

**Metro Charter Committee**  
P O Box 9236 - Portland, OR 97207

**REPORT TO  
THE STATE OF OREGON  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
ON IMPLEMENTATION OF  
THE METROPOLITAN SERVICE DISTRICT'S  
WASTE REDUCTION PROGRAM**

**JULY 1991**

**Printed on Recycled Paper**

## TABLE OF CONTENTS

|  | <u>PAGE</u> |
|--|-------------|
| INTRODUCTION .....   | 1           |
| PROMOTION AND EDUCATION .....                                | 2           |
| Waste Reduction Promotion .....                              | 2           |
| Buy Recycled .....   | 2           |
| Home Composting/Yard Debris Recycling .....                  | 3           |
| Waste Reduction Education .....                              | 3           |
| Recycling Information Center (RIC) .....                     | 5           |
| Speaker's Bureau Activities .....                            | 6           |
| REDUCE AND REUSE .....                                       | 6           |
| Salvageable Building Materials .....                         | 6           |
| St. Johns Landfill Demonstration Project .....               | 6           |
| RECYCLE .....  | 6           |
| Local Recycling Service Coordination .....                   | 6           |
| Commercial Recycling .....                                   | 7           |
| Multi-family Recycling .....                                 | 7           |
| 1% For Recycling Grants .....                                | 8           |
| Economic Incentives .....                                    | 8           |
| YARD DEBRIS RECYCLING .....                                  | 9           |
| Home Composting Demonstration Project .....                  | 9           |
| Pilot Testing of Containers for Yard Debris Collection ..... | 9           |
| Source-separated Yard Debris at Transfer Stations .....      | 9           |
| Clean-Up Programs .....                                      | 10          |
| Other Yard Debris Recycling Activities .....                 | 10          |
| POST-COLLECTION MATERIAL RECOVERY .....                      | 11          |
| KB Recycling, Inc. Franchise .....                           | 11          |
| Oregon Processing and Recovery Center Expansion .....        | 11          |
| Special Waste Facility Procurement .....                     | 11          |
| Petroleum-Contaminated Soils .....                           | 11          |
| Construction/Demolition and Land-clearing Debris .....       | 11          |
| Sewage Screenings and Grit .....                             | 12          |
| Washington County System Design .....                        | 12          |
| ALTERNATIVE TECHNOLOGY .....                                 | 12          |
| Metro/Riedel Municipal Solid Waste Composter .....           | 12          |

## TABLE OF CONTENTS

|  | <u>PAGE</u> |
|--|-------------|
| <b>MARKETS</b> .....   | 12          |
| Institutional Purchasing .....   | 12          |
| Market Development .....   | 13          |
| Market Research .....  | 14          |
| Waste Tire Demonstration Project .....   | 14          |
| Plastic Lumber Demonstration Project .....   | 14          |
| Yard Debris Compost as an Alternative to Chemical Herbicides and Living<br>Mulches ..... | 14          |
| Washington County Stormwater Runoff Control .....  | 14          |
| Yard Debris Compost Quarterly Testing .....  | 14          |
| <b>SYSTEM MEASUREMENT AND ANALYSIS</b> .....   | 15          |
| 1990 Recycling Survey .....  | 15          |
| Solid Waste System Information (SWIS) Report and Data Collection .....                   | 15          |
| Solid Waste System Model .....   | 15          |

## LIST OF APPENDICES

- Appendix 1. Waste Reduction Promotion Materials
  - Office Paper Recycling
  - Home Composting/Yard Debris Recycling
  - New Residents
  - "Buy Recycled"
- Appendix 2. Waste Reduction Education Materials
  - Spring Conference Agenda
  - Brochure
  - List of School Recycling Programs
- Appendix 3. Final Report on the Residential Salvageable Building Materials Recovery Demonstration Project, March 11, 1991
- Appendix 4. Year 2 Program Activities of the Annual Waste Reduction Program for Local Government Monthly Recycling Reporting Form
- Appendix 5. List of Companies Receiving Waste Consultations, January - July 1991  
Waste Audit Workshop Materials, June 28, 1991
- Appendix 6. Multi-Family Containers: Staff Report and Intergovernmental Agreement with Washington County
- Appendix 7. Multi-Family Research Project, Portland State University: Staff Report and Intergovernmental Agreement
- Appendix 8. Letter from Environmental Protection Agency on 1% For Recycling Award  
News Articles on 1% For Recycling Program
- Appendix 9. Staff Report and Ordinance No. 91-405 Regarding Recycling Credit at Metro Central
- Appendix 10. Yard Debris Home Composting Demonstration Centers: Council Staff Report and Request for Proposal
- Appendix 11. Yard Debris Collect Containers Pilot Testing: Council Staff Report, Resolution and Intergovernmental Agreement with Clackamas County
- Appendix 12. Yard Debris Recycling Forum, June 4, 1991
- Appendix 13. Staff Report and Resolution for KB Recycling, Inc. Franchise  
Wastech Correspondence on OPRC Expansion
- Appendix 14. Amendment to Order Regarding Salvageable Building Materials  
Request for Information for the Procurement of Special Waste Facilities, January 1991
- Appendix 15. News Article on The Wood Exchange, *The Oregonian*
- Appendix 16. Policy and Technical Analysis for The Washington County System Plan, April 1991

