

Chapter 13

ORGANIC MATERIALS

Capitalizing on organics waste reduction and recycling opportunities will help reduce overall waste landfilled per capita and will increase the total quantity of material recycled and the potential for generating local jobs.

OBJECTIVE: Increase opportunities for organics waste reduction and recycling.

- "Beyond Waste Plan"

Reducing the amount of organics in the waste stream is addressed in the State of Washington's *Beyond Waste Plan*. Separation of organic wastes from the waste stream destined to landfill also helps to reduce the generation of methane which is a potent greenhouse gas. Chapter 10 of this plan, Landfill Disposal, notes that Finley Buttes Landfill has a fairly effective system for the collection and utilization of landfill gas; however, it is still appropriate to reduce organics locally as efficiency of recovery of the gas' energy value at the landfill is in the range of about 75 percent.

Assessment of Conditions

In Clark County, organic materials comprise one of the single largest recyclable components of the disposed waste stream. "Organic materials" means any solid waste that is a biological substance of plant or animal origin capable of microbial degradation.

Organic materials include, but are not limited to:

- Manure
- Yard debris
- Food waste
- Food processing wastes
- Wood waste (See Chapter 12 *Construction & Demolition*)
- Garden wastes

Compost, mulches and other organic products improve the environmental functioning of soils and landscapes, and for erosion control. Soils and landscapes with a higher organic content show reduced need for pesticides and herbicides, capture toxics before they enter water systems, and assist with storm water management.

Not all compost is of the same quality and the [US Composting Council's Seal of Testing Assurance Program \('STA'\)](#) is one tool that provides labeling and information disclosure designed to give customers the information needed to get the maximum benefit from the use of compost.

In Washington State, jurisdictional health departments are responsible for permitting compost facilities under [Chapter 173-350 WAC, Solid Waste Handling](#). Additional regulations are listed in Table 13-1, next page.



State Regulations Applicable To Organics Compost Facilities	
State Regulation	Who Enforces The Regulation
Chapter 173-350 WAC, Minimum Functional Standards for Solid Waste Handling (MFS)	Clark County Public Health; Department of Ecology
Chapter 173-216 WAC, State Waste Discharge Permit Program	Department of Ecology – Water Quality Program
Chapter 173-220 WAC, National Pollutant Discharge Elimination System Permit Program	Department of Ecology – Water Quality Program
Chapter 173-240 WAC, Submission of Plans and Reports for Construction of Water Facilities	Department of Ecology – Water Quality Program
Chapter 173-400 WAC, General Regulations for Air Pollution Sources	Southwest Clean Air Agency
Chapter 173-308 WAC, Biosolids Management	Department of Ecology
Chapter 197-11 WAC, State Environmental Policy Act	Lead agency responsible for SEPA compliance

Currently two organic waste composting facilities are permitted in Clark County:

1. The West Van Materials Recovery Center is permitted to compost up to 50,000 cubic yards of organic material annually. This facility has historically composted source separated leaves; due to a change in economic factors, the facility is not actively composting material at the facility, but reserves the right to do so. The majority of yard debris collected at this facility is transported to another location for composting. West Van can be used as a food-waste transfer site. The transfer site allows residential and commercial collection vehicles to off-load their collected material in a central location, where it is then reloaded into larger-capacity transfer trucks for delivery to the composting facility. Organics could be compacted and then hauled similar to how garbage is aggregated for transporting. For this to occur economics and volumes are required.
2. H&H Wood Recyclers is permitted to compost up to 30,000 cubic yards of organic material annually; composting on site is limited to less than 10,000 cubic yards of material at any one time. This facility composts source separated leaves annually. The majority of yard debris collected at this facility is incorporated with dry woody waste and utilized as hog fuel and/or transported to another location for composting.

Organic Materials Disposed

Based on a 2012 *Waste Stream Analysis*, organic materials account for almost thirty percent of what is thrown away by Clark County businesses and residents (20.4% food scraps, 3.6% fuel wood, 2.9% clean wood, 2.3% yard waste – percentages by weight). Table 13-2 shows an estimated breakdown by material type of how much is discarded each year.

Table 13-2

Clark County Organic Materials Disposal Estimates*	
Organic Material	Amount Disposed
Food scraps	49,680 tons
Fuel wood	8,700 tons
Clean wood	6,940 tons
Yard debris	5,670 tons
* Allocation of tons based on 2012 Clark County, WA – waste stream analysis.	

Note: Some wood waste is pulled out of the trash at the transfer stations for processing into hog fuel. This is due to lower costs compared to landfilling.

Yard Debris

Yard debris is different from other recyclable materials in that it can be managed and used at home by residents. The County actively promotes home composting and grass-cycling as a waste reduction method as described in the chapter on *Waste Prevention and Reduction*. Home composting avoids the economic and environmental costs of operating collection systems and centralized processing facilities. However, not all residents have the ability or desire to compost their yard debris and/or other organic wastes at home. For those residents, collection services may play a role. Yard debris is a well-defined component of the waste stream and is easily handled by existing collection equipment. Yard debris collected in Clark County is currently either composted in relatively low cost open windrows at one of several yard debris composters in the Clark County/Portland Metro area or used as a source of fuel in industrial burners.

