ▪ Two events were held (November 2002 and May 2003). ▪ Stations were set up to test computers for reuse potential. The remainder was recycled by Total Reclaim. ▪ November participants totaled 120, May event totaled 253. ▪ 427 monitors and 15,422 pounds of other components collected. ▪ 366 monitors and 12,782 pounds of components were recycled; the

of computers, how they are currently processed, and what is being done locally and nationally regarding producer responsibility.

\$10 collection fee charged.

- remainder were reused.
- Survey results indicated most people would have tried to find an alternative recycling option if event were not held but felt that manufacturers should be responsible for recycling.
- Attendees were fine with the fee being charged; only one complaint was received.

WASHINGTON COUNTY

Feasibility study for a C&D deposit system

Goals	Objectives	Activities	Measurement	Results
<ul style="list-style-type: none"> ▪ Create an incentive for C&D contractors and self-haulers to recycle construction waste. 	<ul style="list-style-type: none"> ▪ Determine feasibility of implementing a C&D deposit system in Washington County. 	<ul style="list-style-type: none"> ▪ Investigate feasibility of charging an advance recycling fee at time of project permit issue. ▪ Determine deposit fee to charge to provide sufficient incentive. ▪ Ensure that costs of recycling will be competitive with disposal. ▪ Analyze effects of deposit on building and housing industry. ▪ Determine the type of program that would elicit greatest participation rates. ▪ Examine impact of transporting materials to processing facilities. ▪ Analyze diversion levels at various deposit rates. 	<ul style="list-style-type: none"> ▪ Complete an analysis and framework developed for deposit system developed for Washington County. 	<ul style="list-style-type: none"> ▪ Project canceled by Washington County.

CITY OF PORTLAND with City Of Beaverton and Oregon Museum Of Science And Industry (OMSI)

1. Low-participation commercial recycling outreach on Martin Luther King, Jr. Boulevard

Goals	Objectives	Activities	Measurement	Results
<ul style="list-style-type: none"> ▪ Increase commercial recycling participation rates in inner North/Northeast Portland. 	<ul style="list-style-type: none"> ▪ Identify and implement a strategy of interventions with commercial businesses along Martin Luther King, Jr. Boulevard to increase recycling participation. 	<ul style="list-style-type: none"> ▪ Develop pilot project for business recycling to run concurrently with a series of residential outreach pilots. ▪ Survey businesses in a selected area to determine baseline participation. ▪ Send letter (with poster) from community leaders to all businesses. One group to receive the letter only; one group to receive visit from community staff; one group to receive visit from PSU staff who offer recycling assistance; one group to receive phone call offering in-person assistance. 	<ul style="list-style-type: none"> ▪ Conduct baseline survey. ▪ Repeat survey after the three interventions have been completed to document any changes to recycling behaviors. ▪ Keep records will be kept of all responses to the various strategies. ▪ Apply successful strategies to other low-participation areas. 	<ul style="list-style-type: none"> ▪ Four pilot strategies implemented in April & May 2003 among randomly selected group of 101 businesses. ▪ Eighty received a letter from community leaders and poster. ▪ From the 80, three groups of 20 were formed at random for additional contact; one group remained the control. ▪ One group received a visit from community staff, one group received a visit from PSU students and the third received a phone call. ▪ The mailed packet and the follow-up phone call proved most effective and was the least expensive approach aside from the mailing alone. ▪ Nearly 13% of the businesses in the program increased their recycling level. Sixty-four percent of this increase came from the group receiving a mailer and a phone call only.

2. Green Building initiatives with City of Beaverton, focusing on tenant improvements

Goals	Objectives	Activities	Measurement	Results
<ul style="list-style-type: none"> ▪ Reduce the amount of construction and demolition debris generated in the commercial tenant improvement sector. 	<ul style="list-style-type: none"> ▪ Increase recycling and waste reduction in commercial renovations. ▪ Build demand for Green Building techniques that reduce energy. ▪ Create a program that can be useful across jurisdictional boundaries. 	<ul style="list-style-type: none"> ▪ Use the Green Tenant Improvement Guide as a basis for the project. ▪ Develop a measurement tool for the guide to allow businesses to know when they have accomplished a “green office” project. ▪ Require businesses to provide proof of accomplishment; they will be certified and receive a plaque and recognition. ▪ Design certification to be as close to the LEED program as possible to avoid duplication. ▪ Pilot two one-day trainings on green tenant improvements to train “preferred provider” recycling expert contractors. ▪ Publicize the list of “preferred providers” certified through the program. 	<ul style="list-style-type: none"> ▪ Develop self-certification system, publish guidebook and monitor results. ▪ Design and deliver training to 50 people and monitor projects submitted for certification. 	<ul style="list-style-type: none"> ▪ Project is behind schedule, but proceeding. ▪ Tenant improvement guide has been revised and edited to provide measurement tool and create versions for use in both Portland and Beaverton. Printing will begin soon. ▪ Training workshops will be held once the guide is produced.

3. On-site vermicomposting systems at OMSI

Goals	Objectives	Activities	Measurement	Results
<ul style="list-style-type: none"> ▪ Reduce OMSI’s food waste and educate the public about how to replicate the activity at home. ▪ Implement programs that meet OMSI’s strategic value: organizational decisions should have economic, social and environmental value. 	<ul style="list-style-type: none"> ▪ Reduce the food waste going to landfill from OMSI by four tons in the first project year and up to 17 tons in subsequent years. ▪ Educate visitors about the vermicomposting process while encouraging and enabling visitors to try vermicomposting at home. 	<ul style="list-style-type: none"> ▪ Purchase and install two working worm bins to process food wastes from café food preparation area and staff offices. ▪ One bin will be a large commercial-sized system capable of processing up to 100 pounds per day. The other will be a smaller bin that handles 3 to 5 pounds per day. ▪ Create a demonstration and education program around the bins to educate OMSI visitors and encourage them to take the practice home. 	<ul style="list-style-type: none"> ▪ Weigh the waste being kept out of the waste stream; display the waste reduction results to the public. ▪ Evaluate the effectiveness of the display, as well as the interest level of visitors before and after viewing the exhibit. ▪ Determine the educational effectiveness of the worm bins through visitor surveys. 	<ul style="list-style-type: none"> ▪ Bin installed in June 2003 and processed 600 pounds per month of food waste from the kitchen, equaling 3.6 tons per year for the first year. Goal is to add food waste from school groups during the next five years, which would increase the composting volume to reach 17 tons per year. ▪ 750,000 people per year will see the worm bin and the demonstration system each year. ▪ Overwhelming staff support has resulted in several staff starting home worm bins. ▪ School districts have inquired about starting bins at school after field trips to the museum.