- Appendix 17. "Buy Recycled" Conference Materials, February 1991  
*The Acquirer*
- Appendix 18. Waste Tire Demonstration Project Meeting, March 29, 1991  
Agenda and Meeting Notes  
RUMAC Specifications
- Appendix 19. Quarterly Yard Debris Compost Test Results
- Appendix 20. Solid Waste Information System Reports, February and May 1991

# IMPLEMENTATION OF METRO'S WASTE REDUCTION PROGRAM

## INTRODUCTION

This report is submitted to the Department of Environmental Quality (DEQ) in compliance with Section 5(a) of the Environmental Quality Commission Order No. SW-WR-89-01 (March 1989). Most of the order requirements have been fulfilled. The only outstanding provision is under the Materials Recovery Centers activity of Post-Collection Recycling [Section 4(I)], which stipulates that adequate material recovery capacity must exist in the region through expansion of existing facilities or construction of new ones.

Metro's plan for facility development was outlined in the January 1991 report. Since that time, KB Recycling received a Metro franchise to expand its operations, the Riedel composter began its testing phase, the results of the special waste Request for Information were analyzed, and the Washington County system design work was completed. Metro will continue the special waste procurement process to ensure that facilities are on-line to meet the order requirements and will inform DEQ on the progress of technical and policy decisions.

This report summarizes Metro's Waste Reduction Program accomplishments during the past six months. Some of the major projects include the following:

- ▲ The Northwest Regional "Buy Recycled" conference was held in Seattle on February 8. Approximately 450 attended and 49 vendors exhibited recycled products.
- ▲ Metro and the state Economic Development Department continued to implement the Oregon Market Development Strategic Plan to encourage business expansion and promote new businesses that use secondary materials in their manufacturing process.
- ▲ Metro initiated yard debris recycling activities that support the Regional Yard Debris Recycling Plan, including a yard debris container pilot project and home composting centers.
- ▲ The Metro/Riedel municipal solid waste composter started performance testing. The facility design includes front-end material recovery as well as composting, and is projected to increase the region's material recovery level by six percent.

Metro's 1991-1992 fiscal year budget allocates approximately \$3.9 million for the waste reduction division's program. This includes funds for local government recycling containers, "Metro challenge" grants, the 1% For Recycling monies and Metro's waste

reduction activities. A major project for FY 91-92 is be the Solid Waste System Model that will help Metro predict the effects of recycling programs and policies on the behavior of waste generators and haulers.

A program-by-program description of waste reduction activities for this reporting period follows. Technical reports and other documents are included as appendices in a separate notebook.

## **PROMOTION AND EDUCATION**

### **Waste Reduction Promotion**

This reporting period Metro conducted "Buy Recycled" and Home Composting/Yard Debris Recycling promotional campaigns. Office paper recycling promotion also continued with the writing of a new handbook and production of a poster and coffee mugs ("Watch Your Waste") that businesses can purchase as an incentive for participating in recycling programs. Metro prepared a mailer to promote the poster, mug, desk-side recycling boxes/labels, and a handbook for companies that are starting office paper programs. The mailer was sent to 750 businesses in March, and continues to be distributed through Metro's Recycling Information Center.

A description of the specific activities associated with the "Buy Recycled" and yard debris campaigns are listed below. Copies of specific materials are included in Appendix 1.

