

# Metro Food Scraps Capacity Project: Task1 Report -Transfer System Capacity Evaluation

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The Food Scrap Capacity Evaluation project is being conducted to identify and assess alternatives for increasing the Metro region's food scraps transfer and processing capacity that can be implemented within the next 1 to 7 years. As part of this evaluation, Metro has contracted with CH2M HILL to gather information about the existing public and private solid waste transfer system and the transfer system's ability to manage future increases in food scraps tonnages under a variety of scenarios.

The three main objectives of the transfer system capacity project are:

1. Obtain an understanding of the capacity available at public and private transfer stations in the region to accept and manage 50,000 to 75,000 tons per year of commercial food scraps delivered under a variety of scenarios.
2. Obtain an understanding of the capacity available at public and private transfer or reload stations in the region to accept and manage up to 230,000 tons per year of residential food scraps/yard debris mix.
3. Develop options and recommended best approaches for most efficient/effective transfer scenarios to serve the region.

The results of the study will help staff communicate the option(s) and their relative advantages and disadvantages to the Metro Council and stakeholders. This technical memorandum summarizes the activities that were conducted during this project as well as the general themes and conclusions determined from this analysis.

## Information Collection and Stakeholder Engagement

Metro identified 15 different facilities for inclusion in the stakeholder engagement process. These 15 facilities had one or more of the following characteristics:

- Fully permitted transfer stations currently accepting food scraps or a food scraps and yard debris mix.
- Fully permitted transfer stations with the ability to accept food scraps in the near future, but not doing so now.
- Facilities that are reloads or that have the infrastructure in place to realistically consider accepting food scraps in the near future (but are currently not permitted to do so).

Metro prepared an introductory letter describing the background and goals of the project and let each stakeholder know that CH2M HILL would be contacting them for an interview and site visit.

Table 1 (attached) shows the list of facilities and contacts that were sent letters. Attachment 1 includes a map showing these facilities and their location in relation to each other and to existing/potential food scrap processing facilities.

Prior to contacting stakeholders, CH2M HILL reviewed franchise agreements, non-system licenses, and tonnage information (provided by Metro) to obtain an initial understanding of the facilities. CH2M HILL contacted each stakeholder in Table 1 and conducted either a phone or in-person interview. Interviews were conducted between February 27, 2015 and March 19, 2015.

Each interviewee was asked a series of questions relating to existing operations, current capacity to handle food scraps, future capacity to handle food scraps, barriers to accepting food scraps, incentives, and opinions about the optimal role for Metro in regards to food scraps management. Onsite/in-person interviews were followed with a brief tour of the facility.

## Analysis

For this analysis, CH2M HILL relied on the information collected through the stakeholder engagement process described previously to evaluate current and future capacity to handle food scraps, barriers and incentives to accepting food scraps, and gain insight into the optimal role for Metro in regards to food scraps management (transfer and process of food scraps). All tonnage data are based on estimates provided by interviewees. Using this information, CH2M HILL focused on the following three primary categories: commercial food scraps, residential food scraps/yard debris, and system impacts. Each of these is further discussed in the following paragraphs.

## Commercial Food Scraps

Responses on commercial food scrap capacity obtained from the interviews are summarized in Table 2.

The ultimate question of interest for commercial food scraps is whether there is adequate capacity in the existing transfer system to manage 50,000 to 75,000 tons per year of commercial food scraps and, if not, what needs to be done to add the needed capacity. Currently, the following facilities are receiving commercial food scraps:

- West Van Materials Recovery Center (West Van) – approximately 1,200 tons per year
- Willamette Resources, Inc. (WRI) – approximately 7,200 tons per year
- K.B. Recycling Inc. Canby Facility – a couple of loads per day (estimated at 3 tons per day or 780 tons per year)
- Metro Central Transfer Station (MCS) – 18,684 tons per year

As shown, MCS currently receives the majority (~70 percent) of commercial food scraps from the region; with the remainder divided amongst the private facilities. Currently, approximately 27,864 tons per year of commercial food scraps are transferred at these facilities.

Facilities that could take additional commercial food scraps without making capital improvements include:

- West Van – 1,800 tons per year
- Troutdale Transfer Station – 0 to 10,000 tons per year
- MCS – 11,316 to 31,316 tons per year additional capacity

West Van currently has an additional 1,800 tons per year of unused capacity. Troutdale Transfer Station is authorized but not currently receiving commercial food scraps, but estimates they could take up to 10,000 tons annually. For MCS, Paul Ehinger (Metro's Director of Solid Waste Operations) estimated that in addition to the current capacity, the facility could take another 10,000 to 20,000 tons of commercial food scraps without displacing any other material or 30,000 tons if another commodity were displaced (dependent on Metro priorities). This adds at least another 13,116 to 43,116 tons of capacity for West Van, Troutdale Transfer Station, and MCS.

Gresham Sanitary Services (GSS) is only permitted to reload food scraps from its own route trucks and cannot currently provide transfer services. Pride is currently receiving some commercial food scraps (see

Table 2). In addition to the existing capacity, several facilities could take additional commercial food scraps if they made capital investment in their sites.

