



A Public Agency

SHOREWAY OPERATIONS AND CONTRACT MANAGEMENT

STAFF REPORT

To: SBWMA Board Members
From: Hilary Gans, Facility Operations Contract Manager
Date: Nov 15, 2018 Board of Directors Meeting
Subject: Resolution Approving Glass Loadout and Public Recycling Center Modifications Projects

Recommendation

It is recommended that the SBWMA Board of Directors approve Resolution **No. 2018-38** attached and hereto authorize the following action: **Approval of the Glass Loadout and Public Recycling Center projects and authorizing the Executive Director to enter into contracts for a not-to-exceed amount of \$522,508.**

Summary

Based on positive review of the glass loadout and public recycling center (PRC) project review at the October Board Meeting, staff is bringing contracts for these projects forward for Board consideration and approval. Note that the contracts with BHS and Dryco have been reviewed by SBWMA's attorney. *Design and contract documents for both projects are available for review at the SBWMA offices.*

Project Overview

The SBWMA MRF has a strong need for these two projects to improve the operational efficiency and customer experience of the Shoreway site. When the projects identified below are completed, semi-trailers will be directly loaded with glass at the MRF which will eliminate the need and expense of shuttling glass between the MRF and transfer station.

1) MRF Glass Loadout Modification – \$191,355: modifications to the MRF glass conveying and loadout systems to streamline the handling of glass from the MRF sort system. This project is “sole-sourced” from BHS the MRF's sort system manufacturer.

2) PRC Modifications – \$263,000: Reconfiguration of the curbs structures at the PRC will allow semi-trailers to enter the MRF building and be directly loaded with glass. This project was competitively bid with one bidder (Dryco LLC) as the bidder.

Project Benefits

Benefits of the glass loadout and PRC include:

- Cost Savings: The SBWMA pays \$162,846 per year to SBR to shuttle glass from the MRF to the transfer station. (see **Table 1.**) This cost will be eliminated by this project because it allows semi-trailers to be directly loaded with glass at the MRF yielding a project payback of ~3-years.

Table 1. Glass Loadout and PRC Modifications	
Capital Expense	
MRF Glass Loadout System	\$ 191,355
Public Recycling Center Modifications	\$ 263,000
	Total \$ 454,355
Contingency @15%	\$ 68,153
Subtotal	\$ 522,508
Operating Expense Savings	
Cost of Glass Shuttle from MRF to TS	
Tons per Year Glass	14,424
Shuttle Cost per Ton	\$ 11.29
	Total \$ 162,846.96
Pay Back (years)	3.21

Damage to Pavement: Roll-off bins are currently used to shuttle glass. The steel wheels and ten-ton weight of the bins damage the concrete pavement and cause excessive wear. Routine repairs costing an average of \$10,000 per year will be eliminated.

- Safety and Customer Service: Movement of the roll-roll bins occurs in the same space as the PRC operations. These two activities are incompatible and result in traffic congestion and a safety risk for people visiting the PRC. While the semi-trailers will be moved from the same location as the roll-off bins, an electric dolly will be used to swap-out trailers on a less frequent basis.
- PRC Modification: Modifications to PRC curbs and traffic flow will allow semi-trailers to access the loadout. Old wood sheds that house the universal waste drop-off will be replaced with a fabric shade canopy structure. Confidential document shredding will be a new service offering to SBWMA residents and will provide additional paper for sale by the SBWMA.

Background

For many years sorted glass generated at the MRF was transported by roll off truck to Strategic Materials located in San Leandro. In mid-2015, the company closed this location requiring glass to be hauled to its Fairfield location for processing. Since this change, it has been more cost-effective to shuttle the glass from the MRF to the transfer station, reload on the larger semi-trailers that carry twice the payload for transportation to Fairfield (the current PRC configuration and MRF equipment does not allow glass to be loaded directly into semi-trailers). Staff has always viewed the glass shuttling as a temporary solution and has been working towards a better solution. Recently, Staff identified the use of unique Electric truck dollies as a solution for moving large trailers into the MRF for glass loading. SBWMA tested and purchased one such dolly and now plans to modify the PRC area and the MRF glass loadout equipment to complete this process.

