

### Scope of Services Summaries

<b>Vendor Name:</b>	<b>Bay Counties Waste Services (BCWS)</b>
Location of pre-processing facility	301 Carl Road, Sunnyvale
Fees	\$84.60 Commercial material \$84.60 Residential material
Transportation costs	Included
Residuals disposal cost	No charge
Use of end product	Animal feed
Percent allowable contamination	No maximum limit, the pre-processing system is well suited to manage contaminants and can remove plastic film, rigid plastics, glass, metal, and textiles.
Non-acceptable material	Hazardous material
Acceptable material	Plastic bags, food scraps, meat, food soiled paper
Disposition of residuals	Contaminants will be processed at the SMaRT Station® with other material and composted at Z-Best for further processing or sent to Zanker Road Landfill if the material is not compostable
Maximum allowable tons per day	154 tpd
Distance to processing facility	0 miles. The material will be pre-processed at the SMaRT Station.
City ability to observe loads?	Yes, staff is welcome to observe the processing and look at organics loads. Under normal operating conditions the loads will be unloaded directly into the pre-processing hopper, but can be unloaded onto the tipping floor for City inspection with advance notice.

#### Description of processing methodology

BCWS is partnering with Sustainable Organic Solutions (SOS) for a two-step process resulting in the conversion of the material to animal feed. The organics processing methodology occurs in two stages: pre-processing and production. The pre-processing, or extraction process, which will happen at the SMaRT Station, includes a coarse shredder and screw press. The organics are unloaded into the screw press, which separates contaminants from the food scraps and produces a "mash." The "mash" is then pumped into sealed tanker trucks and transported to a processing facility in Santa Clara where it is processed through a dehydrator to remove the water and oil in the material then sterilized, leaving a dry protein-rich pellet suitable for animal feed.

BCWS would be required to submit and obtain City approval for a tenant improvement plan for the SMaRT Station for the pre-processing equipment. Estimated timeframe to order and install equipment is three months.

Pricing shall be firm for five years.

<b>Vendor Name:</b>	<b>Z-Best Composting Facility</b>
Location of processing facility	980 State Highway 25, Gilroy
Fees	\$85.00 Commercial material \$82.00 Residential material
Transportation costs	Not included
Residuals disposal cost	No charge
Use of end product	Organic compost
Percent allowable contamination	20% allowable for commercial 15% allowable for residential
Non-acceptable material	Plastics, inorganic wood, painted wood, textiles, wax coated paper, cardboard
Acceptable material	Compostable plastic bags, food scraps, meat, food soiled paper
Disposition of residuals	Monterey Peninsula Landfill, Marina CA
Maximum allowable tons per day (tpd)	30 tpd commercial 40 tpd residential
Distance to processing facility	50 miles
City ability to observe loads?	Yes, staff is welcome to observe the incoming loads with advance notice.

### **Description of processing methodology**

The Z-Best processing operation is as follows:

- organics are unloaded and a load checker looks for hazardous and other excluded materials
- organics are pre-processed to remove non-compostable items, then shredded and transported to the composting area
- the material is then inserted into bio-bags and a forced aeration system is used to aerate the piles. The material remains in the bags for three months. The material reaches temperatures of 140-160 degrees to kill all insects, pathogens and weed seeds
- after the composting process, the material is sent through a primary screen to remove inorganic material smaller than one inch in size which is then landfilled
- the remaining composted material smaller than one inch are placed in curing piles for several more weeks, then a final screening takes place and the resulting compost is ready for market.

Pricing shall be firm for three years.

<b>Vendor Name:</b>	<b>Zero Waste Energy Development Company (ZWED)</b>
Location of processing facility	685 Los Esteros Road, San Jose
Fees	\$97.00 Commercial material \$94.00 Residential material
Transportation costs	Not included
Residuals disposal cost	No charge
Use of end product	Energy, compost
Percent allowable contamination	20% allowable for commercial 15% allowable for residential
Non-acceptable material	Plastics, inorganic wood, painted wood, textiles, wax coated paper, cardboard
Acceptable material	Compostable plastic bags, food scraps, meat
Disposition of residuals	Monterey Peninsula Landfill, Marina, CA
Maximum allowable tons per day (tpd)	30 tpd commercial 40 tpd residential
Distance to processing facility	6 miles
City ability to observe loads?	Yes, staff is welcome to observe the incoming loads with advance notice.

### Description of processing methodology

The ZWED processing operation is as follows:

- organics are unloaded into a receiving bay
- organics are mechanically sorted so non-compostable material can be removed
- the remaining organic rich feedstock is placed into a bunker for further processing
- the feedstock is then placed into air-tight digesters for an anaerobic digestion process for 21 days which eventually produces biogas
- the biogas is conditioned to remove water condensate and hydrogen, then the remaining methane-rich gas is left and can produce up to 1.6 MW of electricity and heated water
- the remaining material, called digestate is blended with other material to produce feedstock for in-vessel composting, the end product being compost for use by landscapers, contractors, farmers, etc.

Pricing shall be firm for three years.

<b>Vendor Name:</b>	<b>Recology Blossom Valley Organics (RBVO)</b>
Location of processing facility	3909 Gaffery Road, Vernalis CA
Fees	\$75.00 Commercial material \$55.00 Residential material
Transportation costs	Not included
Residuals disposal cost	No charge
Use of end product	Compost
Percent allowable contamination	1% allowable contamination by weight
Non-acceptable material	Plastic, hazardous material
Acceptable material	Food scraps, food soiled paper
Disposition of residuals	Hay Road Landfill or Fink Road Landfill
Maximum allowable tons per day (tpd)	2000 tpd
Distance to processing facility	70 miles
City ability to observe loads?	Yes, staff is welcome to observe the processing and look at organics loads with advance notice.

### **Description of processing methodology**

The processing operation is as follows:

- organics are unloaded and processed through a slow speed shredder, then through a trommel screen to remove four inch minus material
- the material is then processed on a sorting line where four inch overs are sorted. The material is placed in active windrows where it is turned into fully cured compost over a 120 day period\*
- \*RBVO is in the process of converting their processing technology to aerated static pile which can create fully cured compost in 60-75 days. They anticipate completion of this conversion by end of 2018.