APPENDIX C

WASTE REDUCTION INITIATIVES PERFORMANCE MEASUREMENT

ORGANICS

Prepared by Jennifer Erickson

EFFECTIVENESS

Increased capacity for donation of edible food and increased levels of donation

An assessment of the Food Donation Program was completed in April 2002. An assessment of holiday donation outreach was completed in January 2003.

- Since 1999, \$780,000 in grants have been awarded to food rescue agencies for the purchase of trucks, refrigerators and freezers to enable the increased recovery of perishable prepared foods.
- Estimated 16,558 tons of edible food was recovered in FY 02-03, an increase of 3,151 tons from the previous fiscal year.
- For every \$1 in Metro funds, food rescue agencies benefited by \$31.
- Food rescue agencies increased the amount of food they collected and redistributed.
- Holiday party food donation mailers reached over 350,000 people via a direct mail card, web site hits, and an *Oregonian* article and advertisements. Four of the five listed agencies saw an increase in donations and secured new donors, and the Metro web page saw increased hits.

Increased organics processing infrastructure

- Metro and the City of Portland cooperatively developed a \$1 million grant program to assist with infrastructure development and the capital costs of establishing a facility. Twelve applications from 10 different companies were received and evaluated by a seven-member committee. Three finalists were identified (two composters—Threemile Canyon Farm, Boardman, OR and Columbia Resource Company, Vancouver, WA; and one reload—Forest Grove Transfer Station, Forest Grove, OR). As of August 2003, only one composter remained in the grant pool: Threemile Canyon Farm.
- In FY 02-03, staff prepared preliminary rate information, data and methodology for later review by the Metro Rate Review Committee on a proposed rate for compostable organic wastes delivered to Metro Central Station for composting
- According to the DEQ recovery data for 2002, the Metro region has increased food waste recovery from 9,646 tons in 2001 to 11,958 in 2002. These numbers do not include edible food recovered for food rescue agencies.

ACCOUNTABILITY

Goal: Work group will complete 90% of its annual work plan.

Actual: Work group completed 94% of its annual work plan.

WORK PLAN TASK	COMPLETION STATUS
<u>TRACK 1</u>	
<p>A.1.) Research, development, assessment:</p> <ul style="list-style-type: none"> ▪ Identify barriers to increased waste prevention. ▪ Develop examples of industry practices that encourage waste prevention. ▪ Implement barrier reduction program. 	<p><u>Complete.</u> This task was combined with task B.3. below for implementation.</p>
<p>A.3.) Continue focused outreach and education on waste prevention coupled with on-site assistance.</p>	<p><u>Complete/ongoing.</u> Metro and local government staff have provided a wide range of outreach to food businesses on waste prevention coupled with food donation strategies including websites, brochures, newsletter articles, newspaper ads and articles, displays. Metro staff teaches classes every six weeks at Western Culinary Institute (Cordon Bleu).</p>
<p>B.1.) Enhance donation infrastructure and build capacity.</p>	<p><u>Complete:</u> Since 1999, \$780,000 in grants have been let to food rescue agencies for the purchase of trucks, refrigerators and freezers. Estimated tons of edible food recovered in the region for fiscal year 2002-03 are 16,558 tons, an increase of 3,151 tons from the previous fiscal year. 2002-03 was the final year for the grant program. Reestablishment of the grants for FY 2004-05 will be considered during the budget process.</p>
<p>B.3.) Research and development: Identify the barriers and benefits to food donation:</p> <ul style="list-style-type: none"> ▪ Rigorous study/survey to identify true barriers, convene focus groups within food industry, develop barrier reduction strategies and pilot them. 	<p><u>Complete:</u> A comprehensive study of the barriers and benefits to food waste prevention and donation behaviors was completed in the 02-03 fiscal year; the final report was completed in Fall 2003. Surveys of 72 food businesses, interviews with food rescue agencies, regulators and industry professional organizations, and observational visits of 10 businesses were completed. (Recommendations are being implemented via multimedia outreach program scheduled for early 2004.)</p>
<p>B.4.) Update and print educational materials as needed.</p>	<p><u>Complete:</u> <i>Restaurant and Food Service Guide to Food Donation</i> was updated and reprinted in 2003. New case studies were added to the Metro web site, new traveling display board for food donation featuring model businesses was developed and is in use. Holiday donation reminder cards were reprinted and mailed in November 2002.</p>
<p>B.5.) Community involvement: Provide support and assistance top organizations and associations involved in developing sustainable food systems in the region.</p>	<p><u>Complete/ongoing:</u> Metro staff are actively involved with the development of the Portland/Multnomah Food Policy Council, as well as serving as a member of Coalition for a Livable Future’s Community Food Matters.</p>

