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# City of Portland Multi-Family Recycling Program: Final Report

Gerald F. Blake

*Portland State University*

Lynne Storz

*Portland State University*

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7-12  
DO NOT RECYCLE

**City of Portland  
Multi-Family Recycling  
Program**

**Final Report**

June 1990

By

Gerald F. Blake, Ph.D.  
Lynne M. Storz, B.S.

Research Team

Susan McKinney  
Michael Ray  
Tamara Roth  
Jeffrey Mihelich  
Valerie Fitterer  
Tom Frank  
Dominique Hardeman  
Arnita Tucker

This research was funded by the Bureau of Environmental Services, City of Portland, Oregon and the Metropolitan Service District (Metro).

Dr. Blake is a professor of Urban Studies and Planning and Research Associate in the Center for Urban Studies, Portland State University. Ms. Storz is a graduate student in Urban Planning in the Department of Urban Studies and Planning and Research Assistant in the Center for Urban Studies.

## TABLE OF CONTENTS

Introduction .....	1
Study Design .....	2
Equipment Used in Program .....	5
Procedure.....	6
Major Findings and Recommendations.....	7
APPENDIX A: Participating Buildings .....	13
APPENDIX B: Equipment Used in Program.....	17
APPENDIX C: Field Investigation Report .....	18
APPENDIX D: Apartment Building Recycling Kit.....	20
APPENDIX E: “How-to-Recycle” Leaflet .....	38
APPENDIX F: Follow-up Monitoring Report.....	40
APPENDIX G: Publicity Related to the Program.....	41

## LIST OF TABLES

TABLE 1: Buildings Included in the Multi-Family Recycling Program.....	3
TABLE 2: Multi-Family Buildings by Geographic Location.....	4
TABLE 3: Distribution of Recycling Systems by Dwelling Units .....	5

## INTRODUCTION

Every person in the United States generates about 4.5 pounds of garbage each day <sup>1</sup>. The City of Portland generates 973 tons daily or 355,145 tons of solid waste per year. Multi-family dwellers account for 225 tons or 23 percent of Portland's daily total. The St. John's landfill will reach capacity in 1991 which will require that Portland's waste be transported to a landfill in central Oregon.

In 1983, the Oregon legislature enacted the nation's first recycling bill. The bill called for a state-wide curbside recycling program, in communities with populations greater than 4,000, aimed at reducing the volume of waste going to landfills and increasing participation in recycling. In the Portland area, the curbside recycling effort has focused primarily on single family residences, while multi-family dwellings, including apartment buildings and condominiums have received less attention. One of the most serious problems confronting Portland's recycling effort is gaining the cooperation of apartment building owners, managers, and tenants to participate in recycling.

This report examines the Multi-Family Recycling Program sponsored by the City's Bureau of Environmental Services (BES), and operated by Portland State University's Recycling Education Project (REP). The program operated from July 1, 1989 to June 30, 1990. The purpose of the program was to implement a pilot recycling program that addressed the unique needs of apartment and condominium dwellers. The effort involved establishing recycling systems in 200 multi-family buildings. The program used a multi-materials approach that included separating newspaper, clear, green, and brown glass, tin, aluminum, and cardboard.

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<sup>1</sup> "Re: Thinking Recycling, an Oregon Waste Reduction Curriculum," The Oregon Department of Environmental Quality, 1988, page 25.

The pilot program was undertaken to further the City's and Metro's solid waste reduction goals, in accordance with DEQ's Solid Waste Plan. These goals call for increasing recycling in the city to 50% by the year 2000<sup>2</sup>. In addition, the program attempted to field test strategies for establishing both outdoor and indoor recycling systems; to identify problems encountered by apartment managers and tenants unique to multi-family sites; and to identify problems encountered by local garbage haulers when servicing the recycling systems. The program was directed by PSU Professor Gerald F. Blake and coordinated by Lynne Storz, a PSU graduate student in Urban Planning. The program was carried out by a team of PSU graduate and undergraduate students.

## **STUDY DESIGN**

The sample of apartment buildings selected for the program was drawn from several sources:

- (1) referrals from the City's Energy Office, where owners or managers requested recycling assistance;
- (2) referrals from apartment managers and tenants who had contacted the City's BES with requests that recycling be started in their building;
- (3) lists of apartment buildings identified by the Recycling Education Project during the course of the field work; and
- (4) referrals from local garbage haulers of their multi-family customers requesting recycling assistance.

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<sup>2</sup> "Annual Waste Reduction Program for Local Government, Year One of a Five Year Plan, 1990 - 1995," Metropolitan Service District, 1990, page 7.

A total of 225 apartment buildings or condominium complexes were included in the pilot project<sup>3</sup>. Of that number, 175 or 78 percent, participated in the program (See Table 1).

Appendix A contains a list identifying the buildings included in the study. Fifty buildings were not included in the program because REP staff were unable to establish contact with owners or managers after repeated attempts.

Of the 175 participating buildings, 87 were equipped with 106 outdoor recycling systems (17 outdoor sites contained multiple recycling systems). Eighty-eight buildings were provided with 103 indoor recycling systems (7 indoor sites contained multiple systems) (See Table 1).

TABLE 1

**Buildings Included in the Multi-Family  
Recycling Program**

Participating	Number	Percent
Outdoor Sites	87	39%
Indoor Sites	88	40%
Not Participating	50	21%
<b>TOTAL</b>	225	100%

<sup>3</sup> This report does not include the establishment of a complete recycling system for the Housing Authority of Portland's Columbia Villa Housing Project. During the summer of 1989, the Recycling Education Project operated a recycling program for the 478 unit, Columbia Villa complex, housing 1600 low income families. The recycling effort employed 16 Portland teenagers who constructed 60 wooden shelters which were located around the housing complex. An extensive door-to-door educational campaign was carried out by the teenagers under the supervision of the REP staff. Follow-up reports found that a large amount of newspaper was being recycled at the Villa, while less significant amounts of glass and tin were being recycled. Of the sixty shelters that were constructed by the youths, only five showed any noticeable amount of damage or defacing.

The 175 buildings were geographically distributed across the city's five districts (See Table 2). The largest grouping of apartment buildings was located in Southeast Portland, where 29% of the buildings (51 of 175 buildings) were located. Twenty-six percent were located in Southwest Portland (45 of 175 buildings), followed by twenty percent each located in Northwest and Northeast Portland (35 of 175 buildings each). Five percent, or nine buildings, were located in North Portland.

TABLE 2

**Multi-Family Buildings by  
Geographic Location**

Geographic Location	Number	Percent
Southeast	51	29%
Southwest	45	26%
Northwest	35	20%
Northeast	35	20%
North	9	5%
<b>TOTAL</b>	175	100%

The 175 buildings in the program included 6,730 apartment and condominium units. The average size of the multi-family dwellings was 38 units (See Table 3). The outdoor sites contained 2,831 dwelling units, or an average of 33 units per building. The indoor sites contained 3,899 dwelling units for an average of 44 units per buildings.

TABLE 3

**Distribution of Recycling Systems  
by Dwelling Units**

Location	Dwelling Units	Percent	Average No. Units
Outdoor	2,831	42%	33
Indoor	3,899	58%	44
<b>TOTAL</b>	6,730	100%	38

**EQUIPMENT USED IN PROGRAM**

The outside recycling shelters were designed by the BES, the Recycling Education Project, the Office of Energy, and DeWald NW Inc., in consultation with local haulers. The outdoor systems consisted of two 71" x 25" x 44" metal recycling shelters (See Appendix B) that contained six 32-gallon fiber barrels for storing recyclables. The BES purchased the 106 pairs of the metal outdoor recycling shelters. The indoor systems were comprised of six 32-gallon fiber barrels for each of the systems. The REP purchased the fiber barrels for each of the outdoor and the indoor systems. There was a much higher demand for the outdoor shelters compared to the indoor systems and the supply was exhausted early in the project.



## PROCEDURE

The Recycling Education Project staff made personal contact with the management companies and/or on-site building managers to provide technical assistance in establishing outdoor and indoor recycling systems. Technical assistance included a recycling audit, a site visit, scheduling and assisting in the delivery of the recycling system and notification of the local hauler.

During the audit phase, REP staff advised the building owner or manager on the best location of the recycling system. The recommendations were based on tenant and hauler accessibility and on fire code regulations. A field investigation report (see Appendix C) was completed, noting any physical barriers unique to the building site that would prevent maximum use of the recycling area by tenants. The report also contained a site sketch showing the location of the dumpster sites or trash rooms where the recycling system would be installed.

At the time of the audit, the owner or manager was given an Apartment Building Recycling Kit (see Appendix D). The Kit contained a letter of introduction from a city commissioner, and information on the preparation of recyclables suitable for posting on bulletin boards or in recycling areas. The kit also contained signs to identify where recyclables are being placed. The signs could be laminated for use in either outdoor or indoor recycling areas.

Discussion between REP staff and managers also occurred at the audit phase on the variety of education materials available to tenants. All tenants received a "how-to recycle" brochure (see Appendix E) through a door-to-door educational campaign. Several managers also placed this information in tenant newsletters. A number of managers requested that REP staff put on a "how-to-recycle" presentation at tenant gatherings where questions and answers could be addressed.

Upon completion of the recycling audit, the REP scheduled delivery of the recycling shelters. Placement of the outdoor systems involved coordination with DeWald Northwest Inc., the recycling container manufacturer; the fiber barrel supplier, and the building owner or manager. The garbage hauler was then notified of the recycling system's delivery date. At the time of delivery REP staff returned to the apartment building and assisted in the installation of the system. The tenants received the educational material when the system was in place. The procedure for installing indoor systems was similar, except it did not involve the delivery of the metal shelters.

Follow-up visits were made to each outdoor site in the pilot program to monitor the progress of the new recycling systems. The follow-up report attempted to measure tenant participation in the program; the extent of separation and/or contamination of recycled materials; and gather additional information from building managers on barriers to recycling (See Appendix F).

After the recycling system was installed, REP staff made contact with haulers to solicit any positive or negative reactions they had in servicing the systems. Recommendations for improvements were noted for future recycling efforts.

## **MAJOR FINDINGS AND RECOMMENDATIONS**

The pilot project revealed a significant amount of interest in expanding recycling in the multi-family buildings that were contacted. The monitoring effort showed that the metal outdoor shelters were particularly popular with tenants and managers.

1. The follow-up effort was based on the 87 buildings where outdoor systems were located. The following highlights were revealed:

### **Overall Participation**

Managers reported that tenant use of the recycling systems was relatively high. In 31 buildings, 50-100 percent of the tenants were using the systems on a regular basis. In 22 cases 25-50 percent of tenants were using the systems, while in only 8 buildings, less than 25 percent of the tenants were using the recycling systems. In 26 cases tenant participation information was not available.