### **Buy Recycled**

- ▲ "Make Your Company Look Good on Paper. Buy Recycled." appears on two billboards donated as a public service by Ackerley Communications. The board locations are rotating throughout the metro area from January through December 1991.
- ▲ In January, seven members of the Business Recycling Task Force endorsed a letter encouraging CEOs of 750 targeted companies to institute recycled paper purchasing policies for their businesses.
- ▲ A breakfast for purchasers of office paper was held on January 31, 1991. The event included displays of recycled paper products by eight local vendors, and 125 people attended. Speakers included recycled paper buyers from Standard Insurance and a local advertising agency, and a representative from James River Corp. spoke about using recycled paper.
- ▲ On February 5th a mini-seminar was held for designers and others who use printing papers. The featured speaker was Joe Duffy, a successful designer from Minnesota, who works primarily with recycled paper. Thirteen paper vendors and

printers displayed their recycled products, and 300 people attended. Copies of the folder are now being used at trade shows and speaking engagements.

- ▲ A brochure following the "Make Your Company Look Good on Paper" recycling theme was distributed at key events, and is still available through the Recycling Information Center.
- ▲ In April and May "Buy Recycled" ads ran in *The Oregonian*, generating more than 40 requests for brochures.
- ▲ *Recycling Today* published an article focusing on the "Buy Recycled" campaign.

#### Home Composting/Yard Debris Recycling

- ▲ A television spot for yard debris recycling was developed with an advertising agency, and aired from mid-April to mid-May.
- ▲ Home Composting displays were set up in six metro area GI Joe's stores.
- ▲ A new composting brochure was developed to complement the Home Composting Demonstration Centers.
- ▲ An ad entitled "Let Your Yard Out of the Bag" that promoted home composting and the demonstration centers ran in *The Oregonian* in June. Displays following the same theme were developed for use at community events and speaking engagements.
- ▲ Copy was written for a new yard debris recycling brochure to replace the current "Save the Earth" flyer.

Metro also worked with an advertising agency to develop packets of recycling information for new residents in the Portland area. Welcome Wagon representatives and eight area realtors are distributing 10,000 packets this spring and summer.

#### **Waste Reduction Education**

A total of 307 presentations were made to nearly 19,000 individuals between January and July 1991. These included 158 school presentations, 139 puppet shows, 10 summer camp presentations, and 11 teacher workshops. During the entire 1990-91 fiscal year Metro education staff reached 28,610 people, which is a 35 percent increase over the previous fiscal year. In addition to presentations, Metro helped 30 schools set up recycling programs. See Appendix 2 for a complete listing of the participating schools.

Fourteen waste reduction education volunteers donated nearly 380 hours to Metro's programs during this reporting period. They spoke at schools and staffed the Yard, Garden and Patio Show, the Office Products Show, and Earth Day events.

Listed below are other educational achievements and activities.

- ▲ The following educational materials were distributed:
  - "Re: Thinking Recycling" curricula (95 distributed)
  - "Go Wild with Recycling" teacher information brochures (110 distributed)
  - "Teaching Recycling" teacher resource guides (49 distributed)
  - "Trash Trouble & Recycle Rescue" student work books (16,848 distributed)
  - "Trash & Dash" activity sheets (184 distributed)
  - "School Recycling Guide" (67 distributed)
  
- ▲ Two videos were produced featuring Metro's educational puppet show. One is to be used for training new volunteers to perform the show. The other was filmed "live" and will be available for loan to schools through the Recycling Information Center library.
  
- ▲ Staff was interviewed by students for a documentary on recycling produced by Tualatin Valley Cable Access.
  
- ▲ Two volunteers were filmed conducting puppet shows and classroom presentations as part of KPTV's "Time to Care" public service campaign. Two 30-second public service announcements created from the filming were aired in April.
  
- ▲ Metro's education program was a semi-finalist for the Environmental Protection Agency's (EPA) Administrators' Award Program for local government excellence in the field of waste reduction education.
  
- ▲ Metro staff assisted in organizing the Spring Education Conference of the Association of Oregon Recyclers (AOR).
  
- ▲ On Earth Day, Metro staffed booths promoting home composting, yard debris recycling, curbside recycling, household hazardous waste handling, and safer substitutions for hazardous household products. Metro also organized a paper-making activity center for children. Over 1,100 people stopped at the booths during the one-day event.
  
- ▲ The Metro recycling puppet show was presented by the Oregon Puppet Theatre for an audience of over 100 at the Zoo's Girl Scout Day.