<p>C. 1.) Continue to monitor and assess the potential for diversion of food waste to animal feed markets in light of new federal and state regulations for the feeding of food wastes to cattle and hogs.</p>	<p><u>Complete/ongoing:</u> Despite changes in laws regarding feed additives, the region has been able to connect food manufacturers with animal feed operations and dairy/hog farms on a case-by-case basis to divert food from the landfill.</p>
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<p><u>TRACK 2</u></p>	
<p>B.1.) Work with haulers and businesses to determine feasible organics collection routes throughout the region.</p>	<p><u>Partially complete:</u> Metro provided funding for an organics rate review/cost of service study for the franchised areas of the region; the study will be completed in the 03-04 fiscal year. (The City of Portland will implement a separate cost of service study in 2004 for its non-franchised system. Due to delays in the implementation of a food waste collection and processing system for the region, determination of routes and associated costs of collection programs has only begun to be examined.)</p>

CONSTRUCTION AND DEMOLITION

Prepared by Bryce Jacobson

EFFECTIVENESS

Increased salvage and deconstruction of C&D by used building material facilities

- In FY 2002-03, Metro created a one-time grant program to assist with the development of the used building material reclamation infrastructure. Staff administered a competitive process to select grant recipients and created the contracts to distribute \$85,000 to The ReBuilding Center and \$15,000 to the Habitat for Humanity ReStore. The actual expenditure, however, was deferred to FY 2003-04 budget to accommodate some financial issues related to bond repayment on the transfer stations.
- A phone survey of the largest deconstruction contractors and used building material retailers operating in 2003 was completed in February 2004:
 - Key findings:
 - The number of firms surveyed increased from 13 in 2002 to 20 for 2003.
 - Overall measured regional salvage tonnage increased 34%, from 5,470 tons in CY 2002 to 7,339 tons in CY 2003.
 - All of the facilities reporting higher tonnages maintained or increased their salvage tonnage, while two of the smaller firms revised their business plan and stopped accepting used building materials all together.
 - The majority of building materials salvaged were residential.

Surveyed firms provided the following data on gross sales and pounds of Metro region used building materials* sold in CY 2003. (Gross sales and tonnage data was collected under the condition of anonymity and is listed without identifying individual firms.)

Firm Number	2003 Metro Region Pounds	2003 Metro Region Gross Sales
1.	176,000	\$60,000
2.	29,000	\$10,000
3.	588,000	\$200,000
4.	1,529,800	\$520,000
5.	30,000	\$10,204
6.	490,000	\$175,000
7.	176,400	\$60,000
8.	1,117,200	\$380,000
9.	0	\$0
10.	388,080	\$132,000
11.	1,176,000	\$400,000
12.	0	\$0
13.	294,000	\$100,000
14.	1,323,000	\$450,000
15.	8,820	\$3,000
16.	29,400	\$10,000
17.	735,000	\$250,000

18.	661,500	\$225,000		
19.	3,502,157	\$1,191,210		
20.	2,400,000	\$816,326		
			2002 Metro Region Total Metro Region Pounds (tons)	2002 Metro Region Total Metro Region Gross Sales
Totals	14,678,657 (7,339 tons)	\$4,992,740	10,939,501 (5,470 tons)	\$3,720,918
% change from 2002	+34%			

Conversion data:

\$1 in reported gross sales = 2.94 lbs. of material

*Used building materials definition:

Reusable commercial and residential building materials, including, but not limited to windows, doors, millwork, architectural ornamentation, lumber, plywood, flooring, cabinets, structural steel sold for reuse, plumbing and electrical fixtures, whole cleaned and stacked red brick for reuse, factory seconds, returned or misordered building materials, building materials generated by the closure of a building material store, and other previously used building materials that are bound for reuse markets. This definition excludes uncleaned and broken brick, concrete, rock, boulders, asphalt, clay roofing tile, concrete block, gravel, sand, soil, organics, metal piping, steel and other materials bound for scrap/recycling markets.

Increased recovery of C&D materials

- DEQ data for C&D materials indicated recovery of 261,253 tons in 2002, which represented a decrease of 20,000 tons from the previous year. Double-digit decreases over 2001 recovery were registered by the three primary C&D materials: wood, 210,763 tons, down 10%; gypsum wallboard, 3,159 tons, down 70%; and asphalt roofing, 11,181 tons, down 42%. These decreases reflected lower hog fuel demand because of lower energy prices, and some instability with regional roofing and wallboard processors. In 2001, DEQ first allowed brick to count toward the wasteshed recovery rate. In 2002, Metro brick recovery of 19,910 tons represented an increase of 146% over the previous year.
- Metro transfer stations reported a total recovery of 33,477 tons in 2002, an increase of 4 percent over the previous year. Other mixed solid waste sorting facilities reported recovery of 53,727 tons in 2002, a decrease of 2% from the previous year. It is estimated that the majority of the recovery from Metro transfer stations and mixed solid waste sorting facilities is from construction and demolition materials.
- A phone survey of construction industry association members was conducted in May 2003 and compared to a baseline survey in June 2002. The purpose of the survey was to measure recycling attitudes and behavior among members of these groups in the wake of Metro's communication efforts targeted at industry associations. Compared to the response gathered in the baseline study, the 2003 survey data show that the respondents remained favorably disposed to recycling and salvage, reported increased recycling activity for some materials, and reported that they are implementing one of the key recommendations in this project, i.e., planning for recycling and salvage before the start of construction.

ACCOUNTABILITY

Goal: Work group will complete 90% of its annual work plan.

Actual: Group completed 100% of its annual work plan.

