Rethink waste
South Bayside Waste Management Authority
A Public Agency

# ADMINISTRATION AND FINANCE

Agenda Item 7

Rethink waste
South Bayside Waste Management Authority
A Public Agency

# STAFF REPORT

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| To: | SBWMA Board Members |
| From: | Kevin McCarthy, Executive Director, and Senior Staff |
| Date: | June 25, 2015 Board of Directors Meeting |
| Subject: | Resolution Approving 2015 Long Range Plan |

## Recommendation

It is recommended that the SBWMA Board of Directors approve Resolution No. 2015-17 attached hereto authorizing the following actions:

- Approval of the 2015 Long Range Plan as detailed in Exhibit A.
- Creation of an adhoc Zero Landfill Working Group of SBWMA Board Members, staff and representatives from Recology and SBR to develop a set of recommendations to address a diversion target beyond the State's voluntary 75% diversion goal.

The only change to the Long Range Plan document as shared at the April and May Board meetings is a re-forecasting of measured diversion figures based on non-franchise commercial recycling numbers reported to date. With inclusion of projected diversion figures drawn from a limited number of businesses that have filed recycling numbers for the first quarter of 2015, the updated overall diversion figure for 2020 has increased from 67.73% to 70.02%. See Table 1 on page 4 of the staff report for more details.

## Summary

The 2015 Long Range Plan is the key deliverable for completion of a five-phase effort to complete the JPA's first comprehensive long range plan since 2002. The TAC has been involved in reviewing the initial project ideas for evaluation and inclusion in the draft Plan and has reviewed the draft Plan itself at its April 9th meeting. Recology and SBR were involved in all phases of the development of the draft 2015 Long Range Plan including providing cost information, drafting pilot project details, and/or providing an operational review of major projects (i.e., collection fleet conversion to CNG and mixed waste processing operation in Transfer Station).

The Plan is really a blueprint to assist the Board of Directors with future decision-making on enhancements to the existing solid waste, recycling, and organics collection and processing system for our service area of approximately 450,000 people in San Mateo County with a primary focus on the next five-year period.

The JPA's last Long Range Plan was drafted in 2002, then updated in 2005 and became the starting point for the development of the franchised collection programs and services rolled out in January 2011. A masterplan for the Shoreway Environmental Center was approved by the Board in April 2007 and was the basis for the $46 million in capital improvements completed between the fall of 2009 and the spring of 2011.

With the rollout of new franchised collection services and completion of the Shoreway masterplan improvements in 2011, the SBWMA now has one of the highest regarded and most innovative collection and processing systems in the country. This system provides a solid foundation to build on to address any future diversion needs, changes in State laws and regulations, and new policy goals established by the SBWMA Board of Directors.

This Plan addresses policy, programmatic and infrastructure needs to meet the requirements of Assembly Bill (AB) 341 with its 75% statewide recycling goal by 2020 and more recent legislation such as AB 1826 and its mandatory commercial organics recycling provisions. This 75% statewide goal is not a local mandate, but the SBWMA Board at its September 11, 2014 meeting adopted this goal as a key guiding principle for development of the Long Range Plan. The Plan also includes recommendations for operational improvements affecting collection and Shoreway operations with a goal of improved efficiency, cost savings and environmental improvements.

The Plan in and of itself is not a decision-making tool for future decisions by Member Agencies in 2017 to extend or not the term of their existing Franchise Agreements with Recology San Mateo County and other critical contractual decisions such as:

- Future decision by the JPA whether or not to extend the term of the Shoreway Operations Agreement with South Bay Recycling (SBR)
- Future expiration after December 31, 2019 of the Ox Mountain Disposal Agreement

However, there are recommendations in this Plan that do affect the future scope of work for the Franchise Agreements and Shoreway Operations Agreements. During the April 23rd staff presentation on the draft Plan, staff addressed why co-collection and every other week pilot projects were recommended for FY1516; this timing would allow for review of pilot project results prior to making final recommendations in 2016 regarding any changes to the future scope of work in the collection services Franchise Agreements with Recology.

The recommendation for a Zero Landfill Working Group came from a suggestion by Board Member Brownrigg that was shared by his alternate John Root at the May Board meeting. Board Members in attendance at the meeting were supportive of the idea so it has been brought forward as a recommendation for approval. Essentially, this Working Group is likely to make recommendations for achieving a higher diversion level beyond the State's voluntary 75% diversion goal; the recommendations would serve as an addendum to the 2015 Long Range Plan.

Staff has included $30,000 in the FY1516 budget to support staff work and research on zero waste related policy options and an assessment of processing and treatment technologies for identified waste streams.

## Analysis

*Assessment and Evaluation of Policy, Program and Infrastructure Enhancements*

In assessing and evaluating potential enhancements to our existing recycling and solid waste collection and processing system the key guiding principles were:

- Meeting the State's 75% recycling goal by 2020
- Leveraging existing infrastructure and investments
- Programs that address any existing service voids or deficiencies
- Cost-effective and efficient programs

More specific to the existing Shoreway Environmental Center infrastructure, not only was there a focus on achieving cost-effective waste diversion, but also identifying enhancements that would improve the efficiency of facility operations, and customer and worker experience and safety.

There were also specific enhancements developed through collaboration with Recology including two operational improvements: conversion of the existing collection fleet from using 5% biodiesel to a future fleet that runs on CNG, and potential use of split-body (two-compartment) collection vehicles to service residential customers.

Staff also worked closely with Recology to develop future measured diversion forecasts associated with existing commercial recycling and organics outreach efforts, notably to address the mandatory commercial organics requirements of AB 1826 which take effect starting in April 2016.

*Recommendations*

The Plan provides recommendations with decision-making timelines and estimated costs, both one-time and ongoing, and capital requirements. Please see Table 1.1 in the Executive Summary for a listing of all recommendations for policies, programs, and Shoreway infrastructure enhancements. The recommendations can be summarized as follows:

Collection Operational Improvements and Program Enhancements

- Use of CNG in future collection fleet effective January 2021 or earlier if operationally and financially prudent. CNG fuel supply options to be fully vetted.
- Conduct a pilot project in FY1516 to study routing efficiencies using split-body collection vehicles over two four-week pilot periods between September and November 2015 for approximately 16,000 single-family homes. Split-body vehicles allow for the collection of two types of material streams (e.g., garbage and recycling) utilizing one truck as opposed to two trucks.
- Piloting every other week collection of garbage from approximately 8,000 residential homes over a three-month pilot period sometime in FY1516. Implementation of the pilot is contingent upon approval from the local enforcement agency (LEA), the San Mateo County Department of Environmental Health.
- Modify Recology's current commercial outreach reporting requirements to implement a Commercial Subscription and Participation Compliance Status Report for use in setting outreach priorities and tracking progress to diversion goals. This change will be supplemented with enhanced commercial public education and outreach efforts to be piloted in FY1516.
- Implement a model public spaces recycling collection pilot in a downtown area and a park setting with a goal of ultimately developing a more uniform approach across Member Agencies to complement existing residential and commercial recycling and organics collection services. Existing funds are available to start this pilot in FY1415 with some supplemental funds required to continue into FY1516.
- Rollout an enhanced residential public education and outreach pilot in FY1617 to test a dedicated campaign service area-wide and for specific Member Agencies with lower residential diversion rates. The pilot goal is to measure the cost effectiveness of enhanced public education to increase residential diversion rates. This pilot was not recommended for FY1516 to avoid confusion with the other pilot projects already slated for this upcoming fiscal year.

Policy Initiatives

- Develop a model Extended Producer Responsibility (EPR) policy for Board consideration and approval in FY1516. The policy will facilitate more active SBWMA engagement with supporting state EPR legislation. EPR policies are a key component of Zero Waste plans adopted by a number of jurisdictions in California.
- Do not consider implementing any mandatory recycling ordinances until measured diversion results are known after 2020. It should be noted that such mandatory ordinances are a key component of Zero Waste plans adopted by a number of jurisdictions in California.
- Do not consider any disposal bans on designated materials (e.g., green waste, cardboard, etc.) until measured diversion results are known after 2020. It should be noted that such disposal bans are only effective if implemented countywide and not in a subset (like the JPA's service area) of the County.

Shoreway Facility Enhancements

- Install a mixed waste processing system in the Transfer Station in 2018 to recover organics and recyclables from residential and commercial waste delivered to the Transfer Station by Recology collection vehicles.

Recovered organics to be transferred to the Silicon Valley Clean Water wastewater treatment plant for digestion and energy production. Recyclables to be processed further as needed at existing onsite MRF.

- Expand Transfer Station building in 2017/2018 to accommodate the new mixed waste processing system.
- Pursue one of three options to provide for onsite SBWMA office space and new public meeting space (for Board meetings and other public uses). The specific option to be pursued should be determined after a final decision is made on the mixed waste processing system and related Transfer Station building improvements. The preferred option would be to remodel the second floor of the Recology administration building which would produce long-term savings compared to the existing lease option at the San Carlos Library.
- Install a CNG fueling system in 2020 to provide for future fuel needs for the collection fleet. This project would also involve the closeout of the existing diesel fuel storage and dispensing system. It is assumed that the CNG fueling system would be capitalized by a third party in exchange for a long-term supply agreement to purchase the CNG from the third party. Staff will also evaluate to what extent CNG can be supplied by other offsite sources, including the potential to use bio-CNG produced from methane gas generated at a local wastewater treatment plant.
- Include a multi-year capital plan for repairing approximately four acres of paving in the corporation yard area used by Recology.
- Replace all large light fixtures in the MRF, Transfer Station and Recology maintenance shop areas with LED lighting in FY1516. The project would be developed in partnership with PG&E in order to identify and secure any available grants or credits for the project.
- Conduct a stakeholder engagement process in FY1516 to determine what additional components can be added to our existing environmental education program with a focus on increasing recycling and composting efforts at schools in our service area.

Based on the above recommendations and a baseline forecast for current commercial recycling and organics outreach efforts, staff projected future measured diversion levels by sector and overall as shown in Table 1 below:

Table 1: Baseline Forecast w/ Enhanced Residential Public Education and MSW Processing Starting in 2018

| Projected Future Measured Diversion Rate % by Sector for 2015-2020 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Year | | | | | | | |
| | Actual Results | | Projected Results | | | | | |
| Sector | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
| Residential | 66.90% | 66.48% | 66.59% | 66.59% | 66.59% | 71.32% | 76.35% | 76.60% |
| Commercial/MFD | 29.77% | 31.04% | 41.06% | 43.46% | 45.49% | 55.57% | 64.26% | 64.26% |
| Overall | 48.83% | 48.90% | 52.98% | 54.26% | 55.34% | 62.92% | 69.90% | 70.02% |
| Note: Commercial Recycling Reporting Ordinance data is included. | | | | | | | | |

26,500 tons of new diversion from the Commercial/MFD sector were added beginning in 2015 per the Commercial Recycling Reporting Ordinance. The new tons are based on an extrapolation of tonnage numbers provided by 23 companies that registered and reported via our Ordinance, including estimated data from eight large retailers (e.g., grocery, drug stores, hardware, general home goods, etc.), some of which have registered but not yet submitted reports. The new tons exclude any construction and demolition debris recycling.

## Background

At the March 26, April 23 and May 28, 2015 Board meetings staff made presentations on the Long Range Plan and answered questions from Board Members.

At the March 26, 2015 Board meeting staff gave a presentation on the Long Range Plan document and addressed questions and comments offered by Board Members.
At the November 20, 2014 Board meeting staff provided a progress report on phase two of the Long Range Plan workplan and noted the upcoming milestone of the visioning workshop. A successful Long Range Plan visioning workshop was held on November 6, 2014 which was well attended by Board and TAC Members, Member Agency staff and community leaders.