## Recycling Information Center (RIC)

The Recycling Information Center (RIC) answered 40,845 calls between January 1 and June 30, 1991, compared with 35,911 calls during the same period last year. This reflects a 12 percent increase. A sample of the type of questions received and the types of materials follows.

| <u>Question Type</u>   | <u>Jan-Jun '91</u> |
|--|--------------------|
| Drop-off locations   | 27,319             |
| Curbside Recycling   | 1,825              |
| General Information  | 10,218             |
| Plastics   | 9,981              |
| Yard Debris  | 4,641              |
| Garbage  | 3,649              |
| Other (includes newspaper,<br>tin cans, scrap metal, tins,<br>and hazardous waste) | 24,664             |

RIC staff mailed approximately 2,945 pieces of information to 1,202 individuals, including office paper handbooks, composting brochures, curbside recycling brochures, hazardous household waste/safe substitutes brochures, and information regarding the Recycling Information Center itself.

Major promotions affecting the RIC in this period were:

- ▲ "Buy Recycled"
- ▲ Office Paper follow-up campaign
- ▲ New resident packets via realtors: general recycling
- ▲ General recycling TV spots
- ▲ Home composting TV spots
- ▲ Small business office recycling newspaper ad
- ▲ Home composting workshops
- ▲ District-wide mailer regarding garbage rates and waste reduction
- ▲ SOLV-IT neighborhood illegal dumpsite clean-up in April.

During this reporting period, the Metro Council approved the addition of one half-time Program Assistant position to the Recycling Information Center, effective FY 1991-92. Recruitment is now underway for the position, which will provide additional weekend telephone coverage to the Center. The RIC also updated its information base. More than 20 update forms were sent to recyclers listed with the Center in order to get the most accurate information on hours, materials received, and locations of recycling services and facilities. The RIC is also developing a new computer system that will greatly expand current capacity and applications.

## **Speaker's Bureau Activities**

Metro addressed nine community and business organizations regarding waste reduction and recycling. Presentations were given to the following groups: Beaverton Business & Professional Women; Hillsboro Junior Women; St. Luke's Lutheran Church; Milwaukie Presbyterian Church; Emmanuel Lutheran Church; Aloha Sunset Rotary; Sequent Gaston Company; Spring Ridge Retirement Center; and the Church of the Latter Day Saints. Waste Reduction staff presented papers on yard debris composting at the Environmental Technology Exposition and on multi-family recycling at a symposium sponsored by the Solid Waste Association of North America.

## **REDUCE AND REUSE**

### **Salvageable Building Materials**

St. Johns Landfill Demonstration Project: This six-month demonstration project was completed in January 1991. The results of the study are reported in Appendix 3. Based on this pilot, Metro determined collection of reusable building materials at Metro disposal sites was not an economically viable activity. The cost of the project far exceeded revenues from the sale of materials and the amount of waste diverted was a small part of the total wastestream. However, Metro will address both residential and commercial building salvage as part of a larger construction/demolition debris recovery system. This project is described under the Post-Collection Material Recovery section.

## **RECYCLE**

### **Local Recycling Service Coordination**

Metro continued to coordinate with the region's local governments to implement their Annual Waste Reduction Programs. All of the first year programs were approved with the exception of Gladstone and Maywood Park. Metro has been working closely with the City of Gladstone to encourage the completion of their program but to-date a plan that fulfills Year 1 requirements has not been submitted. Management changes in Maywood Park have slowed their progress. "Metro Challenge" funds were distributed to those governments with approved programs. Gladstone and Maywood Park will receive their allocation upon approval of their programs.

Metro is currently working with cities and counties to evaluate results of their programs. Evaluation reports must be submitted prior to receiving second-year "Metro Challenge" funds. Metro also began collecting information from haulers on recycling tonnages in January. This data will be compiled and analyzed to gauge the effectiveness of various recycling programs and to follow trends. The year-two work program activities and the hauler reporting form are attached as Appendix 4.

## **Commercial Recycling**

Metro has conducted 56 waste consultations since the beginning of the year. A list of the companies receiving this service is attached as Appendix 5. On June 28, 1991, Metro also conducted a waste audit workshop for local government administrators. Four guest speakers shared their recycling expertise in diverse commercial settings, including medical waste, schools, large corporations, and small businesses. Metro provided information packets and answered questions to help local government representatives conduct future waste consultations within their jurisdictions. A copy of the agenda and a new, simplified waste consultation form are included in Appendix 5.

Metro is also promoting commercial/institutional recycling through the Peer Exchange Program. This program matches companies who have received waste audits and implemented successful recycling programs with new companies interested in recycling. The new members therefore benefit from the knowledge and experience of similar businesses and institutions.

