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Background Brief on ...

Recycling

Oregon's Recovery Rate

Oregon has been a leader in recycling programs, and has one of the highest recovery rates for solid waste in the United States. The statewide recovery rate has increased steadily since 1992 when the rate was first calculated. According to the Department of Environmental Quality's (DEQ) 2008 Material Recovery and Waste Generation Rates Report, Oregon recovered 2,330,509 tons, or 48.2 percent, of the municipal post-consumer wastestream in 2008. This is an increase of 1.7 percent from the 2007 rate of 46.5 percent. Generation is the sum of all discards that are either disposed or recovered. Total disposal in 2008 equals 2,903,138 tons, and that added with total tons recovered equals 5,233,647 tons of waste generated. This is an 8.2 percent decrease in generation since 2007.

Oregon is meeting its per capita waste generation goal of no annual increase over the 2005 amount. Per capita waste generation fell by 9.3 percent. This decline equates to even greater greenhouse gas reductions and energy savings. The state also is nearing its recovery rate goal of 50 percent by 2009.

The 2008 waste generation equates to 2,761 pounds per person per year, compared to 3,045 pounds per person per year in 2007. This decrease correlates to the current economic situation. In hard times, people tend to buy (and discard) less material. Both recovery and disposal tonnages fell in 2008. Since disposal decreased more than recovery, the recovery rate went up while total waste generation went down. This mirrors the state's goals, which call for increasing recovery rates and decreasing waste generation.

Current Recycling Requirements for Local Governments

Cities and counties are required to assure that their residents are being provided with opportunities to recycle that meet the minimum requirements of state

law. For cities with a population over 4,000, this means that residents who have garbage collection service must also be provided with recycling service, recycling education and promotion. In addition, the city must make sure that at least three of the following "menu items" are being provided:

1. Weekly, residential curbside collection of source-separated recyclable materials on the same day as garbage service. (If this program element is not implemented, a minimum of monthly curbside collection is still required). Local governments must also give notice to each person of the opportunity to recycle and encourage source separation of recyclable materials through an education and promotion program.
2. An expanded recycling education and promotion program that includes, among other things, recycling collection promotion directed at residential and commercial solid waste service customers and generators at least four times a year.
3. Provision of at least one durable recycling container directly to each residential collection service customer.
4. Recycling collection service provided to multi-family dwelling complexes having five or more units.
5. Residential yard debris collection program for collection and composting of residential yard debris.
6. Regular, on-site collection of source-separated principle recyclable materials from commercial generators.
7. Establishment of an expanded system of recycling depots that are conveniently located to the population served.
8. Garbage collection rates established as a waste reduction incentive, including a mini-can option.
9. A collection and composting program for commercial and institutional food waste, non-recyclable paper and other compostable waste.

All cities of 10,000 or more population must provide an additional one or two recycling program elements, depending on the activities chosen. DEQ can also approve alternative recycling programs that comply with

administrative rules adopted by the Oregon Environmental Quality Commission.

Benefits of Recycling

DEQ is able to use the results of the Material Recovery Survey to estimate the energy savings resulting from recycling, as well as reductions in greenhouse gases associated with recycling, composting, and "counting" energy recovery.

Energy - When recycled materials replace virgin feedstocks in manufacturing, energy savings can be significant. For example, making aluminum from old beverage containers uses 93 percent less energy than making aluminum from bauxite. Newsprint made from old newspapers requires 46 percent less energy to make than newsprint made from wood.

DEQ estimates that recycling by Oregon households and businesses in 2008 (counting only wastes generated in Oregon, not those generated elsewhere and shipped to Oregon for recycling) led to energy savings of roughly 30 trillion British thermal units (**BTUs**). To put this number in context, this is the equivalent of 243,000,000 gallons of gasoline, or roughly 2.7 percent of total energy used in 2008 by all sectors of the economy in Oregon. Although both of these comparisons are imperfect, the energy savings from recycling in Oregon is significant.

Greenhouse Gases - Net greenhouse gas reductions associated with materials recycled, composted, and burned for energy in 2008 are estimated at 3.3 million metric tons of carbon dioxide equivalent. This includes only materials that are counted toward the state's recovery rate and excludes any materials that are generated in other states but shipped to Oregon for recycling. To put this number in context, 3.3 million metric tons of carbon dioxide is equivalent to tailpipe emissions from 660,000 "average" passenger cars, or roughly 4.6 percent of all 2008 greenhouse gas emissions statewide.

Waste prevention benefits - Waste prevention and reuse (as well as recycling) can significantly reduce environmental impacts associated with raw materials extraction,

materials manufacturing, and transportation. In many cases, these environmental benefits “upstream” of the consumer may be significantly larger than the “downstream” benefits of waste reduction. Reducing the overall generation of solid waste is not just about saving landfill space. The value of achieving the new statutory waste generation goals was affirmed in 2004 by the Governor’s Advisory Group on Global Warming. In its “Oregon Strategy for Greenhouse Gas Reductions,” the advisory group identified achieving the waste generation (and recovery) goals as a top priority recommendation. Achieving the statutory waste generation goals contributes more than 15 percent of the total greenhouse gas reductions projected to result from the advisory group’s entire package of recommendations.

