

Chapter 8

WASTE TRANSFER & MATERIAL RECOVERY SYSTEM

Transfer stations serve as centralized collection points for solid wastes. Where disposal sites are long distances from waste sources, combining significant amounts of waste at a transfer station can minimize haul times and costs for certificated / contracted haulers, self-haulers and municipal collectors.

Transfer stations can also provide an opportunity to recover certain waste substreams before wastes are transferred to disposal, and can provide for the separate collection of source-separated recyclable materials (including those not collected by curbside programs), yard debris and other organic material, household hazardous waste (HHW), and other special wastes.

WAC 173-350, *Minimum Functional Standards (MFS) for Solid Waste Handling*, is the primary state regulation governing the design and operations of transfer stations in the State of Washington. Clark County Code Chapter 24.12, *Solid Waste Management*, is the primary local statute governing transfer stations.

Assessment of Conditions

Background

Leichner Landfill, which had previously received most of the municipal solid waste (MSW) in Clark County, was closed in December 1991. Anticipating the closure, the County and cities had planned, and implemented, a waste transfer and disposal system to provide long term handling of municipal solid waste (MSW). In 1988, after a long and unsuccessful landfill site selection process, the County and cities used a competitive selection process to find a provider for MSW recycling, transfer, transport and out-of-county disposal services. In April 1990, the County and the City of Vancouver entered into a long-term contract with Columbia Resource Company (CRC), now a wholly owned subsidiary of Waste Connections of Washington, with services which began in January 1992.

The contract with CRC was last amended and extended with a term that runs through 2021. The amended contract contains new terms and conditions including the installation of an upgraded recyclable processing line, providing improved and expanded processing capacity for construction and demolition material, and an opportunity for the County to purchase the transfer facilities in 2026. The Contractual options to extend the contract and eventually purchase the facilities must be committed to at the end of 2020. In addition to the above, the contract provides:

- Operating three or more privately owned transfer stations in Clark County;
- Annually diverting a minimum of 10% of the incoming waste stream from disposal;
- Transport and disposal of non-recycled and non-hazardous waste from the West Van Materials Recovery Center and the Central Transfer and Recycling Center, (primarily by containers transported on barges) to the Finley Buttes Landfill in Morrow County, Oregon;
- Transport and disposal of non-recycled and non-hazardous waste from the Washougal Transfer Station to Wasco County Landfill in Wasco County, Oregon;
- Processing and marketing of recyclable materials from the county/city curbside collection programs;

A map of the facilities are listed on *Page vi*

- Providing public drop-off facilities for source-separated recyclable materials;
- Operating Household Hazardous Waste (HHW) drop-off facilities at each transfer station;
- The contracted solid waste facilities are designated as essential public facilities and are an integral part of Clark County's regional solid waste management system.

Flow Control

The U.S. Supreme Court ruled in 1994 in *Carbone* that flow control - state or local laws that direct where waste should be processed or disposed - violates the "dormant" Commerce Clause. Since that decision, several exceptions to this general principle have developed. MSW in Clark County is directed to the County contracted, privately owned facilities through contractual agreements between the haulers and municipalities or interlocal agreements between the County and municipalities.

On April 30, 2007, the U.S. Supreme Court ruled in *United Haulers Association Inc. v. Oneida-Herkimer Solid Waste Management Authority* that local governments are permitted to engage in flow control to government-owned disposal facilities or government contracts in specific circumstances. The Court concluded that flow control laws that favor government-owned disposal facilities do not discriminate against interstate commerce, and are reviewed under a more lenient balancing test. The Court's decision narrows the impact of the Court's *Carbone* decision in 1994.

Within Clark County, the *Solid Waste Management Plan*, interlocal agreements with the cities and city collection contracts all direct MSW collected by the contracted hauler to be delivered to County designated transfer facilities operated by CRC under contract with Clark County. CRC is a wholly-owned subsidiary of Waste Connections. Waste Connections provides the majority of MSW collection services within the County either through contract or a franchise granted by the WUTC. The County contract with CRC requires Waste Connections to deliver MSW collection under the WUTC franchise or through contract to the designated County transfer system.