On September 12, 2014 the Board approved the guiding principles for use in assessing and evaluating program, policy, and Shoreway infrastructure enhancements. The approved guiding principles reflect Board Member feedback to incorporate meeting the State's 75% recycling goal by 2020, making sure product quality and end-market considerations reflect economic considerations, and that proposed programs address any existing service voids or deficiencies.

The SBWMA FY1415 budget approved by the Board on June 26, 2014 included a workplan and budget of $232,500 for the development of a Long Range Plan. $187,500 was earmarked for the Plan development and $45,000 for research associated with the organics recovery project with Silicon Valley Clean Water.

## Fiscal Impact

The Board review and approval of the 2015 Long Range Plan has no specific fiscal impact as separate Board actions will have to be taken in future fiscal years to approve recommended projects. The Plan in Section 3 outlines decisions by year which will be requested of the SBWMA Board and/or Member Agencies to implement the recommendations. Table 2 below shows actual projected costs by fiscal year for the recommended projects.

Table 2: Projected Costs by Fiscal Year

| | FY1516 | FY1617 | FY1718 | FY1819 | FY1920 |
|---|---|---|---|---|---|
| Operating Expense | $439,591 | $175,000 | $25,000 | $25,000 | |
| Other Expenses | $55,422[1] | | | | |
| Capital Expenses[2] | $274,000 | | $2,807,200 | $10,984,859 | $1,375,000 - $1,800,000 |
| Subtotal: | $713,591 | $175,000 | $2,832,200 | $11,009,859 | $1,375,000 - $1,800,000 |

[1] Recology collection expense

[2] Currently available cash to fund capital projects includes approximately $3 million in undesignated cash reserves and $1.24 million in Shoreway remediation fund monies.

Specific recommendations for FY1516 are included in the FY1516 budget documents included under agenda item 7B. The budget document also includes $30,000 to support the Zero Landfill Working Group.

Existing cash is available to fund about $4.24 million of the $15.2-15.6 million in projected capital projects; $3 million in existing cash could be used to fund the FY1718 capital needs (i.e., Recology admin. building remodel and Transfer Station building improvements) and the FY1920 capital (i.e., CNG fueling operation and USTs closeout) project with the unfunded needs of approximately $11 million in FY1819 for the mixed waste processing equipment.

Table 3 below summarizes the preliminary collection rate impact analysis for a number of the projects with an overall collection rate impact of 0.9% (in today's dollars).

Table 3: Collection Rate Impact

| LRP PROJECTS | Life (yrs.) | Annual Financial Impact - Positive / (Negative) | Collection Rate Impact | |
|---|---|---|---|---|
| CNG Collection Fleet Conversion | 10 | $992,960 | -1.0% | rate reduction |
| Mixed Waste Processing ($13.5M) | 10 - 30 | ($1,905,487) | 1.9% | rate increase |
| SBWMA Admin. Offices Option #1 ($275k) | 10 | $32,500 | 0.0% | rate reduction |
| Shoreway - Paving ($2M) | 10 | ($200,000) | 0.2% | rate increase |
| Shoreway - LED Lighting Improvements ($274K) | 10 | $181,600 | -0.2% | rate reduction |
| **TOTAL BASE CASE RATE IMPACT** | | | **0.9%** | |

Staff did a sensitivity analysis on the mixed waste project, expected to come on line in 2018, to address the potentially significant increase in landfill disposal rates in 2020 after expiration of our current disposal agreement with Ox Mountain. If disposal rates increase 20% in 2020 then the mixed waste project estimated collection rate impact drops from 1.9% to 1.5% which lowers the overall "base case rate impact" to 0.5%; this is the collection rate impact specifically associated with the Long Range Plan projects.

A more complete collection rate impact scenario in 2020 would reflect the impact of the landfill disposal rate increase of 20% on all solid waste tons, not just those tons associated with the mixed waste processing project. In total the Long Range Plan projects plus the disposal rate increase on all solid waste tons would result in an estimated collection rate impact of 2.5% in 2020. If the mixed waste project was not implemented there would still be a 1.4% collection rate impact resulting from the landfill disposal rate increasing 20%.

*Attachments:*

Resolution 2015 -17

Exhibit A – 2015 Long Range Plan

# RESOLUTION NO. 2015-17

## RESOLUTION OF THE SOUTH BAYSIDE WASTE MANAGEMENT AUTHORITY BOARD OF DIRECTORS APPROVING 2015 LONG RANGE PLAN

WHEREAS, the South Bayside Waste Management Authority Board of Directors has previously reviewed drafts of the 2015 Long Range Plan at the March 26, April 23 and May 28, 2015 Board meetings, and

WHEREAS, the SBWMA staff has prepared a final 2015 Long Range Plan and recommends the South Bayside Waste Management Authority Board of Directors approve the Plan and the recommendations in Exhibit A.

NOW, THEREFORE BE IT RESOLVED that the South Bayside Waste Management Authority hereby approves the 2015 Long Range Plan.

PASSED AND ADOPTED by the Board of Directors of the South Bayside Waste Management Authority, County of San Mateo, State of California on the 25th day of June, 2015, 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. 2015-17 was duly and regularly adopted at a regular meeting of the South Bayside Waste Management Authority on June 25, 2015.

ATTEST:

Bill Widmer, Chairperson of SBWMA

Cyndi Urman, Board Secretary

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South Bayside Waste Management Authority
A Public Agency

# SOUTH BAYSIDE WASTE MANAGEMENT AUTHORITY
# 2015 DRAFT LONG RANGE PLAN

**April 23, 2015**

# Acknowledgements


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# SECTION 1

## INTRODUCTION

# 1. Introduction

## A. Organization of the Document

The draft Long Range Plan has been organized in a manner to make it as reader-friendly as possible, using color coding, summary tables and sections. The color coding is located in the header of each page. Each page number is in a color coded text box to allow the reader to quickly identify whether the information on that page (and section) pertains to the entire collection and processing system/overview, collection programs and policies, or processing and transfer infrastructure. The color coding used is as follows:

= Entire Collection and Processing System/Overview

= Collection Programs and Policies

= Processing and Transfer Infrastructure

The draft Plan can be read in full, however, one of the significant features used in this document are the summary tables to capture the major details of the respective section. These summary tables were developed intentionally using a reader-friendly 11"x17" landscape format.

The Plan has been organized into sections as follows:

- **Section 1 – Introduction.** This section provides an overview through the Executive Summary and highlights the recommendations for Board consideration.

- **Section 2 – Evaluation of Waste Reduction, Recycling and Composting Policies, Programs and Shoreway Infrastructure.** This section provides details on the measured diversion forecast service area wide for 2015-2020 and possible enhancements to the SBWMA's existing collection and processing systems to reach the State's 75% recycling goal by 2020.

- **Section 3 – Recommendations and Next Steps.** This section provides a summary of the recommended enhancements to the existing SBWMA collection and processing systems, timeline, cost projections and next steps.

- **Appendices**
  - **Appendix A – State and Local Policy and Regulatory Framework.** This section provides a background on State policies that impact the SBWMA and Member Agencies related to solid waste and recycling; and also provides a summary of the JPA governance structure, contracts and polices.

  - **Appendix B – Waste Reduction, Recycling and Composting Policies, Programs and Shoreway Infrastructure.** This section provides an overview and assessment of the SBWMA's existing collection and processing systems.

- **Attachments.** This section includes the attachments referenced in the Plan.

## B. SBWMA Guiding Principles

At the September 11, 2014 Board of Directors meeting, the Board approved the Guiding Principles listed below which were used to evaluate any proposed policy, program and infrastructure enhancement considered in this draft Long Range Plan to ensure that it was in line with the Agency's goals and objectives.

- **Maintain and Support an Economically Sustainable Solid Waste System**
  - Leverage existing infrastructure
  - Provide cost-effective and efficient programs
  - Maintain rate stability and predictability
  - Incorporate economic incentives through:
    - Commodity revenue sharing
    - Rate structure improvements
    - Performance standards
  - Promote economic development where feasible
  - Ensure the highest and best use of recoverable materials and implications for end markets so program are economically and environmentally sustainable
  - Support product stewardship policies and initiatives

- **Enhance Environmental Benefits to the Community**
  - Increase and maximize participation in programs and services to reduce and reuse waste
  - Reduce and mitigate landfill and other facility impacts
  - Reduce collection fleet and transfer trailer fleet emissions
  - Develop and sustain strategic community partnerships
  - Support local, state and national mandates, including the State's 75% recycling goal by 2020
  - Promote behavior change through public education
  - Invest in new, safe technologies and processes for infrastructure

- **Provide High Quality and Convenient Programs and Services**
  - Ensure that program initiatives are convenient, accessible and appropriate
  - Provide incentives to participate in programs where feasible
  - Enhance public education to maximize participation
  - JPA Member Agency facilities and the Shoreway facility to serve as models for high diversion facilities
  - Ensure proposed programs identify any service voids or deficiencies

# C. Executive Summary

## Purpose and Use for the Long Range Plan

This draft Long Range Plan is the key deliverable for phase four of a five-phase effort to complete the JPA's first comprehensive long range plan since 2002. The last phase is the Board's approval of a final Plan. The Plan is really a blueprint to assist the Board of Directors with future decision-making on enhancements to the existing solid waste, recycling, and organics collection and processing system for our service area of approximately 450,000 people in San Mateo County with a primary focus on the next five-year period.

The JPA's last Long Range Plan was drafted in 2002, then updated in 2005 and became the starting point for the development of the franchised collection programs and services rolled out in January 2011. A masterplan for the Shoreway Environmental Center was approved by the Board in April 2007 and was the basis for the $46 million in capital improvements completed between the fall of 2009 and the spring of 2011.

With the rollout of new franchised collection services and completion of the Shoreway masterplan improvements in 2011, the SBWMA now has one of the highest regarded and most innovative and efficient collection and processing systems in the country. This system provides a solid foundation to build on to address any future diversion needs, changes in State laws and regulations, and new policy goals established by the SBWMA Board of Directors.

The Plan addresses policy, programmatic and infrastructure needs to meet the requirements of Assembly Bill (AB) 341 with its 75% statewide recycling goal by 2020 and more recent legislation such as AB 1826 and its mandatory commercial organics recycling provisions. The Plan also includes recommendations for operational improvements affecting collection and Shoreway operations with a goal of improved efficiency, cost savings and environmental improvements.

The Plan in and of itself is not a decision-making tool for future decisions by Member Agencies in 2017 to extend or not the term of their existing Franchise Agreements with Recology San Mateo County and other critical contractual decisions such as:

- Future decision by the JPA whether or not to extend the term of the Shoreway Operations Agreement with South Bay Recycling (SBR)
- Future expiration after December 31, 2019 of the Ox Mountain Disposal Agreement
- Future expiration of disposal and processing agreements for HHW, C&D processing and source separated organics (for composting) processing

There are recommendations in this draft Plan that do affect the future scope of work for the Franchise Agreements and Shoreway Operations Agreement but staff will outline separate processes in the coming months for how the JPA and Member Agencies can successfully prepare for and execute on the critical contractual decisions related to the Franchise Agreements.

The Plan provides final recommendations with decision-making timelines and estimated costs, both one-time and ongoing, and capital requirements. Preliminary collection cost impacts are noted as appropriate, but more detailed analysis will be required in the future.

In assessing and evaluating potential enhancements to the existing recycling and solid waste collection and processing system the key guiding principles applied were:

- Meeting the State's 75% recycling goal by 2020
- Leveraging existing infrastructure and investments
- Programs that address any existing service voids or deficiencies
- Cost-effective and efficient programs

More specific to the existing Shoreway Environmental Center infrastructure not only was there a focus on achieving cost effective waste diversion but also identifying enhancements that would improve the efficiency of facility operations, and customer and worker experience and safety.

