Land Quality Division

2002 Oregon Recovery and Waste Generation Rates Report

November 2003

State of Oregon
Department of
Environmental
Quality

2002 Oregon Recovery and Waste Generation Rates Report

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State of Oregon
2002 Recovery and Waste Generation Rates

INTRODUCTION AND PURPOSE

This report describes the methodology and the results of the State of Oregon 2002 Material Recovery and Waste Generation Survey, which is compiled each year by the Oregon DEQ's Solid Waste Policy and Program Development Section. State law requires Oregon's waste haulers and private recycling companies to report on the amount collected, county of origin, and markets for all of the recyclable materials they handle. The survey provides data on more than 35 materials collected for recycling, composting, or energy recovery. Data on disposed tonnage comes from quarterly or annual disposal fee report forms. Together, recovery and disposal data are used to calculate total waste generation.

The Material Recovery Survey was mandated by the 1991 Legislature, which set a 50% material recovery goal for the state for the year 2000. The deadline for meeting this 50% recovery goal was extended by the 2001 Legislature to the year 2009. The 2001 Legislature also created an interim goal of 45% recovery by 2005. In addition, the 2001 Legislature established waste generation goals for the State. The waste generation goals are:

- For the calendar year 2005 and subsequent years, no annual increase in per capita municipal solid waste generation; and
- For the calendar year 2009 and subsequent years, no annual increase in total municipal solid waste generation.

To measure progress toward the statewide recovery goals, Oregon Revised Statute 459A.010 establishes 2005 and 2009 required recovery rates for wastesheds. (Wasteshed recovery goals existed in Statute for 1995, but these were replaced by the 2001 Legislature with goals for 2005 and 2009.) Wastesheds are comparable to counties except for the Metro wasteshed, which includes Clackamas, Multnomah, and Washington counties, and the city of Milton-Freewater, which is its own wasteshed. The required wasteshed rates for 2005 range from 8% (Lake County) to 62% in the Portland metropolitan area. Actual recovery rates ranged from 11% to 58% in 2002 (see Table 1.)

Requirement to Report

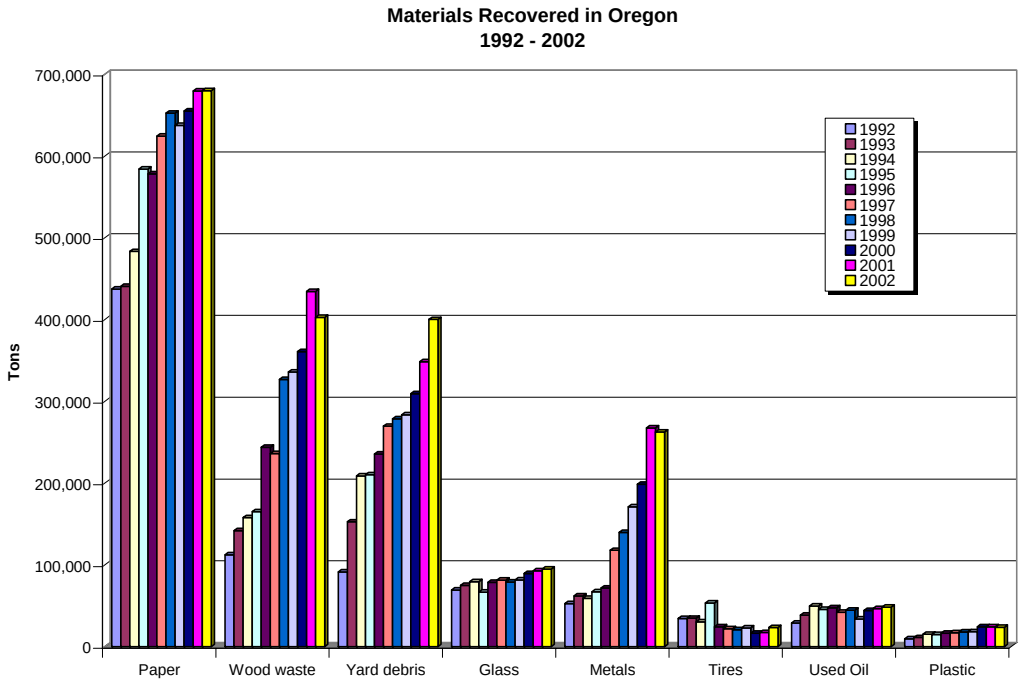
Oregon law requires that all wastesheds and privately operated recycling and material recovery facilities respond to the Material Recovery Survey or be subject to enforcement action. Because of the difficulty of separating post-consumer scrap metal from commercial and industrial scrap metal, scrap metal dealers are exempt from mandatory reporting. However, extra effort was expended to capture post consumer, non-autobody, non-industrial scrap metal in the 2002 survey.

Oregon's waste haulers and private recycling companies must report on all the recyclable materials they handle, including the amount collected, county of origin of each material, and where materials are marketed.

Oregon law requires DEQ to keep the information reported on the Material Recovery Survey confidential, including customer lists or specific amounts and types of material collected or marketed by individual companies. Only aggregate information can be released to the public.

Materials Included in the Material Recovery Survey

Oregon's recovery rate includes only post-consumer materials collected for recycling, composting, or energy recovery. Waste from manufacturing and industrial processes (pre-consumer materials), reconditioned and reused materials, and out-of-state waste disposed in Oregon are excluded. Commercial scrap metal, including discarded vehicles or parts of vehicles and major equipment, and appliances handled by scrap metal dealers also are excluded. Scrap metal collected at disposal sites, by haulers, at community recycling depots, or through municipally-sponsored collection events counts as recovered material. The recovery rate includes materials composted and some materials burned for energy recovery.



The first Material Recovery Survey in 1992 included 24 types of materials; the 2002 survey contains 36 materials.

The major materials included in 2002 are:

- **Paper** — Newspaper, high-grade paper, corrugated cardboard/kraft paper, mixed waste paper.
- **Plastic** — Rigid plastic containers (includes #1 PET, #2 HDPE milk jugs and #2 HDPE other), plastic film (includes #4 LDPE), other plastics (includes #5 polypropylene and #6 polystyrene), and composite plastic (includes carpet pad).
- **Glass** — Container glass, such as refillable bottles and all other container glass or cullet; other glass, such as windshield glass and ceramics.
- **Metals** — Tinned cans, aluminum, other scrap metals.
- **Organics** — Wood waste, yard debris, food waste, animal waste.
- **Other** — Tires, used motor oil, batteries, gypsum, asphalt roofing materials, carpeting, textiles, and paint/solvents.

METHODOLOGY

Data Sources

In 2002 DEQ collected recycling and disposal data from:

- 257 private recycling companies, including buy-back centers, intermediate processors, yard debris composting facilities, beer and soft drink distributors, and end users
- 204 waste haulers
- 10 scrap metal dealers
- 40 disposal sites handling municipal and construction and demolition wastes.

Data Collection and Management. Recyclers and haulers who directly collect material in each county are surveyed. However, since it is not practical to identify and survey individual generators of recyclable materials (such as all the retail stores in the state), DEQ also surveys material processors and end-users. Survey recipients were asked to return the completed surveys to DEQ by Feb. 28, 2003. Metro-area hauler forms were reviewed by Metro staff for completeness before being forwarded to DEQ staff. As surveys were received, staff checked the data for completeness, and in many instances, verified information by calling the survey

respondent. Once approved, the data was entered into the SWIMS database, and a number of quality control checks were performed. The two most important checks were:

- Comparing information from different sources. For example, often collectors report sending more material to recyclers (or end users) than the recyclers report receiving. This issue is usually resolved by calling the receiving recycler or both the recycler and the collector to determine the source of the discrepancy. When a discrepancy cannot be resolved by talking to the involved recyclers and collectors, the information provided by the end user is used in most cases.
- Examining per-capita recycling calculations for unlikely results. For example, occasionally more material is reported as recovered than would be expected in a county, based on estimates using population. This issue is resolved by determining which survey respondents reported collecting or handling the material for the county in question, looking for unlikely results in their reports, and calling the involved recyclers and collectors. Problems in the units of measurement used sometimes cause these types of unlikely results.

Quality of data. This is the eleventh year DEQ has collected recovery and waste generation rate data. Many companies who report have set up their own record-keeping mechanisms to help them provide complete, accurate, and timely data. However, each year DEQ staff encounters problems with reported data that need to be resolved. For example, in the 2002 survey year a number of collectors reported sending asphalt roofing materials to a hog fuel processor. The processor reported this material as wood waste instead of asphalt roofing material.

Commingled collection. In response to the growing number of commingled material collection programs being offered in this state, the 2002 hauler surveys allowed the haulers to report commingled collection packs. Haulers were asked to report their collections based on the following type of materials in their commingled packs:

- Paper only
- Containers only - no glass
- Containers only including glass
- Paper and containers - no glass
- Paper and containers including glass

Those processors or material recovery facilities (MRFs) that received the commingled packs as reported by the haulers were asked to complete a new commingled survey form in order to identify the individual materials that they were able to sort out of the commingled collection material mix. These individual material recovery results were than applied back to the hauler packs to identify the individual materials that they collected. Since these allocations are based on recovery percentage estimates, the data integrity for individual material identification in the 2002 report has deteriorated. The data integrity issue or difficulty in identifying specific materials in mixes is an unfortunate outcome of collecting recyclables in commingled packs.

Two industry trends were obvious in the 2002 results. Sorting of commingled material into mixed waste paper and high grade paper was down significantly. Instead much of the kraft mixed wastepaper was sorted and marketed as cardboard and the junk mail/ledger mixed wastepaper was sorted and marketed as newspaper.

Disposal data. Information on disposal tonnage comes from annual or quarterly reports filed with DEQ by disposal sites for fee collection purposes. Disposal sites report “counting” waste by county. “Counting” waste includes municipal solid waste as well as construction and demolition wastes such as wood waste, asphalt roofing, carpeting, and gypsum wallboard.

The following “non-counting waste” is excluded from this survey: industrial waste from manufacturing processes, sewage sludge, asbestos, petroleum-contaminated soil, and inert waste (full loads only) such as rock and gravel, dirt, concrete, and asphalt paving.

How Wasteshed Recovery Rates Are Calculated

The formula for determining recovery rates is:

Amt. Disposed[1] + Amt. Recovered = Total Generated

$$\frac{\textit{Total Recovered}}{\textit{Total Generated}} = \textit{Recovery Rate}$$

[1] The Amount Disposed includes municipal solid waste and excludes industrial process waste, asbestos, sludge, petroleum contaminated soil, and full loads of inert material, such as rock, if a record is kept at the disposal site.

For each county, information about the quantities of material collected from privately-operated recycling and material recovery facilities is combined with information from hauler and disposal site collections. This determines the total weight of material recovered.

Direct collectors of materials are the primary and best source of information for the collected materials' county of origin. This information is used whenever it is available. When information from direct collectors is not available, or when a survey respondent does not know the county of origin for the collected materials, the markets' and end users' estimates for county of origin is the secondary method used to allocate material back to counties. Material is allocated back to the counties based on population only when survey respondents cannot accurately estimate county of origin.

Next, the total weight of material recovered is added to the total weight of material disposed. This determines the total weight of material generated. The total weight of material recovered is divided by the total weight of the material generated. For each wasteshed, this results in a "calculated recovery rate".

Recovery credits for waste prevention, reuse, and residential composting are then added to the "calculated recovery rate" in order to derive the "total recovery rate". The "total recovery rate" is used for the purpose of determining whether or not wastesheds are achieving their recovery goals.

Marion County adjustment. As home to the State's only waste-to-energy facility, Marion County's recovery and disposal tonnages were revised as a result of a statutory change enacted by the 2001 Legislature. In 2002, 24,774 tons of waste burned for energy in the County's waste-to-energy facility was counted as recovery instead of disposal. This tonnage was derived by multiplying the quantity of non-industrial, in-county, "counting" solid waste processed at the facility against waste composition study data for Marion County from 1998 for the following seven items that may be counted towards the recovery rate: wood, woody yard waste, tires, used motor oil, fuels, asphalt roofing, and oil-based paint.

Recovery credits. Since 1997, wastesheds have been eligible to add 2% credits toward their recovery rates if they certify that they implemented programs in waste prevention, residential composting and reuse (one 2% credit for each program, for a potential total of 6%). The 2001 Legislature revised the residential backyard composting credit program to allow wastesheds to receive a credit greater than 2% if based on a "quantitatively verifiable" estimate of diversion.

Twelve wastesheds received at least one 2% credit in 2002, while one (Jackson County) received a residential composting credit greater than 2%:

Benton	6%	Lincoln	2%
Deschutes	6%	Linn	6%
Douglas	6%	Marion	6%
Jackson	7.7%	Metro	6%
Josephine	4%	Union	2%
Lane	6%	Yamhill	4%

How the State-Wide Recovery Rates Are Calculated

For the state as a whole, the calculated rate is derived by dividing total recovery by total generation.

The method of calculating the total recovery rate for the State was changed by the 2001 Legislature to include reuse and residential composting credits earned by wastesheds. This statutory change requires a more complex series of calculations.

The state-wide total recovery rate is derived first by estimating what is called "adjusted recovery" for each wasteshed. (The calculation of adjusted recovery involves calculating the tonnage that would be recovered if credits for reuse and residential composting were included in each wasteshed's calculated recovery rate, holding disposal tonnage as a constant.) For wastesheds where no 2% credits have been obtained, adjusted recovery is equal to recovery as calculated by the material recovery survey. For wastesheds with recovery credits, adjusted recovery is higher than recovery as estimated by the survey. The difference between adjusted recovery and surveyed recovery is the tonnage attributed to reuse and residential backyard composting.

To calculate the statewide total recovery rate, the "adjusted recoveries" for all wastesheds are summed together to equal a state-wide adjusted recovery. This is then added to actual state-wide disposal for a new estimate of waste generation ("adjusted generation"). The statewide total recovery rate is then calculated by dividing adjusted recovery by adjusted generation.

Double Counting of Materials

Because of the processing chain for recyclable materials and in order to determine recovery rates for individual wastesheds[1] as well as the state as a whole, DEQ must survey multiple companies handling the same material. This means that the potential for double counting of materials is a major issue. For example, haulers collecting materials are surveyed. Processors who purchase the materials from the haulers, generally small- to medium-sized recycling companies, and markets or end users of materials also are surveyed.

Having information on where each collector or recycler sells their material allows DEQ to eliminate the double-counting of that material. SWIMS was designed to track materials transferred from collector to recycler, collector to collector, or recycler to recycler subtracting material which a reporting company sold to an intermediate processor, while at the same time keeping track of the county of origin for the material.

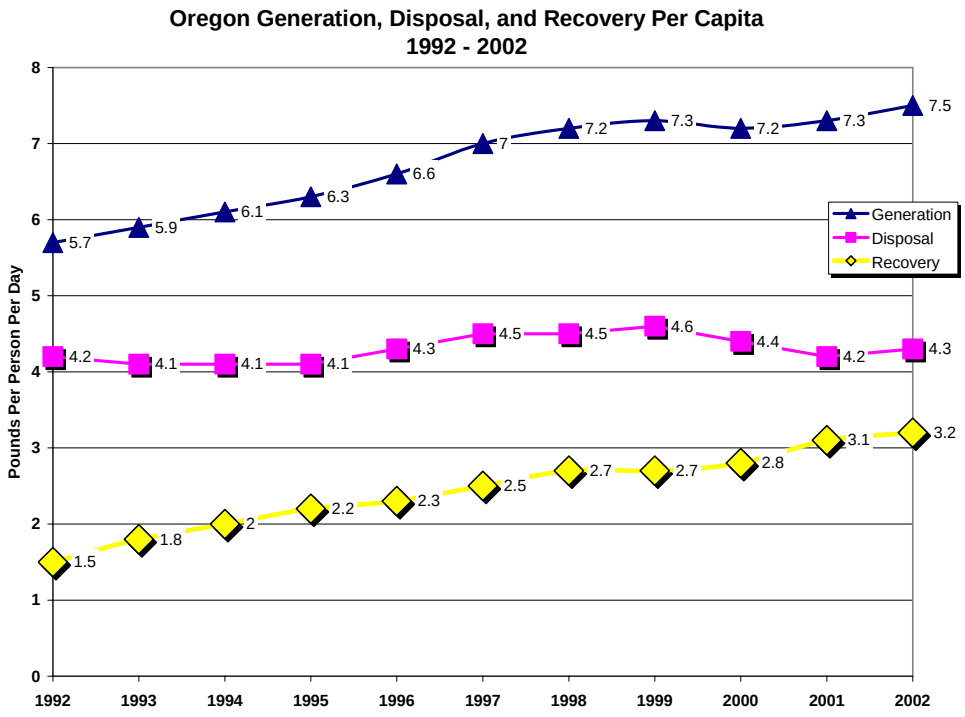
RESULTS

2002 Statewide Recovery Rate

The state of Oregon recovered 2,049,171 tons, or 42.9% of the actual total “counting” (municipal) waste stream in 2002. This is a 2.5% increase in recovery tonnage from 2001, when 1,999,098 tons (43.1% of the total waste stream) were recovered. The 2002 recovered tonnage results translates to 1169 pounds per person per year (3.20 pounds per day) compared to 1152 pounds per person per year in 2001 (3.16 pounds per day).