WORK PLAN TASK	COMPLETION STATUS
<u>TRACK 1</u>	
<p>1. A.1.) Develop and implement three-year waste prevention and recycling education program for construction industry.</p>	<p><u>Complete.</u> The C&D work group hired a contractor to implement the first year of this three-year program. Scope of work emphasized partnerships with construction industry associations, taking advantage of earned media and the distribution of the Metro Toolkits. Chose contractor and began work on the first year in June 2001.</p> <p>Highlights included:</p> <ol style="list-style-type: none"> 1. Formed partnerships with five industry associations (Associated General Contractors, Associated Builders & Contractors, Home Builders Association , Oregon Remodelers Association, Construction Specification Institute). <ul style="list-style-type: none"> -Monthly columns on salvage and recycling in association newsletters. -Seminars. -Awards programs. -Linking of association web sites to Metro Toolkit web site. -Distribution of the MetroToolkit directory and the Metro construction planners guide. 2. Created partnerships with permit and plan centers. <ul style="list-style-type: none"> -Distribution of Toolkit literature. 3. Created partnerships with the City of Portland Office of Sustainable Development for green building activities. Provided technical assistance for: <ul style="list-style-type: none"> -Build It Green! Home tour. -ReThink lecture series. 4 Created retail partnership with Parr Lumber: <ul style="list-style-type: none"> -Distribution of Toolkit literature. 5 Implemented an earned media campaign: <ul style="list-style-type: none"> -Daily Journal of Commerce, NW Builder and Portland Business Journal.

A.3.) Evaluate and measure effect	<p><u>Complete.</u> Tracked the evaluation criteria identified in the partnership project contract. These include: The number of partnerships formed with targeted industry associations, quantities of Toolkits (25,000) and Planners Guides (5,000) distributed, number of articles placed (seven) and seminars held (six).</p> <p>Administered two surveys:</p> <ul style="list-style-type: none"> • The first was a one-year followup phone survey to construction industry partner association members in May 2003. Will repeat this survey again in May 2004 to evaluate changes in attitudes, awareness and behaviors related to C&D recycling and reuse. • The second survey was a phone survey to the retailers of use and salvaged building materials
<p>B.1.) Oregon Remodelers Association (ORA), Annual Builders Yard Sale</p> <ul style="list-style-type: none"> • Funding assists ORA in promoting and managing the annual Builders Yard Sale. <p>(This item has been part of the Metro C&D budget since FY 1995-96.)</p>	<p><u>Complete.</u> Since 1995, a yearly \$4,000 grant has assisted with the implementation and promotion of the annual Builders Yard Sale. Through the sale of used building materials donated by ORA member contractors and suppliers, this event promotes the value and availability of used building materials to the public.</p> <p>In 2002, provided \$10,000 in sponsorship to the Portland Office of Sustainable Development for the Build It Green! Home tour and the ReThink lecture series. This sponsorship and Metro participation helped to demonstrate the ways in which used building materials can be used in construction and to educate the construction industry about C&D waste reduction techniques.</p>

WORK PLAN TASK	COMPLETION STATUS
TRACK 2	<u>No tasks were scheduled for completion in FY 2002-03</u>

WORK PLAN TASK	COMPLETION STATUS
TRACK 3	
A.3.) Provide technical assistance to Metro market development program. Assist Metro market development coordinator with the evaluation of proposals and monitoring of funded projects.	<p><u>Complete.</u> C&D Work Group provided some initial assistance in identifying potential recipients in FY 2002-03, but the Recycling Market Development Loan Fund and the coordinator's position was eliminated in the FY 2003-04 budget.</p>

COMMERCIAL
Prepared by Steve Apotheker

EFFECTIVENESS

Increased waste prevention activities

Have implemented:

▪ **Business Recycling Awards Group (BRAG)**

“Take the Next Step” initiatives in waste reduction funded by Metro included reusable dishware, a shredder to reuse paper discards as packaging material, recycled-content paper, software for online report editing, rag-cutting machine for reuse, digital fax and establishment of an employee incentive to reduce and recycle..

▪ **Recycled product database**

An interactive database with more than 1,000 locally available recycled-content products was launched on Metro’s web site in January 2003. The Buyer’s Guide is getting 500 to 700 hits per month. CTAP evaluators use this tool when they provide buy recycled recommendations to businesses. It is also a resource in the Green Copier project that Ikon, a copier equipment vendor, provides to its customers on where to purchase recycled-content copy paper, as part of a demonstration project funded by Metro and City of Portland.

▪ **Commercial Technical Assistance Program**

Metro’s FY 02-03 budget of \$400,000 for the Commercial Technical Assistance Program (CTAP) funds local government waste reduction evaluations and general assistance to businesses, governments and other institutions for calendar year 2003. Accomplishments of the different local government programs are illustrated by the following examples:

- Clackamas County. Provided 434 recommendations to 115 companies, which received evaluations in recycling (81%), waste prevention (34%) and buy recycled (30%). Followup visits then document progress in implementation. Over the last 2½ years, evaluations of Clackamas County businesses indicate that 66% were recycling corrugated cardboard compared to 35% for office paper and other scrap paper. Companies that were not recycling these materials were provided instruction and resources on how to get started. Followup visits to about 40% of these companies indicate that over 85% have implemented these recycling recommendations.

Buy recycled recommendations see a lower rate of adoption. Only 17% of the 152 companies that received buy recycled evaluations were already buying recycled copier paper. Of the 126 companies that received information on how to buy recycled copier paper, 26 were given a followup evaluation, which indicated a 50% adoption rate by this group. Two-sided copying showed similar response, with only 24 out of 141 companies successfully duplexing at the baseline evaluation; of the 117 that received this recommendation, 37 were given followup visits, and 35% of those companies had started duplexing at that time.

- Gresham. Provided site visits to 107 companies, which received evaluations in recycling (85%), waste prevention (52%) and buy recycled (36%). Gresham provides a resource efficiency program to its businesses, which include energy and water conservation, stormwater and wastewater management, as well as CTAP waste reduction services. Because Gresham receives funding for these other resource areas, it is able to leverage the CTAP dollars to bring the waste reduction assistance to a greater number of businesses. At the end of 2003, 75% of the companies that had received cardboard recycling baseline evaluations were already recovering that material. By contrast, adoption of office paper and other scrap paper recycling was in place at only about one-

third of businesses on the initial baseline visit. Of those businesses that were given followup visits, about two-thirds had gone on to successfully implement recycling programs for office paper and other scrap paper. Assistance with buy recycled copier paper and two-sided copying resulted in improvement by 26% and 22%, respectively, of those businesses that had received followup evaluations at the end of 2003.