Fiscal Impact

The FY18/19 Capital Budget includes \$350,000 for the Glass Loadout/PRC modifications projects. The cost for the project exceeds the capital budgeted dollars for the project due to the current nature of local construction market pricing conditions. The balance of funds \$172,508 (\$522,508-\$350,000) will be drawn from the Capital/Undesignated Reserve.

Attachments:

Resolution 2018-38



RESOLUTION NO. 2018-38

**RESOLUTION OF THE SOUTH BAYSIDE WASTE
MANAGEMENT AUTHORITY BOARD OF DIRECTORS
APPROVAL OF THE GLASS LOADOUT AND PUBLIC RECYCLING CENTER
MODIFICATIONS PROJECT AND AUTHORIZING THE EXECUTIVE DIRECTOR TO
ENTER INTO CONTRACT WITH BHS AND DRYCO FOR A NOT-TO-EXCEED AMOUNT
OF \$522,508**

WHEREAS, the SBWMA has an interest in handling glass from the MRF in a cost-effective manor,

WHEREAS, the glass loadout project will eliminate the double handling of glass at the MRF and reduce the operating expense for the MRF and save the Agency money,

NOW, THEREFORE BE IT RESOLVED that the South Bayside Waste Management Authority hereby approves a Resolution authorizing the Executive Director to enter into contracts with BHS and Dryco for a not-to-exceed amount of \$522,508 for modifications that improve the handling of glass at the MRF.

PASSED AND ADOPTED by the Board of Directors of the South Bayside Waste Management Authority, County of San Mateo, State of California, by the following vote:

Agency	Yes	No	Abstain	Absent	Agency	Yes	No	Abstain	Absent
Atherton					Menlo Park				
Belmont					Redwood City				
Burlingame					San Carlos				
East Palo Alto					San Mateo				
Foster City					County of San Mateo				
Hillsborough					West Bay Sanitary Dist				

I HEREBY CERTIFY that the foregoing Resolution No. 2018-38 was duly and regularly adopted at a regular meeting of the South Bayside Waste Management Authority on November 15, 2018.

ATTEST:

Charlie Bronitsky, Chairperson of SBWMA

Cyndi Urman, Board Secretary

STAFF REPORT

To: SBWMA Board Members
From: Hilary Gans, Facility Operations Contract Manager
Date: Nov 15, 2018 Board of Directors Meeting
Subject: Resolution Approving Organics-to-Energy Pilot Project

Recommendation

It is recommended that the SBWMA Board of Directors approve Resolution No. **2018-39** attached and hereto authorize the following action: **Approval of the Organics-to-Energy Pilot authorizing the Executive Director to enter into Contract with Anaergia for a not-to-exceed amount of \$2,250,000.** (*The contract for services with Anaergia is available at the SBWMA offices for review*).

Summary

Based on positive review of the Organics-to-Energy (O2E) pilot project at the October Board meeting, staff is bringing a contract for services forward for Board consideration and approval. The contract has been reviewed by SBWMA's attorney. The contract with Anaergia is contingent on execution of the CalRecycle grant funding of \$1.2M for this project - CalRecycle's senior staff have stated that this project is eligible for this grant funding.

Project Overview

Staff has been developing an O2E project for centralized processing of food waste from the black-bin garbage and converting it to energy. At the October Board meeting, staff presented numerous key planning and financial considerations and addressed questions related to the project. Additionally, The O2E Pilot project's operational, financial and implementation assumptions have been evaluated by the Zero Landfill Committee at meetings on October 3rd and 10th. This project's plan of finance was also reviewed by the Finance Committee at its November 6th meeting. The O2E Pilot project is both a stand-alone project and a half-step toward the Full O2E project as follows:

1. **Processing Source Separated Organics (SSO):** As a stand-alone project, the O2E project will process all commercial SSO/ food waste and digested this into green energy. In this way the project will redirect commercial food waste from composting to a less expensive outlet (local waste water treatments plants) that want the material for its energy value.
2. **Processing Black-bin garbage:** By processing a portion of the black-bin garbage stream and extracting organics for digestion, the pilot project will validate the benefits of centralized organics sorting at the Shoreway facility and will solidify market relationships with WWTPs.

Benefits

Key O2E Pilot project benefits include:

1. Reduced hauling cost and GHG emissions vs. composting operations
2. Leverage existing WWTP infrastructure and expertise to converting organics to power.