The state of Oregon total rate including 2% credit calculations was 46.6%. This is 1.6% above the statutory mandated 2005 goal of 45% recovery Statewide.

[1] Wastesheds are comparable to counties except for the Metro wasteshed, which includes Clackamas, Multnomah, and Washington counties, and the city of Milton-Freewater, which is its own wasteshed.



Year	Percent	Tons
1992	27.0%	839,679
1993	29.9%	974,694
1994	32.5%	1,118,913
1995	34.7%	1,257,225
1996	34.9%	1,338,446
1997	35.7%	1,462,663
1998	37.3%	1,605,741
1999	36.8%	1,626,458
2000	38.9%	1,765,820
2001	43.1%*	1,999,098
2002	42.9%*	2,049,171

***** These rates are before the addition of 2% credit allowances enacted by the 2001 legislature.

2002 Statewide Waste Generation Rates

Survey results show that the total amount of municipal solid waste generated (waste disposed plus materials recovered) has increased every year since 1992. The general trend in per-capita and total waste generation has been upwards with the exception of a flat period in per-capita generation from 1999-2001. Between 1992 and 2002, per-capita waste generation has grown at an average annualized rate of 2.7% per year, while total waste generation has grown at an average annualized rate of 4.4% per year.

MSW Generated *(tons)*	MSW Per Capita/Year *(lbs.)*	MSW Per Capita/Day *(lbs.)*
1992 - 3,102,778	2,083	5.7
1993 - 3,255,202	2,143	5.9
1994 - 3,437,255	2,231	6.1
1995 - 3,623,705	2,314	6.3
1996 - 3,836,183	2,412	6.6
1997 – 4,100,180	2,549	7.0
1998 – 4,301,657	2,633	7.2
1999 – 4,415,191	2,675	7.3
2000 – 4,544,401	2,645	7.2
2001 – 4,643,180	2,676	7.3
2002 – 4,772,537	2,724	7.5

While some of these increases represent real growth in total and per-capita waste generation, some of the increases are explained as a result of DEQ's material recovery survey becoming more comprehensive.

2002 Disposition of Total Waste Generated

Disposed	57.1%
Recycled	27.3%
Composted	7.4%
Recovered for Energy	8.2%

Wasteshed (County) Recovery Rates

Twenty-four wastesheds had calculated recovery rates in 2002 that were equal to or greater than their 2001 rates. Table 1 shows a breakdown of 2002 recovery rates by wasteshed, and Table 2 gives the amount of materials recovered in 2002 by wasteshed. Table 3 shows the amounts of solid waste disposed by wasteshed in 2002.

This year, all wastesheds met or exceeded the recovery rates that were required of them in 1995.

For an historical look at recovery rates in Oregon, Tables 4, 5, 6, and 7 give the recovery rates, recovered material amounts, disposal tonnages, and amounts of solid waste generated, by wasteshed, for 1992-2002.

Disposal

The amount of municipal solid waste disposed in Oregon in 2002 was 2,723,365 tons (see Tables 3 and 6) or 1554 pounds per person per year, based on a statewide population of 3,504,700. This translates to 4.3 pounds of municipal solid waste disposed per person per day.

The amount of material disposed increased by 88,283 tons from 2001 to 2002. This increase of 3.35% was unexpected in light of the poor economy that Oregon has been operating in. Typically, one expects disposal of materials to be down in a poor economy due decreases in consumption.

Per Capita Data

County recovery rates alone do not always provide the type of detailed information needed to determine how waste is managed in a county. Per capita disposal and recovery rates are useful for providing this information. For example, low disposal rates may reflect a low generation rate or a difference in waste disposal methods. Residents

in rural areas might be more likely to dispose of their waste by burning it than by hauling it to a landfill. Waste disposed outside of permitted disposal sites is not measured and thus is not counted as waste disposed for the purposes of this study.

DEQ staff also use per capita disposal and recovery rates to check the reported data for inconsistencies and unlikely results.

DEQ staff use per capita generation rates to determine trends in waste generation and opportunities to increase waste prevention and reuse in order to meet the waste generation goals established by the 2001 Legislature.

Materials Recovered

2002 recovery includes materials recycled, burned for energy recovery (tires, fuels, asphalt roofing, oil-based paint, used oil, wood waste, and some yard debris), or composted (yard debris, food waste and some wood waste). By category, 64% of the material recovered in Oregon was recycled, 19% was burned for energy and 17% was composted.

Materials that showed the largest increase in amount recovered included yard debris, food waste, animal waste and grease, used motor oil, tires, lead acid batteries, brick, film and other plastic, newspaper, cardboard, scrap metal and glass.

The largest decreases in recovery were seen in tin and aluminum, high-grade paper, mixed waste paper, rigid plastic containers, asphalt roofing, gypsum wallboard and wood waste.

Metals. The amount of recovered metals went down in 2002. Total metals were down 1.92%.

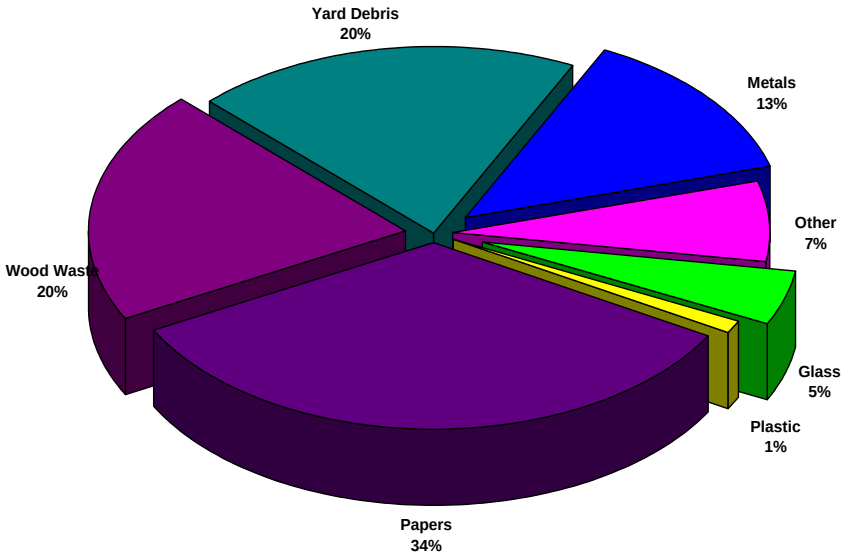
Due to the increased number of commingled collection programs and marketing of combined tinned cans and aluminum bales, DEQ combined tinned cans and curbside/depot collected aluminum into a material called tinned cans/aluminum. The aluminum reported in the 2002 survey is almost entirely beverage can aluminum. Recovery of both of these grades was down in 2002. Increases collection of scrap metal did not offset the decreases in tin and aluminum.

Papers. The overall amount of papers recovered increased slightly in 2002. The changes in individual paper grades are reflective of the changing sorting results for commingled collections of paper mixes more than actual increases or decreases in individual grades. Mixed waste paper decreased by 43.3% and high grade paper decreased by 33.0% for 2002. Conversely, cardboard increased by 14.5% and newspaper increased by 4.0%.

Organics. The amount of organic materials recovered increased nearly 5%. Most of this increase was in yard debris collections for composting. Food waste recovery increased from 9,600 tons in 2001 to over 12,000 tons in 2002. Wood waste collections were down in 2002 due to some loss of urban wood markets. Some confusion between collectors and end-markets about whether in-coming material was yard debris or wood waste may have contributed to the fluctuations in tonnage recovered.

Other materials. The amount of used motor oil in 2002 went up by 5.6%. Of particular interest, the amount of tires recovered in 2002 increased by 35.1%. Increased use of tires was reported primarily in engineered fill applications.

Materials Recovered In Oregon, 2002



Conclusion

The statewide recovery rate for 2002 was 46.6%, down from 46.8% in 2001. Key reasons for the decline in the 2002 state waste recovery rate:

- The amount of materials going to landfills increased 3.35% statewide
- Poor market prices contributed to a drop in the collection of some materials for recycling and energy recovery
- The increased amount of disposal and recovery caused an increase in both total and per capita waste generation

Waste generation increased at a rate faster than experienced in the previous three years. Factors contributing to the increase may include lack of availability and consumer resistance to waste reduction and reuse options.

Oregon solid waste disposal and recycling companies and DEQ devote considerable time and money to the annual recovery rate and waste generation rate calculations. Because of this commitment, Oregonians have a solid estimate of the generation, recovery and disposal of solid waste in Oregon in 2002. They also have one of the most complete and accurate sets of disposal and recycling data in the country.

Table 1: Wasteshed Recovery Rates, 2002

Wasteshed	Tons Disposed	Tons Recovered	Tons Generated	Calculated Rate[1]	Recovery Credits[2] Prevention	Reuse	Residential Composting	Total Recovery Rate	Required Rate for 1995	HB 3744 New Goals[5] 2005	2009
Baker	13,047	3,375	16,422	**20.5%**				**20.5%**	15%	25%	25%
Benton	52,377	36,427	88,803	**41.0%**	**2%**	**2%**	**2%**	**47.0%**	30%	45%	50%
Clatsop	33,745	11,370	45,115	**25.2%**				**25.2%**	25%	25%	25%
Columbia	23,130	11,831	34,961	**33.8%**				**33.8%**	25%	28%	32%
Coos	40,349	13,825	54,174	**25.5%**				**25.5%**	15%	30%	30%
Crook	16,907	6,175	23,082	**26.8%**				**26.8%**	15%	20%	20%
Curry	17,986	10,099	28,086	**36.0%**				**36.0%**	15%	30%	30%
Deschutes	129,607	46,857	176,464	**26.6%**	**2%**	**2%**	**2%**	**32.6%**	25%	32%	45%
Douglas	85,648	35,009	120,657	**29.0%**	**2%**	**2%**	**2%**	**35.0%**	25%	35%	40%
Gilliam	1,508	370	1,877	**19.7%**				**19.7%**	7%	20%	20%
Grant	4,301	947	5,248	**18.0%**				**18.0%**	7%	19%	19%
Harney	2,889	1,099	3,989	**27.6%**				**27.6%**	7%	30%	40%
Hood River	15,710	7,986	23,696	**33.7%**				**33.7%**	25%	25%	25%
Jackson	155,293	88,855	244,148	**36.4%**	**2%**	**2%**	**3.7%**	**44.1%**	25%	40%	40%
Jefferson	11,744	3,061	14,804	**20.7%**				**20.7%**	7%	25%	25%
Josephine	56,070	32,644	88,715	**36.8%**	**2%**	**2%**		**40.8%**	25%	38%	38%
Klamath	57,802	25,246	83,048	**30.4%**				**30.4%**	15%	15%	20%
Lake	4,833	585	5,418	**10.8%**				**10.8%**	7%	8%	10%
Lane	258,470	202,262	460,732	**43.9%**	**2%**	**2%**	**2%**	**49.9%**	30%	45%	54%
Lincoln	40,675	15,162	55,837	**27.2%**			**2%**	**29.2%**	15%	19%	20%
Linn	71,571	44,739	116,309	**38.5%**	**2%**	**2%**	**2%**	**44.5%**	30%	40%	40%
Malheur	22,079	8,138	30,217	**26.9%**				**26.9%**	15%	21%	22%
Marion	197,699	205,041	402,741	**50.9%**	**2%**	**2%**	**2%**	**56.9%**	30%[4]	37%	54%
Metro	1,165,762	1,073,520	2,239,282	**47.9%**	**2%**	**2%**	**2%**	**53.9%**	40%	62%	64%
Milton-Freewater	5,235	1,641	6,876	**23.9%**				**23.9%**	15%	22%	25%
Morrow	8,620	1,608	10,229	**15.7%**				**15.7%**	7%	18%	20%
Polk	38,102	23,785	61,886	**38.4%**				**38.4%**	30%	30%	35%
Sherman	1,552	243	1,795	**13.5%**				**13.5%**	7%	20%	20%
Tillamook	18,405	7,052	25,458	**27.7%**				**27.7%**	15%	30%	30%
Umatilla	61,143	33,428	94,570	**35.3%**				**35.3%**	15%	20%	20%
Union	19,065	7,253	26,318	**27.6%**			**2%**	**29.6%**	15%	25%	25%
Wallowa	5,542	1,325	6,867	**19.3%**				**19.3%**	7%	20%	20%
Wasco	18,387	7,249	25,636	**28.3%**				**28.3%**	25%	35%	35%
Wheeler	497	167	665	**25.2%**				**25.2%**	7%	20%	20%
Yamhill	67,617	80,791	148,408	**54.4%**	**2%**		**2%**	**58.4%**	30%	39%	45%
Unspec.	-	8	8								
OR Totals[3]	**2,723,365**	**2,049,171**	**4,772,537**	**42.9%**				**46.6%**			

[1] The recovery rate is calculated using the following formula:
1) Tons Disposed + Tons Recovered = Total Tons Generated
2) Tons Recovered / Total Generated = Calculated Recovery Rate
3) Calculated Recovery Rate + Recovery Credits = Total Recovery Rate

[2] Legislation enacted in 1997 allows each wasteshed to apply for 2% credits toward the recovery rate for certified programs in waste prevention, home composting, and reuse. A 2001 amendment allows for greater than 2% for residential composting if quantitatively verified.

[3] The total recovery rate for Oregon includes recovery credits for reuse and residential composting weighted by the recovery and generation of those wastesheds receiving credits (ORS 459A.010(4)(i))

[4] Because Marion County has an energy recovery facility, any anount of waste over 180,000 tons must achieve a 30% recovery rate. The Marion County disposal and recovery rates reflect 24,774 tons of recyclable materials burned for energy in 2002 (per ORS 459A.010(3)(f)(B)).

[5] ORS 459A.010(6).

Table 2: Amount Recovered in 2002 by Wasteshed

Wasteshed	2002 Tons Recovered	2002 Pounds Per Capita	2002 Wasteshed Population
Baker	3,375	404	16,700
Benton	36,427	978	74,515
Clatsop	11,370	630	36,100
Columbia	11,831	531	44,600
Coos	13,825	441	62,650
Crook	6,175	611	20,200
Curry	10,099	951	21,250
Deschutes	46,857	741	126,500
Douglas	35,009	691	101,300
Gilliam	370	389	1,900
Grant	947	244	7,750
Harney	1,099	289	7,600
Hood River	7,986	781	20,450
Jackson	88,855	947	187,600
Jefferson	3,061	308	19,850
Josephine	32,644	841	77,650
Klamath	25,246	782	64,550
Lake	585	157	7,450
Lane	202,262	1,233	328,150
Lincoln	15,162	678	44,700
Linn	44,739	817	109,550
Malheur	8,138	509	32,000
Marion*	205,041	1,410	290,835
Metro	1,073,520	1,447	1,484,150
Milton-Freewater	1,641	509	6,450
Morrow	1,608	286	11,250
Polk	23,785	758	62,740
Sherman	243	263	1,850
Tillamook	7,052	573	24,600
Umatilla	33,428	1,036	64,550
Union	7,253	590	24,600
Wallowa	1,325	371	7,150
Wasco	7,249	610	23,750
Wheeler	167	216	1,550
Yamhill	80,791	1,832	88,210
Unspec.	8		
OREGON TOTALS	**2,049,171**	**1,169**	**3,504,700**

Source for population data is the Center for Population Research and Census, Portland State University. Westesheds populations are not the same as County populations for the Wastesheds of Benton, Linn, Marion, Metro Milton-Freewater, Polk, Umatilla, and Yamhill (see OAR 340-090-0050).