### **Contamination of Recyclables**

There was no significant evidence of contamination of recyclables among 65 of the 87 buildings monitored. Only 2 of the systems showed heavy contamination, meaning that the containers were being used primarily for garbage. Twenty buildings had minor amounts of contamination, for example, plastic shopping bags mixed in with the newspaper.

### **Properly Prepared Materials**

It was found that tenants in 81 of 87 buildings were properly preparing the recyclable materials. The most frequent example of improper preparation was not rinsing and flattening tin cans.

### **Adequacy of Service Provided by Haulers**

Most haulers were servicing the recycling systems on a once or twice per month basis. Twenty-five buildings (29%) were serviced on a once a month basis. Twenty-three buildings

(26%) were serviced twice a month. Nine buildings (10%) were serviced by haulers on a weekly basis. Eight buildings (9%) were serviced on a less than monthly basis. Six buildings (7%) were serviced on an as needed basis, determined by managers or haulers. Sixteen building managers did not respond to the question.

Fifty-four percent of managers felt that their level of service was adequate. Twenty-nine percent felt their level of service was inadequate. The remaining managers (17%) did not answer or were unsure about their level of service.

### **Manager and Tenant Comments**

The most frequent comments made by tenants and reported by managers was that tenants were grateful to have the opportunity to separate recyclables and store them in a convenient location. In addition, tenants expressed positive opinions about the appearance of the outdoor shelters. Several managers indicated that the new recycling systems gave owners an added amenity to offer tenants.

### **Hauler Comments**

Haulers expressed a variety of comments concerning their difficulties working with the City and with Metro. The most frequent comments center around local government's lack of effort to remedy the poor markets for recyclables, and the perception that haulers earn significant income from selling recyclable materials. The only complaints by haulers concerning the recycling systems were the lack of containers for handling the large volume of newspapers and the poor design of the containers themselves (having no handles to lift the containers).

## Continuing Education Effort

The constant turnover of tenants and managers, and the unique way in which recyclables are collected and stored at multi-family buildings suggests that a continuing education effort is necessary for a high level of participation in recycling. This effort should include periodic re-leafletting of dwelling units, conducting "how-to-recycle" presentations, and publishing information on preparation of recyclables for tenant newsletters.

2. In some respects the pilot project proved a little too successful, in that the recycling systems were initially overwhelmed by the amount of newspaper being recycled. This problem contributed to some manager's perception that recycling areas would become disorganized and unsightly causing them more work. The fact that local haulers were not able to respond to new pick-up schedules contributed to this perception. We fully expect that haulers will adjust their schedules to accommodate the increase in recyclable material. In the case of indoor recycling systems, the major drawbacks were fire danger from the combustible material and the perception that recycling will cause odor and infestation.
3. Both outdoor and indoor systems performed well given their intended use. The outdoor shelters were easily identifiable to tenants and haulers and were perceived as being a positive addition to the apartment complexes. The major uniqueness of multi-family dwellings is that tenants can recycle at any time because there is a centralized location on the property.

In high rise apartment buildings, where there are large numbers of elderly and disabled persons, further barriers to recycling may have to be overcome. From our observation, these tenants will require assistance in transporting recyclables to centralized locations. One possibility would be to employ teenagers to provide door-to-door recycling services for these tenants. It may be possible that grocery shopping services for the elderly could be combined

with recycling services. Another possibility would be to establish networks among tenants to assist neighbors in recycling. A final possibility would be to add recycling services to manager's job descriptions.

4. The outdoor shelters were not adversely affected by weather conditions and were not found to be damaged by tenants and others. Out of the 106 outdoor systems, only one sustained significant damage. The damage was caused by fire that resulted from two newspaper containers overflowing from inadequate service. It was also noted that the fire did not spread beyond the affected containers or to any nearby structures. One other outdoor shelter had only a minor amount of defacing.

The monitoring reports show that managers did not find it necessary to lock the shelters, however as market conditions improve for recyclables, this may change. The decals used to identify the recyclables contained in the shelters held up well after six months of weather conditions. A decal should be added to the shelters showing tenants how to prepare recyclables for storage. Another decal should display the phone number of the hauler or BES to clarify who to call for questions or problems. Most indoor recycling systems were sited in covered parking areas or in laundry areas out of the weather. There were not any reports of significant physical damage associated with the indoor systems.

5. The containers that were used in the recycling shelters, while inexpensive, did not prove adequate for the task. The major problem was that the containers were inadequately designed for the needs of the haulers, because they did not have handles for servicing. Another problem was that the containers would deteriorate when wet. In addition, the pilot project was continually plagued by not having a dependable supply of containers.

6. Due to the volume of recycled newspaper, it is apparent that a separate collection container may be appropriate. Several haulers have suggested using a metal 1 1/2 yard dumpster. This may be an appropriate solution to the newspaper problem. In the future, outdoor systems may contain a combination of multi-material shelters and separate dumpsters for newspapers. Another possibility would be to use six to seven roller carts to handle the recyclable materials. The volume of newspapers could be accommodated by adding more roller carts.
7. We encountered a certain amount of reluctance from owners to pay for the physical improvements that were required to establish suitable areas for recycling systems. Examples of these improvements are concrete pads for locating outdoor recycling systems or enlarging fenced dumpster enclosures. In order to remove these barriers, the City may need to modify building codes to support these changes and develop incentives for owners that promote recycling.
8. The BES will need to resolve the high amount of fragmentation in the City's garbage hauling system. It is apparent that in order to increase recycling some sort of franchising scheme is called for in the collection of recyclables. This should include standardizing recycling services and equipment. In addition, the City will need to add financial resources and staff to monitor recycling systems in multi-family buildings. The City should also settle on one or two standardized approaches to recycling in multi-family dwellings. Whatever the approach, haulers and building owners and/or managers should be heavily involved in the process.
9. At the regional level, Metro should strongly consider making public funds available to local haulers to enable them to purchase or lease state-of-the-art recycling equipment, including trucks and containers. Most of the small haulers cannot individually afford the cost of specialized recycling equipment. This would enable garbage haulers to move to a more standardized regional approach to recycling collection.

**APPENDIX A**

**Participating Buildings with Outdoor Recycling Systems  
in the City of Portland**

Address	Number of Recycling Systems	Number of Apartment Units	Address	Number of Recycling Systems	Number of Apartment Units
816 N Russell	2	10	2138 NE Halsey	2	27
843 N Knott	2	18	2431 NE Halsey	2	27
5801 N Fessendon	4	72	2511 NE 12th	2	20
6280 N Columbia Fir	2	26	3108 NE Alberta	2	8
9022 N Central	2	20	4901 NE Killingsworth	2	7
9327 N Wall	4	50	5026 NE 31st	2	16
135 NE 18th	2	8	5312 NE 13th	2	16
173 NE Bridgeton Rd	2	12	5318 NE Wisteria	2	15
222 NE 162nd	2	34	5715 NE Sacramento	2	17
811 NE 102nd	2	24	6614 NE Garfield	2	8
830 NE Killingsworth	2	10	12430 NE Glisan	2	35
962 NE 91st	2	12	311 SE 28th	2	5
1130 NE 1st	2	26	425 SE 32nd	2	10
1220 NE 17th	2	106	525 SE 28th	2	10
1403 NE Thompson	2	8	600 SE 39th	2	16
1405 NE 21st	2	18	609 SE 41st	4	96
1431 NE 21st	2	37	711 SE 11th	2	60
1632 NE Prescott	2	6	829 SE 15th	2	63
1805 NE 21st	2	5	901 SE 162nd	4	32
1830 NE 11th	2	9	1131 SE 17th	2	8
1922 NE 72nd	2	15	1404 SE 23rd	2	9
2123 NE Halsey	2	15	1410 SE Belmont	2	36



Address	Number of Recycling Systems	Number of Apartment Units	Address	Number of Recycling Systems	Number of Apartment Units
1420 SE 16th	2	71	27th NW Upshur	4	42
1533 SE 21st	2	12	0230 SW Gaines	2	15
2016 SE 122nd	4	96	626 SW Jackson	2	15
2109 SE Ash	2	12	1217 SW 11th	2	32
2400 SE Taylor	4	46	1709 SW Morrison	2	63
3020 SE Waverleigh	4	68	2324 SW 19th	2	11
3604 SE 112th	2	24	3132 SW Marigold	2	18
4020 SE Gladstone	2	20	3600 SW Multnomah	2	18
4127 SE 39th	2	36	3541 SW Bvtn - Hlsdl	4	62
4333 SE 104th	2	34	4592 SW Comus Pl.	4	58
4616 SE Milwaukie	6	110	4925 SW 56th	2	32
5309 SE 17th	2	6	4936 SW Barbur Blvd.	4	67
5707 SE Division	2	6	5016 SW Slavin	4	137
5820 SE Milwaukie	2	8	5131 SW 38th	2	85
6729 SE Powell	2	14	7712 SW 45th	6	75
7928 SE Division	4	72	7927 SW 31st	2	33
9030 SE Flavel	2	33	9710 SW 35th	2	42
12021 SE Foster	2	10	9863 SW 35th	4	63
13145 SE Division	2	29			
13223 SE Powell	4	42	<b>TOTAL</b>	<b>212</b>	<b>2,831</b>
1635 NW 26th	2	12			
1906 NW 25th	2	8			
2181 NW Glisan	2	44			
2215 NW Irving	2	50			
2555 NW Savior	2	18			

**Participating Buildings with Indoor Recycling Systems  
in the City of Portland**

Address	Number of Recycling Systems	Number of Apartment Units	Address	Number of Recycling Systems	Number of Apartment Units
1650 NE 45th	1	300	2725 SE Taylor	1	10
1845 NE Schuyler	2	24	3103 SE Morrison	1	10
1905 NE Schuyler	2	22	3823 SE 39th	1	4
1912 NE Schuyler	2	36	4045 SE Mall	1	4
2001 NE Hancock	1	15	5353 SE 38th	1	38
2002 NE 46th	1	10	6412 SE Division	1	38
2210 NE Weidler	1	7	7075 SE Division	1	8
2512 NE Glisan	1	65	7110 SE Grant	1	9
1505 N Terry	1	10	55 NW Park	5	100
2031 N Watts	1	12	117 NW Trinity	1	36
8007 N Denver	1	16	415 NW 21st	1	14
520 SE 29th	1	10	625 NW Everett	3	47
1019 SE Clay	1	12	707 NW 19th	1	27
1235 SE Yamhill	1	12	1314 NW Irving	3	78
1302 SE 26th	1	9	1731 NW Everett	1	25
1424 SE 46th	1	4	1810 NW Everett	1	25
1504 SE Madison	1	14	1811 NW Couch	1	25
1803 SE Tibbets	1	10	1829 NW Lovejoy	1	65
2203 SE Pine	1	7	1929 NW Irving	1	21
2230 SE Yamhill	1	11	1964 NW Johnson	1	19
2322 SE Pine	1	21	2020 NW 29th	1	14
2625 SE Main	1	10	2046 NW Flanders	1	12
2702 SE Alder	1	10	2056 NW Flanders	1	12