There were also specific enhancements developed through collaboration with Recology including two operational improvements: conversion of the existing collection fleet from using 5% biodiesel to a future fleet that runs on compressed natural gas (CNG), and potential use of split-body (two-compartment) collection vehicles to service residential customers.

Staff also worked closely with Recology to develop future measured diversion forecasts associated with existing commercial recycling and organics outreach efforts, notably to address the mandatory commercial organics requirements of Assembly Bill (AB) 1826 which take effect in April 2016.

### *Collection Programs and Policies*

In order to identify opportunities for enhancing existing programs and services, specific program metrics were reviewed such as sector (e.g., residential, commercial, etc.) specific diversion rates, customer participation rates, and an analysis of the types of materials (i.e., waste composition) that are being disposed. Staff's review of the program metrics resulted in the following findings:

- While we have a relatively high residential diversion rate of 66.5%, there remains opportunity to further increase participation and setout rates to divert more materials in a cost effective manner.
- The continued drought has contributed to an annual reduction in residential compost set-out participation levels.
- The overall diversion rate has remained stable and while still below 50%, it will likely increase once the data obtained through implementing the commercial recycling reporting Ordinance is included.
- Multi-family continues as a unique challenge and opportunity for diversion improvement especially due to this sector's high rate of disposal of both recycling and compost materials.
- The commercial sector contributes the largest percentage by sector of garbage and approximately half of the recycling and compost materials targeted for recycling are recovered through the BizSMART program. Therefore, while the extent of improvement in recycling and compost collection services remains unknown until more non-franchise recycling data is obtained from this sector, there appears to be considerable room for improvement in existing recycling and compost collection services.
- Public education and outreach is critically connected to the success of all the programs and affects participation and diversion rates.
- Public education and outreach spending has declined to an ongoing maintenance level and new, targeted outreach spending is needed to address both the residential and commercial sectors.

### *Shoreway Processing and Transfer Infrastructure*

Staff's review of waste diversion options at Shoreway was focused primarily on a review of waste composition data at the Transfer Station to determine the potential for additional materials recovery. Such waste composition data was projected into future years as part of our measured diversion forecast to identify actual disposed tons available for "back-end" (i.e., after source separation collection programs at homes and businesses) recovery at the Transfer Station. Significant quantities of organics and to a lesser extent recyclable materials were identified for recovery. Such a "back-end" recovery effort has the benefit of not impacting or requiring changes to the existing collection system; the existing source separation collection programs for solid waste, recycling and organics will remain in place.

Significant effort also went into identifying specific infrastructure enhancements that would be needed to support potential collection program enhancements such as the future use of CNG collection vehicles. A new CNG facility may be required to be built at Shoreway along with closeout of the existing diesel fuel storage and dispensing system. Staff will continue to evaluate other potential sources of CNG fuel to supplement or replace the need for an onsite CNG system. The Shoreway facility remains the most logical place for a future CNG fueling facility as this is where the collection fleet is based; having to fuel somewhere offsite will add collection expense as some vehicles will have to go "off route" to fuel.

Due to the JPA's interest in having office and public meeting space at Shoreway, several options were explored as part of this Plan. Such options to some extent are impacted by other Shoreway enhancements (i.e., Transfer Station building improvements) identified, though potentially there is a very cost effective solution in terms of creating office space (not meeting space) through remodeling the 2nd floor of the Recology administrative building.

## Recommendations and Next Steps

**Table 1.1** on the next page summarizes all of the recommendations for Board consideration. The recommendations are broken out into collection related operational improvements, programs/services enhancements; policy initiatives; and Shoreway infrastructure improvements. Cost estimates associated with the recommendations are current year estimates and preliminary collection cost impacts are provided namely for the CNG project and mixed waste processing in the Transfer Station; additional collection rate analysis will be required in the future.

Finally, it is critical to understand that the Long Range Plan is really a "blueprint" for future Board actions related to increasing measured diversion, and driving operational improvements. As outlined on the following pages there are a number of decisions that flow from the recommendations in **Table 1.1**.

As shown below, implementing the recommendations will increase measured diversion from our forecasted baseline of **57.59% in 2020 to an estimated 70.02% in 2020**. These figures include 26,500 tons of new diversion data added beginning 2015 as a result of the implementation of the Commercial Recycling Reporting Ordinance. The new tons are based on an extrapolation of tonnage numbers provided by 23 companies that registered and reported their first quarter 2015 data via our Ordinance, including estimated data from eight large retailers (e.g., grocery, drug stores, hardware, general home goods, etc.), some of which have registered but not yet submitted reports. The new tons excludes any construction and demolition debris recycling.

**Baseline Forecast w/ Enhanced Residential Public Education & MSW Processing Starting in 2018**

| Projected Future Measured Diversion Rate % by Sector for 2015-2020 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Year | | | | | | | |
| | Actual Results | | Projected Results | | | | | |
| Sector | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
| Residential | 66.90% | 66.48% | 66.59% | 66.59% | 66.59% | 71.32% | 76.35% | 76.60% |
| Commercial/MFD | 29.77% | 31.04% | 41.06% | 43.46% | 45.49% | 55.57% | 64.26% | 64.26% |
| Overall | 48.83% | 48.90% | 52.98% | 54.26% | 55.34% | 62.92% | 69.90% | 70.02% |
| Note: Preliminary Commercial Recycling Reporting Ordinance data is included. | | | | | | | | |

**Table 1.1: Summary of Recommendations for Policies, Program and Shoreway Infrastructure Enhancements**

| Name/Title | Recommendation | Project Benefits |
|---|---|---|
| | ***Collection Operational Improvement:*** | |
| **CNG Fleet Conversion Project** | The franchised service provider collection fleet to run on CNG effective 1/1/21 (assumed start of new Franchise Agreements). Recology to include this assumption in their proposal for an extension of their existing Franchise Agreements in 2017. | • Net collection ops. cost savings of **$992,960/year** starting in 2021<br>• Approximately 20%-23% reduction in greenhouse gas emissions<br>• **Estimated collection rate reduction of 1.0%** |
| **SFD Split-Body Collection Vehicle Pilot Project** | Conduct pilot project in FY1516 to study routing efficiencies using split-body (two- compartment) collection vehicles over two four-week pilot periods between September and November 2015. Recology proposes to conduct first pilot in Menlo Park and the other in Burlingame and adjoining County pockets. Approximately 8,000 homes per week (two routes) effected during each pilot period. | • Pilot project to assess potential routing efficiencies to determine if this type of collection vehicle can be cost effectively deployed in the future in our service area |
| | ***Collection Program/Service Enhancement:*** | |
| **SFD Every Other Week Garbage Collection Pilot Project** | Conduct a pilot project in FY1516 to study the cost effectiveness of collecting garbage every other week. Pilot details not final but assumes would cover approximately 8,000 homes (two routes) over a three month period.<br><br>Pilot would have to be approved by the County LEA which enforces State solid waste and related laws and regulations. | • Potentially significant increase in diversion<br>• Potential cost savings from reduced collection routes<br>• Potential reduction in greenhouse gas and other harmful vehicle emissions<br><br>**Note: Pilot project results to be evaluated to determine if this change in residential service levels and routing are to be included in the future Franchise Agreements. A solid waste rate study would need to be completed to assess this option and others for future consideration in the Franchise Agreements.** |
| **Commercial Recycling Outreach Program Project** | Modify Recology's current reporting requirements to implement a Commercial Subscription and Participation Compliance Status Report for use in setting outreach priorities and tracking progress to diversion goals. Couple this change with enhanced commercial public education and outreach efforts. Project to be implemented in FY1516. | • Supports Recology's efforts to achieve the forecasted commercial diversion shown in Table 2.1 and Table 2.2A<br>• Establish clear diversion targets for collection services contractor<br>• Increase return on investment in franchised commercial outreach program |
| **Public Spaces Recycling Pilot Program** | Implement model public spaces recycling collection in a downtown area and a park setting. Goal is to develop a more uniform approach across the Member Agencies that complements the existing residential and commercial recycling and organics collection services. Project to be implemented in FY1415 and FY1516. | • Increased diversion from the commercial sector (public spaces)<br>• Reduce litter<br>• Expand opportunities to engage public in recycling and reinforce messaging |

| Name/Title | Recommendation | Project Benefits |
|---|---|---|
| **Enhanced Residential Public Education and Outreach Pilot Program** | Conduct a pilot program focusing on cost-effective, measurable dedicated campaigns service-area wide and for specific Member Agencies with lower diversion rates. Pilot to be conducted in FY1617. | • Increase in residential recycling and organic materials: 2.5% in 2018, 5% in 2019, and 2% in 2020 resulting in 2,490 tons of new diversion<br>• Forecasted increase in residential diversion from 66.59% in 2015 to 68.22% in 2020 per Table 2.2A<br>• New diverted tons in 2018-2020 produce avoided disposal cost savings of $156,300<br>• Low cost per divided ton of approximately $28/ton |
| ***Policy Initiative:*** | | |
| **EPR Policy Framework** | Establish a framework for Board consideration to facilitate supporting EPR legislation and policy. Implement in FY1516. | • Provides SBWMA the opportunity to become engaged in State-wide efforts to enact EPR related policy<br>• Requires product manufacturers to take financial responsibility for collection, recycling and disposal of their products<br>• Provides incentive for manufacturers to design products for recyclability and with reduced toxicity<br>• Reduces cost to ratepayers for proper handling, recycling and disposal of various product types |
| ***Shoreway Infrastructure Enhancement:*** | | |
| **Mixed Waste Processing in Transfer Station** | Installation of a mixed waste processing system located in an expanded footprint in the existing Transfer Station. System to recover recyclables and organics from residential and commercial waste delivered to the Transfer Station by Recology collection vehicles. Recyclables to be processed further at existing onsite MRF. Organics to be transferred to SVCW for digestion and energy production. System can also process, at a projected expense less than existing organics processing, source separated organics from Recology franchised collection programs. System operational in 2018. | • Significant diversion potential of 49,591 tons/year starting in 2018<br>• Increases overall measured diversion from 55.34% in 2017 to 70.02% in 2020 per Table 2.2B<br>• **Estimate collection rate increase of 1.9% for base case scenario; drops to 1.5% if assume 20% increase in landfill disposal costs in 2020**<br>• Low cost per diverted ton at $38.42/ton for base-case scenario (small TS expansion with fiber recovery)<br>• Leverages existing infrastructure at SVCW to reduce the project capital costs<br>• Reduction of greenhouse gasses through recovery of green energy from waste and reduced landfilling<br>• Viable project for State grant funding |

| Name/Title | Recommendation | Project Benefits |
|---|---|---|
| **Shoreway Transfer Station Building Improvements** | Expand Transfer Station footprint to accommodate a mixed waste processing system. Two Transfer Station expansion scenarios: small expansion of 4,400 sq. ft. or large expansion of 12,000 sq. ft. Small expansion would not provide for new office and public meeting space. Large expansion would require demolition of Recology Administration building and construction of new Administration building. Large expansion would allow for new office and public meeting space as described further below. | • See Mixed Waste Processing in Transfer Station project benefits on previous page |
| **SBWMA Administrative Offices and Public Meeting Space** | Pursue one of three options to provide for onsite (at Shoreway) SBWMA office space and new public meeting space (e.g., for Board meetings, seasonal workshops and other public needs). There are three options for SBWMA office space with two of the options also providing public meeting space.<br><br>**Option 1** would be to remodel 3,000 sq. ft. of space on the second floor of Recology Administration Building; this option does not provide for public meeting space. Option 1 is possible if do small Transfer Station expansion. **Option 2** would consist of constructing a new two-story building in the existing visitor parking lot. The first floor would be a parking garage and the second floor will be split between office space and public meeting space totaling 5,614 sq. ft. **Option 3** would be associated with the large Transfer Station expansion scenario. Office space and public meeting space would be housed in a two-story building adjacent to the Transfer Station. Both floors would be approx. 3,000 sq. ft.<br><br>Staff recommends that no decision be made on these improvements until a final decision is made on the mixed waste processing project and related Transfer Station building improvements. | • All options would provide for SBWMA office space and thus save approx. $60,000 per year in office lease costs; **these annual cost savings would exceed the new depreciation expense for the required building improvements**<br>• Options 2 and 3 would provide for public meeting space for Board meetings and other public meetings and onsite public events |
| **MRF Single Stream Processing Equipment Replacement** | No recommended change to existing Board policy or direction. Staff to include a forecast for MRF equipment replacement in the FY1516 budget; the budget will include a rolling five-year capital budget. Existing cash reserves include an equipment replacement reserve fund to pay for such equipment replacement. | N/A |