*Includes Marion County recyclable materials burned for energy

Table 3: Solid Waste Disposed in 2002 by Wasteshed

Wasteshed	2002 Tons Disposed	2002 Pounds Per Capita	2002 Wasteshed Population
Baker	13,047.0	1,563	16,700
Benton	52,376.6	1,406	74,515
Clatsop	33,745.1	1,870	36,100
Columbia	23,130.3	1,037	44,600
Coos	40,348.8	1,288	62,650
Crook	16,907.1	1,674	20,200
Curry	17,986.3	1,693	21,250
Deschutes	129,606.8	2,049	126,500
Douglas	85,648.2	1,691	101,300
Gilliam	1,507.6	1,587	1,900
Grant	4,301.0	1,110	7,750
Harney	2,889.1	760	7,600
Hood River	15,710.0	1,536	20,450
Jackson	155,292.8	1,656	187,600
Jefferson	11,743.8	1,183	19,850
Josephine	56,070.2	1,444	77,650
Klamath	57,801.9	1,791	64,550
Lake	4,833.1	1,297	7,450
Lane	258,469.7	1,575	328,150
Lincoln	40,675.0	1,820	44,700
Linn	71,570.5	1,307	109,550
Malheur	22,078.5	1,380	32,000
Marion*	197,699.3	1,360	290,835
Metro	1,165,761.9	1,571	1,484,150
Milton-Freewater	5,235.1	1,623	6,450
Morrow	8,620.3	1,532	11,250
Polk	38,101.7	1,215	62,740
Sherman	1,551.5	1,677	1,850
Tillamook	18,405.4	1,496	24,600
Umatilla	61,142.8	1,894	64,550
Union	19,065.0	1,550	24,600
Wallowa	5,541.8	1,550	7,150
Wasco	18,386.6	1,548	23,750
Wheeler	497.1	641	1,550
Yamhill	67,617.4	1,533	88,210
Unspec.	-		
OREGON TOTALS	**2,723,365**	**1,554**	**3,504,700**

Source for population data is the Center for Population Research and Census, Portland State University. Westesheds populations are not the same as County populations for the Wastesheds of Benton, Linn, Marion, Metro Milton-Freewater, Polk, Umatilla, and Yamhill (see OAR 340-090-0050).

*Includes Marion County recyclable materials burned for energy

Table 4: Oregon Caculated Recovery Rates by Wasteshed, 1992-2002

Wasteshed	1992 Rate	1993 Rate	1994 Rate	1995 Rate	1996 Rate	1997 Calc. Rate*	1998 Calc. Rate*	1999 Calc. Rate*	2000 Calc. Rate*	2001 Calc. Rate*	2002 Calc. Rate*	1995 Required Rate
Gilliam	17%	6%	15%	20%	19%	21%	18%	15%	14%	13%	20%	**7%**
Grant	18%	14%	16%	19%	16%	15%	16%	18%	19%	19%	18%	**7%**
Harney	18%	21%	20%	34%	24%	21%	34%	34%	20%	27%	28%	**7%**
Jefferson	21%	16%	18%	22%	24%	33%	33%	21%	27%	27%	21%	**7%**
Lake	6%	6%	9%	8%	7%	6%	8%	11%	8%	11%	11%	**7%**
Morrow	11%	16%	13%	12%	13%	17%	17%	20%	15%	16%	16%	**7%**
Sherman	24%	17%	20%	20%	21%	11%	16%	24%	17%	15%	14%	**7%**
Wallowa	6%	8%	11%	18%	11%	16%	16%	19%	21%	19%	19%	**7%**
Wheeler	7%	8%	11%	24%	20%	20%	25%	18%	14%	13%	25%	**7%**
Baker	10%	14%	17%	22%	25%	19%	19%	18%	18%	24%	21%	**15%**
Coos	21%	20%	23%	28%	29%	28%	27%	22%	23%	23%	26%	**15%**
Crook	16%	23%	19%	30%	23%	15%	14%	23%	27%	37%	27%	**15%**
Curry	21%	25%	27%	31%	35%	33%	29%	27%	41%	39%	36%	**15%**
Klamath	13%	12%	17%	18%	15%	16%	17%	15%	18%	31%	30%	**15%**
Lincoln	20%	20%	21%	19%	16%	19%	20%	19%	23%	28%	27%	**15%**
Malheur	19%	15%	12%	15%	20%	19%	22%	24%	25%	26%	27%	**15%**
Milton-Freewater	16%	13%	13%	22%	21%	20%	19%	18%	21%	21%	24%	**15%**
Tillamook	31%	27%	28%	27%	26%	26%	26%	28%	26%	28%	28%	**15%**
Umatilla	14%	15%	15%	19%	20%	25%	24%	25%	26%	28%	35%	**15%**
Union	16%	19%	21%	30%	26%	29%	27%	24%	22%	22%	28%	**15%**
Clatsop	19%	22%	20%	19%	20%	23%	22%	24%	25%	28%	25%	**25%**
Columbia	34%	28%	22%	27%	22%	28%	29%	25%	31%	38%	34%	**25%**
Deschutes	15%	18%	24%	22%	23%	25%	32%	25%	31%	29%	27%	**25%**
Douglas	26%	23%	23%	24%	26%	29%	30%	26%	26%	30%	29%	**25%**
Hood River	16%	24%	26%	16%	17%	17%	17%	19%	18%	30%	34%	**25%**
Jackson	15%	19%	35%	33%	34%	34%	34%	29%	28%	32%	36%	**25%**
Josephine	14%	19%	27%	34%	38%	37%	41%	42%	33%	34%	37%	**25%**
Wasco	25%	23%	26%	29%	30%	29%	31%	34%	34%	26%	28%	**25%**
Benton	27%	30%	36%	35%	37%	41%	41%	35%	35%	41%	41%	**30%**
Marion	26%	27%	27%	29%	28%	28%	30%	32%	38%	**50%	**51%	**30%**
Lane	19%	28%	32%	32%	39%	39%	40%	41%	46%	46%	44%	**30%**
Linn	15%	27%	29%	30%	32%	33%	31%	33%	29%	34%	38%	**30%**
Polk	20%	25%	24%	23%	19%	24%	26%	29%	33%	39%	38%	**30%**
Yamhill	19%	22%	25%	30%	35%	25%	31%	36%	44%	49%	54%	**30%**
Metro	35%	37%	39%	42%	41%	42%	43%	43%	45%	49%	48%	**40%**
OREGON TOTALS	**27.1%**	**29.9%**	**32.6%**	**34.7%**	**34.9%**	**35.7%**	**37.3%**	**36.8%**	**38.9%**	**43.1%**	**42.9%**	

*does not include 2% credits
**does include Marion County recyclable materials burned for energy

Table 5: Oregon Amount Recovered by Wasteshed, 1992-2002

Wasteshed	1992 Rvd (tons)	Per Capita (lbs.)	1995 Rvd (tons)	Per Capita (lbs.)	1996 Rvd (tons)	Per Capita (lbs.)	1997 Rvd (tons)	Per Capita (lbs.)	1998 Rvd (tons)	Per Capita (lbs.)	1999 Rvd (tons)	Per Capita (lbs.)	2000 Rvd (tons)	Per Capita (lbs.)	2001 Rvd (tons)	Per Capita (lbs.)	2002 Rvd (tons)	Per Capita (lbs.)	Change in Per Capita 2002-01
Baker	982	124	2,768	336	3,644	442	2,958	358	2,934	351	2,792	334	2,849	340	3,488	418	3,375	404	-3.32%
Benton	21,480	622	25,916	724	30,352	842	31,698	879	31,957	889	29,992	886	28,488	779	35,609	966	36,427	978	1.21%
Clatsop	5,148	311	7,040	410	7,118	411	9,122	529	8,512	491	10,333	490	10,586	593	11,999	669	11,370	630	-5.85%
Columbia	7,894	407	6,937	349	6,258	312	7,617	367	9,252	437	7,732	434	10,361	474	14,050	634	11,831	531	-16.32%
Coos	10,035	323	13,873	447	14,972	485	15,102	492	13,905	453	11,068	453	11,754	374	11,075	352	13,825	441	25.38%
Crook	1,581	211	3,125	398	3,156	397	2,250	277	2,267	272	4,177	270	5,215	540	7,040	709	6,175	611	-13.77%
Curry	2,863	268	5,328	480	6,011	546	5,782	521	4,905	446	5,720	445	10,387	980	9,464	878	10,099	951	8.26%
Deschutes	12,858	311	29,856	635	30,222	617	31,342	619	48,309	921	36,537	906	49,993	858	49,459	810	46,857	741	-8.54%
Douglas	29,467	612	30,172	618	30,945	628	34,498	696	37,476	747	30,878	743	31,390	625	38,983	770	35,009	691	-10.24%
Gilliam	177	203	283	323	284	298	344	352	295	281	263	281	266	280	252	265	370	389	46.89%
Grant	911	228	848	213	687	170	604	152	610	153	734	153	791	199	897	230	947	244	6.28%
Harney	600	173	1,120	318	678	181	614	164	921	242	1,703	242	806	212	1,076	283	1,099	289	2.23%
Hood River	1,855	211	3,242	347	3,333	351	3,063	319	3,112	319	3,696	316	3,403	332	6,517	633	7,986	781	23.39%
Jackson	17,134	224	54,764	666	60,292	718	66,413	785	71,544	828	60,638	820	63,872	701	71,666	776	88,855	947	22.07%
Jefferson	1,269	174	2,414	300	2,667	316	4,155	486	4,339	499	2,693	492	3,661	382	3,963	409	3,061	308	-24.60%
Josephine	7,826	239	17,648	496	21,688	602	23,296	638	28,020	768	30,928	763	26,534	698	25,556	665	32,644	841	26.44%
Klamath	8,827	297	13,561	440	11,171	363	12,850	417	13,111	423	11,447	421	14,070	440	21,617	673	25,246	782	16.23%
Lake	269	73	715	189	601	159	581	157	553	149	410	149	369	99	643	171	585	157	-8.22%
Lane	72,072	491	115,083	762	153,843	1,006	164,635	1,067	171,708	1,097	180,383	1,088	216,532	1,337	206,010	1,264	202,262	1,233	-2.47%
Lincoln	6,886	348	8,246	395	7,823	371	9,847	463	10,416	482	9,912	481	12,192	547	15,128	678	15,162	678	0.05%
Linn	17,232	348	31,551	618	33,201	638	35,424	672	34,631	647	35,776	641	33,830	623	36,510	670	44,739	817	21.91%
Malheur	3,283	245	2,922	207	4,808	335	5,163	360	5,662	388	6,538	369	7,212	454	7,204	450	8,138	509	13.03%
Marion	55,834	463	81,164	630	85,731	653	89,400	668	104,053	766	109,639	756	134,032	937	191,817	1,331	205,041	1,410	5.94%
Metro	514,747	831	735,231	1,127	752,470	1,135	835,593	1,246	912,018	1,338	932,889	1,323	970,850	1,338	1,097,409	1,496	1,073,520	1,447	-3.30%
Milton-Freew.	908	323	1,375	459	1,186	392	1,273	411	1,310	403	1,191	390	1,317	406	1,344	410	1,641	509	24.11%
Morrow	930	230	918	211	842	187	1,253	277	1,227	261	1,446	257	1,428	257	1,364	245	1,608	286	16.69%
Polk	4,873	184	7,751	283	6,787	244	9,373	330	13,195	448	15,429	443	18,000	581	22,550	717	23,785	758	5.75%
Sherman	270	300	227	239	264	278	166	175	210	221	348	221	217	223	234	246	243	263	6.83%
Tillamook	4,518	402	4,820	414	5,246	441	5,060	425	5,372	448	6,930	446	6,174	508	7,113	578	7,052	573	-0.81%
Umatilla	6,641	239	11,275	381	12,454	419	16,038	541	16,949	559	18,947	553	20,115	625	23,097	718	33,428	1,036	44.25%
Union	2,525	210	6,248	512	5,203	425	6,007	490	5,848	479	5,358	477	5,062	412	5,578	454	7,253	590	29.89%
Wallowa	433	121	905	250	503	139	781	214	847	235	1,131	235	1,219	336	1,045	294	1,325	371	26.05%
Wasco	5,443	482	6,650	588	7,519	668	7,784	689	8,154	722	9,692	720	9,194	771	6,240	517	7,249	610	18.08%
Wheeler	59	79	239	308	185	232	150	187	119	149	80	149	100	129	67	86	167	216	151.16%
Yamhill	11,850	342	22,992	612	26,116	669	21,880	549	31,244	758	38,842	747	53,548	1,242	63,021	1,447	80,791	1,832	26.59%
Unspec.		0	21		187		549		756		188		3		13		8		
Rounding adj.			-3																
OR. TOTALS	**839,679**	**564**	**1,257,225**	**803**	**1,338,446**	**842**	**1,462,663**	**909**	**1,605,741**	**983**	**1,626,459**	**985**	**1,765,820**	**1,028**	**1,999,098**	**1,152**	**2,049,171**	**1,169**	1.51%
change in total from previous year			12.36%		6.46%		9.28%		9.78%		1.29%		8.57%		13.21%		2.50%		
change in per capita from previous year				10.57%		4.82%		8.06%		8.08%		0.27%		4.31%		12.06%		1.51%	

Data from 1993 and 1994 is not shown due to page formatting. Please contact DEQ directly for data from these years.