Curbside yard debris is an optional or subscription program that is available to single family residences, multi-family complexes and commercial businesses in Clark County. Yard debris service is provided every other week, except in Ridgefield where service is weekly. 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 voluntary subscription basis. Yard debris is collected in wheeled carts, with extra quantities handled in bags or marked containers.

Self-haul options for yard debris include the following sites:

- Central Transfer & Recycling Center
- City Bark
- Curbside Yard Debris
- H&H Wood Recyclers
- McFarlane's Bark
- Triangle Resources
- West Van Materials Recovery Center (C&D)

Free, to the public, leaf drop-off is offered October through December to encourage residents to collect leaves and take them to a permitted facility to be turned into compost. The intent of the program is to keep leaves from clogging storm drains and catch basins, in order to avoid flooding and associated labor costs to unplug drains and basins. This regional program is currently managed by the City of Vancouver. The county contribution is derived from road fund. Coordination keeps down costs and demonstrates government efficiency by working together. A coupon must be presented to qualify for free drop-off.

The Boy Scouts of America coordinate a one-day, large community project involving 50 scout troops, 1500 scout and adult volunteers, and 20 businesses and public agencies. The Boy Scouts collect approximately 20,000 trees each holiday season. Generally the event is held the first or second Saturday following Christmas. Christmas trees can also be set out for collection by those subscribing to yard debris collection or self-hauled to an organics facility.

The City of Vancouver offers residents free yard debris disposal coupons each spring (April through June) to encourage them to self-haul yard debris to an approved facility. Organized neighborhoods are also provided opportunities throughout the year to participate in Saturday yard debris collection opportunities or chipping events. As well, drop boxes are placed in especially "leafy" neighborhoods in the fall. There has been discussion about utilizing [Coordinated Prevention Grants \(CPG\)](#) resources to offer similar green-waste clean-up assistance County-wide.

A significant quantity of yard debris and wood waste continues to be disposed as solid waste. The County could develop a plan for increasing diversion of yard debris and

During 2013, approximately 55,000 residences or 50% of the eligible single-family residences subscribed to yard debris collection generating 29,000 tons of yard debris, equal to 90 pounds per subscriber per month.

wood waste from disposal by increasing efforts to divert wood at its transfer facilities, by requiring separation of wood waste from other materials brought to the stations, by yard debris and wood waste disposal bans, or other means. Increased diversion of yard debris and wood waste may be particularly important in the future if demand and prices paid for biomass increase.

Food Waste

Some homes compost food scraps in their backyard using worm bins, compost bins or incorporating the food waste directly into trenches in their gardens. Through the [Master Composter/Recycler Program](#) at the Columbia Springs Environmental Education Center (CSEEC), the County actively promotes worm bin composting of food scraps as a waste reduction method. Backyard composting reduces the economic and environmental costs of operating collection systems and centralized processing facilities. The Master Composter/Recycler Program also sells backyard composters to the public.

[Save Organic Scraps \(SOS\)](#), Clark County's school cafeteria and kitchen composting program has grown to over one hundred schools. Food waste is kept separate by students when sorting their meal waste in the cafeteria. Student monitors are highly encouraged at each school to help peers keep the food cart clean. The food waste is picked up by Waste Connections, and is hauled to Metro Central in Portland, Oregon or Dirt Huggers in the Dalles, Oregon. The program goal is for 100% of schools composting (100 schools).

The SOS program kept 900 tons of organic materials out of the landfill in 2012.



Waste Connections, Inc. offers businesses food waste service on a limited basis in Vancouver and some other areas of the community. Commercial food wastes is handled similar to schools; to third party site beyond the immediate region (with an average distance of more than 160 miles away, ranging from Junction City, Oregon to Royal City, Washington). Eighty Clark County businesses are actively separating and working with Waste Connection to collect their food waste. Increase business composting by 100% (160 businesses) as an on-going task.

Nonperishable and unspoiled perishable food can be donated to food banks, soup kitchens, shelters, and other charitable organizations. A great deal of food is wasted that is still edible and could be provided to those who need it. The County could explore methods to assist these programs to prevent the waste of edible food and divert food to those in need.

We all spend significant portions of our income on purchasing food and too much of this food spoils before it can be eaten by people or animals, so changing food purchasing, preparation, serving, storage and related practices so less waste is produced. EPA has worked with a number of communities including many in the northwest to develop an off-the-shelf outreach program that can be implemented with a modest local investment. It is called the "Food: Too Good To Waste" program and offers resources that can be adapted on the web or through outreach materials to encourage approaches that fit into some residents lifestyles.

End-use site(s) for organic food wastes needs to be determined when costs are stable and a location for the material is secured. It is anticipated that the growing demand and volumes of commercially collected food waste will result in some new regional (including Portland area) facilities to handle this material. One such



project, Columbia Biogas, has been in the planning process with a focus on energy recovery rather than the production of compost. There have been some discussions in the past about locating a food waste/organics processing/composting facility in Clark County and that could provide an economic development opportunity. However, experience in other communities has shown that appropriate siting and communications with neighbors and local land use authorities throughout any process is essential.