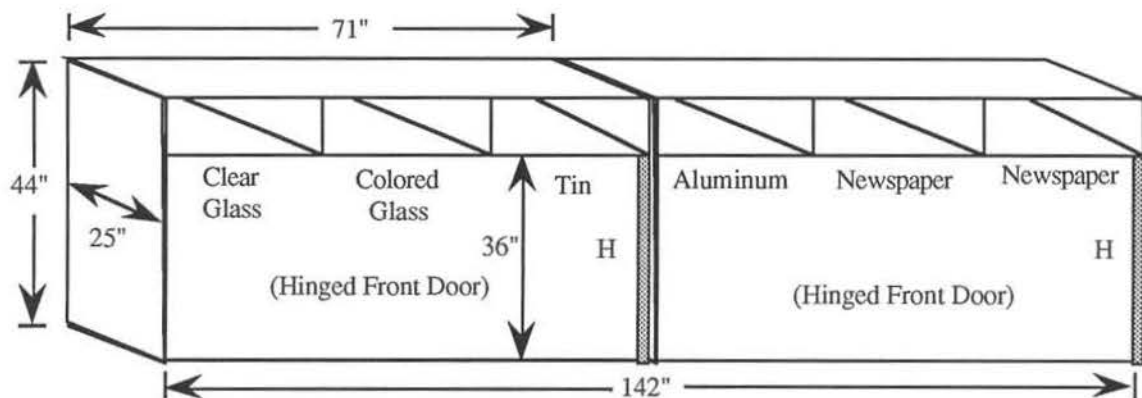
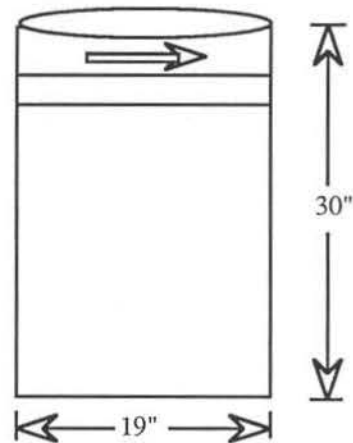
Address	Number of Recycling Systems	Number of Apartment Units	Address	Number of Recycling Systems	Number of Apartment Units
2076 NW Johnson	1	13	1705 SW 11th	1	189
2081 NW Everett	1	57	1717 SW Park	1	305
2199 NW Everett	1	48	1802 SW 10th	1	137
2110 NW Flanders	1	20	1809 SW 11th	1	63
2207 NW Flanders	1	24	1824 SW 12th	1	13
2221 NW Flanders	1	20	1831 SW Park	1	57
2324 NW Johnson	1	10	1824 SW 11th	1	17
2355 NW Johnson	1	20	1912 SW 6th	1	288
2356 NW Irving	1	15	3405 SW 11th	1	16
2368 W Burnside	1	16	1410 SW Broadway	1	87
2386 W Burnside	1	26	1500 SW 5th	1	156
2650 NW Upshur	1	30	1631 SW Yamhill	1	38
2651 NW Upshur	1	38	2167 SW Yamhill	1	9
1637 NW Raleigh	1	4	3211 SW 10th	1	32
901 SW King	1	184	3400 SW Kelly	1	8
909 SW 12th	1	30	6761 SW Garden Hm.	1	31
1110 SW Clay	1	45	7000 SW Vermont	5	112
1129 SW Columbia	1	25			
1131 SW Montgomery	1	51	<b>TOTAL</b>	103	3,899
1208 SW Montgomery	1	20			
1425 SW Clay	1	22			
1515 SW 11th	1	26			
1609 SW 10th	1	31			
1609 SW Park	1	54			
1630 SW Clay	1	224			

## APPENDIX B

### Recycling Education Project Portland State University

The Multi-Family Intervention Project proposes to install recycling systems in both indoor and outdoor locations this summer. The containers for recycling measure 19" in diameter by 30" tall and would be lined with a woven polypropylene liner to increase durability and container life.

Each recycling system would contain 5 or 6 of these containers – 1 for tin, 1 for aluminum, 1 for clear glass, 1 for colored glass, and either 1 or 2 for newspaper. In outdoor locations the recycling system would be made up of two shelters each measuring 71" x 25" x 44". They will both contain three fiber barrels. The shelters would be serviced by a hinged front door. The modular design would allow the shelter systems to be arranged in a straight line, in an "L" – shaped configuration, or back-to-back.



APPENDIX C

FIELD INVESTIGATION REPORT  
Apartment Building Recycling Project

Investigator: \_\_\_\_\_

Date: \_\_\_\_\_

Apartment Building Name: \_\_\_\_\_

Address: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Number of Units: \_\_\_\_\_ Number of Floors: \_\_\_\_\_

Building Manager: \_\_\_\_\_ Telephone: \_\_\_\_\_

Owner's Name: \_\_\_\_\_ Telephone: \_\_\_\_\_

Garbage Hauler: \_\_\_\_\_

Recycling Status: Newspaper  Glass  Tin  Aluminum   
Cardboard  Plastic  Motor Oil  Scrap Paper   
**NOT RECYCLING**

Comments: \_\_\_\_\_

Recycling Barriers: No Space  No Containers  Too Messy   
Not Accessible to Hauler  Uncooperative Hauler   
Uncooperative Tenants  No Monitor

Comments: \_\_\_\_\_

Site Sketch: Locate entrances (E), delivery areas(D), storage space (S) and potential sites for recycling containers (R).

APPENDIX D



**A**PARTMENT RECYCLING

**K I T**

City of Portland  
Bureau of Environmental Services  
1120 S.W. 5th Avenue, Room 400  
Portland, Oregon 97204



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The Apartment Recycling Project  
is funded by Metropolitan Service  
District (Metro) and the City of  
Portland,  
with assistance from the Private  
Industry Council, Portland State  
University and the Oregon Youth  
Conservation Corps.

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CITY OF  
**PORTLAND, OREGON**  
DEPARTMENT OF PUBLIC WORKS

Earl Blumenauer, Commissioner  
1220 S.W. 5th Avenue, Room 407  
Portland, Oregon 97204  
(503) 248-5577

July 21, 1989

Dear Apartment Owner/Manager:


The Bureau of Environmental Services and my office are working together to increase recycling levels in the city and decrease the amount of materials going into our landfills. This year we are making a special effort to offer more convenient recycling for apartment dwellers. As a property owner/manager, you will probably be pleased to see savings in your refuse disposal costs, as well as the environmental and land use benefits, that result from recycling.

Last year City staff began a project with PSU to find out what was needed to make recycling work better in apartments, and to help set up or improve collection systems. We found that each building or complex needs a system custom designed for its particular size and layout. We found that tenant education is critical, both to encourage tenants to participate and to ensure that materials are properly prepared and separated for recycling. And we found that providing collection containers and, in some cases, outdoor shelters, would stimulate participation by more properties.

This year we are again working with PSU, the Private Industry Council and the City's Energy Office to use these findings and put more recycling systems in place. Project staff will work with you and with your garbage hauler (who is required to provide all customers with recycling service) to design and set up your system and establish a collection schedule. Trained student interns will be available to distribute recycling brochures and answer any questions your tenants may have. We now have some funding to provide equipment (storage containers and some outdoor shelters) for those systems.

I am very excited about this project and encourage you to become involved with us in this cooperative waste reduction effort. I hope we can serve as a positive model for other communities.

Sincerely,

  
Earl Blumenauer

# RECYCLING ... RECYCLING ... RECYCLING ... RECYCLING

## RECYCLING...

**REDUCES GARBAGE** dumped into diminishing landfills or burned in incinerators. Pollution from these sources is therefore reduced and disposal costs are avoided.

**CONSERVES NATURAL RESOURCES.** Recycling one ton of paper saves 17 trees. Recycling metals saves limited ore resources.

**SAVES ENERGY.** Making products from recycled materials requires much less energy than using raw materials.

**IS THE LAW.** The Oregon Recycling Opportunity Act, a state-wide solid waste management plan effective in 1983, requires monthly, curbside pickup of recyclable materials in cities of 4,000 or more. Recycling depots must be located at every landfill and transfer station or at a location MORE convenient to the people of the area.

\*\*\*\*\*

\*\* AMERICANS GENERATE ENOUGH WASTE TO FILL THE NEW ORLEANS SUPERDOME TWICE A DAY, EVERY DAY. That's 4.5 pounds of waste per person, per day, compared with 2.5 pounds in 1930. Although approximately half of this is recyclable, only 10% is recycled.

\*\* THE PORTLAND METROPOLITAN AREA GENERATES ENOUGH WASTE EVERY MONTH TO FILL THE MEMORIAL COLISEUM. That's 962,000 tons per year: 21% of this, 207,000 tons, is recycled; the remaining 755,000 tons is landfilled.

\*\* If all 240,000 metro dwellers who subscribe to The Oregonian recycled it daily, we'd save 2,000 trees...a day!

\*\* Three million cars, 100 million tires, 40 million tons of paper, 28 billion bottles, 60 billion cans, and 4 million tons of plastic are thrown away by Americans every year.

\*\* Nationally, 20% of container glass and 30% of newspaper is recycled. In the Portland area, 30% of container glass and 75% of newspaper is recycled.