Table 6: Oregon Solid Waste Disposed by Wasteshed, 1992-2002

Wasteshed	1992 Disposed (tons)	Per Capita (lbs.)	1995 Disposed (tons)	Per Capita (lbs.)	1996 Disposed (tons)	Per Capita (lbs.)	1997 Disposed (tons)	Per Capita (lbs.)	1998 Disposed (tons)	Per Capita (lbs.)	1999 Disposed (tons)	Per Capita (lbs.)	2000 Disposed (tons)	Per Capita (lbs.)	2001 Disposed (tons)	Per Capita (lbs.)	2002 Disposed (tons)	Per Capita (lbs.)	Change in Per Capita 2002-01
Baker	8,419	1,066	9,876	1,197	10,897	1,321	12,422	1,506	12,376	1,482	12,602	1,509	12,617	1,507	11,317	1,355	13,047	1,563	15.31%
Benton	58,761	1,703	47,479	1,326	50,840	1,410	46,024	1,276	45,551	1,268	54,675	1,516	53,835	1,472	51,577	1,399	52,377	1,406	0.49%
Clatsop	22,263	1,345	29,272	1,707	28,671	1,657	29,760	1,725	30,716	1,770	32,047	1,844	31,489	1,764	31,318	1,747	33,745	1,870	7.01%
Columbia	15,131	780	18,967	956	22,650	1,130	19,164	924	23,004	1,088	23,519	1,103	23,201	1,062	23,197	1,047	23,130	1,037	-0.93%
Coos	37,596	1,211	35,988	1,159	36,436	1,181	38,153	1,243	37,434	1,219	39,302	1,281	39,329	1,253	37,711	1,198	40,349	1,288	7.52%
Crook	8,378	1,117	7,279	927	10,646	1,339	12,607	1,552	14,232	1,710	14,034	1,671	13,841	1,434	11,872	1,196	16,907	1,674	39.96%
Curry	10,555	986	11,642	1,049	11,121	1,011	11,890	1,071	12,264	1,115	15,210	1,380	14,644	1,382	14,996	1,392	17,986	1,693	21.61%
Deschutes	72,529	1,756	108,967	2,316	103,397	2,110	93,232	1,843	101,313	1,932	111,141	2,083	111,013	1,904	120,334	1,972	129,607	2,049	3.91%
Douglas	85,040	1,766	96,429	1,974	87,325	1,771	85,430	1,724	86,369	1,722	86,354	1,713	89,451	1,780	90,379	1,786	85,648	1,691	-5.32%
Gilliam	872	996	1,166	1,333	1,176	1,238	1,288	1,321	1,320	1,257	1,446	1,377	1,663	1,751	1,622	1,707	1,508	1,587	-7.03%
Grant	4,178	1,045	3,558	895	3,492	862	3,387	852	3,174	793	3,375	844	3,441	866	3,790	972	4,301	1,110	14.19%
Harney	2,650	763	2,192	622	2,126	567	2,244	598	1,794	472	3,299	868	3,160	832	2,892	761	2,889	760	-0.09%
Hood River	9,959	1,132	16,458	1,760	16,016	1,686	15,120	1,575	14,931	1,531	16,021	1,626	15,741	1,536	15,397	1,495	15,710	1,536	2.77%
Jackson	98,002	1,282	111,479	1,356	115,011	1,369	128,964	1,523	136,337	1,578	151,523	1,736	165,129	1,813	152,562	1,652	155,293	1,656	0.22%
Jefferson	4,813	659	8,380	1,041	8,380	992	8,609	1,007	8,709	1,001	9,870	1,118	9,889	1,033	10,929	1,127	11,744	1,183	4.99%
Josephine	47,687	1,458	34,373	967	35,873	996	39,158	1,073	40,518	1,110	42,449	1,157	54,033	1,421	50,436	1,313	56,070	1,444	9.99%
Klamath	57,247	1,928	62,501	2,029	66,874	2,171	67,540	2,193	62,603	2,019	65,045	2,088	64,619	2,023	48,182	1,501	57,802	1,791	19.32%
Lake	4,364	1,187	8,428	2,233	7,468	1,978	9,219	2,492	6,361	1,719	3,321	897	4,057	1,089	5,120	1,365	4,833	1,297	-4.95%
Lane	302,695	2,061	240,106	1,591	239,310	1,565	260,519	1,689	261,958	1,674	263,180	1,667	256,205	1,582	240,984	1,479	258,470	1,575	6.51%
Lincoln	27,601	1,394	35,371	1,692	42,443	2,012	41,349	1,946	41,127	1,904	40,984	1,891	40,406	1,812	38,835	1,740	40,675	1,820	4.59%
Linn	94,644	1,911	75,332	1,475	69,506	1,336	72,093	1,368	75,807	1,416	71,818	1,329	83,701	1,540	70,471	1,294	71,571	1,307	0.98%
Malheur	13,815	1,031	16,777	1,190	18,776	1,308	21,773	1,517	20,052	1,373	20,844	1,358	21,338	1,344	20,995	1,312	22,079	1,380	5.18%
Marion	158,109	1,310	198,041	1,536	219,182	1,669	228,192	1,706	237,166	1,745	230,271	1,674	222,098	1,552	194,190	1,347	197,699	1,360	0.93%
Metro	945,634	1,526	995,035	1,525	1,097,246	1,655	1,173,593	1,749	1,196,486	1,756	1,240,433	1,800	1,207,348	1,663	1,151,339	1,569	1,165,762	1,571	0.12%
Milton-Freew.	4,642	1,649	4,987	1,666	4,332	1,431	5,001	1,613	5,586	1,719	5,383	1,602	5,029	1,549	5,024	1,532	5,235	1,623	5.96%
Morrow	7,221	1,783	6,617	1,521	5,883	1,307	5,986	1,323	5,893	1,254	5,930	1,242	8,253	1,487	7,394	1,326	8,620	1,532	15.57%
Polk	19,036	718	25,926	945	28,655	1,028	30,405	1,070	36,790	1,248	38,163	1,282	37,322	1,204	34,914	1,110	38,102	1,215	9.42%
Sherman	876	973	884	931	987	1,039	1,295	1,363	1,092	1,150	1,109	1,167	1,031	1,057	1,306	1,375	1,552	1,677	21.99%
Tillamook	9,940	884	13,004	1,116	15,212	1,278	14,120	1,187	15,063	1,255	17,446	1,448	17,807	1,466	18,324	1,490	18,405	1,496	0.43%
Umatilla	41,059	1,480	46,770	1,580	51,388	1,729	49,011	1,653	52,484	1,732	57,420	1,874	57,952	1,801	59,854	1,861	61,143	1,894	1.80%
Union	12,866	1,072	14,498	1,188	14,676	1,198	14,812	1,209	15,610	1,280	16,547	1,351	18,311	1,492	20,051	1,633	19,065	1,550	-5.08%
Wallowa	6,801	1,902	4,078	1,125	4,024	1,110	4,094	1,122	4,526	1,257	4,861	1,350	4,655	1,284	4,393	1,237	5,542	1,550	25.32%
Wasco	16,760	1,483	16,106	1,425	17,480	1,554	18,855	1,669	17,997	1,593	18,727	1,654	18,118	1,519	17,884	1,481	18,387	1,548	4.55%
Wheeler	758	1,011	764	986	763	954	591	738	359	449	360	450	596	769	461	595	497	641	7.80%
Yamhill	52,199	1,509	53,418	1,422	48,909	1,253	67,118	1,683	68,901	1,671	69,994	1,673	67,141	1,558	65,022	1,493	67,617	1,533	2.69%
Unspec.		0	4,335		567		4,500		13		35		118		10		0		
Rounding adj.			-2																
OR. TOTALS	**2,263,099**	**1,519**	**2,366,480**	**1,511**	**2,497,737**	**1,570**	**2,637,517**	**1,640**	**2,695,916**	**1,650**	**2,788,733**	**1,690**	**2,778,581**	**1,617**	**2,635,082**	**1,518**	**2,723,365**	**1,554**	**2.38%**
change in total from previous year			2.08%		5.55%		5.60%		2.21%		3.44%		-0.36%		-5.16%		3.35%		
change in per capita from previous year				0.45%		3.92%		4.41%		0.63%		2.40%		-4.30%		-6.12%		2.38%	

Data from 1993 and 1994 is not shown due to page formatting. Please contact DEQ directly for data from these years.

Table 7: Oregon Solid Waste Generated by Wasteshed, 1992-2002

Wasteshed	1992 Generated (tons)	Per Capita (lbs.)	1995 Generated (tons)	Per Capita (lbs.)	1996 Generated (tons)	Per Capita (lbs.)	1997 Generated (tons)	Per Capita (lbs.)	1998 Generated (tons)	Per Capita (lbs.)	1999 Generated (tons)	Per Capita (lbs.)	2000 Generated (tons)	Per Capita (lbs.)	2001 Generated (tons)	Per Capita (lbs.)	2002 Generated (tons)	Per Capita (lbs.)	Change in Per Capita 2002-01
Baker	9,401	1,190	12,644	1,533	14,540	1,762	15,379	1,864	15,310	1,834	15,395	1,844	15,466	1,847	14,805	1,773	16,422	1,967	10.92%
Benton	80,241	2,325	73,395	2,053	81,192	2,253	77,722	2,156	77,508	2,157	84,668	2,348	82,323	2,250	87,186	2,364	88,803	2,383	0.82%
Clatsop	27,411	1,656	36,312	2,142	35,789	2,069	38,882	2,248	39,228	2,261	42,380	2,439	42,075	2,357	43,317	2,417	45,115	2,499	3.41%
Columbia	23,025	1,187	25,904	1,315	28,908	1,442	26,780	1,336	32,256	1,525	31,251	1,465	33,562	1,536	37,247	1,682	34,961	1,568	-6.79%
Coos	47,631	1,534	49,861	1,588	51,409	1,666	53,255	1,726	51,339	1,672	50,370	1,642	51,083	1,627	48,786	1,550	54,174	1,729	11.58%
Crook	9,959	1,328	10,404	1,325	13,802	1,736	14,856	1,869	16,499	1,982	18,211	2,168	19,056	1,975	18,912	1,905	23,082	2,285	19.96%
Curry	13,418	1,254	16,970	1,543	17,132	1,557	17,672	1,607	17,169	1,561	20,930	1,898	25,031	2,361	24,460	2,270	28,086	2,643	16.45%
Deschutes	85,387	2,067	138,823	3,102	133,618	2,727	124,574	2,542	149,622	2,853	147,678	2,768	161,006	2,762	169,793	2,782	176,464	2,790	0.29%
Douglas	114,507	2,378	126,601	2,608	118,269	2,399	119,929	2,433	123,845	2,469	117,232	2,325	120,841	2,405	129,362	2,557	120,657	2,382	-6.84%
Gilliam	1,049	1,199	1,449	1,656	1,459	1,536	1,632	1,717	1,615	1,538	1,708	1,627	1,929	2,031	1,874	1,973	1,877	1,976	0.16%
Grant	5,089	1,272	4,406	1,115	4,179	1,032	3,991	985	3,784	946	4,109	1,027	4,232	1,065	4,687	1,202	5,248	1,354	12.68%
Harney	3,249	935	3,312	960	2,804	748	2,858	762	2,715	715	5,002	1,316	3,966	1,044	3,968	1,044	3,989	1,050	0.54%
Hood River	11,814	1,343	19,700	2,141	19,349	2,037	18,183	1,914	18,043	1,851	19,717	2,002	19,144	1,868	21,914	2,128	23,696	2,317	8.90%
Jackson	115,135	1,506	166,243	2,078	175,303	2,087	195,377	2,326	207,881	2,406	212,160	2,431	229,001	2,514	224,228	2,428	244,148	2,603	7.20%
Jefferson	6,082	833	10,794	1,402	11,047	1,307	12,764	1,510	13,048	1,500	12,563	1,424	13,550	1,415	14,892	1,535	14,804	1,492	-2.83%
Josephine	55,513	1,698	52,021	1,528	57,560	1,599	62,454	1,735	68,538	1,878	73,377	1,999	80,567	2,119	75,992	1,978	88,715	2,285	15.52%
Klamath	66,074	2,225	76,062	2,514	78,044	2,534	80,389	2,610	75,714	2,442	76,492	2,456	78,689	2,463	69,799	2,174	83,048	2,573	18.36%
Lake	4,633	1,261	9,143	2,471	8,069	2,137	9,800	2,596	6,914	1,869	3,731	1,008	4,426	1,188	5,763	1,537	5,418	1,454	-5.37%
Lane	374,767	2,552	355,189	2,368	393,153	2,571	425,154	2,781	433,666	2,771	443,563	2,810	472,737	2,919	446,994	2,743	460,732	2,808	2.37%
Lincoln	34,487	1,742	43,617	2,128	50,266	2,382	51,196	2,426	51,543	2,386	50,896	2,348	52,598	2,359	53,963	2,417	55,837	2,498	3.36%
Linn	111,875	2,259	106,883	2,130	102,707	1,974	107,517	2,066	110,438	2,063	107,593	1,990	117,531	2,163	106,981	1,964	116,309	2,123	8.12%
Malheur	17,098	1,276	19,699	1,402	23,583	1,643	26,936	1,877	25,714	1,761	27,383	1,784	28,550	1,798	28,199	1,762	30,217	1,889	7.18%
Marion	213,943	1,773	279,205	2,210	304,913	2,322	317,592	2,418	341,219	2,511	339,910	2,471	356,130	2,489	386,007	2,678	402,741	2,770	3.42%
Metro	1,460,380	2,356	1,730,266	2,652	1,849,716	2,791	2,009,187	3,031	2,108,504	3,094	2,173,322	3,153	2,178,198	3,001	2,248,748	3,065	2,239,282	3,018	-1.55%
Milton-Freew.	5,551	1,972	6,362	2,169	5,518	1,823	6,274	2,072	6,896	2,122	6,574	1,956	6,346	1,954	6,368	1,941	6,876	2,132	9.85%
Morrow	8,151	2,013	7,535	1,752	6,725	1,494	7,239	1,609	7,120	1,515	7,375	1,544	9,681	1,744	8,758	1,571	10,229	1,818	15.75%
Polk	23,909	902	33,677	1,251	35,442	1,272	39,778	1,427	49,985	1,696	53,592	1,801	55,322	1,785	57,464	1,827	61,886	1,973	7.98%
Sherman	1,146	1,273	1,111	1,169	1,252	1,318	1,461	1,538	1,302	1,371	1,456	1,533	1,248	1,280	1,540	1,621	1,795	1,940	19.69%
Tillamook	14,458	1,285	17,824	1,557	20,458	1,719	19,179	1,612	20,435	1,703	24,376	2,023	23,981	1,974	25,437	2,068	25,458	2,070	0.08%
Umatilla	47,700	1,720	58,045	1,997	63,843	2,148	65,050	2,189	69,433	2,292	76,367	2,492	78,067	2,426	82,951	2,579	94,570	2,930	13.62%
Union	15,391	1,283	20,746	1,694	19,879	1,623	20,818	1,699	21,458	1,759	21,904	1,788	23,373	1,904	25,629	2,088	26,318	2,140	2.48%
Wallowa	7,234	2,023	4,983	1,384	4,528	1,249	4,876	1,345	5,373	1,493	5,991	1,664	5,874	1,620	5,438	1,532	6,867	1,921	25.38%
Wasco	22,202	1,965	22,756	2,023	24,999	2,222	26,640	2,368	26,151	2,314	28,419	2,509	27,312	2,290	24,124	1,998	25,636	2,159	8.05%
Wheeler	817	1,089	1,003	1,294	948	1,185	741	926	478	597	439	548	696	898	528	681	665	857	25.91%
Yamhill	64,049	1,851	76,410	2,083	75,024	1,922	88,998	2,280	100,144	2,429	108,836	2,601	120,689	2,800	128,043	2,940	148,408	3,365	14.45%
Unspec.	2		4,356	125	756		5,049		771		223		121		23		8		
OR. TOTALS	**3,102,778**	**2,083**	**3,623,705**	**2,314**	**3,836,183**	**2,412**	**4,100,180**	**2,549**	**4,301,657**	**2,633**	**4,415,189**	**2,675**	**4,544,401**	**2,645**	**4,634,180**	**2,676**	**4,772,537**	**2,724**	**1.78%**
change in total from previous year			5.42%		5.86%		6.88%		4.91%		2.64%		2.93%		1.98%		2.99%		
change in per capita from previous year				3.74%		4.23%		5.69%		3.29%		1.61%		-1.13%		1.17%		1.78%	

Data from 1993 and 1994 is not shown due to page formatting. Please contact DEQ directly for data from these years.

