

City of Portland Mandatory Reuse and Recycling Program

City of Portland, Oregon



Population: 603,650¹

Land Area: 345 km² (133 mi²)

Density: 1,750 persons/km²

Median Age: 35.8

Housing Mix – 265,196 single and multi-family housing units

Estimated City of Portland disposal rate (2012):
540 kg per capita (residential + commercial)¹

Program Highlights / Summary

The City of Portland has been regulating the diversion of construction and demolition debris since 1995. Oregon established a solid waste recovery goal of 45% for 2005 and 50% for 2009. In order to help meet these targets, all wastesheds initially set voluntary recovery goals. Wastesheds include city, county and in the case of Portland, Metro jurisdictions.

In 2008, a mandatory 75% recycling rate for CR&D materials was adopted by the City of Portland, followed by an even higher rate for City-owned facilities as part of Portland's Green Building Policy.

Currently, the City of Portland has a goal to reduce waste and raise the recycling rate from all sources to 75% by 2015. This includes the mandatory 75% recycling rate for CR&D materials.

All mixed loads of CR&D waste must go to a licensed processing facility. These facilities, licenced by Metro Portland, are required to achieve 85% diversion of wood, metal and cardboard.

In support of CR&D waste diversion, the City launched an online resource, www.recyclingnutsandbolts.com, in 2011 to provide detailed information to residents and contractors about CR&D diversion opportunities.

The emphasis of the City program is education.

Program Details

The City of Portland began regulating construction and demolition debris in 1995; the original ordinance required projects with a value of \$25,000 or greater to recycle a minimum of 50% of construction debris generated on the job site, and mandated the recycling of metal, cardboard, wood, land-clearing debris and rubble (concrete / brick). The project value was increased to \$50,000 in 1997. In 2008, a mandatory

¹ City of Portland 2014 Recycling Program Summary

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75% recycling rate was adopted for CR&D materials. In addition, the City updated their Green Building Policy in 2009, requiring recycling of at least 85% of all construction, remodeling and demolition waste for new construction and major renovations of *City-owned facilities*.

In 2011, the City launched an online resource, www.recyclingnutsandbolts.com, to provide detailed information about diversion opportunities. One of the benefits of establishing an on-line tool was to free up City staff to spend more time in the field ensuring that requirements are being met and answering contractors' questions

All building projects in the City of Portland must meet the following requirements to maximize reuse and recycling of debris generated by construction and demolition activities:

- Provide a trash receptacle on the job site for disposal of food waste (e.g., lunch waste) to prevent contamination of recyclables
- Clearly label all recycling containers on the job site regarding acceptable materials
- Complete and return a Construction and Demolition Debris Management Form within one week of permit application for all building projects valued at \$50,000 or more (including both demolition and construction phases). This form requires the project owner or contractor to identify the types of debris that will be generated and how it will be managed (salvaged, source-separated for recycling, or sent in mixed form for processing).

Failure to comply with these requirements is considered an infraction and subject to an assessment (up to \$500 for the first violation) – [City Code 17.102.090 Assessments and Infractions](#).

Stand-alone permits for fences, decks or trade permits such as electrical, mechanical, plumbing or signs are not required to meet the above requirements.

Permits are available from the Bureau of Transportation for locating recycling containers in a public right-of-way if needed. An application must be submitted and cost is based on locations and duration.

Official requirements are found under [City Code 17.102.270 Businesses and Multifamily Complexes Required to Recycle](#) and [Administrative Rules Business Solid Waste, Recycling and Composting, Section 5.2 E section Recycling at Building Projects](#).

The City's CR&D waste goals are supported by Metro Portland's² Enhanced Dry Waste Recovery Program (EDWRP) that requires that all dry waste be processed at authorized material recovery facilities prior to disposal, including CR&D waste. Prior to 2009, generators and haulers could choose to directly dispose of dry waste at low-cost landfills. EDWRP ensured a higher recovery of recyclables was achieved.

Within the Metro Portland, there are two government operated recovery facilities and 10 private facilities that accept a wide variety of CR&D materials. Residual waste from the recovery facilities must contain no more than 15 percent, by total combined weight, of wood or corrugated cardboard pieces measuring 12 inches or greater in any dimension and metal pieces measuring eight inches or greater in any dimension.³ This is enforced through 2 mechanisms: 1) facility operators are required to sample

² Metro Portland is a regional government that includes the City of Portland.

³ During the development of the EDWRP, material recovery facility operators were interviewed about the specific recovery practices at their facilities; this information helped inform Metro's decision to target wood, cardboard and metal. These are unique commodities in that they have a solid history of being recovered at material recovery facilities and benefit from relatively stable and mature recycling markets.

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their residual waste quarterly and provide the results to Metro; and 2) through regular inspections by Metro staff.

Exporting of CR&D waste outside of Metro's boundaries is not permitted which ensures that CR&D waste generators are not able to circumvent the waste diversion requirements.

Excellent online tools support both the City of Portland and Metro initiatives, encouraging individuals and haulers to recycle as much as possible.

- [Construction industry recycling toolkit](#) is a reference guide developed by Metro Portland that helps contractors and developers recycle construction debris. It has recycling facility locations and distances, descriptions of accepted materials, and helpful maps.
- [BoneyardNW](#) is a completely free service from Metro Portland that connects buyers and sellers of used commercial construction materials in the Portland metropolitan area.
- [NWMaterialsmart.com](#) is an online gateway with thousands of options for buying, selling, and exchanging unwanted and surplus materials.