Facilities with additional space on their existing sites and/or other parcels of nearby land that could be used for commercial food scraps management include (see additional details in Table 2) the following:

- West Van – plenty of land available at site
- Forest Grove Transfer Station – facility would need to be reconfigured
- Troutdale Transfer Station – some modifications (10,000 to 50,000 tons per year)
- WRI – 10 acres of adjacent land
- Pride Recycling Company – planning an expansion to existing building and has additional land available
- K.B. Recycling, Inc. Clackamas Facility – 5 acres adjacent land
- K.B. Recycling, Inc. Canby Facility – some potential on existing land
- Hillsboro Garbage & Disposal – needs significant capital improvements
- MCS – unknown, potential land available
- MSS – retrofit part of the road map project (12,688 tons per year)

Some of these facilities would also need to have their permit changed (as noted in Table 2). Interviewees were not willing to provide information on the dollar amount of investment required to boost their capacity or the actual estimate of increased capacity. Further detailed analysis would be required to make specific estimates. Metro South Station has undergone detailed analysis as part of the road map project and therefore was able to provide a firm estimate for commercial food scrap capacity (12,688 tons) with capital improvements. For purposes of this evaluation, we will use a conservative estimate of 12,688 tons (knowing it is much higher based on the available land and interest in accepting more food scraps by the other private transfer stations as shown above and in Table 2). Troutdale Transfer Station estimates they could take 10,000 to 50,000 additional tons per year with capital improvements.

FIGURE 1  
**Estimated Commercial Food Scraps Capacity**

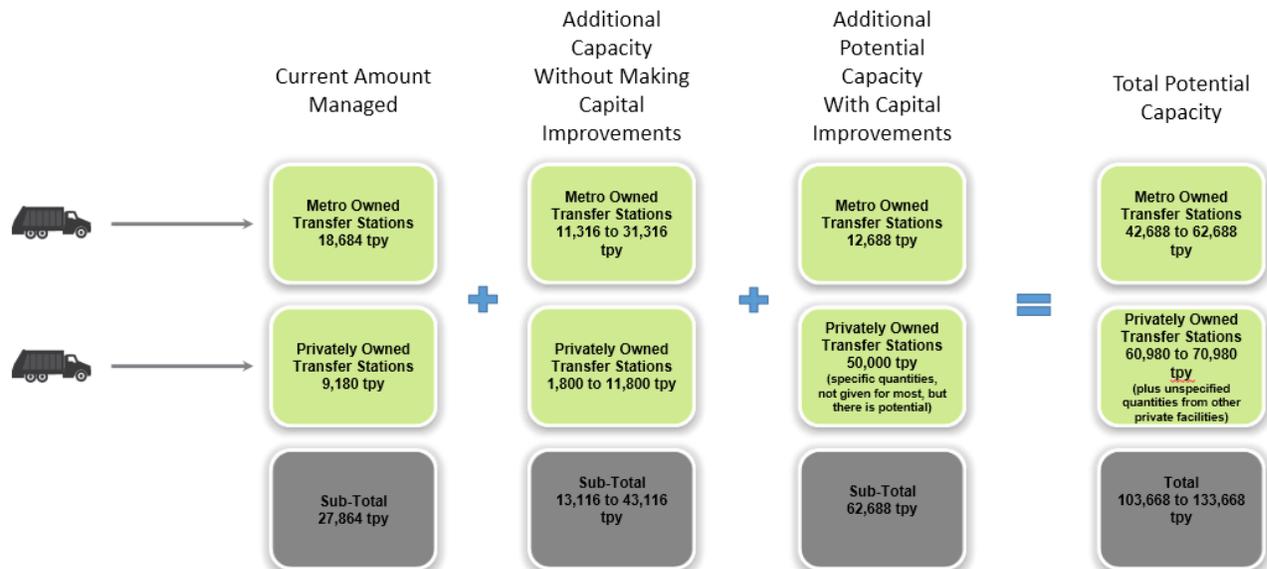
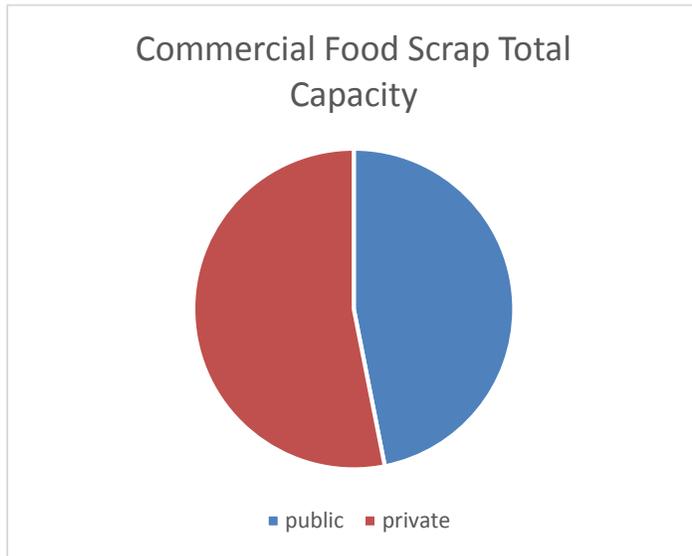


Figure 1 summarizes the estimated commercial food scraps capacity for the region and illustrates that there is an estimated total commercial food scrap capacity of 104,000 to 134,000 tons per year, plus additional

(unpermitted) potential capacity at facilities like GSS and unquantified capacity from other private facilities (based on conversations about potential capital improvements).

As shown in Figure 2, the total potential commercial food scrap capacity that could be provided by public versus private facilities is about even, with a slight majority provided by private facilities. However, currently most of the capacity is supplied from the public transfer stations (MCS).