- City of Portland. Provided site visits in 2003 to 92 companies, which received evaluations in recycling (87%), waste prevention (55%) and buy recycled (46%). At the end of 2003, 70% of the companies evaluated for cardboard recycling were already doing it successfully. Of the remaining 30%, one-quarter was given followup visits that indicated 79% had implemented cardboard recycling. Of the 170 companies evaluated for office paper recycling by the end of 2003, 49% already had successful programs. After receiving assistance, followup visits indicated that 92% of this group had implemented full office paper recycling. The “All Paper, One Box” outreach program that Metro funded generated contacts for many of the Portland businesses that received CTAP assistance. A total of 325 Portland businesses responded to the outreach effort, representing 63% of the total requests received in response to the regional outreach effort.
- Washington County. Provided sites visits in 2003 to 105 companies, which received evaluations in recycling (74%), waste prevention (54%) and buy recycled (22%). At the end of 2003, slightly over 75% of the companies with baseline visits were already doing corrugated cardboard, which is similar to other jurisdictions. However, of the companies visited for office paper and other scrap paper recycling, more than 55% were already recovering these materials. Of the 120 companies that could improve, one-third were given followup visits, which found that 65% had implemented recommendations to recycle this material. In terms of buying recycled copier paper, 124 companies had received evaluations, of which 35% were already purchasing it. Followup visits to 29 of these companies indicate that 28% of them were now purchasing recycled-content paper. Results for adopting two-sided copying were similar.

Increased recovery of commercial recyclables

- DEQ data indicate that Metro region recovery of commercial materials (including depots) totaled 586,000 tons in 2002, an increase of 0.5% over the previous year. Paper and glass container recovery increased slightly in 2002.
- Beaverton’s recycling box project (funded through CTAP and the City of Beaverton) continued to focus on recycling, because only half of the businesses in the city were recycling paper other than cardboard. Of 1,019 businesses visited between October 2002 and December 2003, 483 businesses took 3,900 deskside boxes. The success of Beaverton’s recycling box project was used as a model for a regional campaign. One recycling processor attributes a 10% to 15% increase in commercial fiber recovery due to promotion of commingling and deskside boxes to Beaverton businesses.
- The regional outreach campaign to promote deskside paper recycling collection boxes distributed 1,700 boxes in the first month of the campaign. It is estimated that each employee that uses a box will divert about 100 pounds per year of office paper. (The campaign was continued through December 2003.)
- Work with materials recovery facilities identified opportunities to increase recycling. One processor that initially disposed of scrap metal representing thousands of pounds per year is now separating it for recycling markets.

ACCOUNTABILITY

Goal: Work group will complete 90% of its annual work plan.

Actual: Work group completed 94% of its annual work plan for which it was responsible.

WORK PLAN TASK	COMPLETION STATUS
<u>TRACK 1</u>	
A. Targeted waste prevention projects:	
A.1.) Implement first waste prevention project.	<u>Complete/ongoing.</u> Funding was provided to City of Portland for multi-year Green Copier Project. Initially planned as a one-year project, the timeline was revised to a multi-year project that would incorporate principles of community-based social marketing in its implementation. Ikon, the region’s largest copier equipment vendor, has agreed to participate in the project. It will provide information to their customers on the ease and benefits of double-sided copying and recycled-content paper. Customers that receive this marketing would be surveyed to determine participation in these activities. Project completion is June 2004.
A.2.) Evaluate first project.	<u>Complete/ongoing.</u> City of Portland will conduct evaluation of the Green Copier project.
A.3.) Implement second waste prevention project.	<u>Complete/ongoing.</u> Funding was provided to Oregon Department of Environmental Quality to conduct a packaging technical assistance project. DEQ will work with five to seven companies in Metro region to evaluate packaging alternatives to reduce resources and to increase recycled content. Case studies and tools will be developed. Also, DEQ is completing a life cycle analysis of different packaging materials used for “soft” mail order products. Project completion date is June 2004.
A.4.) Legal outreach project.	<u>Incomplete.</u> Promotion of use of recycled-content paper and double-sided submissions to Oregon courts via advertising in legal journals and direct mail to lawyers and legal personnel. A survey of law firms provided an evaluation of the outreach efforts. With assistance from the Portland State University Mathematics Department, the results of the 2002 survey were then compared to a previous survey in 1997. In 2003, a review of waste reduction by regional circuit courts estimated reductions in paper use of more than 200 cases/year (five tons) and associated savings in paper, printing, postage, and labor costs of more than \$35,000/year. The project is complete, but the final report has not been issued.
B. Buy recycled program:	
B.2.) Develop and implement an evaluation plan to assess impact of buy recycled	<u>Deferred.</u> Evaluation was postponed to FY 03-04 because of delay in releasing Buyer’s Guide on Metro’s web site, due to staffing constraints.

database efforts.	
B.3.) Update buy recycled database and develop marketing plan.	<u>Complete.</u> More than 1,000 products from 200 vendors are featured in Metro's online Buyer's Guide, which was released in January 2003 and updated in late Spring 2003. Implementation was delayed for four months because Metro Creative Services was backlogged with work. In June 2003, a postcard was sent to more than 10,000 businesses announcing the Buyers Guide. Gilmore Research Group conducted a business survey to determine the demand for a printed guide and interest in buy-recycled information for development of a marketing plan.