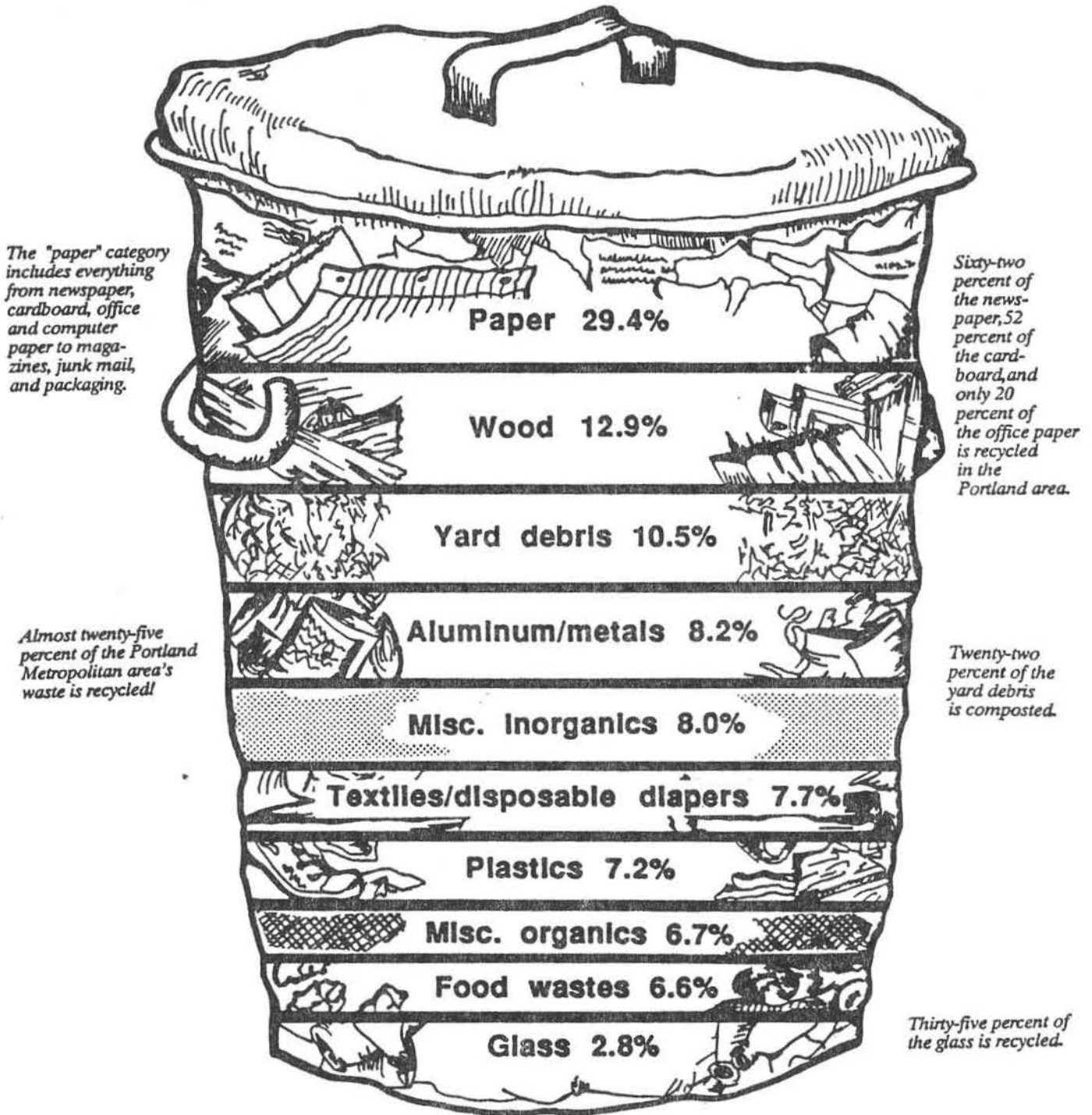
## YOUR RECYCLING PARTICIPATION COUNTS!

Portland State University \* Recycling Education Project \* 464-4087



# What's In Our Garbage?

Figures courtesy Metropolitan Service District Waste Composition Study, December, 1987.



**How can we empty the can before it's landfilled?**

## RECYCLING FACTS

### The Time It Takes Litter To Decompose

Paper . . . . .	1 Month
Cotton Rags . . . . .	5 Months
Orange Peels . . . . .	6 Months
Fiber Rope . . . . .	14 Months
Milk Carton . . . . .	5 Years
Filter Tip Cigarette Butt . . . . .	10-12 Years
Plastic Bags . . . . .	10-20 Years
Painted Wood . . . . .	13 Years
Leather Shoes . . . . .	25-40 Years
Tin Can . . . . .	100 Years
Aluminum Can . . . . .	500 Years
Glass Bottle . . . . .	500 Years +
Plastic Milk Jug . . . . .	Never?
Plastic Burger Container . . . . .	Never?

Information from: DEQ recycling handbook and the National Parks  
on Litter Decomposition

## SAFER ALTERNATIVES FOR TOXIC PRODUCTS

The following is a list of safer substitutes for some household toxics.

### AEROSOL SPRAYS

- \* Use pump-type sprays to replace aerosols.

### ANT CONTROL/BUG SPRAY

- \* Sprinkle cream of tartar in front of the ant's path. Ants will not cross over.
- \* Use screens on windows and doors.
- \* Brewers yeast tablets taken daily give the skin a scent that mosquitos seem to avoid.

### CHEMICAL FERTILIZERS

- \* Compost

### COPPER CLEANER

- \* Pour vinegar and salt over copper and rub.

### DETERGENTS (Laundry & Dishwashing)

- \* Replace detergents with "non-toxic", biodegradeable soaps.

### DRAIN OPENERS

- \* Pour boiling water down the drain.
- \* Use a plumber's helper (plunger).
- \* Use a plumber's snake.

### FURNITURE POLISH

- \* Soft cloth and mayonnaise.
- \* 1 part lemon juice and 2 parts vegetable oil.

### GLASS AND WINDOW CLEANERS

- \* Cornstarch and water.
- \* 1/2 cup white vinegar and one gallon warm water. Wipe with newspapers, if desired.

### OVEN CLEANERS

- \* 3 TBSP. washing soda with one quart warm water.
- \* Place liners in oven to catch drips during baking.
- \* Sprinkle salt on spills when they are warm and then scrub.
- \* Rub gently with steel wool.

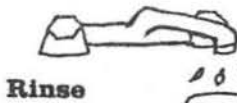
### SNAIL/SLUG BAIT

- \* Place a shallow pan with beer in infested area.
- \* Overturn claypots. Snails will take shelter in them during the sunny days and they can be collected and removed.

# RECYCLING Is As EASY As Taking Out The Garbage!



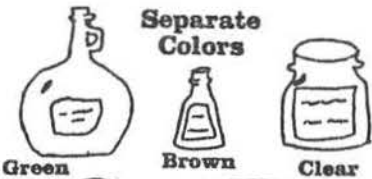
**Glass  
bottles  
and jars**



Rinse



No need  
to  
remove  
labels



Separate  
Colors

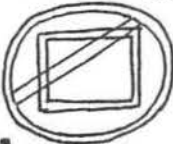
Green

Brown

Clear



No lightbulbs

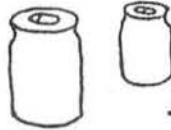


No windows



No dishes  
or glasses

Put in bags, boxes, or  
buckets.



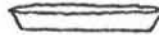
**Aluminum  
cans**



Foil



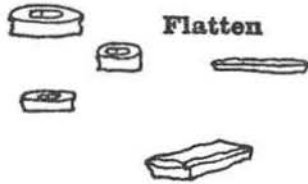
Magnets  
won't  
attract  
aluminum



Pie plates

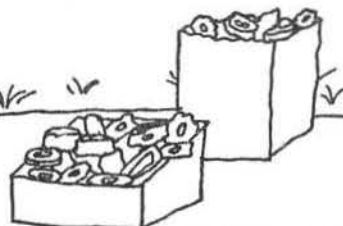


Rinse



Flatten

Bag or box it.



**Tin cans**

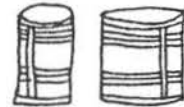


Remove  
the  
label

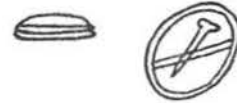
Rinse



Open  
both  
ends



Flatten



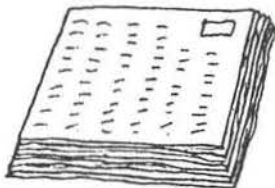
Bag or box it.



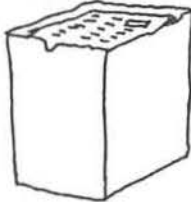
# RECYCLING Is As EASY As Taking Out The Garbage!



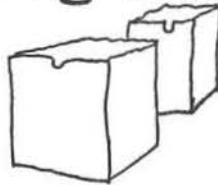
**Newspaper**



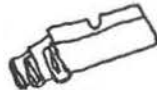
Stack it



then put in large brown grocery sack.



**Kraft paper and corrugated cardboard**



Grocery bags



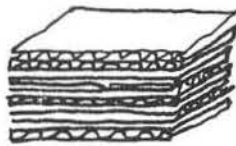
Look for the ribbed, wavy layer.



Brown wrapping paper



Flatten the cardboard

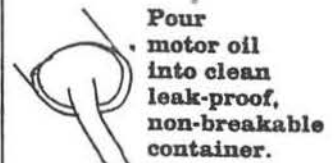


Include the Kraft paper.

Bundle, bag, or box it.



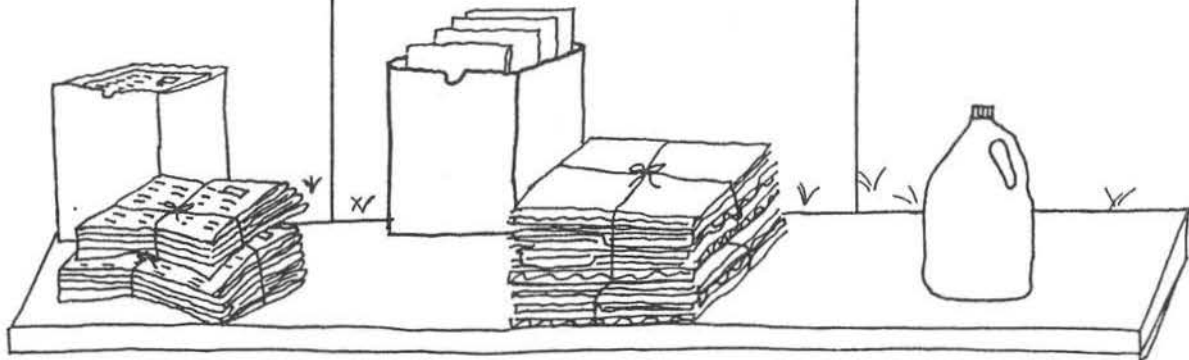
**Motor Oil**



Pour motor oil into clean leak-proof, non-breakable container.