| Name/Title | Recommendation | Project Benefits |
|---|---|---|
| **MRF Building Tipping Area Expansion** | This is an existing and budgeted project to construct MRF canopy to expand tipping area for collection vehicles to unload recyclables. Project required to for 3rd party tonnage into MRF. FY1415 budget of $450,000. Current project construction estimate of $438,741. | N/A |
| **CNG Fueling System at Shoreway** | Installation of a CNG fueling system at Shoreway in 2020 to support future fuel needs for collection fleet. Would also involve the closeout of the existing UST system. Would add one new AST for diesel for SBR transfer trailers. | • Supports conversion of the collection fleet to CNG with significant operational cost savings<br>• Eliminates future potential groundwater contamination at Shoreway from fueling operations<br>• Assumes onsite fueling station capitalized by a 3rd party |
| **Other Shoreway Infrastructure Improvements** | ***Site Paving***<br>No recommended change to existing Board policy or direction. Staff to include a forecast for site paving costs in capital spending portion of FY1516 budget.<br>***New LED Lighting***<br>LED lighting retrofit in the MRF, Transfer Station and Recology maintenance shops. | • Extend life of pavement in the corp. yard area used by Recology.<br>• **Estimated collection rate impact of 0.2%**<br><br>• Power cost savings after 1.3 year payback period<br>• Improved interior lighting for safer environment<br>• **Estimated collection rate savings of 0.2%** |
| **Environmental Education Center and Tour Program Enhancements** | Conduct a stakeholder engagement process in FY1516 to determine what additional components can be added to our existing environmental educational efforts with a focus on increasing recycling and composting efforts at schools in our service area. RethinkWaste is only minimally engaged in school or community based environmental education outside of the existing tour program. | • Complements existing RethinkWaste recycling outreach efforts to residents and businesses<br>• Engages local educators to identify synergies to maximize effectiveness of new programs<br>• Enhances return on investment in broader outreach campaigns |

***Timeline and Cost Projections Associated with Future Decisions by SBWMA Board and/or Member Agencies***

In order to implement the recommendations outlined in **Table 1.1**, the following decisions by year will be requested of the SBWMA Board and/or Member Agencies**.**

***Timeline***

**2015**

- **SFD Split-body Collection Vehicle Pilot Project** – SBWMA Board decides whether to include one-time expenses of $16,391 in FY1516 budget. Board also provides direction to Recology as to whether to include one-time expenses of $55,422 in their 2016 Compensation application submitted in June.
- **SFD Every Other Week Garbage Collection Pilot Project** – SBWMA Board decides whether to include one-time expenses of $119,200 in FY1516 budget. No impact on 2015 or 2016 Recology compensation.
- **Commercial Recycling Outreach Program Project** – SBWMA Board decides whether to include one-time expenses of $50,000 - $60,000 in FY1516 budget. No impact on 2015 or 2016 Recology compensation.
- **Public Spaces Recycling Pilot Program** – SBWMA Board decides whether to include one-time expenses of $11,000 in FY1516 budget. No impact on 2015 or 2016 Recology compensation.
- **EPR Policy Framework** – SBWMA Board decides whether to adopt an EPR Policy Framework.
- **Mixed Waste Processing in the Transfer Station** – SBWMA Board decides whether to include one-time project development expenses of $183,000 in FY1516 budget. No impact on 2015 or 2016 contractor compensation.
- **SBWMA Administrative Offices and Public Meeting Space** – SBWMA Board decides whether to include $25,000 in one-time costs in FY1516 budget to further refine building cost estimates. Board could also decide to move forward on Option 1 ($275,000) to remodel the upstairs portion of the Recology Administration building or Option 2 ($3.33 million) to build a new two-story building in the visitors parking lot. Staff recommends that no decision be made on these improvements until a final decision is made on the mixed waste processing project and related Transfer Station building improvements.
- **MRF Single Stream Processing Equipment Replacement** – SBWMA Board will adopt annual budget with five-year capital spending plan (plan updated each year for a rolling five-year period). Sufficient cash reserves already in place for forecasted equipment replacement needs.
- **MRF Building Tipping Area Expansion** – SBWMA Board considers approval of construction contract award in April or May 2015. Capital line item already included in adopted FY1415 budget.
- **Site Paving** – SBWMA Board approval of FY1516 budget with five-year capital spending plan to include site paving needs.
- **New LED Lighting** – SBWMA Board will decide whether to approve or not inclusion of the estimated $274,000 in the FY1516 capital budget.
- **Environmental Education Center and Tour Program Enhancements** – SBWMA Board decides whether to include $25,000 in one-time costs in FY1516 budget to complete stakeholder engagement process.

**2016**

- **CNG Fleet Conversion Project** - SBWMA and Member Agencies decide if CNG fleet to be included in future scope of work for Franchise Agreements (2017 decision by Member Agencies whether to extend or not current Recology Franchise Agreements beyond 12/31/20).
- **SFD Split-body Collection Vehicle Pilot Project** – Based on pilot project results, SBWMA and Member Agencies decide if split-body vehicles to be included in future scope of work for Franchise Agreements.

- **SFD Every Other Week (EOW) Garbage Collection Pilot Project** – Based on pilot project results, SBWMA and Member Agencies decide if EOW solid waste collection to be included in future scope of work for Franchise Agreements.
- **Commercial Recycling Outreach Program Project** – Based on outreach pilot project results, SBWMA Board decides if expanded commercial outreach should be continued.
- **Public Spaces Recycling Pilot Program** – Based on pilot project results, SBWMA and Member Agencies decide if there is to be a full scale rollout across service area; could impact SBWMA FY1617 budget and Recology 2017 compensation.
- **Enhanced Residential Public Education and Outreach Pilot Program** – SBWMA Board decides whether to include one-time expenses of $175,000 in FY1617 budget and $25,000 in FY1718 and FY1819 budgets. No impact on 2016 or 2017 Recology compensation.
- **Mixed Waste Processing in the Transfer Station** – SBWMA Board makes decision on project based on updated project financial proforma. If decision is to implement, then would initiate project design and permitting in 2016 and develop plan of finance. Capital costs in FY1617- FY1718 budgets. Would also negotiate updated MOU with SVCW for Board consideration.

  The above decision would also relate to the associated Transfer Station building improvements required to accommodate the new mixed waste processing system.
- **SBWMA Administrative Offices and Public Meeting Space** – The above decisions may effect which option, if any, the Board chooses for new SBWMA office space and public meeting space at the Shoreway Environmental Center.
- **Environmental Education Center and Tour Program Enhancements** - When staff completes the stakeholder engagement process then recommendations will come back to the Board for consideration for FY1617 budget.

**2017**

- **Enhanced Residential Public Education and Outreach Pilot Program** – Based on pilot project results, SBWMA Board decides if ongoing enhanced outreach effort is to be continued. Staff assumes $25,000 in new spending in FY1718 and FY1819.
- **Mixed Waste Processing in the Transfer Station** – Board approval of construction contract award for building improvements and purchase of processing equipment. Negotiate Operations Agreement amendment for SBR compensation to operate new processing system; such amendments require approval of the SBWMA Board and separate approval by two-thirds (at least 8 of the 12) of the Member Agencies.

  The above decision would also relate to the associated Transfer Station building improvements required to accommodate the new mixed waste processing system.

  If issuance of new debt is needed to finance the project then this will require SBWMA Board approval and separate approval by two-thirds (at least 8 of the 12) of the Member Agencies.

**2018/2019**

- **CNG Fueling System** – SBWMA Board approval of Shoreway project expenses for site improvements, including closeout of USTs, installation of new AST, and site improvements required for new CNG fueling system. Current estimate of $1.375 million to $1.8 million with $1.24 million in Shoreway remediation funds available to help offset costs.

**2021**

- **Mandatory Residential and Commercial Recycling Ordinance** – Analyze programmatic efforts through 2020 to determine measured diversion rate and progress towards State goal of 75%. If still short of goal then the SBWMA Board may decide to approve new policy tools.
- **Organic Materials (Green Waste and Food Scraps) Disposal Ban** – Analyze programmatic efforts through 2020 to determine measured diversion rate and progress towards State goal of 75%. If still short of goal then the SBWMA Board may decide to approve new policy tools.

***Cost Projections***

**Table 1.2** summarizes the preliminary collection rate impact analysis for a number of the projects with an overall collection rate impact of **0.9%** (in today's dollars).

**Table 1.2: Collection Rate Impact**

| LRP PROJECTS | Life (yrs.) | Annual Financial Impact - Positive / (Negative) | Collection Rate Impact | |
|---|---|---|---|---|
| CNG Collection Fleet Conversion | 10 | $992,960 | -1.0% | rate reduction |
| Mixed Waste Processing ($13.5M) | 10 - 30 | ($1,905,487) | 1.9% | rate increase |
| SBWMA Admin. Offices Option #1 ($275k) | 10 | $32,500 | 0.0% | rate reduction |
| Shoreway - Paving ($2M) | 10 | ($200,000) | 0.2% | rate increase |
| Shoreway - LED Lighting Improvements ($274K) | 10 | $181,600 | -0.2% | rate reduction |
| **TOTAL BASE CASE RATE IMPACT** | | | **0.9%** | |

**Table 1.3** shows actual projected costs by fiscal year for the recommended projects. Existing cash is available to fund about $4.24 million of the $15.2-15.6 million in projected capital projects; $3 million in existing cash could be used to fund the FY1718 capital needs (i.e., Recology admin. building remodel and Transfer Station building improvements) and the FY1920 capital (i.e., CNG fueling operation and USTs closeout) project with the unfunded needs of approximately $11 million in FY1819 for the mixed waste processing equipment.

**Table 1.3: Projected Costs by Fiscal Year**

| | FY1516 | FY1617 | FY1718 | FY1819 | FY1920 |
|---|---|---|---|---|---|
| Operating Expense | $439,591 | $175,000 | $25,000 | $25,000 | |
| Other Expenses | $55,422[1] | | | | |
| Capital Expenses[2] | $274,000 | | $2,807,200 | $10,984,859 | $1,375,000 - $1,800,000 |
| Subtotal: | $713,591 | $175,000 | $2,832,200 | $11,009,859 | $1,375,000 - $1,800,000 |

[1] Recology collection expense

[2] Currently available cash to fund capital projects includes approximately $3 million in undesignated cash reserves and $1.24 million in Shoreway remediation fund monies.

In the upcoming fiscal year (FY1516) there are a number of recommendations for one-time expenditures to support implementation of pilot projects, and complete additional technical and financial analysis of the mixed waste processing system, including building improvements.

For FY1516, the projected spending from the operating expense budget totals $439,591 with $206,591 for collection related programs and outreach, and $233,000 related to Shoreway operations. $274,000 is also recommended as a capital expense to retrofit large lighting fixtures in the MRF, Transfer Station, and Recology maintenance shop with high efficiency LED lights. A $55,422 adjustment is also recommended to Recology's 2016 compensation to cover costs associated with the split-body collection vehicle pilot project.