Finally, Metro is working with Pacific Standard Television and the Oregon Medical Association to produce an office paper recycling video. The video will emphasize reduce, reuse and recycle in a variety of commercial settings and will include testimonials from large and small businesses in the Metro area who have successful programs in place. The video should be completed in October and will help Metro reach a greater number of businesses in the region.

## **Multi-family Recycling**

In fiscal year 1990-91, Metro established a local government matching grant program to provide funds for multi-family recycling containers. \$252,000 was allocated for distribution on a per capita basis. The City of Portland received \$120,000 in January 1991. The Intergovernmental Agreement for this project was included in the January 1991 DEQ report. In May, Metro completed a contract with Washington County and the ten cities within the county to distribute \$66,692 for their multi-family container program. Five more IGAs will be signed by June 30th with Milwaukie, Gresham (for East Multnomah County), Clackamas County, Lake Oswego, and West Linn (for Oregon City and Gladstone). The staff report and the Intergovernmental Agreement are included in Appendix 6.

Metro also contracted with Portland State University to conduct a research project on multi-family recycling. This project established 20 case studies for apartment complexes that represent a range of building types and locations. Results of this study will assist the region as it implements multi-family recycling on a broader scale as part of the Year 2, Annual Work Program requirements. The staff report on this project is part of Appendix 7.

## **1% For Recycling Grants**

In January, the Metro Council approved 1% For Recycling grants totaling \$407,000. The grants for ten projects addressed reuse of building materials; recycling construction/demolition debris, plastics and paper; vermicomposting; and promotion/education. A final evaluation report on the results of the Year 1 and 2 grants was drafted for Council review. The final report will be available this summer.

A new chairman and three new members were appointed to the advisory committee that reviews 1% For Recycling proposals and makes recommendations to the Metro Council. Councilor Susan McClain from Washington County replaces Judy Wyers as chair of the advisory committee.

The 1% For Recycling program, along with the school education program, was nominated by the EPA as a Region 10 finalist for their Administrator's Awards given out in May. Metro was the only Oregon nominee in the government category. A copy of the nomination letter and an associated news article, as well as the 1% For Recycling staff report and resolution are attached in Appendix 8.

## **Economic Incentives**

Recyclables Self-Hauled to Transfer Stations: In order to prevent self-haul customers from being charged for recyclables brought to the transfer stations, a \$3.00 credit on the disposal fee was put in place for self-haulers who include at least one-half cubic yard of source-separated recyclables in their loads. This system is about to be improved even further with a reconfiguration at Metro Central that will create a recycling depot where self-haulers can deposit recyclables prior to crossing the scales. Since it will no longer be necessary to weigh the recyclables along with the garbage, the credit will be eliminated at Metro Central. The depot will be inside the transfer station building where customers are protected from the weather. The area will be signed, staffed, and educational materials regarding recycling will be available. The \$3.00 credit will continue to be available at Metro South. (See Appendix 9.)

Yard Debris: A reduced tipping fee has been established for source-separated yard debris self-hauled to Metro facilities. The fee is lower than the fee charged for solid waste, and higher than the fee yard debris processors charge. This is intended to encourage delivery of source-separated yard debris directly to yard debris processors.

An area has been set aside at Metro Central for the storage of yard debris prior to transport for processing. Though problems with the reconfigurations of Metro South have prevented removal of the compactor and hence delayed plans to use one end of the pit for clean yard debris collection, it is anticipated that clean yard debris collection will begin by July 1.

Recycling Credits for Non-Profit Charitable Organizations: The Metro Council has appropriated \$225,000 in disposal credits for eligible non-profit charitable organizations. The amount each organization may receive will be based on its recycling rate.

## **YARD DEBRIS RECYCLING**

### **Home Composting Demonstration Project**

This spring Metro will open four home composting demonstration centers to educate the public about various home composting methods. The sites will be located at Clackamas Community College, Mt. Hood Community College, Portland Community College (Rock Creek Campus) and the Community Garden at Fulton Park in Southwest Portland. A Request for Proposal was released in January to obtain a contractor to design the sites, prepare educational matters and conduct "hands-on" workshops. The contract was awarded to Sound Resource Management Group, Inc. of Seattle, and Metro worked closely with the consultant and a steering committee of representatives from the Master Gardeners' Program, The Environmental Learning Center, Recycling Advocates, and site sponsors.