Table 8: Oregon Materials Recovered, 1992-2002

Material Type	1992 Tons	1993 Tons	1994 Tons	1995 Tons	1996 Tons	1997 Tons	1998 Tons	1999 Tons	2000 Tons	2001 Tons	2002 Tons	
Container glass	69,284	74,541	73,512	65,998	77,231	73,386	78,492	80,194	87,889	83,240	90,476	
Other glass	41	439	6,030	620	1,557	8,088	365	1,476	1,578	9,530	4,358	
Total glass	**69,325**	**74,980**	**79,542**	**66,618**	**78,788**	**81,474**	**78,857**	**81,670**	**89,467**	**92,770**	**94,833**	2.22%
Aluminum	18,245	16,030	16,805	18,600	17,815	17,757	16,734	21,046	18,209	20,511	17,428	
Scrap metal	26,927	36,325	33,699	40,100	45,271	92,316	114,084	141,653	165,728	223,623	228,723	
Tinned cans/aluminum									14,779	23,387	16,240	
Tinned cans	7,400	9,755	8,557	8,424	8,635	7,715	8,745	8,407	0	0	0	
Aerosol cans	0	2	0	0	0	0	8	7	0	0	0	
Total metals	**52,572**	**62,112**	**59,061**	**67,124**	**71,722**	**117,788**	**139,570**	**171,114**	**198,716**	**267,521**	**262,390**	-1.92%
Cardboard/kraft paper	204,729	226,147	251,559	306,823	304,093	320,018	321,501	305,138	310,776	332,876	381,027	
High-grade paper	67,077	44,497	35,401	41,906	49,298	51,614	69,449	56,035	54,358	62,185	41,659	
Magazines	11,246	14,020	11,911	14,443	17,250	20,429	26,342	13,988	8,375	0	0	
Phone books*	0	0	1,799	2,574	3,103	2,588	2,368	2,841	2,881	0	0	
Mixed waste paper	24,012	28,087	38,770	66,268	53,771	70,073	78,863	75,764	91,559	81,418	46,203	
Newspaper	130,181	127,990	143,911	148,656	141,412	157,095	154,014	183,710	187,108	203,021	211,082	
Fiber-based fuel				3,302	9,235	2,681	0	0	0	0	0	
Total papers	**437,245**	**440,741**	**483,352**	**583,973**	**578,161**	**624,498**	**652,536**	**637,476**	**655,057**	**679,499**	**679,971**	0.07%
#1 PET beverage	3,329	4,404	4,392	5,199	5,803	5,461	5,142	4,840	0	0	0	
#1 other	58	0	0	0	0	0	0	0	0	0	0	
#2 milk jugs	1,940	2,610	4,289	3,286	3,049	2,675	2,361	1,088	0	0	0	
#2 other	1,841	1,807	976	1,003	1,331	1,138	572	852	0	0	0	
#3 PVC	25	12	5	25	144	258	1	2	0	0	0	
#4 LDPE	1,196	1,564	3,843	2,533	2,501	2,030	988	1,418	0	0	0	
#5	360	182	157	238	283	292	51	1,093	0	0	0	
#6	471	399	292	310	430	353	280	227	0	102	0	
Composite plastic	0	0	497	868	1,077	1,655	2,364	1,357	863	1,095	723	
Mixed plastic	300	168	584	1,359	1,708	3,218	6,173	7,344	0	0	0	
Other plastic (P7)	0	0	13	16	12	1	1	1	0	0	0	
Plastic bottles**				130					0	0	0	
Plastic film									3,969	4,825	6,724	
Plastic other									3,718	2,005	3,771	
Rigid plastic containers									15,672	16,352	12,430	
Total plastic	**9,520**	**11,146**	**15,049**	**14,968**	**16,338**	**17,080**	**17,933**	**18,222**	**24,222**	**24,380**	**23,647**	-3.00%
Antifreeze	5	5	11	32	52	119	188	317	424	1,864	2,181	
Brick											19,910	
C & D -- roofing*****						6,281	5,914	6,933	25,162	28,904	19,846	
Carpeting -- used						94	304	361	919	1,064	540	
Diesel											20	
Electronics									617	1,640	2,216	
Fluorescent lamps	0	0	15	2	7	72	91	22	21	267	263	
Gypsum wallboard	3,695	17,004	6,726	11,681	9,419	11,003	8,501	8,345	5,300	13,164	3,781	
Household Haz Waste									14	12	105	
Alkaline batteries										4	26	
Lead acid batteries***	176	460	417	504	559	740	739	974	1,184	10,134	12,614	
Lithium batteries											1	
NiCad batteries						5	9	13	0	18	32	
Old broken crayons	0	0	1	1	0	0	0	0	0	0	0	
Paint*****	120	178	153	388	489	376	298	556	555	1,403	1,586	
Porcelain	0	0	13	9	5	3	5	9	0	483	694	
Rubber tire buffings****	0	0	2,698	4,027	2,935	0	0	0	0	0	0	
Scrap film (X-ray)	42	55	58	62	68	50	36	19	21	0	0	
Solvents*****	16	6	6	246	110	263	290	227	188	248	223	
Textiles				445	508	587	3,198	2,661	4,033	3,762	4,527	
Tires*****	34,392	34,853	30,454	53,265	24,360	21,924	20,782	22,804	16,420	17,339	23,423	
Used Motor Oil*****	28,796	38,636	49,769	45,583	47,632	42,020	44,567	33,664	44,114	45,675	48,225	
Total other	**67,243**	**91,197**	**90,320**	**116,244**	**86,145**	**83,537**	**84,920**	**76,903**	**98,969**	**125,979**	**140,213**	11.30%
Animal waste/grease	0	0	22,986	30,004	22,957	26,146	22,897	19,315	25,670	26,226	32,805	
Food waste	0	0	2,000	3,000	5,000	6,321	3,590	2,458	3,486	9,685	12,339	
Wood waste*****	112,425	141,922	157,881	165,055	243,773	236,199	326,688	335,861	360,819	424,569	402,799	
Yard debris*****	91,348	152,589	208,722	210,240	235,562	269,620	278,750	283,440	309,407	348,472	400,174	
Total organics	**203,773**	**294,511**	**391,589**	**408,299**	**507,292**	**538,286**	**631,925**	**641,074**	**699,382**	**808,951**	**848,117**	4.84%
Adj. rounding/unspecified					2				1	-1	0	
OREGON TOTALS	**839,678**	**974,687**	**1,118,913**	**1,257,225**	**1,338,446**	**1,462,663**	**1,605,741**	**1,626,458**	**1,765,814**	**1,999,099**	**2,049,171.3**	2.50%

*Phone books included in mixed waste paper in 1992, 1993 and 2001.
**About 900 tons of plastic bottles is included with mixed plastics
***Includes only batteries collected at household hazardous waste collection events until 2001.
****In 1997, rubber tire buffings were included with tires.

*****Includes Marion Co. materials in 2001 burned for energy.

Table 9: Disposition of Recovered Materials, 2002

Wasteshed	Total Recovered	Recycled	% of Total	Energy Recovery	% of Total	Compost	% of Total	Stock
Baker	3,374.6	2,864.9	85%	3.8	0%	505.9	15%	0.0
Benton	36,426.4	22,803.5	63%	2,855.8	8%	10,635.9	29%	131.2
Clatsop	11,369.4	8,014.3	70%	1,077.2	9%	2,277.9	20%	0.0
Columbia	11,830.0	10,227.3	86%	1,045.0	9%	557.7	5%	0.0
Coos	13,825.2	11,606.2	84%	2,217.7	16%	0.0	0%	1.3
Crook	6,174.5	4,671.6	76%	319.9	5%	1,180.0	19%	3.0
Curry	10,099.1	10,019.2	99%	79.9	1%	0.0	0%	0.0
Deschutes	46,856.8	33,266.8	71%	2,885.8	6%	10,704.2	23%	0.0
Douglas	35,009.0	25,642.8	73%	9,366.2	27%	0.0	0%	0.0
Gilliam	369.8	252.0	68%	117.8	32%	0.0	0%	0.0
Grant	947.2	947.2	100%	0.0	0%	0.0	0%	0.0
Harney	1,099.4	1,087.5	99%	5.6	1%	0.0	0%	6.3
Hood River	7,986.5	7,801.3	98%	168.1	2%	17.1	0%	0.0
Jackson	88,855.0	61,179.1	69%	12,014.1	14%	15,340.7	17%	321.1
Jefferson	3,060.4	2,873.3	94%	119.1	4%	0.0	0%	68.0
Josephine	32,644.4	22,662.7	69%	4,715.0	14%	5,153.9	16%	112.8
Klamath	25,245.6	17,986.1	71%	3,123.8	12%	4,135.7	16%	0.0
Lake	584.7	584.5	100%	0.2	0%	0.0	0%	0.0
Lane	202,262.0	133,362.1	66%	30,243.8	15%	38,656.1	19%	0.0
Lincoln	15,161.6	10,573.4	70%	4,586.2	30%	2.0	0%	0.0
Linn	44,738.8	29,557.2	66%	5,954.8	13%	9,076.3	20%	150.5
Malheur	8,138.8	7,761.6	95%	124.3	2%	252.9	3%	0.0
Marion	205,039.3	114,440.0	56%	49,787.8	24%	40,811.5	20%	0.0
Metro	1,073,520.3	666,470.2	62%	214,451.2	20%	190,476.9	18%	2,122.0
Milton-Freewater	1,641.1	1,611.3	98%	29.8	2%	0.0	0%	0.0
Morrow	1,608.1	1,577.8	98%	16.3	1%	0.0	0%	14.0
Polk	23,784.6	18,078.2	76%	1,487.3	6%	4,210.8	18%	8.3
Sherman	243.1	241.2	99%	0.0	0%	0.0	0%	1.9
Tillamook	7,052.1	6,326.7	90%	609.0	9%	75.0	1%	41.4
Umatilla	33,427.5	29,346.2	88%	4,019.8	12%	0.0	0%	61.5
Union	7,253.1	5,555.1	77%	988.0	14%	710.0	10%	0.0
Wallowa	1,324.9	1,207.7	91%	51.2	4%	57.0	4%	9.0
Wasco	7,249.2	6,969.3	96%	268.0	4%	11.9	0%	0.0
Wheeler	167.4	69.1	41%	7.0	4%	2.5	1%	88.8
Yamhill	80,790.8	24,744.6	31%	39,268.6	49%	16,774.6	21%	3.0
Unspecified	10.6							
Total	2,049,171.3	**1,302,382.0**		**392,008.1**		**351,626.5**		**3,144.1**