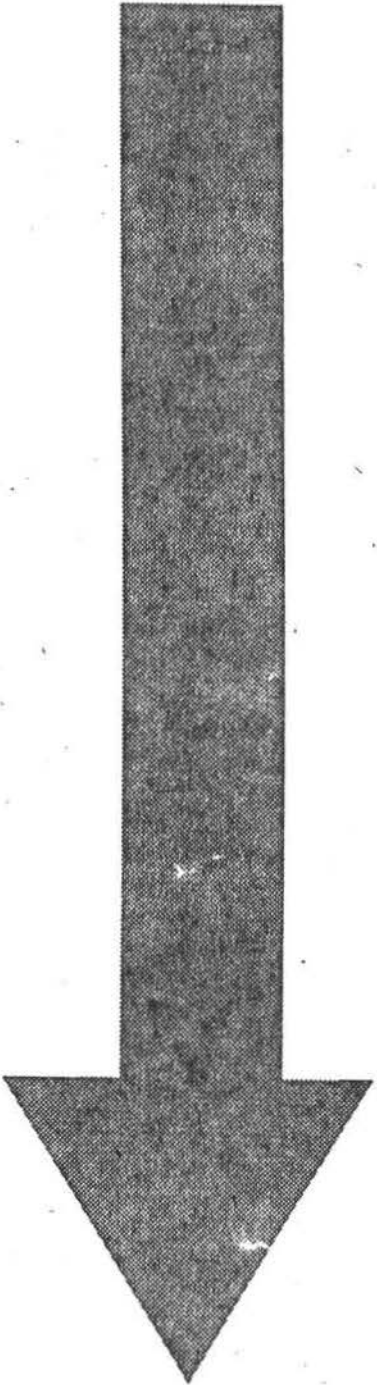


Put on the tight-fitting lid.

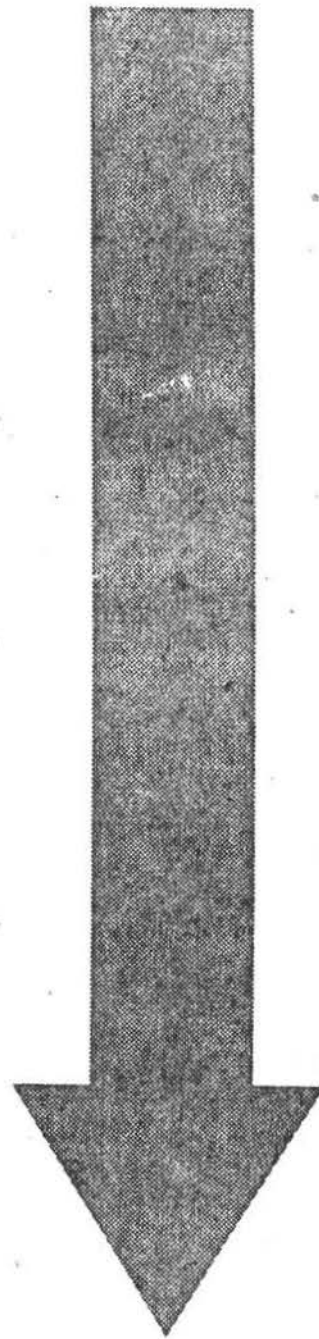


# recycling area

**recycling  
area**



# recycling area





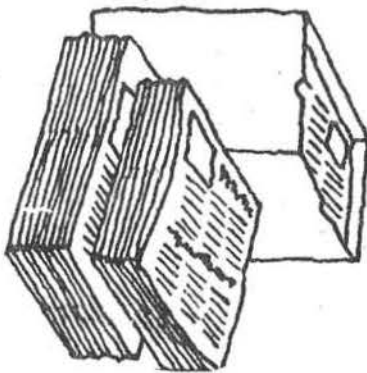
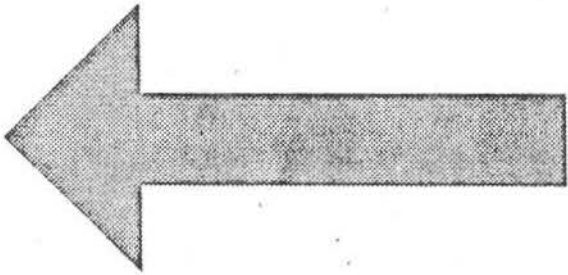
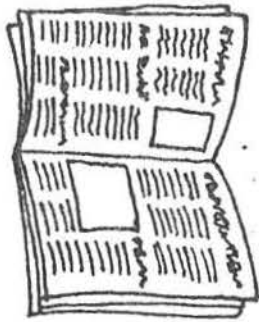
**no glass**

**no cans**

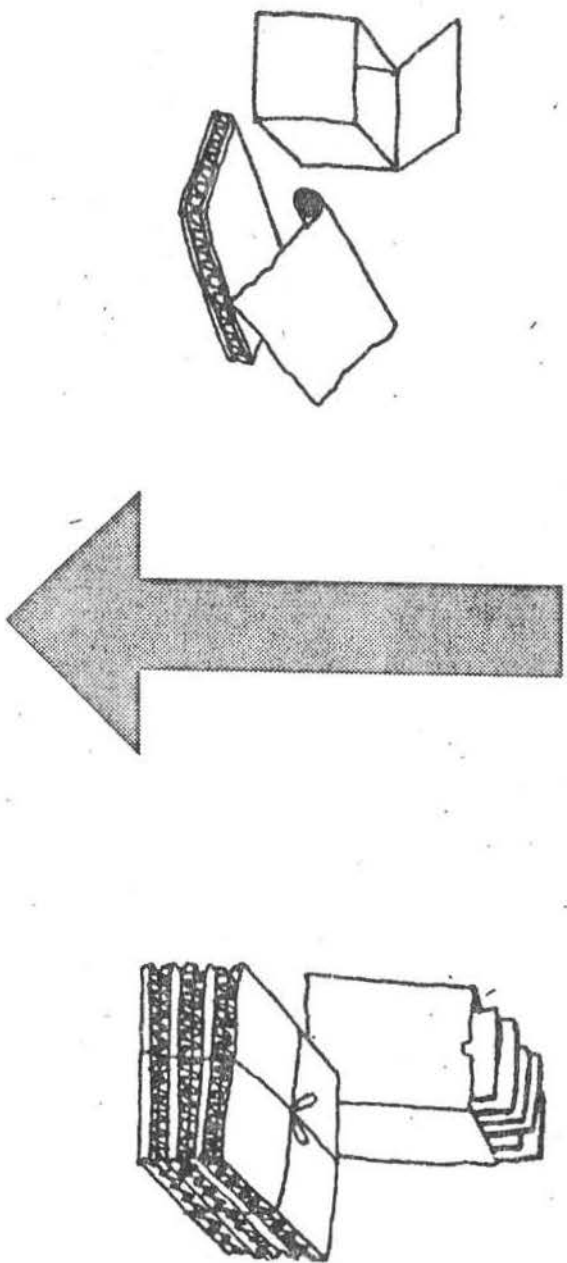
**no newspaper  
in the dumpster**

**please recycle!**

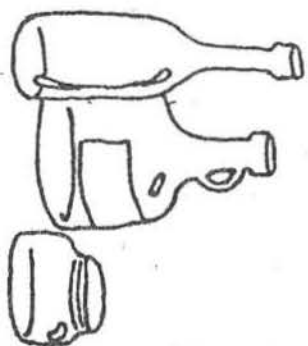
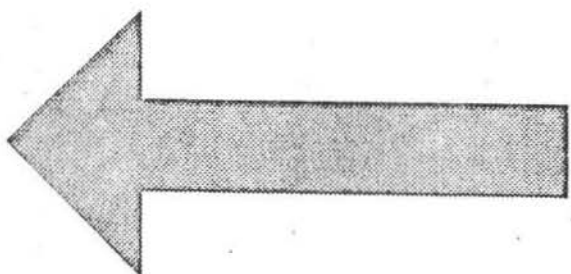
# newsprint



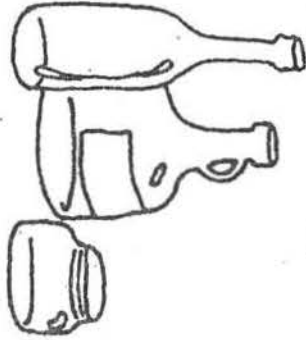
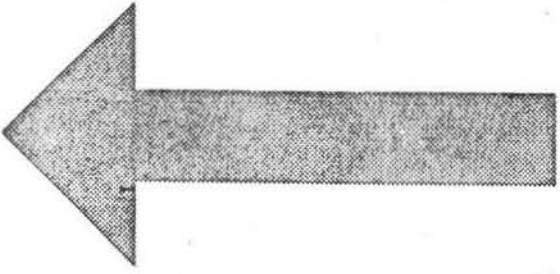
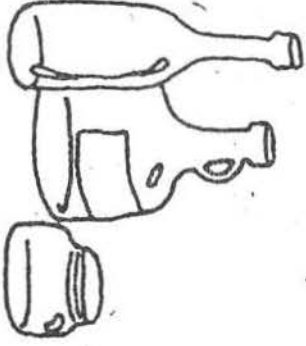
# corrugated cardboard