The opening of the first Metro Home Composting Demonstration Center at Fulton Park was held on June 11. The rest of the sites will open this summer. Copies of the staff report/resolution and promotional materials on the Fulton Park opening are included as Appendix 10.

### **Pilot Testing of Containers for Yard Debris Collection**

Metro and Clackamas County signed an Intergovernmental Agreement in January to conduct an eight-month pilot project to test containers for yard debris collection. The project will analyze the ease of use and the costs of six types of containers for collection, hauling, and processing of yard debris. The containers include two reusable, three biodegradable and one conventional plastic bag.

The study began in March and will continue through October in order to take advantage of the peak yard debris generation period. Results will help Metro and local governments implement the recommendations adopted in the Regional Yard Debris Recycling Plan. The staff report/resolution and Intergovernmental Agreement with Clackamas County are attached as Appendix 11.

### **Source-separated Yard Debris at Transfer Stations**

Construction and retrofitting at the Metro South Transfer Station will be completed in time to begin accepting source-separated yard debris by July 1. The material will be

collected in a designated area on the tipping floor, and will be transferred to a yard debris processor. Metro Central is currently collecting source-separated yard debris in roll-off containers and also hauling it to a processor for recycling.

### **Clean-Up Programs**

In FY 1990-91, Metro established a fund to assist with disposal costs associated with community and illegal dump site clean-up efforts. The funds were distributed in two ways: Local government matching grants (totaling \$58,500), and a \$20,000 sponsorship for the second annual SOLV-IT clean-up held on Saturday, April 13th.

The Local Government Matching Grants were designed to encourage innovative community clean-up programs that go beyond basic activities and to encourage recycling at these events. The following communities are expected to utilize Metro funding for up to half of their recycling/disposal costs: Beaverton, Gresham, Portland, Milwaukie, Lake Oswego, Fairview, Wood Village, Oregon City, Washington County, Hillsboro, and Tualatin.

The SOLV-IT event was coordinated by the non-profit organization "Stop Oregon Litter and Vandalism." Forty-four Portland neighborhoods and twelve illegal dump sites were cleaned up with the assistance of SOLV-IT funding and volunteers. The following materials were recycled or correctly disposed of as a result of the event: Approximately 124 tons of mixed solid waste, 4,300 tires, 2,500 cubic yards of yard debris, and 25 tons of scrap metal. Over 600 volunteers provided the labor to clean up the community and over 4,000 Portland residents benefitted by the ability to properly recycle or dispose of their yard debris and other materials.

### **Other Yard Debris Recycling Activities**

Metro planned a workshop for June 4 to help local governments and haulers implement the Regional Yard Debris Recycling Plan. The workshop was intended to provide information and answer questions on collection, processing and marketing of yard debris, but was canceled because of a lack of interest. The agenda is included in Appendix 12. The workshop may be rescheduled at a later date. Metro is also working with wasteshed representatives to develop provisions for yard debris recycling in future Annual Work Programs for local governments.

Metro continued to promote yard debris recycling and composting through promotion/education campaigns and the Recycling Information Center. These activities are described under the Promotion and Education section.

## **POST-COLLECTION MATERIAL RECOVERY**

### **KB Recycling, Inc. Franchise**

In the January 1991 report to DEQ, Metro indicated that order requirements for high-grade processing capacity would be met through the expansion of KB Recycling, Inc. and OPRC. In March, the Metro Council approved the franchise agreement for KB Recycling. This will enable them to add a picking line to their operations to recover high-grade loads that might otherwise be disposed through the Metro South Transfer Station. As a result of this franchise, KB proposes to increase their volume to receive an additional 5,000 tons per year of dry mixed waste paper containing at least 70% recyclable content. A copy of Metro's staff report/resolution is attached as Appendix 13.

### **Oregon Processing and Recovery Center Expansion**

Throughout the year, Metro staff has monitored the status of the proposed Wastech expansion. In a letter dated December 1990, Mr. Merle Irvine stated that "final design and permitting of OPRC will occur between February and June with construction beginning in July 1991." (See Appendix 13.) At that time it was anticipated by Wastech that production of fiber-based fuel would begin in the second quarter of 1992. According to recent reports by Mr. Irvine, Wastech will apply for a building permit by mid-July and expanded operations should begin by mid-1992.