Important Legislation

The Bottle Bill – In 1971, Oregon enacted the “bottle bill” that has been called the most effective recycling program in American history and is the nation’s longest-standing deposit law. Within two years of its implementation, more than 90 percent of all carbonated beverage containers were being recycled and more than 80 percent of the roadside container litter disappeared. Container recovery continues to be much higher in Oregon than in states that do not have bottle deposit laws. In 2007, the Legislative Assembly enacted Senate Bill 707, the first significant expansion of the original bottle bill, applying the five-cent container deposit to water and flavored water beverages. Senate Bill 707 also created the “Bottle Bill Task Force” to study and make recommendations on the collection/refund of beverage containers, including issues like the use of redemption centers, appropriate beverages to recycle, and refund amounts. The Bottle Bill Task Force made their final report to the Legislature in October of 2008, but the 2009 Legislature did not act on those recommendations.

Recycling Opportunity Act of 1983 – This was the first state law in the United States to require that people statewide be provided with an opportunity to recycle. This opportunity

included curbside recycling collection being provided to garbage service customers in cities of 4,000 or more population, recycling at all disposal sites or more convenient locations, and education and promotion programs designed to make sure that everyone is aware of their recycling opportunities and the reasons to recycle. The law also established the statewide hierarchy for managing solid waste, with reduced generation of waste being at the top of the hierarchy, followed by reuse, recycling, composting, and energy recovery, with landfilling being the least-preferred method.

Oregon Recycling Act – In 1991, the Legislature enacted Senate Bill 66, which strengthened and broadened recycling requirements. The Act set a statewide recovery goal of 50 percent by 2000 and interim recovery goals for individual wastesheds by 1995. “Wastesheds” are generally the same geographic areas as counties, except Metro, which comprises Clackamas, Multnomah, and Washington counties, and Milton-Freewater, which is its own wasteshed. However, by the year 2000, Oregon had not met its ambitious recovery goal of 50 percent, although most wastesheds were meeting their individual goals.

The Act also established a household hazardous waste program; required recycled content in glass containers, directories, and newsprint publications and set requirements for recycling rigid plastic containers to promote market development; required DEQ to calculate annual recovery rates; required DEQ to develop a solid waste management plan; and funded programs through tipping fees at landfills. The Act banned discarded or abandoned vehicles, large home or industrial appliances, used oil, un-chipped tires, and lead-acid batteries from solid waste disposal sites.

Wasteshed Incentives – During the 1997 legislative session a coalition of recycling and solid waste management interests came together to modify Oregon’s resource recovery efforts by giving local governments’ recovery rate credits for programs higher up the solid waste management hierarchy.

The resulting legislation, House Bill 3456, enacted a two percent credit for wastesheds that establish and maintained programs in waste prevention, reuse, and backyard composting. DEQ established guidelines and evaluation criteria for wastesheds that allowed them to earn up to six percent total credits toward their recovery goals for qualifying programs.

New Goals – Oregon was not successful in reaching the recovery goal of 50 percent by the year 2000 established by the Oregon Recycling Act. DEQ confirmed to the 2001 Legislative Assembly that the original wasteshed goals, in total, would not produce a statewide recovery goal of 50 percent. The Legislature responded by unanimously enacting House Bill 3744, which set Oregon's first statewide waste generation goals and added waste prevention goal language to ORS 459.015. The measure set a statewide recovery goal of 45 percent for 2005 and 50 percent for 2009. In order to help meet the statewide recovery goals, all wastesheds set new voluntary recovery goals for 2005 and 2009 and submitted plans to the DEQ for how they planned to meet their new goals. Wasteshed plans must be updated by Dec. 31, 2006 and Dec. 31, 2010. If a wasteshed does not achieve its 2005 or 2009 waste recovery goal, the measure requires the wasteshed to conduct a technical review of existing policies or programs and determine revisions to be implemented to meet the recovery goal. Oregon did meet the 45 percent recovery rate goal for 2005, but failed initially to meet the statewide goal of no net increase in per-capita waste generation. Per capita waste generation climbed steadily from 1991 through 2006, reaching 8.5 pounds per person per day, but has since fallen to 7.6 pounds per person to day by 2008.

To recognize additional waste reduction efforts that cannot be measured, House Bill 3744 allows a wasteshed other ways to qualify for a two percent credit toward its recovery rate. It allows wastesheds to apply for more than two percent credit for residential composting programs if they can document that more than two percent of the waste generated is being

diverted by the programs. Finally, the measure gave wastesheds that burn mixed solid waste for energy recovery some additional credit toward their recovery rates under certain conditions.

Oregon E-Cycles – House Bill 2626 enacted by the 2007 Legislature provides for the statewide collection and recycling of televisions, computers, and monitors (“covered electronic devices” or **CEDs**), as of January 1, 2009. Under the bill, manufacturers of CEDs must either manage their own statewide collection/recycling effort or pay into a DEQ-established state contractor program. Under either program, any Oregon household, certain small businesses and non-profits, and those individuals recycling seven or fewer CEDs are exempt from paying fees. Retailers are prohibited from selling CEDs unless the products carry a brand indicating compliance with the new law as of January 1, 2009. Effective January 1, 2010, the disposal of computers, monitors and TVs was prohibited in Oregon.

Paint Product Stewardship – House Bill 3037 enacted by the 2009 Legislature creates a paint stewardship pilot program to reduce the generation of postconsumer paint by promoting its reuse and developing a process of collecting, transporting and processing it in an environmentally sound fashion. The Act requires the creation of a stewardship organization made up of paint manufacturers to implement the program by developing a plan and funding its implementation, including the development of educational materials for consumers. Under the legislation, consumers are able to take unwanted paint to locations throughout the state for environmentally appropriate recovery and disposal free of charge. The pilot program sunsets June 30, 2014 but prior to that date DEQ must submit a report to the Legislature recommending whether or not to make the program permanent.

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