Appendix I: Respondents to 2002 Material Recovery Surveys

PRIVATE RECYCLING Survey Respondents

A & P Recycling
The Dalles, OR

Advanced M&D Sales
Portland, OR

Agricultural Chemical Association
Salem, OR

AgriPlas
Keizer, OR

Albertson's Distribution Center
Portland, OR

Alcoa
Sequim, WA

Allwood Recycling
Fairview, OR

AM Document Destruction
Vancouver, WA

American Compost & Recycling
Portland, OR

American Rag Company
Portland, OR

AMG Resources
Seattle, WA

Anheuser-Busch
Hayward, CA

Armstrong World Industries
St. Helens, OR

Ash Grove Cement
Portland, OR

Associated Grocers
Seattle, WA

Astoria Lions Club
Astoria, OR

Astoria Warehousing
Astoria, OR

Baker Commodities
Portland, OR

Bar 7A Trucking
Redmond, OR

Basin Recycling
Pasco, WA

Bear Creek Corp.
Medford, OR

Beaver Bark, Inc.
Scappoose, OR

Best Buy in Town
Hillsboro, OR

Beverage Recyclers of OR
Eugene, OR

Big Country Distributors Inc.
Burns, OR

Biomass-One
White City, OR

Blue Goose
Pendelton, OR

Blue Heron Newsprint
Oregon City, OR

Boise Cascade
St. Helens, OR

Bring Recycling
Eugene, OR

Bureau of Land Management
Baker City, OR

Burns Tires
White City, OR

Calbag Metals Co.
Portland, OR

Carpet Pad Recycling
Portland, OR

CDI Vaults
Eugene, OR

Central Oregon Recycling
Bend & Haines, OR

Central Waste Oil Haulers
Bend, OR

City of Eugene
Eugene, OR

City of Grants Pass
Grants Pas, OR

City of Klamath Falls
Klamath Falls, OR

City of Newberg
Newberg, OR

Maintenance Bureau
City of Portland
Portland, OR

Clackamas Compost
Clackamas, OR

Clatsop Distributing Co
Astoria, OR

Clayton Ward Co
Kennewick, WA

Clayton Ward Co
Salem, OR

Clean it up Mark
Portland, OR

Columbia Distributing Co (Melittis)
Portland, OR

Columbia Gorge Beverage Inc.
The Dalles, OR

Columbia Resources
Vancouver, WA

Computer Drvie Connection
Cornelius, OR

Container Recovery Inc.
Portland, OR

Dan Obrist Recycling
Portland, OR

Dannar Nursery
Gresham, OR

Darling International
Portland, OR

Denton Plastics Inc.
Portland, OR

Dept. of Environmental Quality
Portland, OR

Dinihanian, Vahan M Holly Farms
Beaverton, OR

Docu-Shred Inc.
Tualatin, OR

Don & Larrys Inc.
La Grande, OR

Douglas County Bottling Co.
Roseburg, OR

DR Dietrich & Sons
Vancouver, WA

Dufur Lions Club
Dufur, OR

Dupont Flooring Systems
Portland, OR

Eagle Heart Pallet Co.
Fairview, OR

Earth Protection Services
Lake Oswego, OR

East County Recycling
Portland, OR

Echanis Distributing Co.
Ontario, OR

Ecosort, LLC
Eugene, OR

EFI
Portland, OR

Erickson's Sentry Market
Burns, OR

Eugene Chemcial
Harrisburg, OR

Eugene Mission
Eugene, OR

Evanite Fiber Corp
Corvallis, OR

Exide Corp.
Portland, OR

Far West Fibers
Portland, OR

Ferguson Hides & Recycling
Burns, OR

Fitzs Waste Oil
North Bend, OR

Fred Lea Distributing
Salem, OR

Fred Meyer
Portland, OR

Free Geek
Portland, OR

Full Sail Brewery
Hood River, OR

Fun Beverage
Newport, OR

Gardner Enterprises Inc.
John Day, OR

Garten Foundation
Salem, OR

Georgia Pacific Corp
Toledo, OR

Gold River Distributing Co. Inc.
Medford, OR

Goodwill Industries
Portland, Eugene, OR

Gospel Rescue Mission
Grants Pass, OR

Graf Paper Salvage
Portland, OR

Grimms Fuel Co.
Lake Oswego, OR

Hanke Brothers Recycling
Portland, OR

Harmon & Associates
Irvine, CA

Heather Oak Enterprises Inc.
Junction City, OR

Hickory Springs Manufacturing Co.
Portland, OR

High Desert Beverage, Inc.
Bend, OR

Hines Nursery (Oregon Garden Products)
Hillsboro, OR

Hi-School Pharmacy
Hood River, OR

Hood River County
Hood River, OR

Idaho Animal Products
Boise, ID

Industrial Oils
Klamath Falls, OR

Interstate Plastics
Vancouver, WA

Ira's Sales and Service
Madras, OR

KB Recycling
Canby, OR

Kingsley Air Field
Klamath Falls, OR

Kiwanis Club
Tillamook, OR

Klamath Falls Gospel Mission
Klamath Falls, OR

Knez Building Materials
Tigard, OR

Lakeside Reclamation
Beaverton, OR

Lakeview Distributing
Lakeview, OR

Lakin Tires
Santa Fe Springs, CA

Lamb-Weston, Inc.
Boardman, OR

Lane Forests Products
Eugene, OR

Laurelwood Farms
Gearhardt, OR

Legacy Health
Portland, OR

Lehigh SW Cement Co.
Sacramento, CA

Les Schwab Warehouse Center
Prineville, OR

Longview Fiber Corp
Longview, OR

Marathon Recovery
Kent, WA

Marion Resource Facility
Salem, OR

Matt Garris Waste Oil Recovery Inc.
White City, OR

McFarlanes Bark Inc.
Milwaukie, OR

Merlin Plastics
Delta, BC, Canada

METRO Central, South, and HHW
Portland, OR

Mid Columbia Distributing
Hood River, OR

Miller Ford-Nissan
Madras, OR

Minsingers Floral Nursery
West Linn, OR

Monrovia Nursery
Dayton, OR

Mt. Hood Beverage Co.
Warrenton, OR

Nature's Needs
Portland, OR

Neel Distributing
Klamath Basin
Klamath Falls, OR

Nike
Beaverton, OR

Northwest Environmental & Recycling
Cornelius, OR

Northwest Firefighters
Springfield, OR

Northwest Greenlands
McMinnville, OR

Northwest Wood & Fiber Recovery Inc.
Portland, OR

Oak Leaf Enterprises
Medford, OR

Odell Lyons Club
Odell, OR

Oil Re-Refining Co. Inc.
Portland, OR

Oregon Recycling Systems
Portland, OR

Owens Illinois Glass Container Inc.
Portland, OR

Owyhee Distributing Co. Inc.
Nyssa, OR

P & E Distributing Co.
Baker, OR

Pacific Land Clearing
Oregon City, OR

Pacific Pallet
Eugene, OR

Pacific Rubber Products
Toledo, OR

Paper Chase Recycling
Portland, OR

Pendleton Bottling Co., Inc.
Pendleton, OR

Pepsi Cola Bottling Co.
Various locations in OR

Portland Habilitation Center, Inc.
Portland, OR

Portland Recycling Team, Inc.
Portland, OR

Portland Sand & Gravel
Portland, OR

Premier Distributors, Inc.
Coos Bay, OR

Price Chopper Market
Eugene, OR

PRIDE Disposal
Sherwood, OR

Prince's Automotive
Madras, OR

Providence Medical Center
Portland, OR

Qwest DEX
Bellevue, WA

Quantum Resources
Beaverton, OR

R2 Pallet
Beaver Creek, OR

RB Rubber
McMinnville, OR

Recall
Airway Heights, WA

Rechargeable Battery Recycling Corp.
Gainesville, FL

Recycle America MRF
Troutdale, OR

Recycle Technology, Inc.
Tualatin, OR

Red Barn Recycling
Portland, OR

Redmond Tallow Co.
Redmond, OR

Resco Plastics, Inc.
Coos Bay, OR

Rexius Forest Bi-Products
Eugene, OR

RiteAid
Wilsonville, OR

Rogue Material Recovery
Medford, OR

Ron McDonald Chevrolet
Madras, OR

RoofGone, Inc.
Springfield, OR

Rosterolla Distributing Inc.
Klamath Falls, OR

Rosauer's Super Market
Hood River, OR

RSR Corporation
Dallas, TX

S & H Logging
Tualatin, OR

Safety Kleen Corp.
Sacramento, CA

Safeway
Milton-Freewater, OR

Safeway Distribution Center
Clackamas, OR

Salvation Army
Baker City, OR

Schnitzer Industries
Portland, OR

Scientific Development
Eugene, OR

Seaport International
Portland, OR

Stone-Smurfit
Philomath &
Sweet Home, OR

Sno Cap Distributors
La Grande, OR

Southern Oregon Tallow
Eagle Point, OR

SP Newsprint (secondary
Fiber, Depot, Wood Waste)
Newberg, OR

Space-Pak Corp
Clackamas, OR

SPARC Enterprises
Grants Pass, OR

Spencer Environmental
Service Inc.
Oregon City, OR

St Vincent de Paul
Bend, Eugene, & The Dalles,
OR

Star of Hope Recycling
North Bend, OR

Strategic Materials, Inc.
Portland, OR

STRUT
Portland, OR

Sunset Recycling
McMinnville, OR

Taylormade Products Inc.
Scappoose, OR

The Recycling Professionals,
Inc.
Oregon City, OR

Thermo Fluids Inc.
Nampa, ID

Thomas Distributing
Co. Inc.
Salem, OR

Tillamook County Creamery
Assoc.
Tillamook, OR

Tire Disposal
Molalla, OR

Tire Disposal & Recycling
Clackamas, OR

Tire Disposal & Recovery
Prineville, OR

Trex Company
Portland, OR

Tualatin Valley Waste
Recovery
Hillsboro, OR

Tuscarora
Wilsonville, OR

Unified Western Grocers
Commerce, CA

Van Dusen Beverages
Astoria, OR

Wal-Mart Stores
Bentonville, AR

Walla Walla Recycling
Walla Walla, WA

Warm Springs Composite
Warm Springs, OR

Waste Control Recycling
Kelso, WA

Waste Xpress
Portland, OR

Wastech (Oregon Pro-
cessing & Recovery Ctr.)
Portland, OR

West Coast Grocers
Tacoma, OR

West Union Gardners
Hillsboro, OR

West Vancouver Mat. Rec.
Vancouver, WA

Western Beverage Co
Various locations in OR

Western Oregon University
Monmouth, OR

Western Pulp Products
Corvallis, OR

Western Recycling
(Fruitland)
Boise, ID

Weyerhaeuser Paper Co.
Eugene, OR

Weyerhaeuser Paper Fibers
Beaverton, OR

Weyerhaeuser Paper Fibers
Albany, OR

Willamette Education
Services District
Salem, OR

Willamette Industries
Building Material
Albany, OR

Willamette Resources
Wilsonville, OR

WINCO Foods
Woodburn, OR

Wood Waste Management
Portland, OR

Wood Waste Reclamation
Aumsville, OR

Wright Chevrolet
Fossil, OR

Yamhill County Mushrooms
Yamhill, OR

Yamhill Valley MRF
McMinnville, OR

Yaquina Recycling
Newport, OR

SCRAP METAL Survey Respondents

Burchams Metals
Albany, OR

Cherry City Metals
Salem, OR

David J. Joseph Co.
Portland, OR

Eugene Brass & Aluminum
Foundry
Eugene, OR

Metro Metals
Portland, OR

RS Davis Recycling Station
Clackamas, OR

Sessler Metals
Klamath Falls, OR

Swift & McCormick
Redmond, OR

Richard Thomas Scrap
Metal
The Dalles, OR

HAULER Survey Respondents

A Bear Box Co,
Portland, OR

AGG Enterprises Inc.
Portland, OR

Albany Lebanon Sanitation
Albany, OR

Alberta Sanitary Service
Portland, OR

Aloha Garbage Co
Beaverton, OR

American Property
Management
Portland, OR

Argay Disposal Service
Milwaukie, OR

Arrow Sanitary Service Inc.
Gresham, OR

Ashland Sanitary &
Recycling Service
Ashland, OR

ASW Disposal Inc.
Eugene, OR

B & J Garbage Co.
Boring, OR

Baker Sanitary Service
Baker City, OR

Beaver Hill Incinerator &
Disposal
Coquille, OR

Bend Garbage & Recycling
Bend, OR

Bliss Sanitary Service
Boring, OR

Borgens Disposal Service
Milwaukie, OR

Brandts Sanitary Service
Monmouth, OR

Brummell Construction
Portland, OR

C & B Sanitary Service
Burns, OR

Canby Disposal Co.
Canby, OR

Capital Recycling
Bend, OR

Cart 'M
Manzanita, OR

Cascade Recycling Co.
Bend, OR

Central Coast Disposal
Florence, OR

City Garbage Service
La Grande, OR

City of Cannon Beach
Cannon Beach, OR

City of Elgin
Elgin, OR

City of Haines
Haines, OR

City of Junction City
Junction City, OR

City of Long Creek
Long Creek, OR

City of Milton-Freewater
Milton-Freewater, OR

City of Roses Drop Box Service
Portland, OR

City of Sisters
Sisters, OR

City of Winston
Winston, OR

City Sanitary & Recycling Service
McMinnville, OR

City Sanitary Service
Portland, OR

City Sanitary Service
Tillamook, OR

Clackamas Garbage Co
Milwaukie, OR

Clark's Disposal
John Day, OR

Cloudburst Recycling
Portland, OR

Coburg Sanitary Service
Coburg, OR

Coos Bay Sanitary Service
Coos Bay, OR

Cornelius Disposal Service
Cornelius, OR

Corvallis Disposal Co
Corvallis, OR

Cottage Grove Garbage Service
Cottage Grove, OR

Countryside Disposal Service
Junction City, OR

County Transfer & Recycling
Elmira, OR

Crook County Landfill
Prineville, OR

Crooked River Sanitary
Terrebonne, OR

Curry Transfer & Recycling
Brookings, OR

D & O Garbage
Service Inc.
Salem, OR

Dahl Disposal, Recycling & Transfer
Waldport, OR

Dahl/Toledo Recycling & Transfer
Toledo, OR

Dallas Disposal Co.
Dallas, OR

Dave's Sanitary Service
Portland, OR

Deines Brothers
Portland, OR

Mel Deines Sanitary Service Inc.
Milwaukie, OR

Deschutes Recycling
Deschutes, OR

DeYoung Sanitary Service
Portland, OR

Douglas County Public Works Department
Roseburg, OR

Dunthorpe Sanitary Service
Lake Oswego, OR

Eastside Recycling District
Portland, OR

Eastside Waste & Recycling
Portland, OR

Eckert Sanitary
Service Inc.
Vancouver, WA

Ecosystems Transfer & Recycling
Veneta, OR

Elmer's Sanitary Service
Portland, OR

Environmental Waste
Systems Inc.
St Helens, OR

Finnley Buttes Landfill
Vancouver, WA

Flannerys Drop Box Service
Gresham, OR

Garbarino Disposal Service
North Plains, OR

Gladstone Disposal
Co. Inc.
Oregon City, OR

Grants Pass
Sanitation Inc.
Grants Pass, OR

Gresham Sanitary
Service Inc.
Gresham, OR

Gruetter Sanitary Service
Portland, OR

Heiberg Garbage Service
Portland, OR

High Country
Disposal Inc.
Redmond, OR

Hillsboro Garbage Disposal
Hillsboro, OR

Hoffman Sanitation
Portland, OR

Hood River Garbage Service Inc.
Hood River, OR

Horizon Project, Inc.
Milton-Freewater, OR

Horning Brothers Sanitary Service
Reedsport, OR

Housing Authority of Portland
Portland, OR

Humbert Refuse & Recycling (Rahn's)
Milton-Freewater, OR

Interstate Drop Box
Ridgefield, WA

Jefferson County Public Works
Madras, OR

Josephine Co. Recycling & Transfer Station
Grants Pass, OR

Keller Drop Box Inc.
West Linn, OR

Klamath County Solid Waste Management
Klamath Falls, OR

Klamath Disposal
Klamath Falls, OR

Knott Landfill
Bend, OR

Lake County Landfill
Lakeview, OR

Lane County Solid Waste Division
Eugene, OR

Lane Garbage/Apex Disposal
Eugene, OR

John P. Lehl Co. Inc.
Clackamas, OR

Lehl Disposal Inc.
Canby, OR

Les' Sanitary Service
Coos Bay, OR

Lincoln County Solid Waste District
Newport, OR

Lorens Sanitation Service
Keizer, OR

Madras Sanitary Service
Madras, OR

Malheur County Public Works Department
Vale, OR

Marion County Solid Waste
Salem, OR

Marion Recycling Center
Salem, OR

McKenzie Disposal Service
Vida, OR

Mels Sanitary Service
Tygh Valley, OR

Millers Waste Management
Beaverton, OR

Mohr Garbage Service
Portland, OR

Molalla Sanitary
Oregon City, OR

Mountain View Sanitary
Boring, OR

Myers Drop Box Service Inc
Portland, OR

Newberg Garbage Service
Newberg, OR

North Bend Sanitation
North Bend, OR

North Lincoln Sanitary Service
Lincoln City, OR

North Marion Recycling & Disposal
Keizer, OR

Oak Grove Disposal Co. Inc.
Milwaukie, OR

Oakridge Sani-Haul
Oakridge, OR

Ontario Sanitary Service Inc.
Ontario, OR

Oregon City Garbage Co.
Oregon City, OR

Oregon Recycling Systems
Portland, OR

Oregon Waste Systems
Arlington, OR

P & J Disposal
Creswell, OR

Pacific Sanitation
Salem, OR

JF Papasedero & Sons
Portland, OR

Pendleton Sanitary Service
Pendleton, OR

Portland Disposal & Recycling
Portland, OR

Pride Disposal
Sherwood, OR

Prineville Disposal Inc.
Prineville, OR

Prospect Sanitation
Prospect, OR

R-Sanitary Service
Garibaldi, OR

Rahn Sanitary Service
Enterprise, OR

Rainier Sanitary Service
Rainier, OR

Rimrock Recycling
Hines, OR

River City Disposal & Recycling
Portland, OR

Rockwood Solid Waste Inc.
Gresham, OR

Rogue Waste Systems Inc.
Medford, OR

Roseburg Disposal Co.
Roseburg, OR

Rossman Sanitary Service
Lake Oswego, OR

Royal Refuse Center
Eugene, OR

Sanipac Inc.
Eugene, OR

Sanitary Disposal Inc.
Hermiston, OR

Santiam Sanitary Service
Sublimity, OR

Sevier & Son
Portland, OR

Source Recycling
Corvallis, OR

South Umpqua Disposal Service
Myrtle Creek, OR

Southern Oregon Sanitation Inc.
Grants Pass, OR

Star Service
Eugene, OR

Suburban Garbage Service
Salem, OR

Sunrise Enterprises Shelter Workshop
Roseburg, OR

Sunrise Sanitation Service
Moro, OR

Sunset Garbage Collection Inc.
Portland, OR

Sunset Refuse & Recycling Service
Seaside, OR

Sutherlin Sanitary Service
Sutherlin, OR

Swatco Sanitary Service
Portland, OR

Sweet Home Sanitation Service
Sweet Home, OR

The Dalles Disposal Service
The Dalles, OR

The Prairie City Recycling Team
Prairie City, OR

Thompson's Sanitary Service
Newport, OR

Tillamook County Public Works Department
Tillamook, OR

Trashmasters
Portland, OR

Trashco
Portland, OR

Troudt Brothers
Portland, OR

TRS Disposal
Portland, OR

Twelve Mile Disposal Service
Gresham, OR

United Disposal Service
Woodburn & Wilsonville, OR

Valley Garbage Service
Beaverton, OR

Valley Landfills Inc. (PRC)
Corvallis, OR

Valley Recycling & Disposal
Salem, OR

Valley West Refuse Disposal Inc.
Aloha, OR

Vogel Brothers Inc.
Gresham, OR

Wacker, Dave Sanitary
Boring, OR

Wadsworth Garbage Disposal Service
Coquille, OR

Dan Walker Disposal Service
Estacada, OR

Walker Garbage Service
Portland, OR

Peter Walker & Son
Gresham, OR

Walker Refuse
Portland, OR

Wasco Co. Landfill
The Dalles, OR

Washington County Dropbox
Hillsboro, OR

Waste Management Inc.
Portland/Troutdale, OR

Waste Management of Columbia County
Hillsboro, OR

Weisenfluh, J & R Sanitary Service
Portland, OR

Weitzel Refuse
Portland, OR

West Beaverton Sanitary Service
Beaverton, OR

West Linn Disposal
Oregon City, OR

West Slope Garbage Service
Portland, OR

Westside Recycling District
Portland, OR

Wheeler County Court
Fossil, OR

Wichita Sanitary Service
Gladstone, OR

Wilderness Garbage & Recycling
La Pine, OR

Winston Sanitary Service
Winston, OR

Woodfeathers, Inc.
Portland, Or

Wooten Sanitary
Tigard, OR

DISPOSAL SITE Survey Respondents

Ant Flat Landfill
Wallowa County

Baker Sanitary Landfill
Baker City, OR

Beaver Hill Incinerator & Disposal Site
Coquille, OR

Browns Island Demolition Landfill
Salem, OR

Burns/Hines Disposal Site
Burns, OR

Chemult Disposal Site
Klamath County

Coffin Butte Sanitary Landfill (Valley)
Corvallis, OR

Columbia Ridge Landfill & Recycling
Arlington, OR

Crook County Landfill
Prineville, OR

Delta Sand & Gravel Demolition Landfill
Eugene, OR

Diamond Disposal Site
Harney County

Drewsey Disposal Site
Harney County

Dry Creek Disposal Site
Medford, OR

Energy Recovery Facility (Brooks)
Brooks, OR

Fields Disposal Site
Harney County

Finley Buttes Landfill
Boardman, OR

Fox Hill Landfill
Union County

Frenchglen Disposal Site
Harney County

Haines Landfill
Haines, OR

Hillsboro Landfill
Hillsboro, OR

Humbert Sanitary Landfill
Athena, OR

Joe Ney Disposal Site
Coquille, OR

Klamath Falls Landfill
Klamath Falls, OR

Knott Pit Landfill
Deschutes County

Lake County Landfill (Goose Lake)
Lakeview, OR

Lakeside Reclamation
Beaverton, OR

Lytle Boulevard Landfill
Malheur County

Milton Freewater Landfill
Milton-Freewater, OR

Ontario Sanitary Service
Ontario, OR

Prairie City Landfill
Prairie City, OR

Regional Tire Recovery & Disposal
Prineville, OR

Riley Disposal Site
Harney County

Riverbend Sanitary Landfill
McMinnville, OR

Roseburg Landfill
Douglas County

Salem Airport
Salem, OR

Short Mountain Landfill
Lane County

Sod House Disposal Site
Harney County

Tire Disposal
Molalla, OR

Wasco County Landfill Inc.
The Dalles, OR

Appendix II: 2002 Survey Forms

2002 Oregon Material Recovery Survey

INDIVIDUAL MATERIAL COLLECTION REPORT

Oregon law requires all businesses that handle recyclable materials to fill out this form (ORS 459A.050 (6) & (8)). Failure to report in a timely manner or submission of incomplete or inaccurate reports may result in an enforcement action resulting in civil penalties.

If you need assistance completing this form, call Michelle Shepperd at 1-800-452-4011 ext. 6724 (In Oregon only); or direct dial, 503-229-6724.