### **Special Waste Facility Procurement**

In January Metro issued a Request for Information (RFI) for special waste facilities. (See Appendix 14.) Based on responses received, Metro is evaluating current policy and developing a strategy for managing various components of the special wastestream. The following summarizes progress in the management of petroleum-contaminated soils; construction/demolition and land-clearing debris; and sewage screenings and grit.

Petroleum-Contaminated Soils (PCS): PCS is currently being landfilled, since there are no local processors for remediation. Metro is working with potential processors, DEQ and local governments to determine how the state hierarchy can be applied to the material and how to modify Metro's Code to allow for the licensing of PCS processors. DEQ has developed standards for determining if a treatment method is acceptable. A DEQ permit and appropriate conditional use permits will be required for potential processors. Metro is preparing an action plan for the management of this material.

Construction/Demolition and Land-clearing Debris: Over the past year there has been a substantial increase in the region's capacity to process and recycle this segment of the special wastestream. Existing processors have purchased new equipment, new processors have begun operating and additional materials are being handled. For example, the

Wood Exchange, recently opened in NE Portland, processes wood pallets for use in fiberboard (see Appendix 15).

Metro is conducting a survey to analyze current capacity for construction/demolition waste to determine how best to recover material. The Waste Reduction Subcommittee will be convened to help develop policy for recovery of construction/demolition waste and land-clearing debris. Increased recovery of salvageable building materials and marketing of materials are factors to be considered in policy development and facility procurement in this area.

Sewage Screenings and Grit: Metro is working with material generators, haulers and disposal site operators to find a regional disposal solution for this material.

### **Washington County System Design**

Metro completed a technical assessment for determining material recovery potential in Washington County. This study is a major component of a comprehensive technical and policy assessment of solid waste facilities in the County. (See Appendix 16.)

## **ALTERNATIVE TECHNOLOGY**

### **Metro/Riedel Municipal Solid Waste Composter**

Riedel began performance shake-down for the compost facility in April. Actual performance testing began in May and will continue until final approval and acceptance by Metro. Riedel is currently receiving 600 tons a day of municipal solid waste from haulers who have been directed through Metro's flow control ordinance to take their loads to the composter. The loads are generally from residential customers, but select commercial loads are also being taken to the facility. Metro is currently evaluating the throughput capacity, material recovery rates, residue generation, odor and noise levels, and compost acceptability.

## **MARKETS**

### **Institutional Purchasing**

Metro co-sponsored the first Northwest Regional "Buy Recycled" Conference, held in Seattle on February 8, 1991. More than 450 people attended the conference, including purchasing agents from business and government throughout the Northwest. Forty-nine vendors exhibited recycled products. Metro has already begun planning for next year's "Buy Recycled" conference to be held in Portland. A consultant has been hired to survey vendors of recycled products on the effectiveness of this year's conference and to get

ideas for planning next year's. A second contract has been awarded to a company to conduct focus group sessions with public and private sector purchasers and identify problems with buying recycled products. Results of the sessions will also be used to improve next year's conference.

The winter/spring edition of *The Acquirer* was sent to over 500 businesses and government purchasers in March. A tear-off order form was included so that readers could receive other Metro information such as the Recycled Products Index, purchasing guide and model procurement policy. The number of companies and governments interested in receiving *The Acquirer* continues to grow.

Metro made a presentation about "Buy Recycled" at an April meeting of the Rogue Valley Council of Governments in Medford, and a May meeting of city and county governments in Corvallis. A "Buy Recycled" booth was also set up at the May meeting of the Oregon Public Purchasing Association in Bend, where over 75 indexes were distributed to procurement officials. The agenda from the February conference and a copy of *The Acquirer* are included as Appendix 17.

### **Market Development**

Metro worked on two tasks from the Market Development Strategic Plan to recruit businesses that utilize secondary materials. The first was a survey conducted by the Oregon Department of Economic Development to determine what business assistance is now available in the state, and the level of business recruiter knowledge about used resources. The second was planning a workshop for Oregon business recruiters in September at the annual conference of the Association of Oregon Recyclers.

Metro allocated \$250,000 in its FY 1991-92 budget for a revolving loan fund to promote business involvement in recycling. This program will be administered jointly with the Portland Development Commission (PDC) and will be used to finance start-up or expansion of businesses that utilize recycled material as their major feedstock.

Metro also analyzed the marketability of recycled latex paint, which would be collected from the region's permanent household hazardous waste facilities and used for both interior and exterior applications. The initial response from government agencies indicates that there is sufficient interest to utilize the supply that could be produced for the first two years. Metro is developing model procurement policy that will go before the Metro Council prior to the household hazardous waste facility opening at Metro South this fall. This policy will also be available to local governments.