$175,000 is recommended to be included in the FY1617 operating budget to complete a residential outreach pilot to measure potential enhancements to diversion levels. Future residential diversion increases are assumed starting in calendar year 2018 based on increased outreach spending, with additional spending estimate at $25,000 in FY1718 and FY1819.

Based on the results of the various pilots conducted in 2015 and 2016, there will be follow-up SBWMA Board and/or Member Agency decisions in 2016, 2017 and 2018 regarding full-scale rollout of programs and services (e.g., enhanced public education and outreach, Public Spaces recycling, etc.) and future franchised collection service operations (e.g., use of split-body collection vehicles and EOW solid waste collection). Notably, any changes to collection service operations would need to be analyzed from a rate perspective along with any other changes proposed by Recology and/or recommended by the SBWMA Board and Member Agencies.

Major decisions on the Shoreway facility capital improvements are assumed to occur in 2016 for the mixed waste processing system and related Transfer Station building expansion. Currently, the assumed base-case project would involve spending $13.51 million, with $2.53 million for a small expansion of the Transfer Station and $10.58 million for processing equipment. Project funding sources could include the use of current undesignated cash reserves estimated at $3.9 million (FY1415 mid-year budget document), new incremental undesignated cash reserves resulting from tipping fee increases at Shoreway, State grant funding, and new debt (bank loan, bonds, etc.) An analysis of tipping fees and other aspects of the Shoreway operations budget would need to be completed as part of any Board decision-making process for this project.

The above decisions related to the mixed waste processing project will also effect potential options related to the development of SBWMA office space and public meeting space at Shoreway. The SBWMA currently spends approximately $60,000 per year to lease office space, and the Board Chair and Vice Chair requested an analysis of alternatives be included in the Long Range Plan. Three options are presented with a cost range of $275,000 (to remodel the upstairs portion of the Recology Administration building) to $3.33 million (to build a new two-story building in the visitors parking lot). Another option at a cost of $977,550 would be tied to the large expansion option for the Transfer Station. The lowest cost of $275,000 provides for SBWMA office space, but no provision for public meeting space; if this option was pursued, however, an offsite location would need to be secured for Board meetings. The next lowest cost option at $977,750 provides office and meeting space and is tied to a much more expensive (i.e., $9.9 million higher) Transfer Station expansion scenario that is not the preferred option for the mixed waste processing project. The preferred alternative would be the $3.3 million option that provides for both SBWMA office space and public meeting space on a long-term basis.

Finally, in 2019 the Board would face decisions around capital expenditures to support installation of a new CNG fueling system at Shoreway. Fortunately, the current estimated project costs of $1.38 - $1.8 million would largely be

covered by an existing source of funds; $1.24 million is currently available in a Shoreway remediation fund. Further, the net project costs would be more than offset by the annual franchised collection services operational savings identified at approximately $1 million per year starting in 2021.

# SECTION 2

**(Previously Section 4)**

## EVALUATION OF WASTE REDUCTION, RECYCLING AND COMPOSTING POLICIES, PROGRAMS AND SHOREWAY INFRASTRUCTURE ENHANCEMENTS

# 2. Evaluation of Waste Reduction, Recycling and Composting Policies, Programs and Shoreway Infrastructure Enhancements

## A. Disposal and Diversion Tonnage Forecast for 2015-2020

**Table 2.1: Baseline Measured Diversion % Forecast**

| Projected Future Measured Diversion Rate % by Sector with Current Programs 2015-2020 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Year | | | | | | | |
| | Actual Results | | Projected Results | | | | | |
| Sector | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
| Residential | 66.90% | 66.48% | 66.59% | 66.59% | 66.59% | 66.59% | 66.59% | 66.59% |
| Commercial/MFD | 29.77% | 31.04% | 41.06% | 43.46% | 45.49% | 46.87% | 48.54% | 49.71% |
| Overall | 48.83% | 48.90% | 52.98% | 54.26% | 55.34% | 56.08% | 56.97% | 57.59% |
| Note: Preliminary Commercial Recycling Reporting Ordinance data is included. | | | | | | | | |

**Table 2.1** above provides a forecast of the baseline measured diversion rate by sector and overall for the RethinkWaste service area from 2015-2020 assuming there are no changes to existing programs, policies or infrastructure (with the exception of anticipated impacts AB 1826 will have on the Commercial/MFD sector starting in 2016). As can clearly be seen from these projections, the SBWMA and its Member Agencies will not be anywhere near achieving the State 75% recycling goal by 2020. More detail on the assumptions used to create **Table 2.1** are provided below.

### Residential

The residential 2015 forecast is based on adjusting the 2014 actual figures by the average change in tonnage over the three prior years. This resulted in decreasing residential solid waste by 0.42%, increasing residential recycling by 0.30% and decreasing residential organic materials by 0.21%. The residential forecast for 2016-2020 assumes no changes to diversion or disposal which is based primarily on maintaining the current level of public education and outreach. However, it is important to note that many factors ultimately influence materials generation, including but not limited to economic conditions and weather conditions; wet weather tends to increase green waste generation and the opposite is true with drought conditions.

### Commercial

The commercial 2015 forecast is also based on trends from the prior three years in tonnage. This resulted in increasing commercial, multi-family and roll-off solid waste by 5%, 5% and 10%, respectively; while commercial organic materials is increased by 3% and roll-off organic materials is decreased by 2%. These figures also include 26,500 tons of new diversion data added beginning 2015 as a result of the implementation of the Commercial Recycling Reporting Ordinance. The new tons are based on an extrapolation of tonnage numbers provided by 23 companies that registered and reported their first quarter 2015 data via our Ordinance, including estimated data from eight large retailers (e.g., grocery, drug stores, hardware, general home goods, etc.), some of which have registered but not yet submitted reports. The new tons excludes any construction and demolition debris recycling.

In addition, the forecast includes an analysis of data and projections provided by Recology related to performance of its commercial recycling and organics outreach program. This analysis resulted in increasing the capture rate of recycling by 2.0% and organic materials by 3%.

Staff also used data and projections from Recology for commercial recycling and organics (per AB 1826) to arrive at tonnage assumptions for 2016-2018. The assumed tonnage forecast is as follows: 2016 – recycling increased by 5%, organic materials by 10%; 2017 – organic materials increased by 10%; 2018 – recycling and organic materials increased by 2.5%. No tonnage adjustments were assumed for 2019 and 2020 given the projected start-up of the mixed waste processing operation in July 2018; such a system can be used to comply with AB 1826 requirements. Ongoing use of public outreach and education tools are assumed for 2015-2020.

For all of the commercial diversion assumptions, it was assumed if a ton was diverted than one corresponding less ton was disposed of; staff made no assumptions regarding factors influencing overall generation such as economic conditions and drought.

**Overall**

The overall measured diversion rate forecast by year is simply a combination of total tons diverted and disposed from all sectors (i.e., residential and commercial/MFD).

**Table 2.2A** below provides a forecast of the measured diversion rate by sector and overall RethinkWaste service area from 2015-2020 assuming the implementation of the Enhanced Residential Public Education and Outreach Program, and no other changes to existing programs, policies or infrastructure (with the exception of anticipated impacts AB 1826 will have on the commercial/MFD sector starting in 2016). The effects of the enhanced outreach are anticipated to be felt starting in the last half of 2018, resulting in a 2.5% increase in residential recycling and organic materials tonnages, 5% increase in 2019 as the full impacts are realized over the whole year, and dropping to an additional 2% in 2020 as the program effects wind down. There is parallel decrease in residential garbage from 2018-2020 with estimated total disposal cost savings of $156,300. The same assumptions that were used to create the residential diversion rate in **Table 2.1** for 2015-2017 were used in **Table 2.2A**. The same assumptions that were used to create the commercial diversion rate in **Table 2.1** for 2015-2020 were used in **Table 2.2A**.

Adding the enhanced residential outreach results in increasing the residential forecasted baseline diversion rate in 2020 from 66.59% to 68.22%.

**Table 2.2A: Baseline Forecast w/ Enhanced Residential Public Education Starting in 2018**

| Projected Future Measured Diversion Rate % for 2015-2020 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Year | | | | | | | |
| | Actual Results | | Projected Results | | | | | |
| Sector | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
| Residential | 66.90% | 66.48% | 66.59% | 66.59% | 66.59% | 67.02% | 67.88% | 68.22% |
| Commercial/MFD | 29.77% | 31.04% | 41.06% | 43.46% | 45.49% | 46.87% | 48.54% | 49.71% |
| Overall | 48.83% | 48.90% | 52.98% | 54.26% | 55.34% | 56.28% | 57.57% | 58.35% |
| Note: Preliminary Commercial Recycling Reporting Ordinance data is included. | | | | | | | | |

**Table 2.2B** below provides a forecast of the measured diversion rate by sector and overall RethinkWaste service area from 2015-2020 assuming the implementation of the Enhanced Residential Public Education and Outreach Program as noted in **Table 2.2A**, and the Mixed Waste Processing System in the Transfer Station starting in July 2018. No other changes to existing programs, policies or infrastructure have been assumed (with the exception of anticipated impacts AB 1826 will have on the Commercial/MFD sector starting in 2016 through 2018). Based on the timing of the project, the effects of the mixed waste processing result in the recovery of an additional 24,795 tons of organic materials in 2018 from the residential and commercial sectors, and 49,591 tons in both 2019 and 2020. There is parallel decrease in garbage from 2018-2020.

The same assumptions that were used to create the residential and commercial diversion rates in **Table 2.2A** for 2015-2017 were used in **Table 2.2B**. Adding the enhanced residential outreach and mixed waste processing results in increasing the overall forecasted baseline diversion rate in 2020 from 57.59% to 70.02%.

**Table 2.2B: Baseline Forecast w/ Enhanced Residential Public Education and MSW Processing Starting in 2018**

| Projected Future Measured Diversion Rate % by Sector for 2015-2020 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Year | | | | | | | |
| | Actual Results | | Projected Results | | | | | |
| Sector | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
| Residential | 66.90% | 66.48% | 66.59% | 66.59% | 66.59% | 71.32% | 76.35% | 76.60% |
| Commercial/MFD | 29.77% | 31.04% | 41.06% | 43.46% | 45.49% | 55.57% | 64.26% | 64.26% |
| Overall | 48.83% | 48.90% | 52.98% | 54.26% | 55.34% | 62.92% | 69.90% | 70.02% |
| Note: Preliminary Commercial Recycling Reporting Ordinance data is included. | | | | | | | | |

## B. Evaluation of Policies, Programs and Shoreway Infrastructure Enhancements

**Appendix B** of this Plan covers an inventory of the existing programs and infrastructure to help identify if any program and service enhancements are needed in the future, and a summary of the enhancements and new programs recommended for evaluation and consideration.

**Table 2.3** below summarizes the enhancements and new programs by sector, and the subsequent **Tables 2.4** and **2.5** provide greater detail on the enhancements and new programs, including diversion impacts and costs. Following the summary tables is a detailed description of each individual policy, program and infrastructure enhancement recommended for evaluation and consideration.