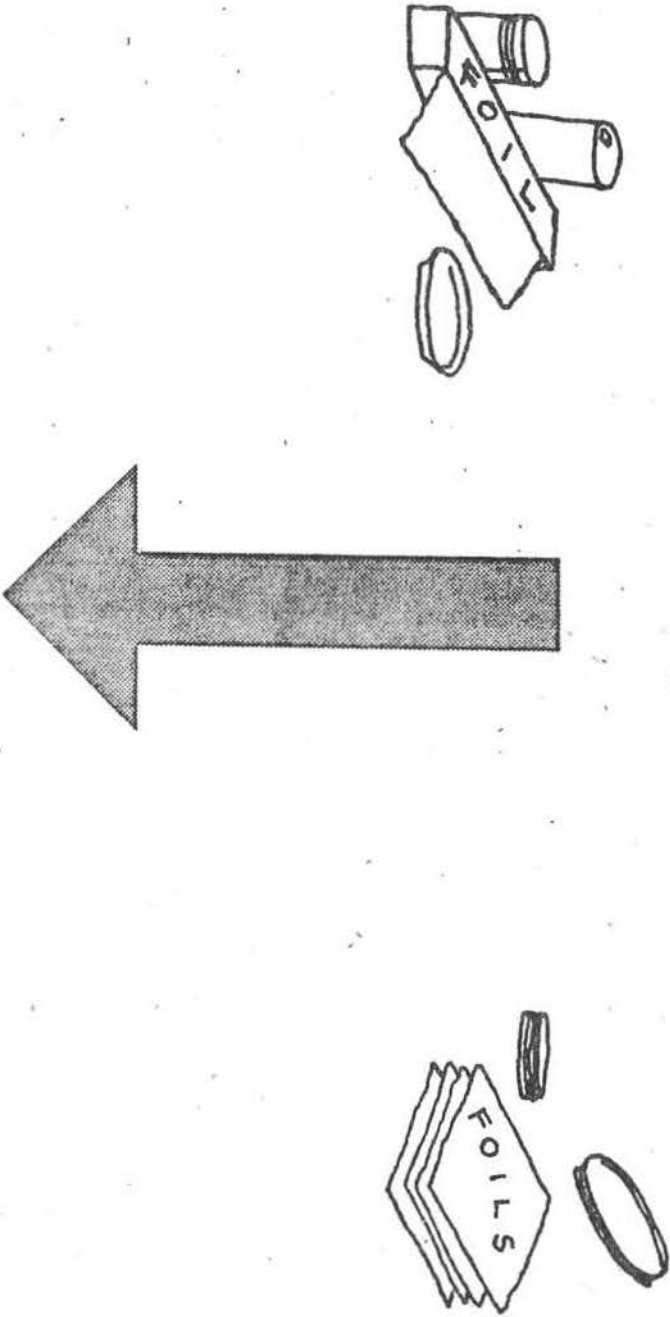
**clear  
glass**



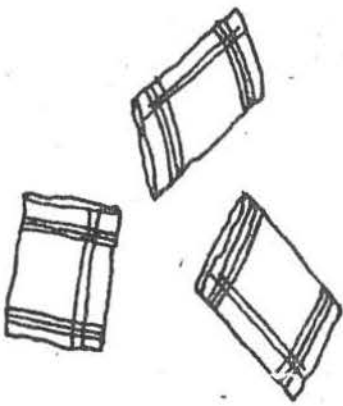
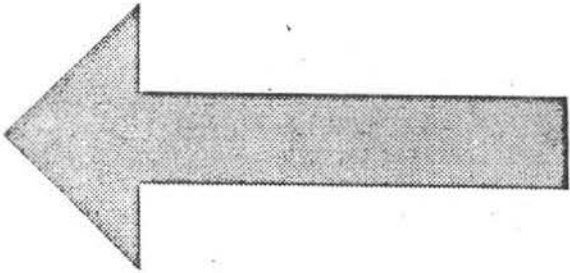
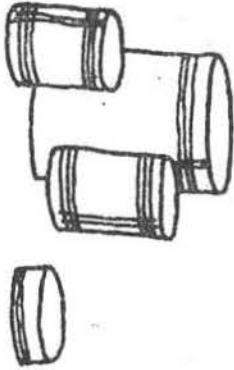
# percolated glass



# aluminium



# tin cans



# BE A PART OF THE SOLUTION- RECYCLE!

*YOUR OPPORTUNITY to help solve Portland's waste crisis is "knocking at your door".*

*HERE'S HOW to prepare your recyclables before you take them to the recycling station. If you can't find the station, ask the building manager.*

## R ECYCLING:

**REDUCES** the volume of solid waste in our landfills;

**HELPS KEEP** Portland and our environment clean;

**SAVES** tremendous amounts of energy;

**CONSERVES** our vital natural resources.

## R EMEMBER

- Avoid buying disposable and non-recyclable items and packages.
- Select products carefully, buy in bulk, reuse your own bags and containers.

## R ECYCLING FACTS

- Every glass bottle you recycle saves enough energy to light a 100-watt bulb for four hours.
- Every ton of recycled newspaper saves the lives of seventeen trees.
- Tin is available in the U.S. only through imports or recycling. Each year over 65 billion cans are discarded by Americans.
- Oregonians produce 5,480 tons of garbage a day - enough to cover one acre of land eight feet deep.
- In Oregon, approximately 95% of aluminum cans are recycled - thanks to our bottle bill.



Bureau of Environmental Services  
City of Portland  
1120 S.W. 5th Avenue, Room 400  
Portland, Oregon 97204



The Apartment Recycling Project is funded by Metropolitan Service District (Metro) and the City of Portland and operated by Portland State University

*Printed on recycled paper.*

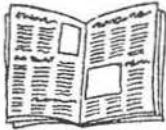


# YOUR RECYCLING GUIDE

## WHAT CAN BE RECYCLED

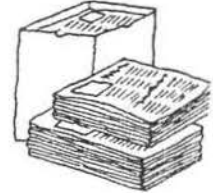
## HOW TO PREPARE RECYCLABLES

### **N**EWSPAPERS



- Newsprint only
- No magazines
- No junk mail
- No slick papers

- Put your newspapers into large brown grocery bags
- Put in proper bins



### **G**LASS CONTAINERS



- Jars & bottles only
- No light bulbs
- No dishes or glasses
- No window glass/mirrors

- Wash
- Sort by color:  
clear  
green
- No need to remove labels
- Put in proper bins

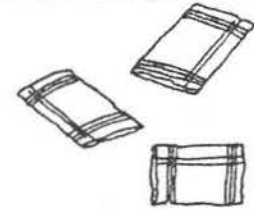


### **T**IN CANS

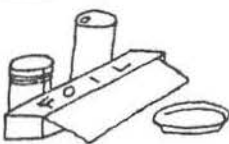


- Separate from other metals
- Magnets will attract tin

- Rinse
- Remove labels
- Cut out both ends
- Flatten
- Put in proper bin

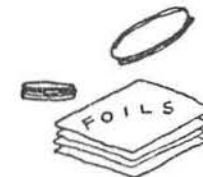


### **A**LUMINUM

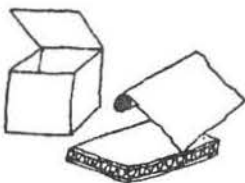


- Cans, pie plates, food trays, foils
- Magnets will not attract aluminum

- Wash
- Separate from other metals
- Flatten
- Put in proper bin



### **C**ARDBOARD/BAGS



- Only brown paper bags and brown cardboard with ribbed layer between two flat pieces
- No cereal boxes, egg cartons or wax-coated cardboard

- Flatten all boxes.
- Put into brown bags or bundle and tie together
- Stack at recycling area



## **KEEP MATERIALS SEPARATE, NO TRASH**

Many other items are recyclable but will not be collected at this recycling station. These include magazines, plastics, office paper, junk mail and many other products.

For information on what can be recycled and where to take it, call **The Metro Recycling Information Center, 224-5555.**

## APPENDIX F

RECYCLING EDUCATION PROJECT FOLLOW-UP REPORT      Date: \_\_\_\_\_

Field Monitor: \_\_\_\_\_

Telephone: \_\_\_\_\_

Address: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Apartment Building Name: \_\_\_\_\_

Manager / Owner: \_\_\_\_\_

Number of Units: \_\_\_\_\_ Number of Shelters: \_\_\_\_\_

Hauler: \_\_\_\_\_

**Recycling Status**

	Before		After			Before		After	
	Yes	No	Yes	No		Yes	No	Yes	No
Newspaper	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Brown Glass	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Clear Glass	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Tin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Green Glass	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Aluminum	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

How Frequently are the Shelters Emptied? (Circle Below)

Weekly     
  Twice/Month     
  Once/Month     
  Less than Monthly

Is this Level of Service Adequate for your Needs?    Yes      No

What Percent of Your Tenants are Using the Shelters? \_\_\_\_\_ %

Have You Had Any Comments From Tenants (Positive or Negative) About the Recycling Program?

\_\_\_\_\_

Was the Information Provided in the Recycling Kit and in the Leaflets Helpful to your Recycling Program?      Yes      No

Comments: \_\_\_\_\_

\_\_\_\_\_

**FIELD REPORT**

Monitor: \_\_\_\_\_ Date: \_\_\_\_\_

Building Address: \_\_\_\_\_

Volume

	None	1/4	1/2	3/4	Full	
Newspaper	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Newspaper
Clear Glass	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Clear Glass
Green Glass	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Green Glass
Brown Glass	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Brown Glass
Tin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Tin
Aluminum	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Aluminum

Contamination in Recycling Barrels                      None                      Minor                      Major

Are Recyclables Placed in the Proper Barrels?                      Yes                      No

Circle Any Damage:                      Shelters                      Barrels                      Decals                      None

Is There Equipment Missing or in Need of Replacement?                      No                      Yes

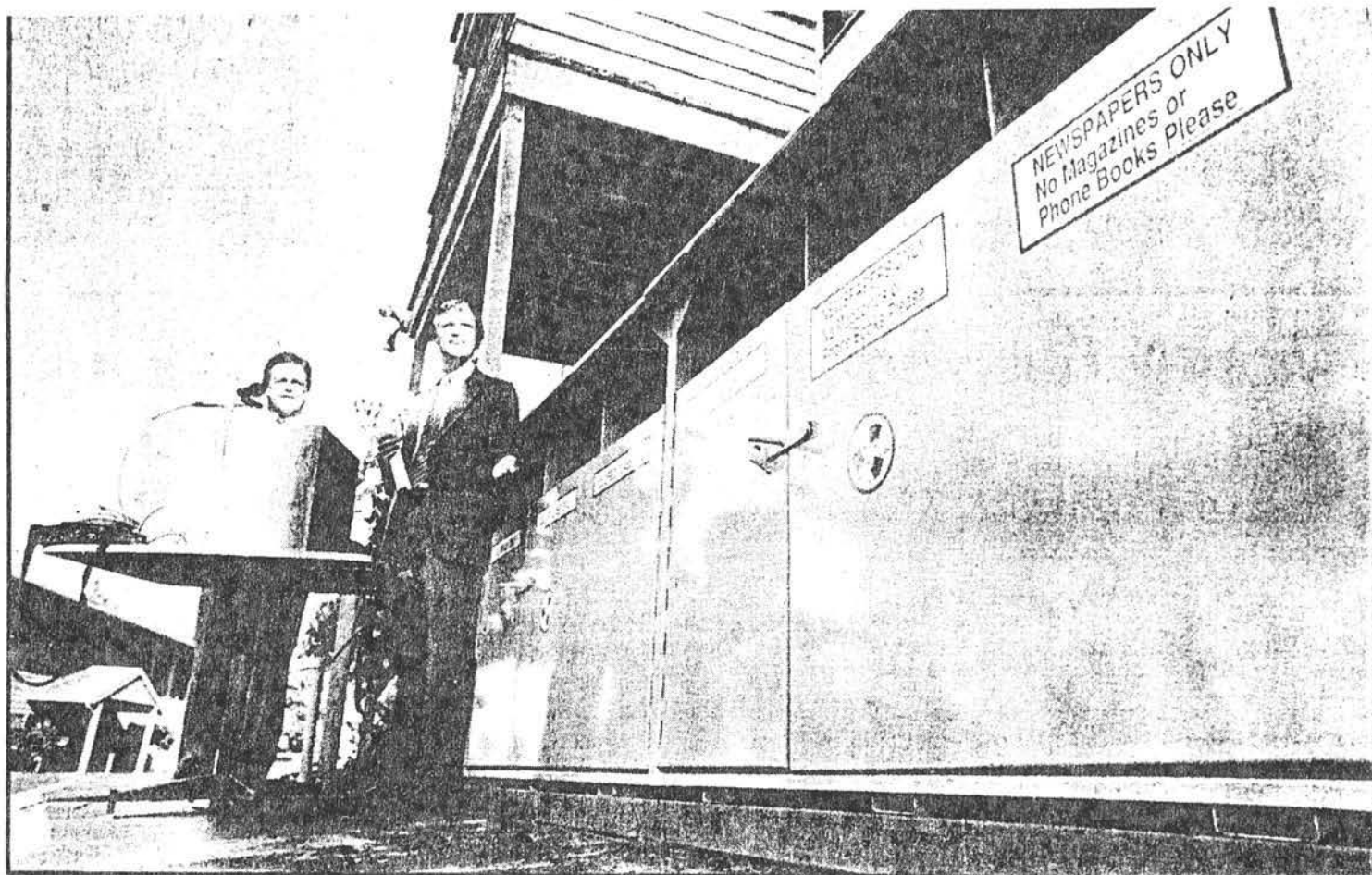
Are There Additional Barriers to Tenant Use of the Shelters?

