

Chapter 6

WASTE DIVERSION

This chapter reviews waste diversion in Clark County. Waste diversion comprises all materials diverted from landfills through recycling or recovery operations. Waste diversion conserves and preserves both resources and energy. Waste diversion can reduce the production of greenhouse gases and the use of toxic chemicals in product manufacturing. Waste diversion conserves water, wildlife habitat and air quality, all of which contribute to public health, preservation of species, and may help to address climate change. All waste diversion programs are required to comply with Washington and Oregon state laws, as described in *Chapter 1*.

This chapter also reviews urban and rural residential recycling and organics collection programs as well as non-residential (institutional, commercial and industrial) programs, as well as, existing material recovery programs. The Washington Department of Ecology planning requirements for designating urban/rural service areas and residential recycling materials are also addressed in this chapter.

What are Clark County's Recycling & Diversion Rates? Clark County and its cities and towns are committed to achieving a minimum recycling rate of 50% of the waste stream through a combination of public and private recycling activities. The recycling rate is the percentage of all waste generated by residents and businesses that is recycled and manufactured into new products. In 2012, the most recent year for which County data is available, at least 359,169 tons of materials were recycled and 75,110 tons were diverted from a total waste stream of 665,766 tons. It represents only reported collection activities; it does not count internal recycling programs, in which retailers return recyclables to distribution centers outside of the County, material collected by non-reporting collectors, or individual efforts such as backyard composting.

The recycling rate was 53.9% and the diversion rate was 65.2%. This recycling rate excludes waste diversion methods that the EPA does not define as recycling. Examples of diversion, but not recycling, include using wood waste, used motor oil and tires for energy recovery or using glass as fill or drainage rock. A further discussion of the County's recycling rate/diversion rate and how the rates are calculated is provided in Chapter 15 on Waste Monitoring and Performance Measurement. Historical information on the County's recycling and diversion rates can be found in *Appendix J*.

Assessment of Conditions

The composition of the County's waste has undergone substantial change during the past decade. The change is the result of changes in the economy (recession or economic downturn) which affected the waste stream during the time period. Technology has also played a key part of the change in the waste stream. For example, more residents get news online rather than subscribing to a newspaper. Also, newspapers have become smaller. There has also been a shift by product manufacturers towards using more plastic containers and fewer glass or metal containers. The shift in waste composition both confirms the success of existing source-separation programs and identifies opportunities for additional recovery. Figure 6-1 illustrates the composition of the garbage disposed by County households and businesses, according to a 2012 waste stream analysis. Additional information on waste stream quantities is available in the chapter on Waste Monitoring and Performance Measurement. The 2012 Waste Stream Analysis can be found in *Appendix I*.

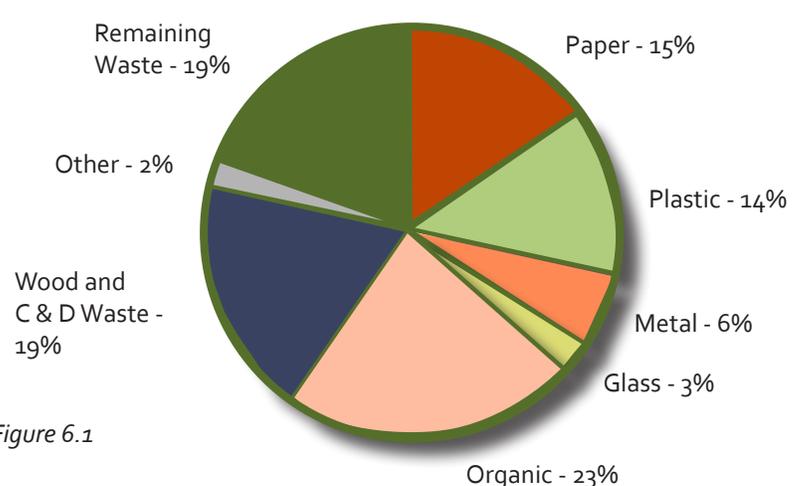


Figure 6.1

Diversion – Recycling

Recycling is the collecting of recyclable materials that would otherwise be considered waste, sorting and processing those materials, and then manufacturing them into new “recycled content” products.