FIGURE 2  
**Public vs. Private Commercial Food Scrap Capacity**



Assuming the tonnage estimates are accurate, the region currently has enough capacity to manage the lower tonnage requirement of 50,000 tons without completing capital improvements. This capacity could be provided by the following facilities: WestVan, WRI, K.B. Recycling Inc., Canby Facility, Troutdale Transfer Station, and MCS. These facilities provide some level of coverage in all reaches of the region except for the west. Additional capital improvements and some NSL approvals or permit modifications would be needed to meet the upper limit of the tonnage requirement of 75,000 tons of commercial food scrap capacity. Barriers, incentives, and system elements that would be required to secure this additional capacity are further discussed in the

section titled Barriers and Incentives to Accepting Food Scraps.

### Residential Food Scraps and Yard Debris

Interview responses about residential food scraps/yard debris capacity are summarized in Table 3.

The interviews were intended to address whether there is adequate capacity for residential food scraps mixed with yard debris (up to 230,000 tons per year) in the existing transfer system if the region implements residential food scraps/yard debris collection programs. If not, what steps would be required to obtain that additional needed capacity. Currently, the following facilities are receiving residential food scraps/yard debris mixed (this does not include facilities that are currently taking yard debris without food):

- West Van – 1,200 tons per year
- WRI – approximately 800 tons per year
- K.B. Recycling Inc. Canby Facility – a couple of loads a day (estimated at 3 tons per day or 780 tons per year)
- Suttle Road Recovery Facility – 52,000 tons per year
- MCS – 27,673 tons per year
- MSS – 35,090 tons per year

As shown, MCS and MSS currently receive the majority of residential food scraps/yard debris from the region, with the remainder divided amongst the four private facilities. In total, these facilities are currently taking approximately 118,000 tons per year of food scraps/yard debris.

Facilities that could take additional residential food scraps/yard debris without making capital improvements (but changing current operations slightly) include the following:

- West Van – 8,800 tons per year
- Troutdale Transfer Station – 20,000 tons per year
- Suttle Road Recovery Facility – another 52,000 tons per year
- MCS – another 10,000 to 20,000 tons per year plus the unused current capacity (22,327 tons per year)
- MSS – unused capacity of 4,910 tons per year (40,000 - 35,090=4,910)

West Van has 8,800 tons per year of unused residential food scrap/yard debris capacity. Troutdale Transfer Station surmises that they could take 20,000 tons per year. Suttle Road Recovery Facility could potentially double their existing capacity and provide approximately 52,000 tons of additional capacity. For MCS, the facility could take another 10,000 to 20,000 tons of residential food scraps/yard debris on top of the current capacity. Based on this information, the region has another 118,000 to 128,000 tons of residential food scraps/yard debris transfer capacity. In addition to the existing capacity, several facilities could take additional residential food scraps/yard debris if they made capital investment in their sites. Facilities with additional space on their existing sites and/or other parcels of nearby land that could be used for residential/food yard debris management include the following:

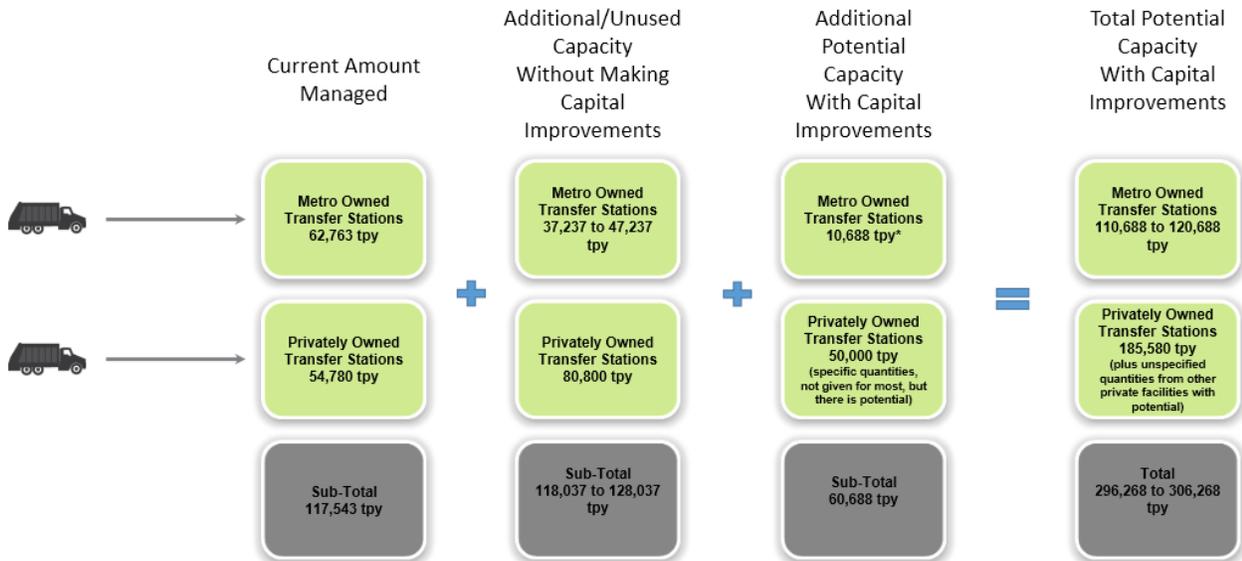
- West Van – plenty of land available at site
- Forest Grove Transfer Station – facility would need to be reconfigured
- Troutdale Transfer Station – some modifications (50,000 tons per year)
- WRI – 10 acres of adjacent land
- Pride - facility could accept some food waste now, and also has additional land that could be improved to increase capacity
- Woodburn Transfer Station – 7 acres of adjacent land
- K.B. Recycling, Inc. Clackamas Facility – 5 acres adjacent land
- K.B. Recycling, Inc. Canby Facility – some potential on existing land
- Hillsboro Garbage & Disposal – needs significant capital improvements
- MCS – unknown, potential land available
- MSS – retrofit part of the Road Map project (50,688 tons per year)

Some of these facilities would also need to have their permit changed (see Table 3 for details). Most interviewees were not willing to provide information on the dollar amount of investment required to boost their capacity.