<u>TRACK 2</u>	
A. Increased outreach to businesses:	
A.1.) Material exchange.	<u>Complete.</u> Funding was provided to Oregon DEQ to conduct a promotion campaign and evaluation. Draft evaluation was completed in FY 02-03. Final evaluation will be released in early FY 03-04.
A.2.) Multi-tenant retail outreach.	<u>Complete/ongoing.</u> Contract was provided to Clackamas County for a multi-year effort working with property managers and businesses to increase recycling and communication at their properties. Startup was delayed when the Clackamas County staff person assigned to the project left to take a job with a private paper recycling company. An RFP was issued and Kies Strategies was hired to implement the project.
A.3.) Business Recycling Awards Group.	<u>Complete.</u> Take the Next Step awards of \$150 to \$2,000 to assist their new waste reduction efforts were presented to 18 businesses at a recognition breakfast in June 2003.
A.4.) Outreach campaign evaluation.	<u>Deferred.</u> Because the outreach campaign started at the end of the 02-03 fiscal year and was extended to December 2003, the evaluation was postponed until FY 03-04.
A.5.) Regional outreach program to businesses.	<u>Complete/ongoing.</u> A regional outreach program to promote paper commingling by providing deskside paper recycling collection boxes was initiated in June 2003. Billboards, radio spots and wzines (emailed newsletters) to 3,500 businesses marked the first phase of this outreach. More than 160 businesses called Metro, requesting almost 1,700 boxes in the just the first month of the promotion. The business' contact information was referred to local government Commercial Technical Assistance Program recycling staff who contacted the business and arranged for delivery of the boxes. At the same time, the recycling staff was able to see if the business wanted additional waste reduction assistance. The good initial response resulted in extension of the outreach campaign to FY 03-04.
B. Commercial Technical Assistance Program:	
B.1.) Evaluate technical assistance	Evaluation was postponed for one year because department needed to defer expenses in the 02-03

program.	fiscal year and because a better evaluation could be conducted after City of Portland had had some time to implement its program that began in January 2003.
B.2.) Expand technical assistance program.	<u>Complete.</u> In FY 2002-03, funding was increased to \$400,000 to allow the City of Portland to join the Commercial Technical Assistance Program, which is now a regional effort that any business can access. Funding to local governments allows them to hire 6.5 FTE staff to implement waste reduction technical assistance program for recycling, waste prevention and buy recycled actions for calendar year 2003.
B.3.) Develop web site and support material for recycling information.	<u>Complete.</u> In January 2003, Metro launched an online interactive database of vendors for recycled-content products on its web site. In May, a mailing to 20,000 regional businesses advertised the availability of the database. In addition, local government recycling staff promoted the availability of the database to their CTAP businesses.
C. Ensure commingled processing capacity and standards:	
C.1.) Inventory of different commingled sorts and processing capacity.	<u>Complete.</u> Evaluation of regional processing capacity and capability consisted of sampling study at eight facilities to look at residue levels and composition, loss of recyclables and contamination in paper commodities. A survey of regional paper and glass markets examined capacity and trends for additional volumes of recovered recyclables. The sampling study and consultant's report were completed in June 2002. (Analysis and final report, with draft recommendations, was completed in October 2002.)
C.2.) Stakeholder review of commingled processing standards.	<u>Complete.</u> Subcommittee on Contamination and Loss of Recyclables met in Fall 2002 and submitted recommendations to SWAC in February 2003.
C.3.) Implement recommendations for monitoring facility performance.	<u>Complete.</u> Subcommittee on Contamination and Loss of Recyclables recommended monthly reports on MRF disposed residue and sampling of paper and residue composition during 2003. (Final report will be issued in Spring 2004 at completion of year-long reporting and sampling program.)
D. Required recycling:	
D.1.) Conduct stakeholder review to identify issues with implementing disposal bans.	Metro Council approved the creation of an RSWMP Contingency Plan Work Group in FY 02-03. (Stakeholders were selected and approved in early FY 03-04.)
D.2.) Review market and implementation issues with bans.	<u>Complete.</u> Metro hired Moore Associates to interview 35 industry and government representatives in five communities that had implemented required recycling, disposal bans or incentives to increase recovery of materials from businesses and construction and demolition activities. Moore found increased paper recovery, a limited impact on the quality of paper and no impact on the price of commercial paper. Final report issued in April 2003.

Track 3	
A. Increase market development efforts.	
A.1.) Commercial end-use market capacity study for mixed paper.	<u>Complete.</u> Hired Andover International to conduct capacity study of Pacific Northwest and export market capacity for scrap paper. Final report and public presentation of findings occurred in June 2003.
A.2.) Commercial end-use market research and pilots.	No market initiatives have been identified.
A.3.) Work with vendors to substitute recyclable packaging for waxed corrugated cardboard.	Funding for this program was eliminated in the FY 02-03 budget.

APPENDIX D

Table 1 -- Progress in Meeting RSWMP Diversion Targets in 2002, in tons

	<u>2000 Actual</u>	<u>2001 Actual</u>	<u>2002 Actual</u>	<u>2002 Target</u>	<u>2005 Target (1)</u>	<u>2002 Actual less 2002 Target</u>	<u>2002 Actual to 2002 Target (percent)</u>
Practices							
Waste Prevention							
Home Composting Bins	6,458	7,606	8,555	9,075	13,000	-520	94%
Home Composting Other (2)	NA	8,018	8,558	8,000	8,000	558	107%
Commercial (3)	18,510	17,501	25,966	20,706	24,000	5,260	125%
Deconstruction	1,600	4,253	4,744	2,960	5,000	1,784	160%
Waste Prevention Subtotal	26,568	37,378	47,824	40,741	50,000	7,083	117%
Recovery							
Expanded Residential Curbside	200,670	178,812	178,916	222,402	255,000	-43,486	80%
Expanded Multi-family Collection	11,820	8,806	10,448	14,292	18,000	-3,844	73%
Bottle Bill	35,204	35,142	24,852	36,322	38,000	-11,470	68%
Depot	55,615	23,169	3,773	56,169	57,000	-52,396	7%
Source-separated Business Recyclables	409,083	560,500	582,321	494,822	623,431	87,499	118%
Commercial Organics (4)	4,395	9,646	11,958	24,637	55,000	-12,679	49%
On-site Construction & Demolition	168,000	194,311	174,049	179,529	196,823	-5,481	97%
Post-collection (5)	86,063	87,023	87,204	99,639	120,003	-12,435	88%
Recovery Subtotal	970,850	1,097,409	1,073,520	1,127,813	1,363,258	-54,293	80%
Total, Prevention and Recovery	997,418	1,134,786	1,121,344	1,168,554	1,413,258	-47,210	80%

NA = Not applicable.