Material	ID Code	Line#
		1

A Sources Of Material

OREGON COUNTY NAME	Amount YOU collected from offices, schools, restaurants, grocery stores, etc.	Material you collected from other recyclers: Amount Collected	Material you collected from other recyclers: Company Name	TOTAL TONS/ GALLONS	
					2
					3
					4
					5
Additional County Totals, If Any, *page 2, line 29*					6
Unknown County Of Origin In Oregon					7
Total Tons Sorted From Commingled Mix	*Line 14-21 of Commingled Collection Worksheet*				8
Total Tons Collected From Out-Of-State					9
TOTAL Tons Collected In 2002	*Add lines 2 through 9*				10

B Material Sold/Shipped/Transferred/Used

(Circle 'C' if material composted, 'E' if material burned for energy recovery, or 'R' if recycled)

COMPANY NAME	LOCATION (City/State)		TONS/GALLONS	
		C E R		11
		C E R		12
		C E R		13
Total Exported To Out-Of-Country Markets (List Company Handling Export Of Materials On Line 14)				
COMPANY NAME	LOCATION (City/State/Country)		TONS/GALLONS	
		C E R		14
Total Tons From Additional Companies, If Any, *page 2, line 36*				15
Total Tons Used By Your Company To Make A Product		C E R		16
TOTAL Tons Sold/Shipped/Transferred/Used In 2002	*Add lines 11 through 16*			17

C	**Beginning Inventory: January 1, 2002 (If Known)**	18
D	**Ending Inventory: December 31, 2002 (If Known)**	19
E	**Does this form balance? Line 10 + line 18 should equal line 17 + line 19. If not, please explain:**	

F

I **CERTIFY** that I am familiar with the information contained in this report and that to the best of my knowledge such information is true, complete and accurate.

NAME (PRINT) SIGNATURE DATE

TELEPHONE TITLE

Worksheet To List Additional Counties Of Origin and Buyers

A Continued

OREGON COUNTY NAME	Amount YOU collected from offices, schools, restaurants, grocery stores, etc.	Material you collected from other recyclers: Amount Collected	Material you collected from other recyclers: Company Name	TOTAL TONS/ GALLONS	
					20
					21
					22
					23
					24
					25
					26
					27
					28
Add lines 20 through 28. Enter amount on page 1, line 6.					29

B Continued

(Circle 'C' if material composted, 'E' if material burned for energy recovery, or 'R' if recycled)

COMPANY NAME	LOCATION (City/State)		TONS/GALLONS	
		C E R		30
		C E R		31
		C E R		32
		C E R		33
		C E R		34
		C E R		35
Add lines 30 through 35. Enter amount on page 1, line 15.				36

G Comments

CONFIDENTIALITY OF INFORMATION

ORS 459A.050 (7) states, "Information collected under subsection (6) of this section, as it relates specifically to the entity's customer lists or specific amounts and types of materials collected or marketed, shall be maintained as confidential by the Department and exempt from disclosure under ORS 192.410 to 192.505. The Department may use and disclose such information in aggregated form."

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Mail To:
Department of Environmental Quality
SWPPD - 9th Floor
811 SW Sixth Avenue
Portland, OR 97204

MRS Survey 02.pmd

DEQ

2002 Oregon Material Recovery Survey

COMMINGLED COLLECTION WORKSHEET

Oregon law requires all businesses that handle recyclable materials to fill out this form (ORS 459A.050 (6) & (8)). Failure to report in a timely manner or submission of incomplete or inaccurate reports may result in an enforcement action resulting in civil penalties.

If you need assistance completing this form, call Michelle Shepperd at 1-800-452-4011 ext. 6724 (In Oregon only); or direct dial, 503-229-6724.

Description of Commingled Mix	Line#
	1

A Sources Of Material

OREGON COUNTY NAME	Amount YOU collected from offices, schools, restaurants, grocery stores, etc.	Material you collected from other recyclers: Amount Collected	Material you collected from other recyclers: Company Name	TOTAL TONS/ GALLONS	
					2
					3
					4
					5
					6
Additional County Totals, If Any, *page 2, line 43*					7
Unknown County Of Origin In Oregon					8
Total Tons Collected From Out-Of-State					9
TOTAL Tons Collected In 2002			*Add lines 2 through 9*		10

B	**Beginning Inventory: January 1, 2002 (If Known)**	11
C	**Ending Inventory: December 31, 2002 (If Known)**	12
D	**TOTAL Commingled Tons Sorted in 2002** *Add lines 10 and 11, subtract line 12*	13

E Material and Percentage of Mix

Material	Percent of Mix	X	Total Tons (Line 13)	=	Tons Sorted by Material	
		X		=		14
		X		=		15
		X		=		16
		X		=		17
		X		=		18
		X		=		19
		X		=		20
		X		=		21
RESIDUAL		X		=		22

Total **100%** *Total Tons Sorted (Line 23 Should Equal Line 13)* _____ 23

Transfer Tons Sorted by Material (Lines 14 through 21) to the corresponding Individual Material Collection Report forms (Line 8). RESIDUAL must be reported on Line 22.

Worksheet To List Additional Counties Of Origin and Buyers

A Continued

OREGON COUNTY NAME	Amount YOU collected from offices, schools, restaurants, grocery stores, etc.	Material you collected from other recyclers: Amount Collected	Material you collected from other recyclers: Company Name	TOTAL TONS/ GALLONS
				24
				25
				26
				27
				28
				29
				30
				31
				32
				33
				34
				35
				36
				37
				38
				39
				40
				41
				42
Add lines 24 through 42. Enter amount on page 1, line 7.				43

F Comments

CONFIDENTIALITY OF INFORMATION

ORS 459A.050 (7) states, "Information collected under subsection (6) of this section, as it relates specifically to the entity's customer lists or specific amounts and types of materials collected or marketed, shall be maintained as confidential by the Department and exempt from disclosure under ORS 192.410 to 192.505. The Department may use and disclose such information in aggregated form."

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Mail To:
Department of Environmental Quality
SWPPD - 9th Floor
811 SW Sixth Avenue
Portland, OR 97204

MRS CoM Wksht 02.pmd

DEQ

2002 RECYCLING COLLECTOR SURVEY

Company/Collector Name _____ **Wasteshed** _____

A. POST-CONSUMER MATERIALS HANDLED IN 2002 (Single Wasteshed)

INSTRUCTIONS: For each post-consumer material handled in 2002, record the amount obtained by each of the following collection methods. A separate page 1 should be filled out for each wasteshed from which material is obtained. In columns (A)-(F) record the amount collected by your company. In column (G), record the amount received from other companies; list each company from which you received material. If material is received from multiple wastesheds, the totals reported (column H1) for each wasteshed should, when added together, equal the total reported in column (H2) on page 2. If material is collected in only one wasteshed, (H1) will = (H2).

Materials (See Recovered Materials Definitions on Attachment A)			Amount Collected: Only by Your Company						(G)		(H1)
			(A) On-Route Residential	(B) On-Route Commercial	(C) Disposal Sites & Transfer Stn	(D) Multi-Family	(E) Other Depots Special Event	(F) Construction & Demolition	Amt Received From Other Companies	Company Names	Total Amount Collected / Handled in This Wasteshed (A) thru (G)
COMMINGLED	Papers Only	Tons									
	Containers Only--No Glass	Tons									
	Containers Only & Glass	Tons									
	Papers & Containers--No Glass	Tons									
	Papers&Containers&Glass	Tons									
PAPER FIBERS	Newspaper/Mags.	Tons									
	Cardboard/Kraft	Tons									
	Office Pack/HI Grade	Tons									
	Scrap Paper&Phonebks&Junkmail	Tons									
NON-FIBER	Film Plastics	Tons									
	Plastic Bottles&Containers (#1-7)	Tons									
	Other Plastics (kind_____)	Tons									
	Container Glass	Tons									
	Tinned Cans/Aluminum	Tons									
	Scrap Metal	Tons									
	Batteries LAB__; other (type_____)	Units / Tons									
	Tires	Units / Tons									
	Used Motor Oil	Gallons / Tons									
	Gypsum	Tons									
	Asphalt Roofing	Tons									
ORGANICS	Food Waste	Tons									
	Wood/Lumber	Tons / CuYd									
	Yard Debris	Tons / CuYd									
OTHER	Other_____	Tons									
	Other_____	Tons									

2002 RECYCLING COLLECTOR SURVEY

B. TOTAL POST-CONSUMER MATERIALS SOLD, DELIVERED AND/OR USED IN 2002 (All wastesheds)

INSTRUCTIONS: This table is used to determine the total amount of each post-consumer material you sold, delivered and/or used on-site in 2002 by adjusting column (H2), "Total Amount Collected /Handled" in all wastesheds for changes in inventory (ending inventory minus beginning inventory). This table covers all wastesheds from which material is collected or obtained. In column (H2) below, if material is collected in multiple wastesheds, add together each wasteshed's column (H1) on page 1. If material is collected in only one wasteshed, (H1) will = (H2). For columns (I) & (J), if no inventory, enter zero. For column (I), "Beginning Inventory Jan. 1, 2002", use the "Ending Inventory Dec. 31, 2001" (from last year's form). In column (K) for each material, add (H2) to (I) and subtract (J). Note: Do not record inventory for yard debris or wood waste; the amount collected will be counted as recovered without regard to inventory.

MATERIAL	Unit of Measure (Circle One)	(H2) Total Amount Collected/Handled in All Wastesheds 2002		(I) Beginning Inventory Jan. 1, 2002		(J) Ending Inventory Dec. 31, 2002		(K) Total Sold, Delivered and/or Used on Site 2002 (H2) + (I) - (J) =
Papers Only	Tons		+	(	-	)	=	
Containers Only--No Glass	Tons		+	(	-	)	=	
Containers Only & Glass	Tons		+	(	-	)	=	
Papers & Containers--No Glass	Tons		+	(	-	)	=	
Papers&Containers&Glass	Tons		+	(	-	)	=	
Newspaper/Mags.	Tons		+	(	-	)	=	
Cardboard/Kraft	Tons		+	(	-	)	=	
Office Pack/HI Grade	Tons		+	(	-	)	=	
Scrap Paper&Phonebks&Junkmail	Tons		+	(	-	)	=	
Film Plastics	Tons		+	(	-	)	=	
Plastic Bottles&Containers (#1-7)	Tons		+	(	-	)	=	
Other Plastics (kind_____)	Tons		+	(	-	)	=	
Container Glass	Tons		+	(	-	)	=	
Tinned Cans/Aluminum	Tons		+	(	-	)	=	
Scrap Metal	Tons		+	(	-	)	=	
Batteries LAB__; other (type_____)	Units / Tons		+	(	-	)	=	
Tires	Units / Tons		+	(	-	)	=	
Used Motor Oil	Gallons / Tons		+	(	-	)	=	
Gypsum	Tons		+	(	-	)	=	
Asphalt Roofing	Tons		+	(	-	)	=	
Food Waste	Tons		+	(	-	)	=	
Wood/Lumber	Tons / CuYd		+	(0	-	0)	=	
Yard Debris	Tons / CuYd		+	(0	-	0)	=	
Other_____	Tons		+	(	-	)	=	
Other_____	Tons		+	(	-	)	=	

2002 RECYCLING COLLECTOR SURVEY

C. TOTAL POST-CONSUMER MARKETING INFORMATION 2002 (All Wastesheds)

INSTRUCTIONS: This table is used to track the statewide movement of material to end use markets. This information is necessary to help DEQ avoid double-counting or under-counting materials. This table covers all wastesheds from which material is collected or obtained. Total up all material sold, delivered or used by your company and record in "Amount Sold, Delivered or Used" column. *Please be consistent when reporting units of measure* . In the last two columns list the name and city of each company to which material is sold or delivered or where used in 2002. Note: 1) For each material, use a separate line for each recycler to whom material was sold, delivered or used by in 2002. The total of these entries should equal the amount recorded on page 2, column (K). 2) Use the rows marked "other" on page 5 if you need more lines or if you handled materials not listed on this survey. 3) If your company used a recovered material (example - used oil was burned in your shop heater), list your company as the company to which material was sold, delivered or used. 4) If requested, your response to this portion of the survey will be held as confidential business information. See the bottom of page 5 for further detail.

MATERIAL	Amount Sold, Delivered or Used (Total Amt. Should = Column (K), page 2)	Unit of Measure (Circle one)	Company Name Material Sold, Delivered or Used	Company Location City, State
Papers Only	a.	Tons		
	b.	Tons		
Total Amt. = a+b				
Containers Only --	a.	Tons		
No Glass	b.	Tons		
Total Amt. = a+b				
Containers Only &	a.	Tons		
Glass	b.	Tons		
Total Amt. = a+b				
Paper&Containers --	a.	Tons		
No Glass	b.	Tons		
Total Amt. = a+b				
Paper&Containers --	a.	Tons		
Glass	b.	Tons		
Total Amt. = a+b				
Newspaper &	a.	Units / Tons		
Magazines	b.	Units / Tons		
Total Amt. = a+b				
Cardboard/Kraft	a.	Tons		
	b.	Tons		
Total Amt. = a+b				
Office Pack/HiGrade	a.	Tons		
	b.	Tons		
Total Amt. = a+b				
Scrap Paper &	a.	Tons		
Phonebks/Junkmail	b.	Tons		
Total Amt. = a+b				

2002 RECYCLING COLLECTOR SURVEY

C. cont'd: POST-CONSUMER MARKETING INFORMATION 2002 (All Wastesheds)

See completion INSTRUCTIONS on page 3.

MATERIAL	Amount Sold, Delivered or Used (Total Amt. Should = Column (K), Page 2)	Unit of Measure (Circle One)	Company Name Material Sold, Delivered or Used	Company Location City, State	Circle "C" if Composted, or "E" if Burned for Energy Recovery
Film Plastics	a.	Tons			
	b.	Tons			
Total Amt. = a+b					
Plastic Bottles& Containers (#1-7)	a.	Tons			
	b.	Tons			
Total Amt. = a+b					
Other Plastics	a.	Tons			
	b.	Tons			
Total Amt. = a+b					
Container Glass	a.	Tons			
	b.	Tons			
Total Amt. = a+b					
Scrap Metal	a.	Tons			
	b.	Tons			
Total Amt. = a+b					
Tires	a.	Units / Tons			C E
	b.	Units / Tons			C E
Total Amt. = a+b					
Used Motor Oil	a.	Tons / Gallons			C E
	b.	Tons / Gallons			C E
Total Amt. = a+b					
Wood Waste	a.	Tons / CuYd			C E
	b.	Tons / CuYd			C E
Total Amt. = a+b					
Yard Debris	a.	Tons / CuYd			C E
	b.	Tons / CuYd			C E
Total Amt. = a+b					

2002 RECYCLING COLLECTOR SURVEY

C. cont'd: POST-CONSUMER MARKETING INFORMATION 2002 (All Wastesheds)

See completion INSTRUCTIONS on page 3.

MATERIAL	Amount Sold, Delivered or Used (Total Amt. Should = Column (K), Page 2)	Unit of Measure (Circle One)	Company Name Material Sold, Delivered or Used	Company Location City, State	Circle "C" if Composted, or "E" if Burned for Energy Recovery
Film Plastics	a.	Tons			
	b.	Tons			
Total Amt. = a+b					
Plastic Bottles& Containers (#1-7)	a.	Tons			
	b.	Tons			
Total Amt. = a+b					
Other Plastics	a.	Tons			
	b.	Tons			
Total Amt. = a+b					
Container Glass	a.	Tons			
	b.	Tons			
Total Amt. = a+b					
Scrap Metal	a.	Tons			
	b.	Tons			
Total Amt. = a+b					
Tires	a.	Units / Tons			C E
	b.	Units / Tons			C E
Total Amt. = a+b					
Used Motor Oil	a.	Tons / Gallons			C E
	b.	Tons / Gallons			C E
Total Amt. = a+b					
Wood Waste	a.	Tons / CuYd			C E
	b.	Tons / CuYd			C E
Total Amt. = a+b					
Yard Debris	a.	Tons / CuYd			C E
	b.	Tons / CuYd			C E
Total Amt. = a+b					

2002 RECYCLING COLLECTOR SURVEY

C. cont'd: TOTAL POST-CONSUMER MARKETING INFORMATION 2002 (All Wastesheds)

See completion INSTRUCTIONS on page 3.