Finally, Metro attended a meeting of the King County Commission for Marketing Recyclable Materials on glass markets. Discussions centered on finding alternative markets for glass in response to the current over-supply of green and amber cullet.

## **Market Research**

**Waste Tire Demonstration Project:** Generic specifications for Rubber Modified Asphalt Concrete Pavement (RUMAC) were completed during this reporting period and will be included in the bid documents for paving projects in Multnomah County, the City of Portland, and the Oregon State Highway Division. Two rubber granule producers have been approved to supply crumb rubber from tires in accordance with the RUMAC specifications. The actual lay-downs are anticipated in August. TAK Associates are providing technical assistance under the contract developed by Metro and DEQ. A meeting of the parties involved in the waste tire project was held at Metro on March 29, 1991. Meeting notes and a copy of the RUMAC specifications are attached as Appendix 18.

**Plastic Lumber Demonstration Project:** Three proposals were received in response to a Metro Request for Proposal. The Johns Inskeep Environmental Learning Center was awarded the contract to demonstrate the feasibility of using plastic lumber in seven different applications within the commercial and recreational sectors. A performance evaluation of three compositionally different lumber materials will be done by the builder/user. The materials will also be tested by the OSU Wood Products Lab and the National Forest Products Lab as to how it relates to ASTM and UBC standards for use. Results of the study should be available by August 1991.

**Yard Debris Compost as an Alternative to Chemical Herbicides and Living Mulches:** OSU Agricultural Experiment Station continues to conduct tests on the overall effectiveness of yard debris compost as a mulch for weed and erosion control in an agricultural application (cane field). Over a one year time period, a comparison will be made between typical living (annual and perennial) mulches, clear cultivation, herbicide application and yard debris compost. Results should be available after July 1991.

**Washington County Stormwater Runoff Control:** This project will demonstrate the feasibility of using yard debris compost material to filter contaminants from stormwater runoff. Washington County, in cooperation with Wilsey and Ham Pacific, has designed an experimental compost-berm system along a section of roadway in the county that will filter surface water run-off that eventually ends up in the Tualatin River. Construction of the system began in May. Preliminary testing and necessary modifications will occur during the summer. Full scale operation begins with fall/winter runoffs in October. The final report will be completed in January 1992.

**Yard Debris Compost Quarterly Testing:** Samples from Grimm's Fuel and McFarlanes Bark were collected as scheduled during the four quarters of FY 1990-91. Tests were performed by independent labs for nutrient content, pathogen analysis, herbicide-pesticide residue, weed seed viability and toxicity. Test results remain consistent with testing done over the past four years. Copies of test results are attached as Appendix 19.

## **SYSTEM MEASUREMENT AND ANALYSIS**

### **1990 Recycling Survey**

Metro completed the annual survey to determine the region's recycling level for 1990. The preliminary results of the survey indicate a 1990 recycling level of approximately 29 percent. This reflects an increase from the 1989 level of 28 percent. The primary reason for this improvement was an increase in recycling of corrugated and other paper. The final recycling survey and report will be completed in July and submitted to DEQ at that time.

### **Solid Waste System Information (SWIS) Report and Data Collection**

Two quarterly SWIS reports were published during this reporting period. They are included as Appendix 20. To make the SWIS data more widely available to others in the region, Metro hired a software consultant to develop an RBASE program to manage the data.

### **Solid Waste System Model**

In February, Metro released an RFP to develop "individual choice models" for the region's solid waste system. These models will simulate the effects of policies and management practices on the behavior of waste generators and haulers.

Four proposals were reviewed in response to the RFP, and Cambridge Systematics, Inc. of Berkeley, California was selected to conduct the project. The model will have applications for many solid waste functions, such as directing haulers to specific facilities, forecasting for budgets and rate-setting, and facility planning/management. Metro's Geographic Information System will be the platform for the model since its graphic and geographic analysis capabilities are ideal for many of the potential policy issues.

Data not presently available to Metro, such as classification of non-residential waste generators by standard industry codes and current land use, will be collected as part of this study. Different types of generators will then be sampled to determine the type and quantity of waste generated and recycled. Metro established an advisory committee made up of local solid waste professionals who will review workplans and results of this project.

I:\LEIGH\DEQREPOR\JULY91.RPT