**Table 2.3: Summary of Policy and Program Enhancements by Sector**

| Proposed Enhancement | Sector | | Type of Program | | |
|---|---|---|---|---|---|
| | Residential | Commercial | Policy | Program/Service | Operational Improvement |
| CNG Fleet Conversion Project | ✓ | ✓ | | | ✓ |
| SFD Split-Body Collection Vehicle Pilot Project | ✓ | | | | ✓ |
| SFD Every Other Week Garbage Collection Pilot Project | ✓ | | | ✓ | |
| Commercial Recycling Outreach Program Project | | ✓ | | ✓ | |
| Public Spaces Recycling Pilot Program | | ✓ | | ✓ | |
| Enhanced Residential Public Education and Outreach Pilot Program | ✓ | | | ✓ | |
| Mandatory Residential and Commercial Recycling Policy | ✓ | ✓ | ✓ | | |
| Organic Materials (Green Waste and Food Scraps) Disposal Ban | ✓ | ✓ | ✓ | | |
| EPR Policy Framework | ✓ | ✓ | ✓ | | |
| Mixed Waste Processing in Transfer Station | ✓ | ✓ | | | ✓ |
| Shoreway Transfer Station Building Improvements | ✓ | ✓ | | | ✓ |
| SBWMA Administrative Offices and Public Meeting Space | | | | | ✓ |
| MRF Single Stream Processing Equipment Replacement | ✓ | ✓ | | | ✓ |
| MRF Building Tipping Area Expansion | ✓ | ✓ | | | ✓ |
| CNG Fueling System | ✓ | ✓ | | | ✓ |
| Other Shoreway Infrastructure Improvements | | | | | ✓ |
| Environmental Education Center and Tour Program Enhancements | ✓ | ✓ | | ✓ | |

**Table 2.4: Diversion Potential by Policy or Program Enhancement**

| Proposed Enhancement | Sector | 2015 Estimated Diversion (Tons/year) | 2016 Estimated Diversion (Tons/year) | 2017 Estimated Diversion (Tons/year) | 2018 Estimated Diversion (Tons/year) | 2019 Estimated Diversion (Tons/year) | 2020 Estimated Diversion (Tons/year) |
|---|---|---|---|---|---|---|---|
| CNG Fleet Conversion Project | Residential | N/A | | | | | |
| SFD Split-Body Collection Vehicle Pilot Project | Residential | N/A | | | | | |
| SFD Every Other Week Garbage Collection Pilot Project | Residential | N/A | | | | | |
| Commercial Recycling Outreach Program Project | Commercial | Supports continued growth in existing commercial recycling outreach program and new mandates of AB 1826. | | | | | |
| Public Spaces Recycling Pilot Program | Commercial | N/A | N/A | Diverted tons to be estimated after FY1516 pilot | | | |
| Enhanced Residential Public Education and Outreach Pilot Program | Residential | N/A | N/A | Limited diversion in pilot phase | 759 | 1,302 | 429 |
| Mandatory Residential and Commercial Recycling Policy | Commercial | No diversion estimates provided | | | | | |
| Organic Materials (Green Waste and Food Scraps) Disposal Ban | Commercial | No diversion estimates provided | | | | | |
| EPR Policy Framework | Comm. & Residential | No diversion estimates provided | | | | | |
| Mixed Waste Processing in Transfer Station | Comm. & Residential | N/A | N/A | N/A | 24,795 | 49,591 | 49,591 |

**Table 2.5: Summary of Programs, Services and Shoreway Infrastructure Enhancements**

| Proposed Enhancement | Program Cost Summary | Targeted Materials | Required Policy Change by Member Agency | Collection Changes | Shoreway Facility Changes | Pros | Cons | Implementation Issues | Schedule |
|---|---|---|---|---|---|---|---|---|---|
| **COLLECTION PROGRAMS AND POLICY** | | | | | | | | | |
| **CNG Fleet Conversion Project** The fuel used to run the collection fleet will be changed from B5 biodiesel to CNG. | • Annual fuel savings of **$1,556,100**<br>• Other reduced ops. expense of **$103,438**<br>• Annual increase in depreciation expense (year 1) of **$570,717**<br>• 10-year average interest expense of **$95,862**<br>• Net savings per year of **$992,960** or **$9,929,600** over 10 years | N/A | N/A | Requires purchase of 127 CNG compatible collection vehicles to deliver services for 120 existing routes. | Requires installation of a CNG fueling system. Would also involve closeout of existing underground storage tank (UST) system. Would add 1 new aboveground storage tank (AST) for diesel for SBR transfer trailers. See Table 2.37 for more details on Shoreway operational costs associated with this project. | • Net collection ops. cost savings of **$0.99M/year** starting in 2021<br>• Approximately 20%-23% reduction in greenhouse gas emissions<br>• Eliminates future potential groundwater contamination at Shoreway from fueling operations | • Subject to price fluctuations of CNG fuel<br>• CNG dispensing system may impact collection vehicle parking capacity | • Need to negotiate CNG fueling system **financing and supply agreement between franchised service provider and 3rd party**<br>• Need to implement Shoreway site improvements<br>• Complex project management to phase in new CNG system and closeout old USTs | • Closeout of old diesel system, installation of new AST diesel system for SBR and installation of new CNG system in six to nine month period in 2020<br>• Recology purchase and delivery of new CNG collection vehicles in late 2020 |
| **SFD Split-Body Collection Vehicle Pilot Project (proposed by Recology)** Conduct a pilot project to study routing efficiencies using split-body collection vehicles. | Pilot program cost to Recology: **$55,422** in 2016.<br><br>RethinkWaste additional public education expense: **$16,391** in FY1516. | N/A | Participating Member Agencies would be requiring a modification to the current collection service provided to residential customers. Participating Member Agencies requested to provide relief on specific Liquidated Damages during pilot phase. | • Garbage and recycling will be collected in different compartments of the same truck<br>• No day of week routing changes are anticipated | Minor impact on scale house operations due to trucks weighing twice for each load delivered. | TBD | TBD | • Requires public education campaign<br>• Recology customer service call center may be impacted with additional calls<br>• May cause resident confusion since one truck will be collecting both garbage and recycling<br>• Service change of limited duration may result in resident confusion | Recology may include results in proposal for an extension to the existing Franchise Agreements in 2017. |

| Proposed Enhancement | Program Cost Summary | Targeted Materials | Required Policy Change by Member Agency | Collection Changes | Shoreway Facility Changes | Pros | Cons | Implementation Issues | Schedule |
|---|---|---|---|---|---|---|---|---|---|
| **SFD Every Other Week Garbage Collection Pilot Project**<br>Conduct a pilot project to study the cost effectiveness of collecting garbage every other week. | Pilot Program Cost: **$119,200** in FY1516. | Residential recycling, organic materials and garbage | Participating Member Agencies would be requiring a modification to the current collection service provided to residential customers. Participating Member Agencies requested to provide relief on specific Liquidated Damages during pilot phase. | Affects pilot area only: Residents can subscribe to EOW garbage service; no changes to existing routes. | N/A | • Potential increase in diversion<br>• Potential cost savings<br>• Potential reduction in greenhouse gas and other harmful vehicle emissions<br>• Heightened awareness of residents leading to long-term positive behavior change | • Service provided will be temporary and will revert to weekly collection at end of pilot; some residents may be upset with this<br>• Customers may have concerns with increased vectors or aesthetic issues<br>• If full rollout, potential reduced rate revenue<br>• If rolled out before 2021, service provider would have some "stranded" assets | • Requires approval of the Local Enforcement Agency<br>• Requires approval of effected Member Agencies | • Design pilot: Fall 2015<br>• Commence public education and outreach: January 2016<br>• Conduct pilot project: March-May 2016<br>• Compile results & make recommendations: June 2016 |
| **Commercial Recycling Outreach Program Project**<br>Implement a metrics driven sales oriented approach to increase diversion coupled with enhanced outreach efforts. | Supplemental outreach costs: **$50,000 - $60,000** in FY1516.<br><br>Recology (annual) staffing cost for 2015 is **$912,362**. | Recycling, organic materials and garbage | N/A | N/A | N/A | • Increased diversion from the commercial sector, though not clear how much<br>• Establish clear diversion targets for contractor<br>• Increase return on investment in franchised program | • Some up-front administrative effort in consolidating reports<br>• Cultural shift regarding program management by contractor<br>• Without full cooperation and ownership of new approach by contractor, limited results will be achieved | • Requires full cooperation from contractor<br>• Requires contractor to adjust their approach and may take some time to realize the full benefit | • By summer 2015 modified reports can be utilized to set diversion goals for business types and accounts<br>• January 2016-ongoing; analysis of program results<br>• FY1516: development and launch of supplemental public education and outreach efforts |

| Proposed Enhancement | Program Cost Summary | Targeted Materials | Required Policy Change by Member Agency | Collection Changes | Shoreway Facility Changes | Pros | Cons | Implementation Issues | Schedule |
|---|---|---|---|---|---|---|---|---|---|
| **Public Spaces Recycling Pilot Program**<br>Implement model public spaces recycling collection in a downtown area and a park setting. | Pilot program cost: **$46,000 total**<br><br>**$35,000** budgeted in FY14/15<br><br>**$11,000** to be budgeted in FY15/16 | Commercial and Member Agency Facility (public space) recycling, organic materials and garbage | Pilot participants cooperation is required; no policy changes applicable. | • Increased number of public space receptacles for franchised collection services<br>• Increased number of receptacles handled by Agency staff<br>• Potential increase in capacity of bins on site at Agency facilities | N/A | • Increased diversion from the commercial sector (public spaces)<br>• Reduce litter<br>• Expand opportunities to engage public in recycling and reinforce messaging<br>• Member Agency and RethinkWaste commitment to leadership in recycling and improvement to public spaces<br>• Increase value to the ratepayers of current franchise agreement<br>• Provides opportunity for community partnerships with park users | • Potentially result in increased workload for parks and public space maintenance staff<br>• Increases Member Agency assets that require maintenance (public space containers) | • Requires cooperation from Member Agency staff and Recology | • April-June 2015: purchase new assets<br>• July 2015 install assets<br>• August-Dec 2015: monitor pilot sites<br>• Jan-Feb 2016: review results, issue lessons learned and recommendations<br>• April 2016: budget for full-scale roll-out<br>• July-December 2016: commence full-scale roll-out |
| **Enhanced Residential Public Education and Outreach Pilot Program**<br>Conduct a pilot program focusing on cost-effective, measurable dedicated campaigns for the residential sector, incentives and new messaging/tools | Service area wide campaign cost: **$100,000** in FY1617.<br><br>Community based outreach cost: **$75,000** in FY1617. | Residential recycling, organic materials and garbage | N/A | N/A | N/A | • Increased diversion from the residential sector<br>• Facilitate long-term behavior change requiring less future investment in outreach | N/A | • Design public outreach campaigns<br>• Work with Member Agencies on tailored campaigns for their community | • FY1617: development and campaign launches |
| **Mandatory Residential and Commercial Recycling Ordinance**<br>Develop a policy framework to implement mandatory recycling. | Implementation (first-year) expense: **$303,000**<br><br>Annual recurring expense: **$268,000** | Residential, commercial, multi-family and Member Agency organic materials and recycling | Yes – potential Member Agency adoption of new ordinance. | May result in additional franchised collection services. | N/A | • Increase diversion cost-effectively<br>• Heighten public awareness leading to long-term positive behavior change<br>• Reduced greenhouse gas emissions<br>• Increase competitive advantage of businesses that embrace recycling and sustainable practices | • Requires individual Member Agencies to adopt policy or for SBWMA to adopt policy and implement on behalf of Agencies<br>• Ideally would include regional cooperation | • Requires extensive stakeholder engagement process<br>• Requires wide-spread public education campaign | • Recommended for consideration in future years if 75% goal is not met by end of 2020 |