State legislation (RCW 70.95.010 (10)) establishes a goal of eliminating yard debris from landfills in those areas that have disposal alternatives available. A ban or other approach would require extensive public education about the alternatives for properly handling yard debris and follow steps outlined in Chapter 5 Education and Outreach Options for yard debris should be publicized and should include mulching lawnmowers, backyard composting and composting facilities. Residents and businesses would need information as to why this change is necessary and convenient alternative handling options for the yard debris. (See chapter 18 for discussion on building a food waste and organics processing facility in Clark County)

Additional options include:

- Larger retailers and grocers in our community self-haul their own food scraps.
- Onsite composting of food wastes has been successfully implemented at Larch Corrections Facility since late 2004.

The composting facility currently receiving Clark County's yard waste (McFarlane's) is not permitted to manage food waste in addition to yard debris. Several jurisdictions in Washington have successfully implemented food-waste composting by allowing residents to deposit food waste in the yard-waste collection containers; however, the tipping fee for mixed yard waste and food waste is often higher than for just food waste. We are monitoring the experience in neighboring jurisdictions, such as Portland, to assess whether this sort of approach is appropriate for our community. The yard debris contract with Waste Connections allows for a commingled food and yard waste pilot project collection program.

Organics Processing

Organics Processing Capacity Yard debris collection service is offered to residents in the Urban Services Area of the county and in the cities. As noted above, residents also have the option to deliver these materials to a number of local sites that accept these materials for a fee. Separate food waste collection is offered to schools throughout the county and to businesses in the urban area. Collection of organic material is managed through contracts with a private hauler, Waste Connections of Washington (WCW). WCW is responsible for selecting a processing facility or facilities for the collected organic material which is acceptable to the County and or cities and contracts may dictate where material is delivered and/or whether tipping costs are passed on to customer rates. Composting is the preferred processing option for the majority of organic material collected by the existing system. Processing of woody debris into hog fuel for energy recovery is allowed. In addition anaerobic digestion within the region and/or in coordination with the management of other feedstocks should be considered as a future possibility for food waste handling (see Chapter 9).

The County curbside yard debris service area includes the Urban Services Area of unincorporated Clark County and the cities of Battle Ground, La Center, and the Town of Yacolt. The Cities of Ridgefield, Camas, Washougal, and Vancouver have separate collection contracts with WCW. The regional system currently generates about 30,000 tons of yard debris and 600 tons of food waste annually. The majority of the material is

generated in the County contract service area and the City of Vancouver. The regional system serves about 55,000 households. Source-separated food waste (food only, no paper or service ware) is currently being collected from 100 schools and 80 businesses.

Clark County has relied on the processors serving the Metro Area since the implementation of yard debris collection programs in 1994. The majority of yard debris collected curbside in Clark County is currently being reloaded at WCW West Van Transfer Station or at H & H Wood Recyclers and is transported by truck to the Beaver Bark Composting facility located in Scappoose, Oregon. Until March of 2013, curbside yard debris was also delivered to McFarlane's Bark Vancouver, Washington facility and reloaded for delivery to their compost facility located in Clackamas County, Oregon. In 2013, McFarlane's notified WCW that the company was no longer able to accept commercial loads of yard debris during peak growth months due to capacity and odor issues at their composting facility. Other local sites, listed previously as available for yard debris self-haul, do not generally process material within the County and the majority is reloaded and taken elsewhere for composting or energy recovery.

Food waste collected in Clark County is either reloaded at West Van Materials Recovery Center, or delivered to Metro's Central Transfer Station for reload to various processors approved by Metro; at least one of these is an anaerobic digester (Junction City, OR). Some food waste is also combined with yard debris at West Van and delivered to a processor near The Dalles, OR which produces compost. Due to the growth of organics materials collection programs in the Willamette Valley, local processing facilities that have been accessible in the Portland area are now at or nearing capacity. The Metro Regional Government has a study underway to evaluate organic material processing capacity for the Oregon counties and cities served by Metro. It is appropriate for Clark County to undertake our own similar assessment of the feasibility for developing new processing capacity with convenient access to our locally generated organics streams.

Recommendations

- 1. As processing capacity allows, expand and maintain food waste collection program** at schools and businesses; assist with setup and on-going training and education needs. (13-4)
- 2. Conduct a study to determine the feasibility of a residential mixed organics collection program.** (13-3)
- 3. Work with partner agencies to increase food donations.** (13-4)
- 4. Focused outreach to residents and businesses on practices to reduce the volumes of food waste generated.** (13-4)
- 5. Evaluate existing organic materials processing capacity** and determine if sufficient capacity exists to process organic materials generated in Clark County over the 20 year planning horizon. (13-5)
- 6. Consider a landfill ban on yard waste and/or food waste** conditional on processing capacity and/or failure to reach diversion goal.

End of Chapter 13