Only MSS (50,688 tons) and Troutdale Transfer Station (50,000 tons) have estimates for residential food scraps/yard debris capacity with capital improvements. The MSS estimate was derived from the solid waste road map project that has been conducted to evaluate alternative options for rebuilding that facility. All of the options that were included in that road map project involve a complete rebuild of the facility and therefore the 40,000 tons per year of capacity that is associated with the current building will no longer be available. So even though each option includes 50,688 tons per year of capacity, there is only 10,688 tons per year of additional capacity (50,688-40,000 = 10,688). For purposes of this evaluation we will use a conservative estimate of 10,688 tons for that station (knowing it is much higher based on the available land that could be used to expand existing transfer operations and interest in accepting more food scraps by the other private transfer stations as shown above and in Table 3). Troutdale Transfer Station provided an estimate of an additional 50,000 tons of potential capacity with capital improvements.

Figure 3 summarizes the estimated residential food scrap/yard debris capacity for the region and illustrates that there is an estimated total of 296,000 to 306,000 tons available, plus additional capacity from other private facilities. When compared to the commercial food scrap capacity, it appears there is much more residential food/yard debris capacity. This could be because of the willingness of a facility to take residential food scraps/yard debris compared to commercial food scraps, as supported by the comments about barriers and incentives in the interviews. The hauling and handling of commercial food scraps is more challenging (largely because of the high moisture content and odor potential) as is the permitting of the facility.

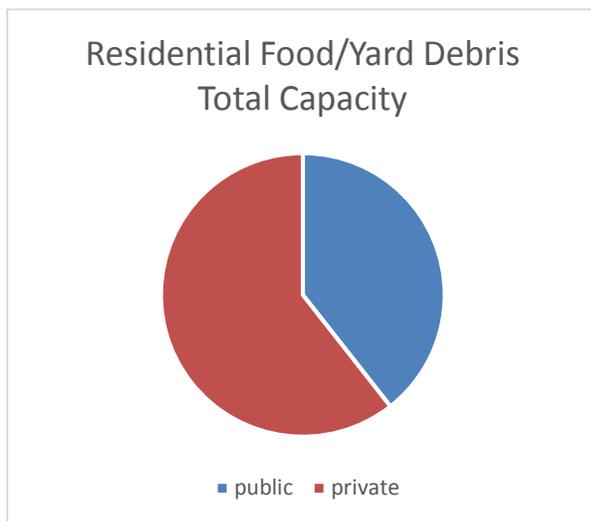
**FIGURE 3**  
**Estimated Residential Food Scrap/Yard Debris Capacity**



\*note: In order to not double count, only showing the difference between the MSS retrofit and MSS current capacity

As shown in Figure 4, the total potential capacity that could be provided by public versus private facilities is about even, with a slight majority provided by private facilities.

**FIGURE 4**  
**Public vs. Private Residential Food Scrap/Yard Debris Capacity**



Assuming the tonnage estimates are accurate, the region currently could manage the 230,000 tons per year of residential food scraps/yard debris capacity if a required recovery ordinance or disposal ban was put in place. This capacity could be provided by the following facilities: West Van, WRI, K.B. Recycling Inc. Canby Facility, Suttle Road Recovery Facility, Troutdale Transfer Station, MCS, and MSS. These facilities provide coverage in all reaches of the region except for the west. Barriers, incentives, and system elements that will be required to secure this capacity are further discussed in the following section.

## Barriers and Incentives to Accepting Food Scraps

Each of the facilities interviewed were asked about the barriers to accepting commercial food scraps and residential food/yard debris and about what incentives would encourage acceptance of food scraps. Tables 4 and 5 summarize the findings (for the most part, interviewees did not distinguish between commercial or residential food scraps when answering these questions).

### Barriers

As shown in Table 4, a variety of barriers to accepting food scraps were mentioned. These include known/nearby processor, truck types, end markets, contamination, uneven playing field, and regulatory/permitting issues. The most common barriers are discussed in the following sections.

#### Known or Nearby Processor

Eight of the facilities interviewed listed not having a known or nearby processor as a barrier. For commercial food scraps, there are limited processing options, none of which are located within the region. There is also some uncertainty about what processors will still operate after 2019 due to the unknown outcome of the food scraps capacity roadmap project.

For residential food scraps/yard debris there are a few options, but all are outside the region. Residential food/yard capacity is further challenged because of a general shrinking of capacity at regional yard debris facilities. This results in yard debris being directed to facilities that are permitted to take residential food/yard debris, further taxing overall processing capacity.

#### Regulatory/Permitting Issues

Six of the facilities interviewed listed regulatory/permitting issues as a barrier. Several facilities discussed their own experience (all of which was very difficult) obtaining regulatory approval and permitting. Some of the additional capacity depends on the facilities' ability to obtain a change in land use or permission to accept food scraps.

#### Contamination

Five of the facilities interviewed listed contamination as a barrier. This is primarily a problem for the processor and further constrains the limited processing capacity. Some of the existing processors have more stringent contamination clauses than others.

#### Uneven Playing Field

Three of the facilities interviewed listed "uneven playing field" as a barrier. For some facilities, uneven playing field was mentioned when discussing how not all facilities abide by the food only standards set by Metro (note: Metro did not establish a region-wide food-only standard. It set acceptance standards only for commercial food scraps loads delivered to Metro Central.).