Central Transfer and Recycling Center

Central Transfer and Recycling Center (CTR) is located at 11034 N.E. 117th Avenue (State Route 503). Operations began at this site in 1985 as the R&R Transfer Station.

CRC purchased this facility in 1990 to use as one of the two transfer stations it was required to provide by contract with the County. Under CRC ownership the site has been substantially upgraded and improved to handle increased traffic and waste flows and to accept HHW. During the second half of 1991, CRC reconstructed and expanded the old R&R site to include a new 40,000-square-foot transfer building with a hydraulic compactor unit. The old transfer building was expanded to 13,000 square feet and converted for use as a drop-off area for HHW and source-separated recyclable materials. New entry and scalehouse facilities were also added. The new transfer station building began operating in January 1992.

In addition to MSW, CTR accepts commercial waste including construction and demolition wastes, source-separated recyclable materials, HHW and other special wastes. Special wastes such as asbestos, petroleum-contaminated soils, ash, certain sludges and bulky wastes can be delivered to CTR with advance notice and completion of a special waste application issued by CRC.

CTR recovers both source-separated and non-source-separated recyclable materials. Source-separated materials are delivered to a public drop site separate from the main CTR tipping floor. Non-source-separated recyclable materials are recovered by CRC staff from selected loads on the tipping floor. Most tipping floor recovery occurs from drop-box and self-haul loads including construction and demolition (C&D) sourced materials, not from compacted loads of mixed residential and commercial wastes. These recovered materials include corrugated cardboard, wood, metals and other materials deemed economically recoverable. Recycled materials accumulated at CTR are either delivered directly to secondary markets or transferred to CRC's West Van facility for further processing.

MSW delivered to CTR is either top-loaded into transfer trailers or end-loaded by hydraulic compactor units into shipping containers. Solid wastes that are top-loaded are less compacted and could be transported to the West Van facility for processing to divert additional recyclable materials. Solid wastes that are compacted into shipping containers are transported by truck directly to the barge-loading facility at Tidewater Barge Lines in the Port of Vancouver. They are then shipped upriver via barge for final transport to the Port of Morrow and ultimately the Finley Buttes Landfill. Tidewater Barge Lines is the contracted transport company that manages all segments of transportation from the transfer station all the way to the landfill (at times of the year when river locks are being serviced, the containers are delivered the entire distance by truck).

As required by contract, HHW is accepted from residential self-haulers in the receiving area of the recycling/HHW building on designated days each week. HHW is received, sorted and packaged prior to its removal from CTR by a licensed contractor and transported directly to a state-permitted treatment, storage and disposal facility. (Other hazardous materials accidentally or illegally disposed of with regular waste are also removed from MSW by CRC personnel when seen on the tipping floor. Load check spotters, equipment operators and other station personnel have been trained to identify and isolate unacceptable and/or unauthorized wastes for proper handling and disposal, separate from MSW.)

CTR does have challenges regarding ingress, egress and on-site traffic management. The State Department of Transportation also plans in the next few years to place a traffic barrier on N.E. 117th Avenue. This will prevent a left turn into the facility (traveling north on 117th Avenue) and a left turn out of the facility.

West Van Materials Recovery Center

The West Van Materials Recovery Center (West Van) facility is located at 6601 NW Old Lower River Road, on the west side of Vancouver. Most of the waste delivered to this facility is generated in West and North Vancouver. This facility functions as both a transfer station and a materials recovery center for residential curbside and multi-family as well as commercial recycling materials and receives:

- Regular garbage (MSW) from private waste collection companies and self-haulers;
- Source-separated recyclable materials delivered by the public, including scrap metal, appliances, sheetrock and other materials;
- Household Hazardous Waste;
- "Dry" loads of commercial materials that have a high potential for recyclable materials recovery;
- Construction and demolition wastes (C&D);

- Yard debris, land clearing debris and other wastes, requiring special handling or processing;
- Source-separated recyclable materials collected through county/city curbside and multi-family collection programs as well as the commercial commingled recycling collection programs (Vancouver Recycles and Clark County Recycles) and delivered by the contracted operator;
- In accordance with the operations plan, organics/food waste from commercial generators may be reloaded within the transfer station building for delivery to permitted composting sites or transfer facilities located beyond Clark County.