| Proposed Enhancement | Program Cost Summary | Targeted Materials | Required Policy Change by Member Agency | Collection Changes | Shoreway Facility Changes | Pros | Cons | Implementation Issues | Schedule |
|---|---|---|---|---|---|---|---|---|---|
| **Organic Materials (Green Waste and Food Scraps) Disposal Ban**<br>Develop a policy framework to implement a Countywide ban on disposal of organic materials. | Implementation expense: **$60,000** | Residential, commercial, multi-family and Member Agency organic materials | Yes – adoption of Countywide ordinance. | N/A | Potential modification to rates charged to self-haul customers to impose a premium to deliver banned materials without proper separation. | • Increase diversion cost-effectively<br>• Heighten public awareness<br>• Reduced greenhouse gas emissions | • Requires Countywide implementation<br>• Ideally would include regional cooperation | • Would require cooperation from the County Board of Supervisors to adopt new ordinance | • Recommended for consideration in future years if 75% goal is not met by end of 2020 |
| **EPR Policy Framework**<br>Establish a framework for Board consideration to facilitate supporting EPR legislation and policy | N/A<br><br>Policy implementation and ongoing expense to be incurred in existing RethinkWaste staffing expense. | A variety of materials and product types depending on the scope of the policy initiative(s) | Yes – if individual Member Agency's want to adopt an EPR framework. | N/A | N/A | • Requires product manufacturers to take financial responsibility for collection, recycling and disposal of their products<br>• Provides incentive for manufacturers to design products for recyclability and with reduced toxicity<br>• Reduces cost to ratepayers for proper handling, recycling and disposal of various product types | • Requires action at state level<br>• Increases RethinkWaste staff responsibilities related to reviewing state legislation<br>• Ideally would include regional cooperation | • Relies heavily on State legislative action | • October 2015: Draft Resolution presented to TAC for review and comment<br>• November 2015: Board considers adopting Resolution<br>• January 2016-ongoing: RethinkWaste staff participation in development of policy initiatives |

| Proposed Enhancement | Program Cost Summary | Targeted Materials | Required Policy Change by Member Agency | Collection Changes | Shoreway Facility Changes | Pros | Cons | Implementation Issues | Schedule |
|---|---|---|---|---|---|---|---|---|---|
| **SHOREWAY INFRASTRUCTURE** | | | | | | | | | |
| **Mixed Waste Processing in the Transfer Station**<br>Mixed Waste Processing system located at the Transfer Station to recover recyclables and organics. Recyclables to be processed further at onsite MRF. Organics to be transferred to SVCW for digestion and energy production. | • Year 1 net increase ($5.19M in new ops. expense - $3.28 in new commodity revenue) in cost of **$1.9**M to process all waste in TS<br>• Annual depreciation expense (year 1) of **$1.28M**<br>• FY1516 project development cost of **$183,000** | Residential and commercial recyclables and organics. | No | No | Installation of new processing equipment within the Transfer Station and a westward expansion of the Transfer Station building. Depending upon size of Transfer Station building expansion may require demolition of the Recology Administration building and construction of a new Admin bldg. to the east of the Transfer Station. New processing system assumed to be operational by July 2018. | • Significant diversion potential of 49,591 tons/year<br>• Leverages existing infrastructure at SVCW to reduce the project capital costs<br>• Reduction of greenhouse gasses through recovery of green energy from waste and reduced landfilling<br>• Viable project for state grant funding | • Significant capital requirements for processing equipment of $10.98 million<br>• Short-term impacts to Transfer Station operations<br>• Potential amendment to Operations Agreement<br>• Some operational risk with new “organics press” technology from Anaergia | • Need to procure new processing equipment<br>• Complex project management to install and start-up new processing system while continuing Transfer Station operations<br>• Need to negotiate a scope of work and associated compensation for SBR to operate new processing system<br>• Need to negotiate terms and conditions associated with SVCW accepting organic slurry feedstock from SBWMA<br>• May need to secure new financing (bank loan, bond, etc.) | Key FY1516 tasks include: complete additional waste comp. studies, 30% design level complete for processing system layout within Transfer Station, identify permitting issues and needs, development of updated MOU between SBWMA and SVCW, development of draft agreement with Anaergia for provision of technology, development of draft agreement with SBR to operate processing system, and prepare draft plan of finance. |
| **Shoreway Transfer Station Building Improvements**<br>Existing site building layout will need to be altered to accommodate waste processing system at Transfer Station. | • Est. building cost of **$2.53** million for small TS building expansion<br>• Est. building cost of **$11.52** million for Large TS building with new Recology office area<br>• FY 1516 building design and estimating cost of **$51,000** for Small TS building (incld. in Mixed Waste Processing project dev. costs) | N/A | No | No | Two Transfer Station build out scenarios: small expansion of 4,400 square feet or large expansion of 12,000 square feet (large expansion would require demolition of administration building and construction of new administration building). | • Maximizes use of existing Transfer Station footprint<br>• Provides for significant new, cost effective diversion option within Transfer Station<br>• Large expansion scenario provides opportunity for new SBWMA administrative offices and public meeting space (e.g., for Board meetings) See option 3 below | • Significant capital requirements for building improvements of **$2.53M** million for small expansion to **$11.52M** for large expansion<br>• Short-term impacts to Transfer Station operations<br>• Potential significant short-term impacts to Recology administrative operations<br>• New permitting requirements<br>• May impact already limited site parking capacity | • Need to bid out construction project(s)<br>• Complex project management to construct building improvements while continuing Transfer Station operations<br>• May need to establish interim Recology administrative operations<br>• May need to secure new financing (bank loan, bond, etc.)<br>• Secure permit revisions | • Identify costs associated with an interim Transfer Station operations plan and interim Recology administrative operations plan<br>• Prepare draft plan of finance |

| Proposed Enhancement | Program Cost Summary | Targeted Materials | Required Policy Change by Member Agency | Collection Changes | Shoreway Facility Changes | Pros | Cons | Implementation Issues | Schedule |
|---|---|---|---|---|---|---|---|---|---|
| **SBWMA Administrative Offices and Public Meeting Space**<br>Options for building SBWMA office were researched and are presented. | Three cost options for SBWMA office space were developed:<br><br>Option 1: Recology building remodel estimated cost of **$275,000**<br><br>Option 2: would cost an estimated **$3.33M**<br><br>Option 3: would cost an estimated **$977,550**<br><br>FY1516 design support for option analysis and decision making **$25,000**. | N/A | No | No | Three options for SBWMA office space with two of the options also providing public meeting space. Option 1 would be to remodel 3,000 sq. ft. of space on the second floor of Recology Admin. Building; this option does not provide for public meeting space. Option 1 is possible if do small Transfer Station bump out.<br><br>Option 2 would consist of constructing a new two-story building in the existing visitor parking lot. The first floor would be a parking garage and the second floor split between office space and public meeting space. Both floors would be approx. 5,614 sq. ft.<br><br>Option 3 would be associated with the large Transfer Station expansion scenario. Office space and public meeting space would be housed in a two-story building adjacent to the Transfer Station. Both floors would be approx. 3,000 sq. ft. | • All options would provide for SBWMA office space and thus save approx. $60,000 per year in office lease costs<br>• Options 2 and 3 would provide for public meeting space for Board meetings and other public meetings and onsite public events | • Significant capital requirements for Options 2 and 3.<br>• New permitting requirements<br>• May impact already limited site parking capacity | • Need to bid out construction project(s)<br>• May need to secure new financing (bank loan, bond, etc.)<br>• Secure permit revisions<br>• May need to identify offsite parking options | • Prepare draft plan of finance<br>• Potentially identify and secure offsite parking |
| **MRF Single Stream Processing Equipment Replacement**<br>Need to replace specific equipment components due to intensive use since original installation in 2011. | Existing cash reserves include an equipment replacement reserve fund to pay for such equipment replacement. | N/A | No | No | Table 2.36 identifies a schedule for equipment component replacement from 2015 thru 2023. | N/A | N/A | • Need to confirm with SBR and equipment manufacture a final equipment replacement schedule | • Completion of project summer 2015 |

| Proposed Enhancement | Program Cost Summary | Targeted Materials | Required Policy Change by Member Agency | Collection Changes | Shoreway Facility Changes | Pros | Cons | Implementation Issues | Schedule |
|---|---|---|---|---|---|---|---|---|---|
| **MRF Building Tipping Area Expansion**<br>Existing identified and budgeted project to construct a MRF canopy to expand tipping area for collection vehicles to unload recyclables. Project required to handle 3rd-party tonnage into MRF. | FY1415 budget of **$450,000.** Current project construction estimate of **$438,741.** | N/A | No | No | Construction of a 2,720 sq. ft. expansion of MRF tipping area | N/A | N/A | N/A | • Board consideration of approval of construction contract award in April or May 2015<br>• Three month project construction period |
| **CNG Fueling System**<br>Installation of a new CNG fueling system. | New utility connection infrastructure for CNG system estimated at **$1.375 – $1.8M**.<br><br>Current SBWMA reserve of **$1.24M** in Shoreway remediation fund to substantially cover project costs. | N/A | N/A | Requires purchase of 127 CNG compatible collection vehicles to deliver services for 120 existing routes. | Requires installation of a CNG fueling system. Would also involve the closeout of the existing underground storage tank (UST) system. Would add 1 new aboveground storage tank (AST) for diesel for SBR transfer trailers. See Table 2.37 for more details on Shoreway operational costs associated with this project. | • Minimal new funding needed given existing funds available in Shoreway remediation fund<br>• Net collection ops. cost savings of **$0.99M/year** starting in 2021.<br>• Approximately 20%-23% reduction in greenhouse gas emissions<br>• Eliminates future potential groundwater contamination at Shoreway from fueling operations | • CNG dispensing system may impact collection vehicle parking capacity | • **Need to negotiate CNG fueling system financing and supply agreement.**<br>• Need to implement Shoreway site improvements<br>• Complex project management to phase in new CNG system and closeout old USTs | • Closeout of old diesel system, installation of new AST diesel system for SBR and installation of new CNG system in six-nine month period in 2019<br>• Recology purchase and delivery of new CNG collection vehicles in late 2020 |
| **Other Shoreway Infrastructure Improvements**<br>Improvements include improved paving and other enhancements promoting energy conservation. | Paving cost estimated at **$2.0M**.<br><br>**$45,000** LED lighting retrofit in FY1415 and **$274,000** in FY1516. | N/A | N/A | N/A | Remove and replace 4 acres asphalt<br><br>Install new LED high-bay lighting in all Shoreway buildings | • Extend life of Recology operations area<br>• Power cost savings after 1.3 year payback period for LED lighting installation<br>• Improved interior lighting for safer environment | • Cost of paving<br>• Capital cost of lighting | N/A | • Need for paving work based on failure rate of existing paving – estimated 2-4 years<br>• LED lighting pilot in FY1415 and full Shoreway lighting replacement in FY1516 |
| **Environmental Education Center and Tour Program Enhancements**<br>Conduct stakeholder engagement process with local educators to identify which environmental education programs best complement existing efforts. | **$25,000** in one-time costs to be included in the FY1516 budget | Residential and commercial recyclables and organics | No | No | No | • Complements existing RethinkWaste recycling outreach efforts to residents and businesses<br>• Engages local educators to identify synergies to maximize effectiveness of new programs | • Potential future costs associated with new programs | • Need to identify key stakeholders and complete research and engagement tasks | • April 2016 staff prepares final report and recommendation to Board for potential inclusion in FY1617 budget |

# 1. Collection Programs and Policies

## a. CNG Fleet Conversion

### *Goals*

Franchised collection service provider to rollout on January 1, 2021 a new collection fleet run CNG so as to reduce operational costs (namely fuel cost savings vs. diesel) and realize associated reductions in greenhouse gas emissions. This collection operations improvement project supports multiple LRP Guiding Principles including:

- Reduce collection fleet emissions
- Provide cost-effective and efficient programs
- Invest in new, safe technologies and processes for infrastructure

### *Overview*

Staff worked closely with Recology to prepare a financial analysis of this fleet conversion to CNG fuel effective January 1, 2021. Based on an analysis of a capital and depreciation schedule assuming replacement of 127 collection vehicles (for 120 collection routes), and a comparison of current CNG fuel price vs. diesel fuel price the following was determined:

- Incremental change in truck capital of $5.136 million resulting in annual increase in depreciation of **$570,717**.
- 10-year annual average interest expense associated with new capital of **$95,862**. Vehicle purchase financed by Recology at an assumed interest rate of 3.5%.
- Annual fuel savings of **$1,556,100** million based on assumed CNG fuel price of $1.80 per gallon vs. a diesel price of $3.48 per gallon. The $1.80 per gallon figure includes assumed finance charges associated with a 3rd party vendor purchasing, installing and maintaining the CNG fuel supply system.
- Reduced operating ratio (profit) to Recology on lower annual operating expense of $103,438
- **Net savings per year of $992,960 or $9,929,600 over ten years.**

A review of historical CNG and diesel fuel prices shows that the actual projected fuel savings could be significantly higher than assumed above. The historical price trends over the last eight years indicate that CNG prices on average changed 4.5% below diesel prices; this means the "spread" between the prices we have assumed above (CNG at $1.80/gallon vs. $3.48/gallon for diesel) would be 4.5% greater Assuming a 2% greater spread scenario and the 4.5% spread scenario, the ten year savings could be from $16.4 million to $24.0 million. It should be noted, though, that in in 2014, CNG rose 3% higher than diesel and 1.3% higher in 2013. To understand the price spread risk, this project would break even if diesel prices declined 4% per year and CNG prices increased 4.5% per year over the next ten years. This scenario is highly unlikely.