Contracted Residential Recycling

Contracted curbside collection is the predominant recycling method for both single-family and multi-family residential recycling within the Clark County urban service area. Subscription-based curbside recycling service is available in the rural areas.

What Can Be Recycled?

Clark County’s curbside recycling program includes a thorough list of materials that can be recycled. Evaluation of this list is on-going. Criteria include: the potential for waste diversion; collection efficiencies; processing requirements; market conditions; market volatility; local market availability; continuity with existing programs; and Oregon recycling certification requirements. All curbside recyclables in the county are delivered to the [West Van Materials Recovery Center](#) for sorting and processing.

Three major changes have occurred in the curbside recycling program since its inception in 1991. In 1995, the County and cities added all plastic bottles to the list; in 2002 antifreeze, household batteries, and aerosol cans were added. In 2009 plastic tubs and buckets were added, and the collection method was changed: from three stacking bins to a roll cart for commingled materials plus a bin for glass. Concurrently with the 2009 change, the contracted processor significantly upgraded the sort line at the West Van Materials Recovery Center, to expand capacity and accommodate the changed collection method.

Clark County recycling collection programs can now be considered mature, and the following materials will be considered “designated residential recyclables” for the purpose of meeting the Washington Department of Ecology planning guidelines:

- Aluminum cans and foil;
- Corrugated cardboard;
- Glass jars and bottles;
- Household batteries;
- Mixed paper;
- Motor oil and antifreeze (not included in the multi-family program);
- Newspapers;
- Plastic bottles, tubs, and buckets (excluding those contaminated by hazardous materials);
- Polycoated paper containers (e.g. milk cartons and drink boxes);
- Scrap metal;
- Steel cans (including spray cans); and,
- Yard Debris (Yard debris is separately collected from single-family residences, on a subscription basis).

In addition to the materials listed above as “designated residential recyclables”, the following items are also recycled through on-going or seasonal programs and specially scheduled collection events within Clark County: chlorofluorocarbons, e-waste (predominately through the E-Cycle Washington program), fluorescent tubes, latex paint, lead acid batteries, mercury (including mercury containing products), oil filters, tires (limited recycling, based upon available markets), block foam, other plastics, and white goods (e.g. dryers, refrigerators, washers).

Additional materials will be considered on a case-by-case basis, as emerging markets become available. Potential additions include household food waste, business food

waste, textiles, ceramics and (non-container) glass. Concrete, asphalt and brick are currently recovered from construction and demolition projects. These materials might be currently recyclable, but are not necessarily appropriate to include as designated recyclables at this time. The County's recycling collection and processing contracts have provisions for adding materials to the residential curbside collection program. The County will also notify the Washington Utilities and Transportation Commission (WUTC) of such changes.

Recycling Collection Services

The county and cities have contracted with Waste Connections of Washington (WCW) to provide residential recycling collection services (single family, multifamily and yard debris). Refer to the table on page 1-7 for information on cities and county contracts for recycling services.

Urban Residential Organic Wastes

Organic waste (or "organics") is a broad term which includes yard debris, pre- and post-consumer food waste, and other potentially compostable source-separated materials. Organics are different from other recyclable materials in that they often can be managed and used at home by residents. The County actively promotes backyard composting (including vermicomposting) as a waste reduction method, as described in the chapter on *Waste Prevention and Reduction*. Backyard composting avoids the economic and environmental costs and risks of operating collection and transport systems and centralized processing facilities.

However, not all residents have the ability or desire to compost their yard debris and/or other organics at home. For those residents, collection services are important. All single-family residences within the County's defined Urban Growth Area and the Southwest Clean Air Agency's Burn Ban area have yard debris collection available on a subscription basis. There is more discussion of yard debris and other organic wastes in the chapter on *Organic Wastes*.