### Incentives

As shown in Table 5, the types of incentives for increasing food scrap transfer capacity that were mentioned were limited to four main categories. These include guaranteed/known processor, guaranteed flow, structured so others can be competitive, and economically feasible. The most common incentives are discussed in the following sections.

#### Economically Feasible or Profitable

Nine of the facilities interviewed discussed the need for making acceptance of food scraps economically feasible and set up in a manner that private facilities can make a profit. Having a tip fee that covers cost was assumed as a starting point, however the specifics of what this entails were not discussed. The idea of grants, loans, and other assistance was welcomed.

## Structured so Others Can be Competitive

Four of the facilities interviewed discussed the desire for structuring the food scrap collection, transfer, and processing system so that they could be competitive or in other words, provide a level playing field. This means different things for different facilities. Some expressed the need for private facilities to be competitive with publicly-owned facilities (since they do not have to make a profit) and others were interested in making sure they could be competitive with other private facilities that already had an “advantage”. For instance, some companies are vertically integrated and have collection, transfer, and processing while others are merely a transfer or reload facility. Interviewees did not provide specific suggestions on how this could be accomplished or incented, however it was a common theme.

## System Impacts

As discussed previously, there is currently enough capacity to manage the overall lower limit of the commercial food scraps (50,000 tons per year) as well as the residential food/yard debris (230,000 tons per year) using the existing transfer system. All of this can be done without displacing other materials (all private facilities were only interested in providing capacity without displacing other materials, the public transfer stations discussed capacity that involved displacement of materials, dependent on Metro priorities). However, this considers overall system capacity, assumes policies are in place to drive material to the stations, and does not consider the practical and economic need to match generators to capacity in various sub-geographies within the Metro region. Based on the results of this study, we know that unless capital improvements are made, the western portion of the region does not have adequate transfer capacity.

A sub-regional capacity study would be a next step for further investigation. The results of this type of analysis could identify and clarify the extent of potential capacity gaps and could also help incentivize food scraps transfer by providing additional information about likely generation in each area of the region.

One of the system impacts explored was Metro’s optimal role. Responses included recommending that Metro set up the program (introducing a ban and performing stakeholder engagement) and then were hands off as well as Metro providing services that could not be provided by private facilities.

## Tables

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TABLE 1

Facility	Address	Contact
West Van Materials Recovery Center	6601 NW Old River Road, Vancouver, WA	Derek Ranta, Kevin Miracle and Chris Nottenkamper
Forest Grove Transfer Station	1525 B Street, Forest Grove, OR 97116	Kirk Duncan
Troutdale Transfer Station	869 NW Eastwind Dr., Troutdale, OR 97060	Dean Kampfer
Gresham Sanitary Services (GSS)	2131 NW Birdsedale Ave., Gresham, OR 97030	Matt Miller and Larry Head
Willamette Resources Inc. (WRI)	10295 SW Ridder Road, Wilsonville, OR 97070	Brian May
Woodburn Transfer Station	2215 North Front St., Woodburn, OR	Matt Cofer
Pride Recycling Company	13910 SW Tualatin-Sherwood Road, Sherwood, OR 97140	Mike Leichner
K.B. Recycling, Inc. Clackamas Facility	9602 SE Clackamas Road, Clackamas, OR	Andy Kahut
K.B. Recycling, Inc. Canby Facility	1600 SE 4th Ave., Canby, OR	Andy Kahut
Suttle Road Recovery Facility	4044 N. Suttle Road, Portland OR 97217	Ame Lecocq
Foster Road Recovery Facility	6400 SE 101st Ave., Portland, OR 97266	Ame Lecocq
Metro Central Transfer Station	6161 NW 61st Ave., Portland, OR	Paul Ehinger
Metro South Transfer Station	2001 Washington St., Oregon City, OR 97045	Paul Ehinger
Hillsboro Garbage & Disposal	4945 Southwest Minter Bridge Road, Hillsboro, OR	Tim Brady
S&H Recycling	1601 N Columbia Blvd. , Portland, OR	Will Gehr