3. Provide green power for WWTP to become energy independent
4. Creates a potential future opportunity for Shoreway to fuel the future collection fleet with BioCNG
5. Ratepayer benefits from integrations of services (SVCW & SBWMA ratepayer overlap)
6. Fulfills the local and state need for new organics processing infrastructure
7. Demonstrates success for future grant funding requests

Financial Analysis

Table 1 presents the capital (CapEx) and operational expenses (OpEx) of the O2E Pilot compared to the current composting costs (i.e., Total Expense of \$63.17 per ton, offers a Net Benefit of \$6.03 per ton over the current \$69.20 per ton Cost of Composting). Note that the Pilot financial summary is based on commercial SSO material processing costs and the cost of process black-bin organics will be higher due lower food waste concentrations in garbage. A goal of the pilot is to ascertain the organics recovery and cost recovering organics from garbage.

Table 1. O2E PILOT FINANCIAL SUMMARY		
CAPEX	\$/yr.	\$/ton
OREX 500 Pilot CAPEX	\$ 225,000	11.54
Trailer Lease Cost	\$ 12,000	0.62
Contingency	\$ -	-
Subtotal	\$ (237,000)	\$ (12.15)
OPEX	\$/yr.	\$/ton
Transport & Disposal		
Transport residuals to landfill	\$ 78,341	4.02
Tip fee residuals at landfill	\$ 203,093	10.42
Transport of slurry to WWTP	\$ 219,375	11.25
Tip fee for slurry at WWTP	\$ 292,500	15.00
Subtotal	\$ (793,309)	\$ (40.68)
Processing Line		
Parts	\$ 64,740	3.32
Electricity	\$ 32,760	1.68
Operational labor	\$ 93,287	4.78
PM & cleaning	\$ 5,358	0.27
Repair & maintenance labor	\$ 5,358	0.27
Subtotal	\$ (201,504)	\$ (10.33)
TOTAL EXPENSES	\$/yr.	\$/ton
	\$ (1,231,812)	\$ (63.17)
AVOIDED COST OF COMPOSTING		
Avoided SSO transportation cost	\$ 636,285	32.63
Avoided SSO tip fee cost	\$ 713,115	36.57
Subtotal	\$ 1,349,400	\$ 69.20
NET BENEFIT/COST OF PILOT PRO.	\$/yr.	\$/ton
	\$ 117,588	\$ 6.03

Fiscal Impact

The FY18/19 Capital Budget includes \$2,250,000 for the O2E Pilot project.

Attachments:

Resolution 2018-39



RESOLUTION NO. 2018-39

**RESOLUTION OF THE SOUTH BAYSIDE WASTE
MANAGEMENT AUTHORITY BOARD OF DIRECTORS
APPROVAL OF THE ORGANICS TO ENERGY PILOT AUTHORIZING THE EXECUTIVE
DIRECTOR TO ENTER INTO CONTRACT WITH ANAERGIA FOR A NOT-TO-EXCEED
AMOUNT OF \$2,250,000**

WHEREAS, the SBWMA has a strong commitment in maintaining compliance with State goals of diverting organics from landfill in a cost-effective manor,

WHEREAS, the Organics-to-Energy Pilot project is expected to provide a more efficient way to capture and treat organic wastes,

WHEREAS, the Agency has obtained a grant from CalRecycle that helps pay for the equipment and the SBWMA is to provide matching funds to implement the project.

NOW, THEREFORE BE IT RESOLVED that the South Bayside Waste Management Authority hereby approves a Resolution authorizing the Executive Director to enter into a contract with Anergia for a not-to-exceed amount of \$2,250,000 for organic processing equipment.

PASSED AND ADOPTED by the Board of Directors of the South Bayside Waste Management Authority, County of San Mateo, State of California, by the following vote:

Agency	Yes	No	Abstain	Absent	Agency	Yes	No	Abstain	Absent
Atherton					Menlo Park				
Belmont					Redwood City				
Burlingame					San Carlos				
East Palo Alto					San Mateo				
Foster City					County of San Mateo				
Hillsborough					West Bay Sanitary Dist				

I HEREBY CERTIFY that the foregoing Resolution No. 2018-40 was duly and regularly adopted at a regular meeting of the South Bayside Waste Management Authority on November 15, 2018.

ATTEST:

Charlie Bronitsky, Chairperson of SBWMA

Cyndi Urman, Board Secretary