Are Shelters Kept Locked?                      Yes                      No

Comments: \_\_\_\_\_

Action Taken: \_\_\_\_\_

## APPENDIX G



The Oregonian/CLAUDIA J. HOWELL

**Metro Councilor Jim Gardner (left) and city Commissioner Earl Blumenauer introduce a recycling station for apartment complexes.**

# Recycling at apartments made easier

By **DIANE DULKEN**

Correspondent, *The Oregonian*

Local government officials showed off a collection depot Tuesday that they hope will make recycling easier for apartment dwellers.

The outdoor recycling station, a series of bins protected by a metal enclosure, is one of 200 depots that are to be installed soon at apartment complexes throughout the metropolitan area.

"We've known for a long time that the toughest group of citizens to get to recycle are apartment dwellers," said Jim Gardner, a Metropolitan Service District councilor. "It's not because they don't want to; it's because it's too difficult."

Gardner spoke at a news conference held to exhibit one of two stations that have been set up at the Colony Park Apartments, 3541 S.W. Beaverton-Hillsdale Highway.

Under Oregon's 1983 Recycling Opportunity Act, garbage haulers in cities with populations greater than 4,000 must provide curbside collection for many recyclables. That has worked well for residents of single-family houses, recycling officials say, but not for apartment dwellers.

Portland city Commissioner Earl Blumenauer, in hailing the new station, said that it would encourage recycling because "it's understandable, it's convenient and it looks nice."

A Portland State University professor who was instrumental in designing the stations predicted that 17 tons of material could be recovered each year from the two Colony Park stations, which serve 62 apartment units.

Jerry Blake, a PSU professor of Urban Studies and Planning, led a team of students that studied obstacles to recycling in apartments and recommended setting up the stations. The PSU team will continue to help install other depots and encourage apartment residents to use

them. The Private Industry Council, which provides job training and temporary jobs for young people, also participated by paying 16 teen-agers to work this summer as interns on the project.

The station will allow collection of glass, tin, aluminum and newspapers but not plastics. Blumenauer and city recycling officials said, however, that plastics could be included at a later date. Blumenauer added that within two months he expected a task force to provide recommendations on better ways to institute plastic recycling. The task force was set up as part of the ordinance passed in January banning the use of polystyrene foam in the city. The ban will take effect next January.

The apartment recycling project is being financed by a \$126,000 grant from Metro and \$23,000 from the city. Metro has set a goal of recycling 52 percent of the region's waste by the turn of the century, up from the current rate of 26 percent.

# Students clean up area as paid recycling interns

By W.H. JUDSON

of The Oregonian staff

Sixteen students are guilty of playing with garbage. They are helping to clean up their neighborhoods as paid summer recycling interns, trained under the auspices of Portland State University and the Portland School District.

The students, all residents of North and Northeast Portland, are involved in distributing the first 15 of 50 outdoor collection shelters for recyclable materials being built and installed at the Housing Authority of Portland's Columbia Villa multi-family housing project.

On Wednesday the students split into four crews and met at the HAP maintenance facility in the Columbia Villa project to assist in placing the new collection stations as they were unloaded by truck at each location.

Installing these collection stations for glass, tin, aluminium, and newspapers is part of the educational outreach program being coordinated by Jerry Blake, professor of urban studies and planning at PSU and research associate for the university's Center for Urban Studies.

Blake argues that recycling is a matter of opportunity. "People with private homes in Oregon have

---

**"The net effect of recycling is that it creates new jobs."**

— Jerry Blake,  
PSU professor

---

known that they could just distribute recyclables down at the curb, but with multi-family dwellings, apartments, where's the curb?"

In order to encourage Villa residents to make use of recycling services, the recycling education interns will visit the area's apartment building tenants and managers to distribute leaflets about recycling, and to personally explain more about the merits of the community effort.

Blake said that "face-to-face education" would work best in a location such as the 478-unit Columbia Villa project because of the population density. Furthermore, Blake said that "it has been, and will be, a total recycling education effort for all of Portland, not just Columbia Villa."

The interns plan on distributing approximately 300 of these recycling shelters throughout Portland.

The interns work approximately



The Oregonian/TOM TREICK

**Three girls (from left), Alisha Bashaw, Stephanie Williams and Shannon Williams, bring newspapers to be recycled Wednesday at Columbia Villa, where (front to back) Seth Albertini, Dominicke McCord, Dominca McCord and other teen-agers distributed recycling stations.**

20 hours each week for eight to ten weeks, and are paid \$3.50 to \$3.85 per hour. In addition to PSU and the school district, the program is supported by Metropolitan Service District, the city of Portland, the Private Industrial Council and the Oregon Youth Conservation Corps.

The students learn about careers in environmental sciences and solid waste management, and also gain experience in public speaking, construction skills, and completion of a project.

David Yeggins, a second-year intern, said that "the neighborhoods are cleaner. They have improved, and I feel that I have really accomplished something."

The program, Blake said, focuses the efforts of young people on practical means of community assistance related to global issues, current and future. "Hopefully we will increase community participation through our efforts," he said.

"The net effect of recycling is that it creates new jobs," Blake said.

## Campus notes

### WomenStrength volunteers sought

The Portland Police Bureau will be accepting applications Nov. 1 through Nov. 15 to fill volunteer positions for teaching WomenStrength Self-Defense and providing public education on sexual-assault prevention strategies.

WomenStrength is a free, nine-hour class (taught in three sections) available in many areas of Portland for teenage and adult women. Its philosophy contends that women who have the will to fight back against sexual assault should be provided with the skills to do so. To enroll in a class, call 796-3139 during business hours.

WomenStrength is seeking volunteers who are committed to "the belief that women must have access to information about sexual violence and to skills that can help them to recognize and defend against it." Previous experience in the field and knowledge of self-defense are not necessary. Call 796-3139 for further details.

### Grant awarded to drug-awareness group

The U.S. Department of Education's Fund for the Improvement of Post-Secondary Education provided a grant of \$35,584 to address drug prevention among 18 post-secondary education institutions in Portland and the surrounding areas.

During the next two years, a consortium will meet monthly to establish a cooperative strategy for addressing drug prevention, education, assessment and intervention issues on college campuses.

— by Jeffrey Werner

## Professor leads pilot recycling project

by KIM TRETT  
of the Vanguard staff

A PSU professor is leading a pilot program for the nation in recycling for apartment buildings.

Jerry Blake, professor of urban studies, is in charge of the Apartment Recycling Project, which puts more than 200 recycling stations in Portland and Beaverton.

"By recycling, we reduce the amount of garbage that goes into landfills. It also reduces the amount of material resources used. It preserves more resources," Blake said.

The Apartment Recycling Project started in 1988 with a grant from Portland to help the city identify barriers to recycling in multi-family buildings. "We have to look at the physical design; fire hazards when storing things such as newspaper; the turnover in residence and a lot of other different problems," Blake said.

The program is based on an intervention strategy that includes three things, Blake said. "The first step is to conduct a recycling audit of the building. Second, we install a recycle system either with indoor barrels or outdoor shelters. Thirdly, we educate the tenants by distributing leaflets and talking to them one-on-one" he said.

During the first year, more than 100 shelters were put in place, Blake said. Last July, the first recycle shelters were put into place, including 60 which were installed in the Columbia Villa housing community.

Blake said the project was quite successful in Columbia Villa. "When we first brought the shelters in, the response was great. Little children were bringing out all of their recyclable goods so they could be part of what was going on. We have only had one of the shelters messed with. We are very happy with the

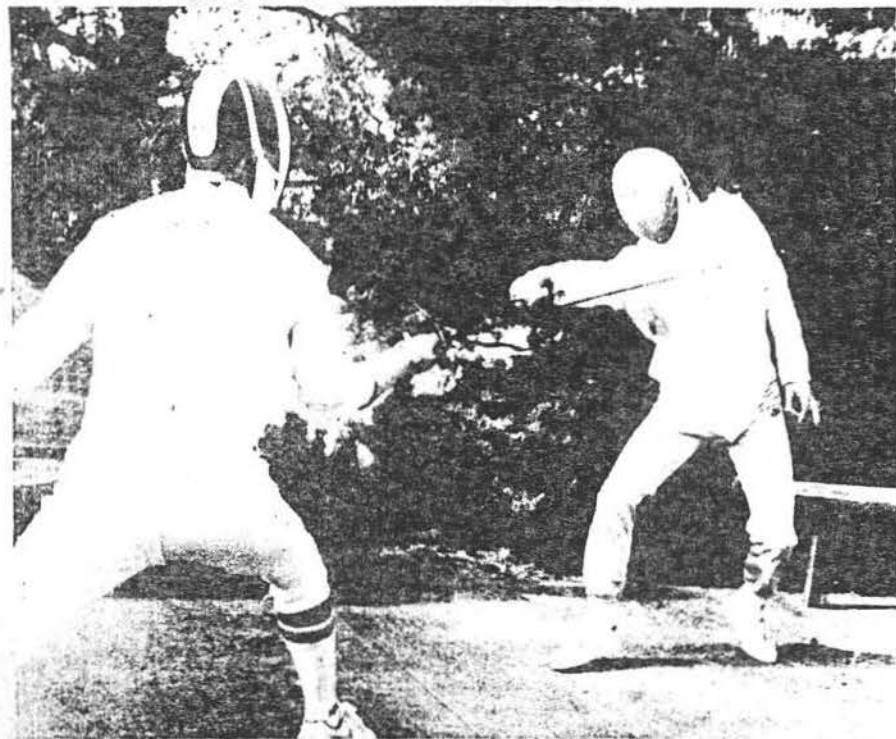
response," he said.