TABLE 2  
Commercial Food Scraps Capacity

General Information			Current Capacity		Additional Future Capacity - Without Capital Changes		Additional Future Capacity - With Capital Changes	
Facility	Address	Type	Approval	Current Commercial Food Scraps	Future Commercial Food Scraps	Comments	Future Commercial Food Scraps	Comments
West Van Materials Recovery Center	6601 NW Old River Road, Vancouver, WA	Transfer Station/MRF	100 tpm food waste per food waste pilots NSL for 13,000 tons food scraps Portland	3,000 tpy commercial from Portland (currently receive 100 to 200 tons per month of residential and commercial; assume split for calculations or 1,200 tons per year each).	unused current capacity (3,000-1,200 = 1,800)	Logistically, based on current operation couldn't handle more than the 13,000 tons of food scraps in the NSL from the Metro area, other two facilities couldn't take either. If take more food waste, it would take space currently used for "hiccups" and storing of commodities when market down.	unknown	Own plenty of land at Old River Road site. Would need to build separate covered area.
Forest Grove Transfer Station	1525 B Street, Forest Grove, OR 97116	Transfer Station	Not receiving	0	0	Food waste would be very challenging due to physical space, would take some reconfiguration	unknown	Facility would need to be reconfigured. Would need separate off loading ramp for food scraps
Troutdale Transfer Station	869 NW Eastwind Dr., Troutdale, OR 97060	Transfer Station	Authorized not receiving	0	0-10,000 tons annually	Recently submitted NSL for Troutdale to transfer to Dirt Hugger. No displacement, just need to make space.	10,000 to 50,000 tons	
Gresham Sanitary Services (GSS)	2131 NW Birdsdales Ave., Gresham, OR 97030	Internal Transfer	Not receiving	0	yes, if can make profit lots of pass through capacity	Food scraps not off loaded at this facility.	N/A	
Willamette Resources Inc. (WRI)	10295 SW Ridder Road, Wilsonville, OR 97070	Transfer Station and MRF	Receiving both residential and commercial. NSL for 12,000 tpy to PRC and working on expanding Working on getting NSL or DFA for SHORE	2013 was 7,417 tons comm ~8,000 tpy total organics of which 90% is commercial =7,200	not without making improvements	Have plans for capital improvements, which include expanding cover and existing building 50 ft, could open up space for more organics	yes, if can make profit	Have 2 parcels of land (10 acres) to the North, could be used if needed.
Woodburn Transfer Station	2215 North Front St., Woodburn, OR	Transfer Station	Not receiving	0	0	No capacity for residential or commercial food scraps without facility modification (space inadequate).	N/A	not interested in commercial, too difficult
Pride Recycling Company	13910 SW Tualatin-Sherwood Road, Sherwood, OR 97140	Transfer Station/MRF	Authorized and receiving commercial	2-3 tons/week of food waste, 1 day/week (104-156 tpy) (commercial customers collected by Pride and reloaded) then to WRI	Probably space for a total of 30-60 tons per day (for reloading) without any changes.	Not at capacity. Currently running 1 shift Could accept more commercial food scraps without making any changes. Using most of floor space, but have some area that could be used. Note: were looking into direct haul to CVO, but need a weekly 30 ton minimum to make this economical.	unknown	Planning to do a expansion to existing building that would free up some more space.
K.B. Recycling, Inc. Clackamas Facility	9602 SE Clackamas Road, Clackamas, OR	MRF	No food – land use permit currently precludes them from taking food	0			maybe - permit change needed	5 acres of undeveloped land, could expand on land that was rented by lumber company for years (see photo). If decided to accommodate food, would build whole new facility for food and leave current operation alone.
K.B. Recycling, Inc. Canby Facility	1600 SE 4th Ave., Canby, OR	Primarily Solid Waste Transfer Station	Taking both comm and resi	A couple of loads a day from KB Recycling Company, do some limited commercial. Assume: (3*52*5=780 tpy)	unknown	Could probably take some more food scraps in a transfer capacity. Don't think many changes, add a couple of bunkers (use eco blocks currently), could do pretty easily.	maybe	Need to double check land use permits. Food scraps need to be contained in an area next to pit. Don't have a way to dump over.

TABLE 2  
Commercial Food Scraps Capacity

General Information			Current Capacity		Additional Future Capacity - Without Capital Changes		Additional Future Capacity - With Capital Changes	
Facility	Address	Type	Approval	Current Commercial Food Scraps	Future Commercial Food Scraps	Comments	Future Commercial Food Scraps	Comments
Suttle Road Recovery Facility	4044 N. Suttle Road, Portland OR 97217	MRF	Accepts Residential Food Scraps Cannot accept Commercial Food Scraps – landuse restriction on commercial	0	unknown	No permitted limitation, just about flow, space, and trucks (whatever makes business sense) Currently running 1 shift for organics, 2 shifts for processing of dry waste Could potentially amend CUP with City of Portland to take commercial (last time it took 18 months, permitting process is very challenging). Good neighborhood agreement with St. John’s neighborhood, may be open to comm food scraps recovery at facility.	unknown	
Foster Road Recovery Facility	6400 SE 101st Ave., Portland, OR 97266	Reload	Reload was permitted for resi food/yard, but had a lot of opposition, facility closed. Reopened recently for wood and yard debris (NO FOOD)	0	0	Engineering controls required, too costly, land use approval now expired so would have to go through all that again. Too much opposition	0	Too much opposition
Metro Central Transfer Station	6161 NW 61st Ave., Portland, OR	Transfer Station	Taking both comm and resi	Current receiving 18,684 tpy; capacity 20,000 tons	10 to 20k tons additional commercial food scraps Could do another 30k if displaced something else	Could probably accept ~100,000 tons organics total, this could be done without initial capital improvements; eventually would have to do maintenance (commercial organics are very harsh).	unknown	
Metro South Transfer Station	2001 Washington St., Oregon City, OR 97045	Transfer Station	Taking resi	Can’t handle commercial food scraps due to the liquid	N/A	No additional capacity with current configuration	All 3 MSS retrofit options include commercial food scrap capacity of 12,688 tons	The decision about what option that is selected should be decided sometime next year.
Hillsboro Garbage & Disposal	4945 Southwest Minter Bridge Road, Hillsboro, OR	Internal Transfer	Refuse only	0	N/A	Interested in changing permit; potentially both.	unknown	Interested in changing permit; potentially receiving commercial and residential food scraps but can’t do without significant capital improvements Would need to build a new covered pad and spot to get material into the trailer. There is room on site for this, would try to use the existing slope, have kicked the idea around.
S&H Recycling	1601 N Columbia Blvd. , Portland, OR	Yard Debris Reload	Not permitted for food waste	0	unknown	Metro requires 3 sided roofed building for food waste sites, significant investment to make an approved site. Vector and odor nuisance concerns.	unknown	