(1) Revised using 2001 DEQ recovery survey data that included new materials and new markets.

(2) Composting technologies other than Metro bins.

(3) Includes food reuse, thrifts and rebuilt computers.

(4) Includes food and non-recyclable paper.

(5) Recovery from mixed solid waste processing facilities and regional transfer stations, of which construction and demolition materials represent the bulk of recovery.

Source: Metro, November 2003.

Table 2 -- Progress toward Revised RSWMP System Benchmarks in 2002

<u>System Benchmarks</u>	<u>Year 1995</u> <u>Actual</u>	<u>Year 2000</u> <u>Actual</u>	<u>Year 2001</u> <u>Actual</u>	<u>Year 2002</u> <u>Actual</u>	<u>Year 2005</u> <u>Target</u>
Recycling Rate (1)	37.8%	37.2%	38.6%	38.4%	48%
Energy Recovery Rate (2)	<u>4.7%</u>	<u>7.4%</u>	<u>10.2%</u>	<u>9.6%</u>	<u>8%</u>
Total Recovery Rate	42.5%	44.6%	48.8%	47.9%	56%
Per Capita					
Recovery (t/cap/yr)	0.56	0.67	0.75	0.72	0.89
Disposal (t/cap/yr)	<u>0.76</u>	<u>0.83</u>	<u>0.78</u>	<u>0.79</u>	<u>0.70</u>
Generation (t/cap/yr)	1.33	1.50	1.53	1.51	1.59
Solid Waste Hierarchy					
Prevention	N.A.	1.2%	1.6%	2.1%	2%
Recycling (3)	30.9%	29.6%	31.3%	29.2%	35%
Composting	6.9%	7.2%	6.7%	8.3%	12%
Energy/Fuel	4.7%	7.3%	10.1%	9.4%	8%
Disposal	<u>57.5%</u>	<u>54.8%</u>	<u>50.4%</u>	<u>51.0%</u>	<u>43%</u>
Projected Generation (4)	100.0%	100.0%	100.0%	100.0%	100%

NOTES

Columns may not add due to rounding.

t/cap/yr = tons per capita per year.

N.A. = Not applicable.

- (1) Recycling Rate includes contributions from recycling and composting.
- (2) Energy Recovery Rate measures diversion of source-separated material into fuel end uses.
- (3) Recycling includes recycling and inventory in stock.
- (4) Projected generation is prevention plus actual generation (i.e., recovery plus disposal).

Sources: Oregon Department of Environmental Quality 2002 recovery and disposal data, October 2003; Metro waste prevention inventory, February 2003 and November 2003.

<u>Management</u>	<u>1998</u> <u>Tons</u>	<u>1998</u> <u>Percent</u>	<u>2000</u> <u>Tons</u>	<u>2000</u> <u>Percent</u>	<u>2001</u> <u>Tons</u>	<u>2001</u> <u>Percent</u>	<u>2002</u> <u>Tons</u>	<u>2002</u> <u>Percent</u>
Prevention	6,160.0	0.3%	26,568.0	1.2%	37,377.5	1.6%	47,824.0	2.1%
Recycling	613,550.6	29.0%	647,777.3	29.4%	715,415.7	31.3%	666,469.3	29.1%
Composting	138,324.0	6.5%	158,238.5	7.2%	152,234.0	6.7%	190,476.9	8.3%
Stock (3)	<u>54.5</u>	<u>0.0%</u>	<u>4,575.5</u>	<u>0.2%</u>	<u>0.1</u>	<u>0.0%</u>	<u>2,123.0</u>	<u>0.1%</u>
SubRecycling	751,929.1	35.6%	810,591.2	36.8%	867,649.7	38.0%	859,069.1	37.6%
Energy	<u>160,088.8</u>	<u>7.6%</u>	<u>160,258.4</u>	<u>7.3%</u>	<u>229,758.9</u>	<u>10.1%</u>	<u>214,451.2</u>	<u>9.4%</u>
Recovery total	912,017.9	43.1%	970,849.6	44.0%	1,097,408.7	48.0%	1,073,520.3	46.9%
Disposal	<u>1,196,485.7</u>	<u>56.6%</u>	<u>1,207,348.0</u>	<u>54.8%</u>	<u>1,151,338.5</u>	<u>50.4%</u>	<u>1,165,761.9</u>	<u>51.0%</u>
Generation	<u>2,108,503.6</u>	<u>99.7%</u>	<u>2,178,197.6</u>	<u>98.8%</u>	<u>2,248,747.2</u>	<u>98.4%</u>	<u>2,239,282.2</u>	<u>97.9%</u>
Generation+Prevention	2,114,663.6	100.0%	2,204,765.6	100.0%	2,286,124.7	100.0%	2,287,106.3	100.0%

2000 waste prevention total includes more activities than 1998 report.

The 1998 report was not adjusted to include these other activities.