City staff anticipate that the current program will shift in the near future to emphasize more salvage and reuse.

Program Results

Financial Data

Capital Costs – None

Operating Costs

\$100,000 per year includes staff salary, staff training and conferences, and occasional support of other outreach programs / events.

Staffing Implications

1 staff member (30 hours per week) to oversee CR&D communications and education, policy updates and support salvage and reuse on demolition projects.

Cost Recovery

Operating costs are recovered through tipping fees.

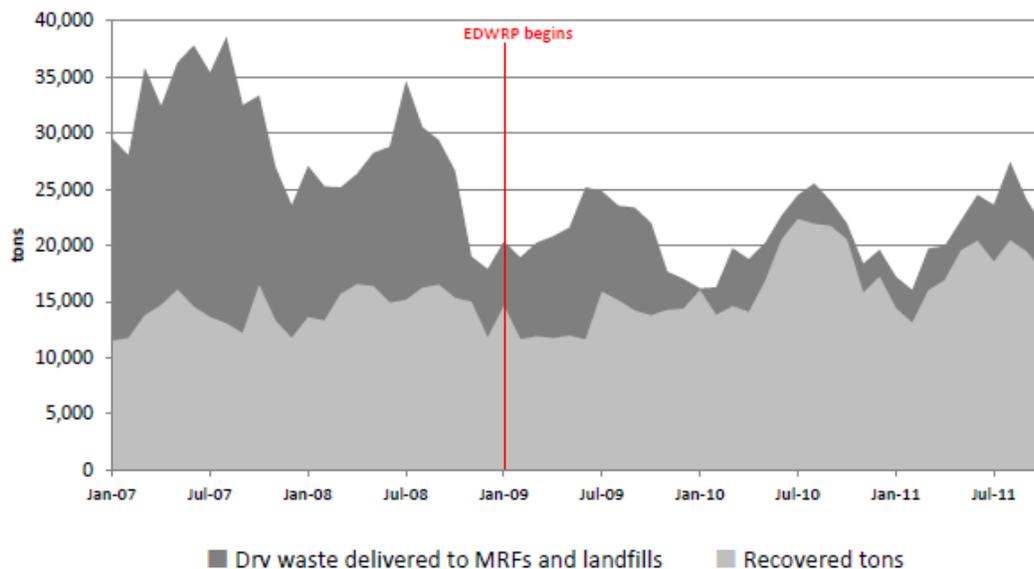
Environmental

Reduction and Diversion

CR&D waste diversion data is tracked by Metro Portland through data reporting by the dry waste processing facilities. The following figure is an excerpt from a January 2012 Progress report on Metro's Enhanced Dry Waste Recovery Program (EDWRP) prepared by Metro staff. Data specific to the City of Portland is not available.

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Tri-county dry waste delivery and recovery tonnage at private solid waste facilities, 2007-2011



GHG Reduction

In 2007, Portland City Council and the Multnomah County Board of Commissioners adopted a resolution directing staff to design a strategy to reduce local carbon emissions 80% by 2050. The [Climate Action Plan](#) was released in 2009 establishing and setting objectives to achieve an interim goal of 40% reduction of carbon emissions by 2030.

Reducing carbon emissions is a work in progress. The City is presently developing a method to measure greenhouse gas emissions from construction, renovation and demolition projects that should be available by 2015.

Social

Political Acceptability

The program has political support, however, the current administration recommends a program update to include more emphasis on deconstruction and salvage. The Mayor and several council members are supportive of developing a new policy to include the administration's recommendation.

Community / User Acceptability

Neighbourhoods are seeing a lot of demolition activity and residents want to know what happens to demolition waste, what is being built, and have great concern for historic preservation. To assist with public education, the City of Portland's recyclingnutsandbolts.com website offers information on alternatives to demolition and links to Metro Portland's recycler directory. A staff member also fields inquiries, provides CR&D waste management education to both internal (City staff and politicians) and external audiences (residents and the CR&D industry).

Community Economic Development

There are two government-operated recovery facilities and 10 private CR&D material recycling facilities, which have created local jobs. Increasingly, architects are specifying the use of salvaged and local materials; used materials are in demand due to increased client awareness of how salvaged materials

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can be used; deconstruction projects are on the rise; and markets for CR&D materials are stable with the exception of wood at this time.

Lessons Learned

- The Construction and Demolition Debris Management Form (CDDMF) is not directly linked to the building permit which has created a challenge in terms of the use of the form. Presently, the form is handed out at the permit application stage, and City permit staff don't always remember to hand out the CDDMF. Individuals requesting the permit might not be the general contractor or homeowner (e.g., architect, permit runner) and the form does not always get passed to the appropriate person. The City can charge \$500 for the first violation of not completing the CDDMF but this not been enforced. At this time an infraction is viewed as an opportunity to educate. Staff report that it would be better to directly link the CDDMF to the permit.
- The City of Portland requires a 75% diversion of CR&D materials, however no metric (weight / volume) was defined; the CDDMF only asks what materials are being recycled and where the material is going. Ways to measure and enforce diversion goals need to be developed, to indicate what materials are being diverted, where the materials will be reused / recycled and diversion tonnages reported.
- Metro Portland's EDWRP program has established detailed requirements for material diversion and recycling at dry waste processing facilities which has allowed the City to focus more on education and CR&D waste prevention and reuse.

Communities with Similar Programs

- Seattle, WA

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