TABLE 3

Residential Food Scraps/Yard Debris Capacity

General Information			Current Capacity		Additional Future Capacity - Without Capital Changes		Additional Future Capacity - With Capital Changes	
Facility	Address	Type	Approval	Current Residential Food Scraps/Yard Debris	Future Residential Food Scraps/Yard Debris	Comments	Future Residential Food Scraps/Yard Debris	Comments
West Van Materials Recovery Center	6601 NW Old River Road, Vancouver, WA	Transfer Station/MRF	100 tpm food waste per food waste pilots NSL for 13,000 tons food scraps Portland	10,000 tpy residential from Portland (currently receive 100 to 200 tons per month of residential and commercial ; assume split for calculations or or 1,200 tons per year each).	unused current capacity (10,000-1,200 = 8,800)	Logistically, based on current operation couldn't handle more than the 13,000 tons of food scraps in the NSL from the Metro area, other two facilities couldn't take either If take more food waste, it would take space currently used for "hiccups" and storing of commodities when market down.	unknown	Own plenty of land at Old River Road site. Would need to build separate covered area (location not specified).
Forest Grove Transfer Station	1525 B Street, Forest Grove, OR 97116	Transfer Station	Authorized to accept, would need an NSL to send to processor.	0	0	Food waste would be very challenging due to physical space, would take some reconfiguration	unknown	Facility would need to be reconfigured. Would need separate off loading ramp for food scraps
Troutdale Transfer Station	869 NW Eastwind Dr., Troutdale, OR 97060	Transfer Station	Authorized	0	20,000 tons	Recently submitted NSL for Troutdale to transfer to Dirt Hugger. No displacement, just need to make space.	50,000 tons	
Gresham Sanitary Services (GSS)	2131 NW Birdsdales Ave., Gresham, OR 97030	Internal Transfer	Not receiving	0	yes, if can make profit lots of pass through capacity	Food scraps not off loaded at this facility.	N/A	
Willamette Resources Inc. (WRI)	10295 SW Ridder Road, Wilsonville, OR 97070	Transfer Station and MRF	Receiving both residential and commercial. NSL for 12,000 tpy to PRC and working on expanding Working on getting NSL or DFA for SHORE	800 tons per year received,	not without making improvements	Have plans for capital improvements, which include expanding cover and existing building 50 ft, could open up space for more organics	yes, if can make profit	Have 2 parcels of land (10 acres) to the North, could be used if needed.
Woodburn Transfer Station	2215 North Front St., Woodburn, OR	Transfer Station	Not receiving	0	0	No capacity for residential or commercial food scraps without facility modification (space inadequate).	unknown	Would need to expand building to add floor space. Unused loading dock adjacent to load out (could use for potential expansion area). Also have land directly north of TS (7 acres).
Pride Recycling Company	13910 SW Tualatin-Sherwood Road, Sherwood, OR 97140	Transfer Station/MRF	Authorized and receiving commercial	0	0	Don't see mixing food/yard debris out in these jurisdictions; market needs to be much more ready before willing to do that.	N/A	
K.B. Recycling, Inc. Clackamas Facility	9602 SE Clackamas Road, Clackamas, OR	MRF	No food – land use permit currently precludes them from taking food	0				5 acres of undeveloped land, could expand on land that was rented by lumber company for years (see photo). If decided to accommodate food, would build whole new facility for food and leave current operation alone.
K.B. Recycling, Inc. Canby Facility	1600 SE 4th Ave., Canby, OR	Primarily Solid Waste Transfer Station	Taking both comm and resi	A couple of loads a day from KB Recycling Company, (assume: 3*52*5=780 tpy) resi food/yard.	unknown	Could probably take some more food scraps in a transfer capacity. Don't think many changes, add a couple of bunkers (use eco blocks currently), could do pretty easily.		Need to double check land use permits. Food scraps need to be contained in an area next to pit. Don't have a way to dump over.
Suttle Road Recovery Facility	4044 N. Suttle Road, Portland OR 97217	MRF	Accepts Residential Food Scraps Cannot accept Commercial Food Scraps – landuse restriction on commercial	1,000 tpy capacity (52,000 tpy)	if economically feasible, could potentially double food scraps capacity so another 52,000 tpy	No permitted limitation, just about flow, space, and trucks (whatever makes business sense) Currently running 1 shift for organics, 2 shifts for processing of dry waste Could potentially amend CUP with City of Portland to take commercial (last time it took 18 months, permitting process is very challenging). Good neighborhood agreement with St. John's neighborhood, may be open to comm food scraps recovery at facility.	unknown	
Foster Road Recovery Facility	6400 SE 101st Ave., Portland, OR 97266	Reload	Reload was permitted for resi food/yard, but had a lot of opposition, facility closed. Reopened recently for wood and yard debris (NO FOOD)	0	0	Engineering controls required, too costly, land use approval now expired so would have to go through all that again. Too much opposition	0	Too much opposition