Residential Recycling Collection Service

In 2009, the County transitioned to a roll cart-based collection system for both single family and multi-family residences. The carts are for commingled paper, plastic, and metal recyclables; glass bottles are collected separately, in a bin next to the cart. For single family residences only, used motor oil, antifreeze and household batteries are also collected next to the cart. These items are not collected at multifamily complexes; otherwise, materials collected and sorting requirements are the same for all residents. The multi-family collection service program provides each complex with 60- or 90-gallon collection carts, signage for the central collection areas, and in-home containers for storing and transporting materials to the central collection areas. Multi-family collection schedules are set to meet the requirements of each complex.





Weekly collection services are provided for single family residents in Battle Ground, Camas, Ridgefield, Washougal and the unincorporated Urban Service Area. Every-other-week collection services are provided for single family residents in La Center, Vancouver, Yacolt and the unincorporated Rural Service Area.

Residents may also deliver their recyclable materials to public drop-off centers at transfer stations, private buy-back recyclers, or drop-off containers. Public drop off sites include:

- CRC’s three public transfer stations
- Air, Water, Earth Recycling (buy-back)

Recycling collection events may be scheduled periodically throughout the year to collect special items. The County provides the online resources RecyclingA-Z.com to provide residents with current information on recycling a wide range of items, and 2good-2toss.com as a mechanism to exchange and reuse items with other residents.

**Non-residential
(Commercial)
Recycling**

Under current law, all non-residential recycling and collection of yard waste for composting may occur in a competitive market place. Solid waste haulers, disposal companies, private recyclers, private composters and individual collectors are allowed to make collection arrangements with non-residential generators, adhering to the following jurisdictional licensing requirements.

Clark County has a competitive commercial recycling environment, with commercial recycling services provided by a variety of service providers. Some operators specialize in paper fibers such as office papers or corrugated cardboard, or in wood wastes, while others offer a full array of services for most commodities. The County actively supports commercial recycling through technical assistance programs and promotional educational materials. The degree of source separation required varies by vendor. Source-separated recyclables may be commingled (combined with other source-separated recyclables) to increase collection efficiencies.

**Non-residential
(Commercial)
Organic Wastes**

Under current law, all non-residential recycling and collection of yard waste for composting may occur in a competitive market place. Solid waste haulers, disposal companies, private recyclers, private composters and individual collectors are allowed to make collection arrangements with non-residential generators, adhering to jurisdictional licensing requirements.

The County is currently working with school districts, restaurants, and institutional entities in development of food waste collection programs. As a pilot, food waste is considered to be a part of the MSW waste stream. There is more discussion of these programs in the chapter on Organic Waste.



Source: Environmental Law Update

Processing and Recovery

The County contracts with Columbia Resource Company (CRC) for the processing of residentially collected recyclables, and all such recyclables in the county are delivered to the West Van Materials Recovery Center for processing. CRC also processes recyclables collected from other areas at this same facility. Recyclable materials received through the curbside and multi-family collection programs are marketed by CRC and a portion of the revenue generated from the sale of these materials is returned to the County, City of Vancouver, and contract hauler.

The cities of Camas, Ridgefield and Washougal have contracts in places that do not include provisions for recycling revenue share.

Recycling collection services are supported by County, city, and private collector promotion and education efforts, as described in the chapter on Education and Promotion.

CRC's transfer and disposal contract with the County requires the company to recover and recycle a minimum of 10% of the incoming disposal stream.

CRC meets its minimum annual recycling requirement by recovering materials from selected loads on the tipping floor. Most recovery is wood and metal, pulled from loose drop-box or self-haul loads. Very little is recovered from compacted loads of mixed waste, due to contamination and operational difficulties. Source-separated materials delivered to CRC drop-off recycling facilities by self-haulers is counted toward the minimum annual recycling requirement; however, materials recovered through CRC's source-separated recycling collection services and materials collected by County and city recycling collection contractors are not included.

Recommendations

1. **Periodically evaluate the range of recyclables** handled by the recycling collection program to determine whether materials should be added or dropped. (6-3)
2. **Encourage non-residential recycling** through incentives, technical assistance, pilot programs, and recognition programs. (6-4)

End of Chapter 6