The West Van Facility includes an 82,000-square-foot main building, entry and exit scales, control facilities, a container and drop-box storage area, administration and employee buildings, recycling drop-off area, a glass processing and aggregate storage area, and a stormwater detention and treatment area. The facility also includes several operational components: a tipping floor/material recovery area; C&D processing area; a large sorting & processing area for recyclables; an HHW receiving and storage area; an appliance/scrap metal drop-off area, and a wood waste/yard debris storage. The tipping floor/material recovery area has separate bays for self-haulers and waste collection vehicles to unload MSW. Self-haulers unload on the east side of the facility, while certificated/contracted haulers unload on the northeast end of the facility. Loads with a high recycling potential are manually sorted to recover recyclable materials.

Residual wastes are pushed into a compactor for loading into shipping containers. The containers are then transferred to the Tidewater Barge Lines barge loading facility for shipment upriver for final transport to the Finley Buttes Landfill. Recyclable materials are trucked to end markets.

Washougal Transfer Station

The Washougal Transfer Station (WTS) facility is located at 4020 South Grant Street, on the southeast side of Washougal in the Port of Washougal area. Most of the waste delivered to this facility is generated in Camas, Washougal and east Vancouver/east Clark County, though some material is from Skamania County. This facility functions as a transfer station, public recycling drop-off facility, and HHW collection site (one day per month). Unlike the other transfer stations, this site operates for the public on a limited schedule but available of use by collection vehicles on all days that collection routes operate. The site provides the following functions:

- Accepting regular garbage (MSW) from private waste collection companies, the City of Camas and self-haulers;
- Accepting source-separated recyclable materials delivered by the public, including scrap metal, appliances and other materials; and,
- Accepting Household Hazardous Waste.

The 2000 Clark County Solid Waste Management Plan recommended that an east county transfer station be developed and included in the solid waste management system as an essential public facility. The County contract with CRC provided for the company to site, construct and operate a third transfer station east of I-205. A site in the Port of Camas and Washougal was selected through a feasibility study conducted by CRC, construction began in mid 2008 and the Washougal Transfer Station became operational at the beginning of 2009.

Waste received at this facility is transported via truck from the transfer station to the landfill in Wasco County, Oregon.

English Pit Transfer Station (Closed)

The former English Pit Transfer Station was located at 912 N.E. 192nd Avenue in Eastern Clark County. The facility is owned by Clark County and was operated as a transfer station from 1978 to March 1989. The facility consisted of a 6,000 square-foot transfer building, a pay booth and administration building. The Roads and Maintenance Division of the Clark County Department of Public Works is currently using the facility for equipment and material storage.

Future Transfer Station Needs and CTR Traffic

The existing system of the three transfer stations can be modified or upgraded, as needed and as possible, to maintain or improve existing levels of service. The existing contract with CRC provides the option to determine if a fourth transfer station is needed. If a fourth transfer station is to be developed, the contract provides for CRC to site, construct and operate this station for the County.

Funding options and timing of construction of a turn lane and any other potential improvements to CTR will be presented to SWAC and city representatives for review of alternatives and the potential funding mechanisms.

Existing interlocal agreements with the cities require any rate increase that may result from implementation of the recommended alternative be approved by the County only after notice to, and consultation with, the affected cities.

Waste Quantities

Both CTR and West Van have been designed to receive and transfer up to 1,000 tons per day of solid waste under the current operations schedule. The Washougal Transfer Station was designed to handle 50,000 tons of waste per year (about 160 tons per day). In 2013, a combined total of 248,640 tons of waste was received at all three facilities and of this 242,488 tons was sent to landfills. This volume is down significantly from the 282,508 tons that was sent to the landfill in 2006. Of the tonnages handled in 2013, West Van received 44,128 tons of waste, CTR received 181,385 tons of waste, and WTS received 23,127 tons of waste. The economic recession which began in 2008 has contributed to reduced waste being generated for both recycling and disposal. Waste reduction and slowed growth in the economy and the local population help to extend the capacity of the regional waste transfer and recyclables processing infrastructure.