TABLE 3

Residential Food Scraps/Yard Debris Capacity

General Information		Current Capacity		Additional Future Capacity - Without Capital Changes		Additional Future Capacity - With Capital Changes		
Facility	Address	Type	Approval	Current Residential Food Scraps/Yard Debris	Future Residential Food Scraps/Yard Debris	Comments	Future Residential Food Scraps/Yard Debris	Comments
Metro Central Transfer Station	6161 NW 61st Ave., Portland, OR	Transfer Station	Taking both comm and resi	Current Amt Managed is 27,673 tpy. Current capacity 50,000 tons resi food/yard	another 10k-20k total resi food/yard plus the unused current capacity	Could probably accept ~100,000 tons organics total, this could be done without initial capital improvements; eventually would have to do maintenance (commercial organics are very harsh).	unknown	
Metro South Transfer Station	2001 Washington St., Oregon City, OR 97045	Transfer Station	Taking resi	Current amount managed is 35,090 tpy; currently has capacity for 40,000 tons resi food/yard Could do more if took out straight yard debris	unused current capacity (40,000 - 35,090=4,910)	No additional capacity with current configuration	All 3 MSS retrofit options include residential food scrap/yard debris capacity of 50,688 tons tons	The decision about what option that is selected should be decided sometime next year.
Hillsboro Garbage & Disposal	4945 Southwest Minter Bridge Road, Hillsboro, OR	Internal Transfer	Refuse only	0	N/A	Interested in changing permit; potentially both.	unknown	Interested in changing permit; potentially receiving commercial and residential food scraps but can't do without significant capital improvements Would need to build a new covered pad and spot to get material into the trailer. There is room on site for this, would try to use the existing slope, have kicked the idea around.
S&H Recycling	1601 N Columbia Blvd., Portland, OR	Yard Debris Reload	Not permitted for food waste	0	unknown	Metro requires 3 sided roofed building for food waste sites, significant investment to make an approved site. Vector and odor nuisance concerns.	unknown	

TABLE 4  
Barriers

Facility	Address	Known or Nearby Processor	Truck Types	End Markets	Contamination	Uneven Playing Field	Regulatory	Other
West Van Materials Recovery Center	6601 NW Old River Road, Vancouver, WA	x		x	x		x	
Forest Grove Transfer Station	1525 B Street, Forest Grove, OR 97116							Being only 11 miles from Nature's Needs, direct haul. The short distance doesn't support reload. Service offering needs to be competitive with the marketplace.
Troutdale Transfer Station	869 NW Eastwind Dr., Troutdale, OR 97060	x	x - commercial food waste requires trucks that can contain liquid		x			
Gresham Sanitary Services (GSS)	2131 NW Birdsdale Ave., Gresham, OR 97030					x		
Willamette Resources Inc. (WRI)	10295 SW Ridder Road, Wilsonville, OR 97070	x						What does 2019 look like
Woodburn Transfer Station	2215 North Front St., Woodburn, OR	x						
Pride Recycling Company	13910 SW Tualatin-Sherwood Road, Sherwood, OR 97140							
K.B. Recycling, Inc. Clackamas Facility	9602 SE Clackamas Road, Clackamas, OR			2-3 tons/week of food waste, 1 day/week (104-156 tpy)(commercial customers collected by Pride and reloaded) then to WRI	Probably space for a total of 30-60 tons per day without any changes.	x - Metro has own agenda and unpredictable	x -landuse	
K.B. Recycling, Inc. Canby Facility	1600 SE 4th Ave., Canby, OR							
Suttle Road Recovery Facility	4044 N. Suttle Road, Portland OR 97217	x					x - Permitting in City of Portland always tough	cost
Foster Road Recovery Facility	6400 SE 101st Ave., Portland, OR 97266	x					x - Permitting in City of Portland always tough	cost
Metro Central Transfer Station	6161 NW 61st Ave., Portland, OR				x			Processors - Some parties don't want to work with each other Processors require higher quality feedstock. Pre-processing is expensive.
Metro South Transfer Station	2001 Washington St., Oregon City, OR 97045	x		x	x			
Hillsboro Garbage & Disposal	4945 Southwest Minter Bridge Road, Hillsboro, OR					x-some play by food only, some don't	x - not permitted for food scraps	space, load-in/out time, cost
S&H Recycling	1601 N Columbia Blvd. , Portland, OR	x			x		x - not permitted for food scraps; gaining approval very challenging	

Number of Facilities

8

1

3

6

3

6

TABLE 5  
Incentives

Facility	Address	Guaranteed/ Known Processor	Guaranteed Flow	Structured So Others Can Be Competitive	Economically Feasible/ Make a profit	Other
West Van Materials Recovery Center	6601 NW Old River Road, Vancouver, WA	x				
Forest Grove Transfer Station	1525 B Street, Forest Grove, OR 97116			x		
Troutdale Transfer Station	869 NW Eastwind Dr., Troutdale, OR 97060			x		
Gresham Sanitary Services (GSS)	2131 NW Birdsdale Ave., Gresham, OR 97030			x	x	
Willamette Resources Inc. (WRI)	10295 SW Ridder Road, Wilsonville, OR 97070				x	
Woodburn Transfer Station	2215 North Front St., Woodburn, OR					
Pride Recycling Company	13910 SW Tualatin-Sherwood Road, Sherwood, OR 97140				x	More important, who is collecting Time and disposal fee for truck line Once in truck, time to dump
K.B. Recycling, Inc. Clackamas Facility	9602 SE Clackamas Road, Clackamas, OR			2-3 tons/week of food waste, 1 day/week (104-156 tpy)(commercial customers collected by Pride and reloaded) then to WRI	Probably space for a total of 30-60 tons per day without any changes.	
K.B. Recycling, Inc. Canby Facility	1600 SE 4th Ave., Canby, OR				x	
Suttle Road Recovery Facility	4044 N. Suttle Road, Portland OR 97217		x		x	
Foster Road Recovery Facility	6400 SE 101st Ave., Portland, OR 97266		x		x	
Metro Central Transfer Station	6161 NW 61st Ave., Portland, OR					
Metro South Transfer Station	2001 Washington St., Oregon City, OR 97045					
Hillsboro Garbage & Disposal	4945 Southwest Minter Bridge Road, Hillsboro, OR				x - keep affects to rate-payers low	
S&H Recycling	1601 N Columbia Blvd. , Portland, OR		x		x	More centrally planned so there is a logical spacing of TS in area, if Colombia Blvd a good spot, and Metro realized, they'd consider teaming up with Metro.

Number of Facilities

1

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4

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