Year	Population	T/per/year
2000	1,451,650	1.50
2001	1,467,300	1.53
2002	1,484,150	1.51

Table 3 – Metro Recovery and Disposal, 1995-2002, in Tons

Management	1995 tons	1995 percent	1996 tons	1996 percent	1997 tons	1997 percent	1998 tons	1998 percent	1999 tons	1999 percent	2000 tons	2000 percent	2001 tons	2001 percent	2002 tons	2002 percent	Change tons	Change percent
Recycling	534,583.4	30.9%	478,022.2	25.8%	580,712.2	28.9%	613,550.6	29.1%	637,638.7	29.3%	647,777.3	29.7%	715,415.7	31.8%	666,469.3	29.8%	-48,946.4	-6.8%
Composting	118,947.6	6.9%	144,861.5	7.8%	136,993.9	6.8%	138,324.0	6.6%	123,432.0	5.7%	158,238.5	7.3%	152,234.0	6.8%	190,476.9	8.5%	38,242.8	25.1%
Stock (1)	<u>8.6</u>	<u>0.0%</u>	<u>25.0</u>	<u>0.0%</u>	<u>1.1</u>	<u>0.0%</u>	<u>54.5</u>	<u>0.0%</u>	<u>194.1</u>	<u>0.0%</u>	<u>4,575.5</u>	<u>0.2%</u>	<u>0.1</u>	<u>0.0%</u>	<u>2,123.0</u>	<u>0.1%</u>	<u>2,122.9</u>	3538188.3%
Recycling Subtotal	653,539.6	37.8%	622,908.7	33.7%	717,707.2	35.7%	751,929.1	35.7%	761,264.8	35.0%	810,591.2	37.2%	867,649.7	38.6%	859,069.1	38.4%	-8,580.6	-1.0%
Energy	<u>81,691.2</u>	<u>4.7%</u>	<u>129,561.0</u>	<u>7.0%</u>	<u>117,886.0</u>	<u>5.9%</u>	<u>160,088.8</u>	<u>7.6%</u>	<u>171,623.7</u>	<u>7.9%</u>	<u>160,258.4</u>	<u>7.4%</u>	<u>229,758.9</u>	<u>10.2%</u>	<u>214,451.2</u>	<u>9.6%</u>	<u>-15,307.7</u>	-6.7%
Recovery Total	735,230.8	42.5%	752,469.7	40.7%	835,593.2	41.6%	912,017.9	43.3%	932,888.5	42.9%	970,849.6	44.6%	1,097,408.7	48.8%	1,073,520.3	47.9%	-23,888.4	-2.2%
Disposal	<u>995,035.0</u>	<u>57.5%</u>	<u>1,097,246.0</u>	<u>59.3%</u>	<u>1,173,593.0</u>	<u>58.4%</u>	<u>1,196,485.7</u>	<u>56.7%</u>	<u>1,240,432.7</u>	<u>57.1%</u>	<u>1,207,348.0</u>	<u>55.4%</u>	<u>1,151,338.5</u>	<u>51.2%</u>	<u>1,165,761.9</u>	<u>52.1%</u>	<u>14,423.4</u>	1.3%
Generation	1,730,265.8	100.0%	1,849,715.7	100.0%	2,009,186.2	100.0%	2,108,503.6	100.0%	2,173,321.2	100.0%	2,178,197.6	100.0%	2,248,747.2	100.0%	2,239,282.2	100.0%	-9,465.0	-0.4%

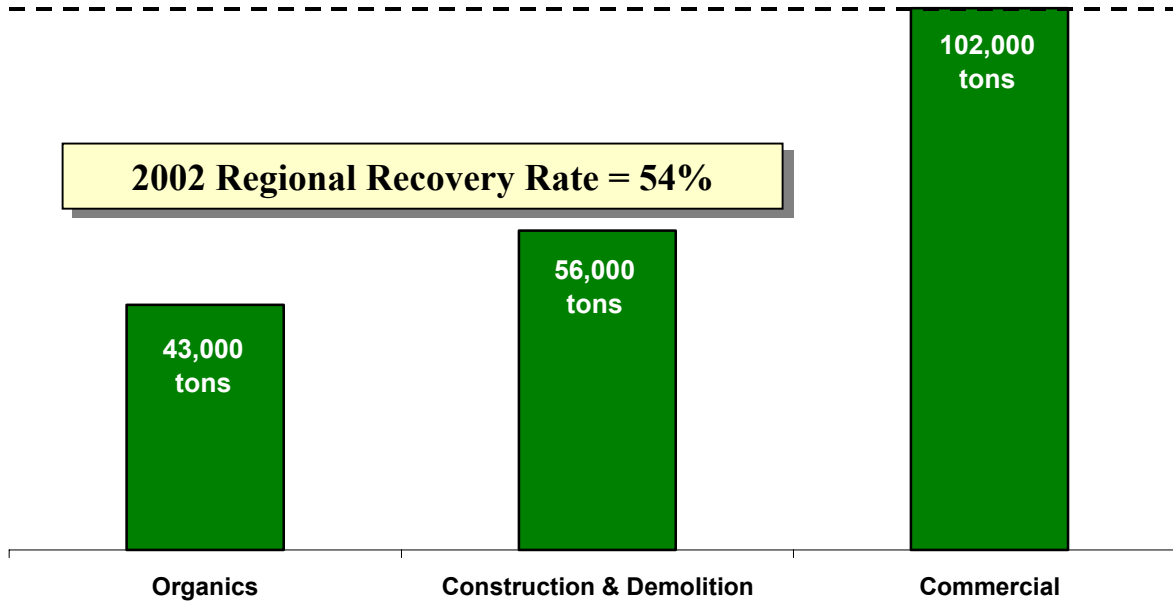
(1) Represents change in inventory of materials to be marketed.

Source: Oregon Department of Environmental Quality, October 2003.

APPENDIX E

Tons of New Recovery Needed to Meet 62% Recovery Goal by 2005 (1)

Total additional tons needed from initiatives: 201,000



Source: Oregon Department of Environmental Quality, 2002 Recovery and Waste Composition Studies, November 2003.

(1) An additional 89,000 tons from curbside recycling collection and bottle bill programs is needed with the waste reduction initiatives to reach the 2005 recovery goal, assuming projected growth in the waste stream for that year.