MATERIAL	Amount Sold, Delivered or Used (Total Amt. Should = Column (K), Page 2)	Unit of Measure	Company Name Material Sold, Delivered or Used	Company Location City, State
Tin/Aluminum	a.	Tons		
	b.	Tons		
Total Amt. = a+b				
Batteries	a.	Tons		
	b.	Tons		
Total Amt. = a+b				
Asphalt Roofing	a.	Tons		
	b.	Tons		
Total Amt. = a+b				
Gypsum	a.	Tons		
	b.	Tons		
Total Amt. = a+b				
Other	a.	Tons		
	b.	Tons		
Total Amt. = a+b				
Other	a.	Tons		
	b.	Tons		
Total Amt. = a+b				

Confidentiality: You may return Part C (pages 3-5, "Total Post-Consumer Marketing Information") of this survey directly to DEQ rather than to the wasteshed representative if you prefer to limit access to this information. To limit access to only DEQ staff, write on these pages "confidential business information" and return by Wednesday, February 28, 2003 to Mary Sue Gilliland, DEQ, 811 SW 6th Ave., Portland, OR 97204. Parts A & B & D of this survey must be returned directly to your wasteshed representative (couny) for inclusion in the annual recycling report. Please notify your wasteshed representative if you return this form directly to DEQ.

D. OUT-OF-STATE SOLID WASTE DISPOSAL

In order to portray accurately the wasteshed's recovery rate, all solid waste generated in the wasteshed must be accounted for, including any waste disposed out-of-state. If you disposed of solid waste (residential, commercial, construction or demolition) out-of-state that was collected in the wasteshed, please indicate the total amount, type disposed during calendar year 2002, and where you shipped it.

Type of Waste (be specific; i.e. tires)	Tons	Shipped To

MUNICIPAL SOLID WASTE DISPOSAL FACILITIES

(Receiving 1,000 Tons or Less Per Year)

Solid Waste Disposal Report/Fee Calculation

Mail to:
Dept. of Environmental Quality
Business Office
811 SW Sixth Ave.
Portland, OR 97204

For DEQ use only:
Date Rec'd _____
Amount Rec'd _____
Check No. _____

Facility Name | SW Permit No.

REPORTING PERIOD

January 1 - December 31, 2002

Report and fees are due to DEQ by January 31, 2003

INSTRUCTIONS FOR COMPLETING THIS FORM

This form is for self-payment of DEQ solid waste **permit fees** ($200.00 Solid Waste Permit and Registration Compliance Fee plus $.09/ton 1991 Recycling Act Fee), as well as solid waste **disposal fees** ($.81/ton) and the **Orphan Site Account fee** ($.13/ton). Please report on this form all waste disposed at the facility in 2002. See page 4 for more details and an explanation of types of waste included. *Complete pages 2 and 3 of this form first*. Record the weight (if scales used) or volume of *all* in-state waste and out-of-state waste for the reporting period. If your solid waste permit does not require you to monitor and report amount of waste received, estimate population served by allocating the population between in-state and out-of-state. Compute tonnage by assuming one ton of waste per person per year. *Calculation of the fees must be made on this form, even if you also submit reporting information on your own forms.*

Use TOTAL TONS from pages 2 and 3 of this form to perform the calculations below.

Total In-State Solid Waste: # of Tons (from page 2, step 3 or 4)	_____ +			
Total Out-of-State Waste: # of Tons (from page 3, step 6 or 7)	_____ +			
Total "Counting" Waste Tires: # of Tons (from page 3, step 8)	_____ =			
Total Tons Received In Reporting Period:	_____	X	$ .81/ton	=_____
			.13/ton	=_____
			.09/ton	=_____
Solid Waste Permit and Registration Compliance Fee				$___200.00_
			TOTAL PAYMENT = $	_____

I CERTIFY that I am familiar with the information contained in this report and that to the best of my knowledge such information is true, complete and accurate.

NAME *(PRINT)* _____ SIGNATURE _____ DATE _____

TELEPHONE _____ TITLE _____

SPECIFIED WASTES: If your site is authorized by the Department to receive "cleanup materials contaminated with hazardous substances," you must, on a quarterly basis, report the source, type, quantity, and date of waste received. Please attach to this form. (Include specified wastes as part of the amounts entered on this form.)

IN-STATE SOLID WASTE DISPOSAL WORKSHEET

	COUNTY	WASTE COLLECTION SERVICE PROVIDERS		PRIVATE VEHICLES	TRANSER STATIONS SW PROCESSING FACILITIES	
		COMPACTED	UNCOMPACTED	UNCOMPACTED		
1 "Counting" Resid/Comm/Const. & Demolition SW by County						Indicate measurement by circling cubic yards (Yd) or tons (T). Attach separate sheet for additional counties.
		Yd T	Yd T	Yd T	Yd T	
		Yd T	Yd T	Yd T	Yd T	
		Yd T	Yd T	Yd T	Yd T	
		Yd T	Yd T	Yd T	Yd T	By county accuracy is important. However, estimates may be used.
	Additional Counties From Attached Sheet	Yd T	Yd T	Yd T	Yd T	
	Subtotal: In-State Counting Waste	T	T	T	T	
2 "Non-Counting" Waste	Contaminated Cleanup Material	T	Yd T	Yd T	Yd T	See page 4 for definition of "Counting" and "Non-counting" waste.
	Asbestos	Yd T	Yd T	Yd T	Yd T	
	Industrial Waste (Includes Industrial woodwaste)	Yd T	Yd T	Yd T	Yd T	
	Rubble, Rock, Asphalt, etc.	Yd T	Yd T	Yd T	Yd T	
	Other (Specify)	Yd T	Yd T	Yd T	Yd T	**LINE TOTAL** (Add Across)
1+2	Total: In-State "Counting" & "Non-counting" Waste	T	T	T	T	T

Put result in 3A below.

3

If quantities above not recorded in tons, convert to equivalent tonnage. **Put total of Tonnage column in 3B below.**

	Cubic Yards				**Tonnage**	
Domestic Solid Waste	_____	Total compacted cu. yd.	X	.35 =	_____	T
Domestic Solid Waste	_____	Total uncompacted cu. yd.	X	.15 =	_____	T
Contaminated Cleanup Material	_____	Total uncompacted cu. yd.	X	1.20 =	_____	T
Asbestos	_____	Total uncompacted cu. yd.	X	.25 =	_____	T
Industrial Waste	_____	Total compacted cu. yd.	X	.35 =	_____	T
Industrial Waste	_____	Total uncompacted cu. yd.	X	.15 =	_____	T
Rubble, Rock, Asphalt, etc.	_____	Total uncompacted cu. yd.	X	1.25 =	_____	T
Other (Specify) _____	_____	Total uncompacted cu. yd.	X	_.__ =	_____	T
Recycled Materials		Subtracted from Total Tonnage		-	_____	T

TOTAL (add down) T

Put result in 3B below.

3 or 4	**Total In-State SW Equivalent Tons**	_____ 3A	+	_____ 3B	=	
	Population = _____ X 1 ton annually/ person				=	

OUT-OF-STATE SOLID WASTE DISPOSAL WORKSHEET

5

	WASTE COLLECTION SERVICE PROVIDERS		PRIVATE VEHICLES	TRANSER STATIONS SW PROCESSING FACILITIES	
	COMPACTED	UNCOMPACTED	UNCOMPACTED		
Resid/Comm/Const/Demo/ Industrial SW	Yd T	Yd T	Yd T	Yd T	
Contaminated Cleanup Material	Yd T	Yd T	Yd T	Yd T	
Asbestos	Yd T	Yd T	Yd T	Yd T	**LINE TOTAL** (Add Across)
Out-of-State Totals (Tons only)	T	T	T	T	T

Put result in 6A below.

6

Conversion Table

If quantities above not recorded in tons, convert to equivalent tonnage. **Put total of Tonnage column in 6B below.**

	Cubic Yards				**Tonnage**
Domestic Solid Waste	_____	Total compacted cu. yd.	X	.35 =	_____ T
Domestic Solid Waste	_____	Total uncompacted cu. yd.	X	.15 =	_____ T
Contaminated Cleanup Material	_____	Total uncompacted cu. yd.	X	1.20 =	_____ T
Asbestos	_____	Total uncompacted cu. yd.	X	.25 =	_____ T
Recycled Materials	Subtracted from Total tonnages			-	_____T

TOTAL (add down) T

Put result in 6B below.

6 or 7

Total Out-of-State SW Equivalent Tons _____ (6A) + _____ (6B) =

Population = _____ X 1 ton annually/ person =

8. "COUNTING" WASTE TIRES AND TIRE SHREDS

Includes oversize tires and tires that are chipped or shredded for the purpose of disposal.
(Tire shreds that contain steel fragments that are residual from tire recovery operations are considered "Non-counting" industrial waste. Report this on Page 2, Step 2 or Page 3, Step 5.)

County of Origin	Tons
Total	

EXPLANATION OF TYPES OF WASTE INCLUDED

SOLID WASTE PER TON DISPOSAL ("TIPPING") FEES. ORS 459A.110 and 459A.115, and ORS 340-097-0120 require each solid waste disposal site that receives domestic solid waste (except transfer stations, material recovery facilities, solid waste treatment facilities and composting facilities) to submit a total solid waste disposal fee of 81 cents per ton ($.50/ton plus $.31/ton) for all in-state and out-of-state domestic solid waste received. ORS 459.236 and OAR 340-097-0120 also require such sites to submit a fee of $.13/ton for remedial action under the Orphan Site Account.

"Domestic Solid Waste" includes, but is not limited to, residential, commercial and institutional wastes, as defined in ORS 459A.100; but the term does **not** include: sewage sludge or septic tank and cesspool pumpings, or waste received at an ash monofill from an energy recovery facility.

For the purpose of assessing the above fees, "Domestic Solid Waste" does not include: Approved alternate daily cover material.

DO NOT INCLUDE ON THIS FORM SOURCE SEPARATED RECYCLABLE MATERIAL OR MATERIAL RECOVERED AT THE DISPOSAL SITE. If the tonnage reported in sections 1, 2, or 5 include materials that were later pulled from the waste for recovery - enter the tonnage recovered from the mixed waste in Section 3 and/or 6.

SOLID WASTE PERMIT FEES. ORS 459.235 AND OAR 340-097-0110 THROUGH -0120 require solid waste disposal sites to pay a Solid Waste Permit and Registration Compliance Fee and a 1991 Recycling Act permit fee. The Permit Compliance fee is $200 per year for landfills receiving 1,000 tons or less of solid waste per year. The 1991 Recycling Act permit fee is $.09/ton for all facility types.

INSTRUCTIONS FOR PAGE 2. This form requests reports of the quantities of "counting" waste and "non-counting" waste received at your facility. This breakdown will help DEQ calculate more accurately the amount of solid waste disposed of for each county. "Counting" waste "counts" toward the solid waste disposal rate and must be reported by county of origin. The disposal rate is then used to calculate the county *material recovery rate*. Certain waste ("non-counting" waste) may, by law, be excluded from the disposal rate; if you record this waste separately, please list it in Part 2 of this form. INCLUDE BOTH "COUNTING" AND "NON-COUNTING" WASTE IN YOUR TOTAL TONNAGE FOR FEE CALCULATION PURPOSES.

"Counting" Resid./Comm./Construction and Demolition SW by County. "Counting" waste includes residential and commercial domestic solid waste; construction and demolition waste, such as lumber and wood, drywall (gypsum), glass, roofing material and similar materials. Report amounts of "counting" waste for the previous calendar quarter by county in **Part 1**. If you do not track "non-counting waste" (see below) separately, count all waste as "counting".

"Non-counting" waste. "Non-counting" waste is not reported by county. "Non-counting" wastes are:

Asbestos
Contaminated cleanup material
"Industrial" woodwaste: Slash from logging and sawmills, major landclearing debris
Residual tire shreds: Tire shred or chips that contain steel fragments that are residual from tire recovery operations
Rubble, rock, asphalt, etc.: Soil, dirt, concrete rubble and blocks, bricks, gravel, ash, major metal demolition debris
Other industrial waste: Waste generated by industrial or manufacturing processes
Other wastes: Please specify type of waste on the line provided and contact DEQ to determine a conversion factor if you do not weigh the waste.

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DEQ

ATTACHMENT B

MEASUREMENT STANDARDS AND REPORTING GUIDELINES

Most from the National Recycling Coalition

Material	Volume/Count	Weight (Tons)	Weight (Pounds)
Aluminum cans	Case (24), 12 oz (32 cans = 1 pound)	.0004	.750
Aluminum cans	1 full store collection bag	.009	18
Aluminum cans, whole	1 cubic yard	.031	50-74
Ferrous cans, whole	1 cubic yard	.075	150
Ferrous cans, flattened	1 cubic yard	.425	850
Beer bottles (refillable)	Case (24 bottles)	.006	12
Beer bottles	Case (24), 22 oz	.0112	22.5
Glass, whole bottles	Case (24), 12 oz.	.008	16
Glass, whole bottles	Case (24), 16 oz.	.0125	25
Glass, whole bottles	Case (12), 40 oz.	.0112	22.5
Glass, whole bottles	1 cubic yard	.400	600-1,000
Glass, semi-crushed	1 cubic yard	.700	1,000-1,800
PET soda bottles	Case (24), 16 oz	.0012	2.4
PET soda bottles	Case (24), 20 oz	.0013	2.5
PET bottles (water)	Case (15), 1.5 liter	.0007	1.4
PET soda bottles	Case (8), 2 liter	.0006	1.2
PET soda bottles	Case (8), 3 liter	.0008	1.5
PET soda bottles, whole, loose	1 cubic yard	.018	30-40
PET soda bottles, whole, loose	Gaylord[1]	.023	40-53
PET soda bottles, baled	30" x 62"	.250	500
PET soda bottles, granulated	Gaylord	.360	700-750
Polystyrene #6	Bag (14 cu. Ft.)	.002	4
Film, baled	30" x 42" x 48"	.550	1,100
HDPE milk jugs, whole, loose	6-7 gallon jugs	.0005	1
HDPE milk jugs, baled	32" x 60"	.225	400-500
HDPE (mixed), granulated	Gaylord	.450	800-1,000
Mixed PET, milk jugs, & other rigid containers, whole, loose	1 cubic yard	.019	Ave. 38
Mixed rigid, no film or milk jugs, whole, loose	1 cubic yard	.0245	Ave. 49
Newsprint, loose	1 cubic yard	.29	360-800
Newsprint, compacted	1 cubic yard	.43	720-1,000
Corrugated cardboard, loose	1 cubic yard	.15	300

[1]Gaylord size most commonly used: 40" X 48" x 36"

ATTACHMENT B

Material	Volume/Count	Weight (Tons)	Weight (Pounds)
Corrugated cardboard, baled	1 cubic yard	.55	1,000-1,200
Milk cartons	1 cubic yard	.022	45
Grass clippings	1 cubic yard	.475	400-1,500[2]
Leaves	1 cubic yard	.1875	250-500
Yard debris, loose	1 cubic yard	.125	250[3]
Yard debris, compacted	1 cubic yard	.32	640
Wood collected at landfills	1 cubic yard	.125	250
Wood chips, green	1 cubic yard	.236	472.97
Wood chips, dry	1 cubic yard	.121	243.25
Wood, cord	1 cubic yard	.25	500
Christmas trees	1 cubic yard (loose)	.06	30
Sawdust, wet	1 cubic yard	.265	530
Sawdust, dry	1 cubic yard	.1375	275
Gypsum	1cubic yard	.31	620
Lead acid battery	1	.018	35.9
Used motor oil	1 gallon	.0037	7.4
Oil filters	1 drum, crushed	.35	700
Oil filters	1 drum, uncrushed	.087	175
Oil filters	1 gallon	.0025	5
Tire- passenger car	1	.01	20
Tire- truck, light	1	.0175	35
Tire- semi	1	.0525	105
Fluorescent tubes	4-foot tube	.00036	.72
Paint	1 gallon	.005	10
Solvents	1 gallon	.0042	8.42
Antifreeze	1 gallon	.0042	8.42
Appliances:			
Stove	1	.075	150
Dryer	1	.062	125
Washer	1	.075	150
Refrigerator	1	.125	250
Dishwasher	1	.062	125

Revised 12/18/02 by the Oregon Department of Environmental Quality

[2]Yard waste densities are especially variable between communities and in different seasons because of differences in types of foliage, moisture, and humidity. The 1,500 density factor for grass is based on program experience in Minnesota.

[3]Uncompacted yard debris varies a great deal in weight. The figure of 250 pounds per cubic yard may be high for a lot of uncompacted yard debris. Loose piles may weigh as little as 100 pounds per cubic yard. Use your best judgment in using these conversions (100 pounds per cubic yard = .05 tons a cubic yard).