According to the Bureau of Environmental Services in Portland, every ton of recycled newspaper saves the lives of 17 trees, and every glass bottle recycled saves enough energy to light a 100-watt bulb for four hours.

"Eighty-five percent of the brown bottles bought new today are recycled. Sixty-five percent of the green bottles are recycled, and 50 to 60 percent of the white bottles are also recycled," Blake said.

Students from PSU are working on the project by designing and laying out the newsletters and leaflets for tenants and managers. "Our interns want to make a difference in the city. PSU students care about their community," Blake said.

The project may expand into student housing buildings which are only equipped with



Dennis Castello and Jun Ikuchi, members of the PSU Fencing Club, bout in the Park Blocks. See next Tuesday's Vanguard sports section for more on the Fencing Club. Staff photo by David Baus.

newspaper barrels. "We would like to add complete shelters to all of the buildings," Blake said.

The Apartment Recycling Project is sponsored by the city of Portland, the Metropolitan Service District and PSU.

In 1983, the Oregon Recycling Opportunity Act was passed. "This act makes garbage haulers responsible for recyclables in cities with over 4,000 people."

"The garbage men take the recyclables back to their yards where they are put into bigger dumpsters. From there, they go to local processors. We have taken field trips to see these plants, and they are amazing. There is enough newspaper recycled daily to cover the freeway from here to L.A. and back," Blake said.

# on Digest

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## Mill recycling plan studied

**HALSEY (UPI)** — James River Corp. started engineering studies this month on a proposed paper recycling plant at Halsey, which would be its first such facility in the West.

If the board of directors of the nation's second-largest paper company orders the project to proceed early next year, construction could begin soon thereafter and be completed in two years, Harry Barber, a vice president based in Vancouver said Monday.

The mill would employ 30 to 40 workers in cleaning and processing waste paper into pulp for use in making towel, tissue and communication papers at three James River plants in Halsey, south of Corvallis; Wauna, in Columbia County; and Camas, Wash.

The recycling plant would be larger than a similar one the company will open next month in Green Bay, Wis., at a cost of \$30 million, Barber said. No cost estimate was given for the Halsey proposal, which would be James River's fourth U.S. recycling plant.

James River wants to tap the underutilized supply of waste paper as an answer to rising costs of virgin fiber in the Northwest.

"This project would serve to insulate our operations from rapidly escalating wood costs in the Northwest," Ron Singer, a senior vice president, said from corporate headquarters in Richmond, Va.

It also would lessen the demand on public agencies to dispose of solid waste, Singer said.

James River and other Northwest paper companies have seen the price they pay for wood chips double in the past year.

## Apartment dwellers target of recycling effort

By KRISTINA BRENNEMAN

With a thud and a clink, residents of the Colony Oak Apartments dumped their glass bottles into a large bin Tuesday to inaugurate one of the Portland area's first apartment recycling stations.

The Southwest Portland apartment complex is one of 200 in the city to install stations in the once hard-to-reach apartment recycling market. The program, a joint effort of the city and Metropolitan Service District, "is significant because we're dealing with our recycling goals for apartment dwellers," said City Commissioner Earl Blumenauer at the event.

In today's throwaway society "we have to do everything within our power to encourage this," he said.

Although 26 percent of Portland residents participate in monthly curbside recycling, it has not been a convenient program for apartments, Blumenauer said. Obstacles of storage space and layout of the apartment buildings also have limited such programs, he noted.

Blumenauer said he is confident the availability and convenience of the collection station and peer pressure will prove an incentive for people to recycle. The city selected larger apartment units that would have the most impact on reducing waste tonnage and are working with owners, managers and residents to institute the program.

"We're confident it can succeed," he said.

Installation of recycling stations at 200 apartment sites by next summer will greatly impact the city's recycling efforts, said Jim Gardner, a member of Metro Council. The stations can potentially recover 77 pounds of recyclables for each bin and 16,000 pounds of newspapers a year, he said.

The \$149,000 project is funded by a Metro grant, with additional assistance from the city.

Faculty and students from Portland State University are assisting Metro and the city Environmental Services and Energy Office in setting up the recycling systems at both indoor and outdoor locations. The \$600 metal outdoor shelter at Colony Apartments designates barrels for tin, newspapers, glass and other recyclable products.

Colony manager Carl Douglas predicted that up to 40 percent of his 62-unit complex would participate in the recycling efforts.

When the city's recycling representatives approached him about the program "we immediately jumped on it," he said. "Tenants have been coming to me to institute a program."

Douglas said he hopes to save 20 percent to 25 percent from the complex's \$350 a month garbage bill with the new recycling emphasis.

"It's a modest investment up front for its effect on waste disposal," Blumenauer noted.

J.R. US

By Exhibited Daily Journal

# Daily Journal of Commerce

KRISTINA BRENNEMAN

2014 N.W. 24th Ave.  
P.O. Box 10127  
Portland, Oregon 97210-0127

Reporter  
(503) 226-1311  
FAX (503) 224-7140

# RECYCLE

## Apartment owner may need recycling nudge

**R**ecycling Advocates is often asked this question by apartment dwellers: Because Oregon law requires that curbside recycling service be available to city residents, why is recycling not available at my apartment? The usual reason is that the apartment manager has not taken the initiative to implement a recycling program.

Under the Oregon Opportunity to Recycle Act, curbside recycling must be available to each collection service customer. Because the owner of the apartment is the customer billed by the hauler for garbage service, it is the apartment owner, not the apartment dweller, who must request the hauler to collect recyclables.

If your apartment does not provide recycling service, it may be time to present a petition to the manager stating that residents wish to have this important service.

One true story illustrates the importance of persistence. Tracy made a New Year's resolution to renew her recycling habits, but her apartment did not provide the service. For a year and a half, she prodded the apartment manager and encouraged other residents to do the same. Finally, last month the manager instituted a recycling program. He has provided three container bags for recyclables next to the dumpster. And Portland State University's Recycling Education Project distributed fliers on recycling to all residents. Good work, Tracy!

Recycling for the apartment dweller is much more convenient than for the resident of a house. The house dweller must accumulate recyclable material in the house and remember to set it on the curb on the right day for pickup. In contrast, the apartment dweller can deposit materials in containers provided by the manager at any time of the day or night.

In apartment recycling, the city of West Linn is the leader in the metropolitan area. Haulers are required to provide recycling containers for apartments. Most use two locked containers, one with a slot for deposit of newspaper and cardboard, and the other with slots for aluminum, tin and glass of three colors.

Outside West Linn, progressive apartment owners provide recycling services. Some provide containers inside the building. For example, Ravenswood Apartments, with 26 units, purchased barrels for glass, newspaper, aluminum, tin and cardboard. The recycling station is in the laundry room. Refuse Removal checks the barrels each week and empties them when full. At the Quimby Apartments the manager keeps plastic cans on rollers in the basement and places them on the street every other week for the collector.

Most apartments put recycling shelters outside. At Edgecliff Terrace Apartments, 14 units, a wooden structure contains separate bags for newspapers and cans, and five buckets on an upper shelf for clear glass, brown and green glass, aluminum, metal, and plastic jugs.

If you live in an apartment without recycling service, possibly your manager is not aware of the benefits of recycling. It can cut the cost of garbage service significantly, it increases the morale of concerned tenants, and it conserves precious resources and landfill space.

The city of Portland has just received a grant from Metro to supply 200 apartments with recycling containers. If you would like recycling to begin in your apartment, this would be a good time to see if containers are available. Call the city Energy Office or Portland State University's Urban Studies Department.

*Information is provided by Recycling Advocates, which encourages recycling and waste reduction. If you have a suggestion for this column, write to Recycling Advocates, care of The Oregonian, 2420 S.W. Boundary St., Portland, Ore. 97201.*



## Youths Help Set Up Villa Recycling

A new effort at Columbia Villa will create a coordinated recycling system there while giving 16 North/Northeast youths a chance to work on a community-building, problem-solving activity.

The youth have been working as paid summer recycling interns. They work about 20 hours a week, for \$3.50-3.85 an hour, visiting tenants and managers to encourage them to recycle. They are also learning about careers in environmental sciences and services, and solid waste management, as well as gaining experience in public speaking and construction skills.

On Wednesday, they placed new collection stations for tin, glass, aluminum and newspapers around the Villa.

The program, known as the Environmental Intern Project is a special educational effort being coordinated by Jerry Blake, Portland State University professor of urban studies and planning. The project will give the Villa a coordinated recycling system that it has not had to this point.

Youth participants are being trained at PSU and Jefferson High School. Training has included field trips to area landfills, solid waste recycling businesses, the Environmental Learning Center in Oregon City and local glass, aluminum and newsprint industries.

Other organizations have been supporting the project. The Portland Neighborhood Revitalization Project funded construction materials for the collection stations. The Oregon Youth Conservation Corps funded a crew leader position. The Portland Public Schools Home Repair project helped with construction and location of outdoor recycling shelters. The Private Industry Council helped pay the youths' wages. The Portland Bureau of Environmental Services, Metro and the Housing Authority of Portland also provided support.



Photos by Dean Guernsey

**URBAN LEAGUE ANNUAL DINNER** -- The Urban League of Portland held its annual dinner Thursday night at the Red Lion Inn, Jantzen Beach to reiterate its commitment to the community. (Top picture) Speakers included: league executive director Useni Perkins; keynoter State Rep. M. City Commissioner Dick Bogle chair Lou Boston. Attending (left) Portland Trail Blazer Har Joanne; (lower right) Waverly an

## Pernell, Red Cross Reach

## COLUMBIA VILLA RECYCLING PROJECT

Smiling faces beaming into the camera July 26th belonged to those celebrating some of the first visible signs of success of this summer's Environmental Intern Project. The new "Recycle!" tee-shirts were worn as the first 15 of an anticipated 50 outdoor collection stations for recyclable materials were delivered to key points throughout the Housing Authority of Portland's (HAP) Columbia Villa multi-family housing project.

This summer's special educational outreach program at the North Portland site, where gang-related misdeeds have generated many of the area's headlines in recent months, has been coordinated by Dr. Jerry Blake, PSU professor of Urban Studies and Planning (kneeling with glasses at lower right of picture).

Blake's program focused the untapped talents of area youth by giving them the education and support they need to work on a practical community-building, problem-solving activity. Sixteen young residents of North and Northeast Portland have been working on the project as paid summer recycling interns while receiving instruction and training for their new roles at PSU and Portland's Jefferson High School.

After building and installing the rest of the collection stations, the interns will don the tee-shirts again in coming weeks to re-visit Columbia Villa, giving apartment building tenants and managers leaflets about recycling, as well as to personally explain more about the merits of the community effort.

PSU training for the youths has included field trips to area landfills, solid waste recycling businesses and local industries.