- Influences on MSW quantities in the transfer and processing system may include:
- The rate of increase and the distribution of population and commercial growth in the County;
- The ability of the County and cities to direct the flow of waste generated within their jurisdictions;
- Unauthorized export of MSW out of the County disposal system;
- Mandatory collection in cities and in all or portions of the County;
- The effectiveness of waste reduction and recycling programs;
- Improvements in technology and capacity of recycling processing equipment;
- The strength of recovered material markets and prices;

- Changes in contractual and legal definitions of some components of the waste stream;
- Changes in waste composition resulting from upstream changes in goods production, product distribution markets or recovered material prices; and
- Import of waste to the Clark County system.

Table 8-1 projects waste tonnage over the next twenty-year period. Projected landfill tonnage for 2015 is comparable with 2006 tonnage levels.

Table 8-1

Projected Annual Tonnage			
Year	Waste Stream	Landfill Tons	Residential Recycling Tons
2012	665,765	231,487	35,144
2015	627,925	242,777	37,295
2020	662,770	262,831	41,176
2025	704,768	284,541	45,462
2030	750,820	308,044	50,194
2034	789,819	328,237	54,331

Note: Projections show an average 1.6% annual increase in landfilled tonnage; an average 1.3% increase in the total waste generated; an average 2% annual increase in residential recycling tons; a 49% average recovery rate; population projections based on estimates from the US Census Bureau and State of Washington Office of Financial Management.

Six-year Capital Projections and Financing Plan

As described in the sections above, the three system-transfer facilities currently have through-put design capacity. It should be noted that not all of the total waste stream tons shown above are coming to and being processed at the system transfer facilities. The generation rate for landfilled tons and the percent of waste recovered (and diverted from the landfill) have remained fairly consistent.

There is approximately a total capacity of 2,000 tons per day at the three facilities. Current tonnage levels reflect 39% of design capacity. Reaching full capacity would require increasing operating hours and redirecting scheduled routes from one facility to the other. It is possible to run second and third shifts at some of the transfer facilities. The region would reach 100% of designed capacity with projected tonnages during 2034. However, even with through-put capacity, greater limitations are associated with traffic flows and ingress/egress capabilities.

A feasibility study to determine if a fourth transfer station is needed in the northern part of the County combined with an evaluation of improvements to CTR will provide a solution from the two options. Planning for any improvements to the system (either a fourth transfer station or improvements to CTR) will be during the next five years.

Funding options for any capital improvements or acquisitions will be evaluated with any decision to move forward on a project. Funding options may include:

- extending the contract term with CRC to allow additional time to recoup capital and, if applicable, operating costs;

- system-wide increases to the tipping fees and/or transaction fees; and,
- facility specific increases to transaction fees.

Existing interlocal agreements with the cities require any rate increase be approved by the County only after notice to and consultation with the affected cities. This includes any increase that may result from planned capital improvements to the system. Tipping fee and/or transaction fee increases would also be reviewed by the WUTC as these would be pass through rates on collection services. Specific information will be available for review when alternatives have been reviewed, a decision as to the direction for capital improvements is made, and cost estimates of the project are established.

The MRF at West Van processes all of the recyclables coming from the region. The facility is also accepting out of region recyclables and processing this material by running a second shift. If regional capacity was needed, the out of region recyclables would be directed to another facility. The West Van MRF also has the capacity to run a third shift. In consideration of these operational alternatives, the facility has through-put capacity over the twenty-year period.

Recommendations

1. **Evaluate the future needs of the north county area.** This analysis should consider population and economic growth and the potential to increase the number of residents taking advantage of scheduled collection services as well as an evaluation for upgrading CTR to address near-term and future traffic concerns. Any future facility would be sited in accordance with the guidelines and criteria listed in Appendix M. (8-5 to 8-7)
2. **Explore the option to purchase the CRC waste transfer system facilities** by contract option date of 2020 with ownership in 2027. (8-1)
3. **Environmental Management Systems (EMS) program** should be required, when appropriate, in contracts. (4-5)

End of Chapter 8

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