In addition to the cost benefits, conversion to CNG includes environmental benefits through reduced emissions. CNG is estimated to produce approximately 20%-23% less carbon dioxide ($CO_2$) emissions than diesel. Based on calculations provided by Recology, there would be a 909 kg/gasoline gallon equivalent (gge) reduction in $CO_2$ annually per collection route if converted to CNG, for a total of 109,134 kg/gge reduction annually for all 120 routes. These reductions equal removing approximately 38 passenger vehicles off the road annually. In addition, CNG trucks have been found to average 10 decibels quieter than diesel engines.

Please see **Section 2.B.2.e** (page 90) for a full description on the required infrastructure improvements at Shoreway to support this project. In order to support the installation of a CNG fuel supply system, the SBWMA will be required to make site improvements including removal of the existing diesel storage (underground storage tanks) and dispensing system, installation of an aboveground diesel storage and dispensing system (for SBR transfer trailer fleet), electrical and gas connections from the CNG system to PG&E utility lines, Maintenance Shop upgrades, piping to fuel dispensers, etc.

## b. SFD Split-Body Collection Vehicle Pilot Project

### *Goals*

Recology has proposed to implement a pilot project to determine whether the use of split-body collection vehicles would provide routing efficiencies and other benefits to the residential sector. It is anticipated that the results of this pilot project, if deemed favorable, would be included by the company in an extension proposal to the Franchise Agreements in 2017. (The Franchise Agreements with Recology will expire in 2020, and these agreements provide a deadline by the end of 2017 for both Recology and the Member Agencies to make a decision regarding extending the current contracts or putting the services out to bid.)

This program expansion option supports multiple LRP Guiding Principles including:

- Ensure that program initiatives are convenient, accessible and appropriate
- Produce cost-effective and efficient programs

### *Overview*

This option proposed by Recology involves conducting an eight-week pilot program to test split-body collection vehicles to co-collect garbage and recycling from residential customers in order to measure the potential operational savings, benefits and drawbacks. Recology is currently using single-compartment collection vehicles throughout the RethinkWaste service area, resulting in three different trucks to service a home (i.e., recycling, composting and garbage). While this collection approach does provide for larger route sizes (more homes collected per route than can be accomplished with a split-body vehicle) and less trips to unload at the Shoreway Environmental Center, it has resulted in some complaints to Recology about the number of vehicles driving through residential neighborhoods.

The pilot would be divided into two four-week periods between September and November 2015. Recology has proposed leasing four split-body vehicles (three route vehicles and one spare) with a 60:40 split ratio to collect both recycling (60%) and garbage (40%) to replace four total routes during the pilot – two single-body recycle and two single-body garbage routes during each period of the pilot. Thus, three split-body trucks will replace four single-body trucks. Recology has identified two routes in Menlo Park for the first four-week pilot covering approximately 8,330 homes per week, and another two routes servicing Burlingame and San Mateo County's franchised area for approximately 7,950 homes for the second pilot period.

As new split-body vehicles are not currently available for leasing from the truck manufacturer, Recology will use semi-automated split-body vehicles currently in use at other Recology companies. The leased split-body vehicles will not have Recology's local onboard GPS tracking system, Routeware, thus the company has proposed hiring three temporary employees to ride along on the pilot routes to document the data needed for the pilot. The data collected will include the number of customers per route, number of set-outs by commodity (recycling and/or garbage), on-route time, unloading time, and tons delivered by commodity and by load. RethinkWaste will take the lead in education and outreach by notifying customers in the selected pilot routes through bill inserts, cart hangers/tags, robocalls and truck signs.

Recology is anticipating a potential increase in the number of customer calls during the pilot as their normal service time may change. As such, Recology will be contacting the Member Agencies in the pilot to request that certain liquidated damages related to the call center be waived during the pilot.

Recology is currently using split-body vehicles to service residential customers in San Francisco, San Bruno, Vacaville, Vallejo and Gilroy. Possible benefits include routing efficiency from reduced time to service each home, reduced number of vehicles on streets on service days from three to two vehicles, lessening road impacts, reduced greenhouse gas emissions, and reduced operational costs. Potential negative impacts could include non-optimal payload capacities requiring additional trips to Shoreway when one compartment fills before the other and increased unloading times at Shoreway as vehicles will be required to weigh in and out twice per load. In addition, the split-body vehicles may not be suitable for all of the jurisdictions in the service area, which may result in a net zero effect to the current number of routes. The cost allocation to Member Agencies would also need to be revisited if the program is rolled out service area wide as the garbage and recycle collection times would be identical.

The budget pilot project would include $71,813 in one-time costs to be included in the Recology's 2016 compensation application and the SBWMA's FY1516 budget as follows:

- $55,422 pilot program cost to Recology, including vehicle lease and hiring of temporary employees
- $16,391 RethinkWaste additional public education expense

Please refer to **Attachment A** for Recology's pilot proposal and cost breakdown.

## c. SFD Every Other Week Garbage Collection Pilot Project

### *Goals*

RethinkWaste is proposing to implement an every other week (EOW) residential garbage collection pilot project to cost-effectively gather information and data on collection operations, participation rates, outreach strategies, and customer perceptions related to EOW residential garbage collection service. While this service is not commonly provided in North America, many jurisdictions in the U.S. and Canada have successfully implemented this service and realized cost savings, increased diversion and reduced the greenhouse gas emissions impact of providing typical residential collection services.

Implementation of this pilot project, which could eventually be extended and expanded to other Member Agencies, supports several LRP Guiding Principles including:

- Support local, state and national mandates, including meeting the State's 75% recycling goal by 2020
- Provide cost-effective and efficient programs
- Increase and maximize participation in programs and services to reduce, reuse, recycle and compost waste
- Promote behavior change through public education
- Provide incentives to participate in programs where feasible

### *Overview*

EOW residential garbage collection refers specifically to biweekly residential garbage collection and weekly recycling and compost collection. A pilot project will be designed to offer this service to 2 routes or approximately 8,200 households over a 3 month period (for each route). The routes will be selected to test a wide range of variables related to providing collection services in an effort to obtain data that can be applied to the entire service area. RethinkWaste will work closely with Recology in selecting the routes, obtaining the necessary approvals from the targeted communities and in final design of the pilot project. It is important to note that RethinkWaste has discussed this pilot project at length with Recology and they do not anticipate operational impacts that would increase collection expense during the pilot. The cost of the pilot will be primarily related to public education and outreach, subsidizing a nominal discount to customers who subscribe to participate, data collection and related administrative expenses.

### *Regulatory Considerations*

A primary challenge that will need to be addressed to implement an EOW collection pilot is regulatory related. In 2011, RethinkWaste explored conducting an EOW collection pilot and requested authorization from the local enforcement agency (LEA), the San Mateo County Department of Environmental Health. The LEA, noted at that time that there were factors that precluded their approval of a pilot program. The LEA specifically cited State law that requires that *"…refuse, except for inert materials, shall not remain on any premises for more than seven days."*[1] This determination effectively precluded implementation of the EOW residential garbage collection pilot which the City of San Carlos had agreed to explore. Since the majority of "refuse" that concerned

[1]California Code of Regulations (CCR) Title 14, Chapter 3, Section 17331. Frequency of Refuse Removal.

the LEA consisted of food scraps, which would still be collected weekly in the green compost cart, the primary concerns was related to used diapers and pet waste which are not targeted for composting.

However, since 2011, the City of San Francisco[2], through the services of Recology, have successfully implemented a program which mandated that diapers and pet waste be placed in the garbage container and collected weekly, preventing households that produce this waste from participating in the pilot. The RethinkWaste pilot project will be designed to take this approach and perhaps other approaches that would mitigate the operational inefficiency (and limit the potential associated cost savings) of requiring collection weekly if these materials are generated. For example, options cited for managing diapers and pet wastes by other communities which have implemented EOW collection include:

- Offering a diaper tag program which allows families with children of diaper age to receive an annual allotment of complimentary diaper tags to be placed on a clear bag of diapers and collected curbside;
- Providing vouchers to residents to dispose of diapers and pet waste at Shoreway for free;
- Encouraging the use of reusable/cloth diapers;
- Encouraging the practice of flushing human and dog waste;
- Bagging pet waste and diapers using an approved type of bag (compostable vs non-compostable);
- Encouraging the use of a pet waste collection service;
- Bagging garbage and storing it in a container with a tight fitting lid to prevent access by vectors;
- Encouraging that containers be stored in a cool place, out of direct sunlight; and
- Using an odor neutralizer (e.g., baking soda, clothes dryer sheets, air fresheners, including activated carbon products and a few drops of perfume).

While several jurisdictions surveyed reported public health/quality of life issues due to EOW collection, some jurisdictions, including Bellingham, Olympia, Renton, Yakima, and Tacoma, Washington did not report an increase in public health issues as compared to weekly garbage collection.

***Examples of Other Communities***

Our research identified more than 30 jurisdictions that have implemented full-scale EOW collection programs in the U.S. and Canada, with Olympia, Washington being the first to implement EOW collection in 1998. Other jurisdictions that are currently conducting pilot programs include the City of San Francisco and the City of Yakima, Washington, while other California cities, including Berkeley and Santa Monica are considering EOW residential garbage collection.

Implementation of EOW residential garbage collection is a relatively new concept in North America; however, it is widespread in the United Kingdom.[3] Twelve years ago only 13 local jurisdictions in the United Kingdom provided EOW garbage collection; however, presently 299 out of 406 local authorities (74%) have introduced

[2]The City of San Francisco's EOW pilot program (Pay Per Setout Service) allows residents to opt out of trash pickup each week although residents are required to have at least one trash pickup per month. For each week an account does not put out their black trash bin they receive a 10 percent discount off their trash bill. To participate in the "Pay Per Setout Service" residents must place all food scraps, soiled paper and yard trimmings in their green compost bin. Accounts that generate disposable diapers and pet waste must place that material in the black trash bin and have it collected weekly (i.e., they cannot participate in the EOW collection program).

[3]The United Kingdom of Great Britain is comprised of the island of Great Britain the north-eastern part of the island of Ireland (Northern Ireland), and many smaller islands.

alternatives to weekly garbage collection, including 100% of those in Wales and Northern Ireland and 84% in Scotland.[4]

While EOW collection has been implemented in numerous jurisdictions in North America, and is being actively considered by others, some jurisdictions have decided not to pursue EOW, perhaps most notably Seattle. The City of Seattle implemented a six-month EOW pilot program in 2012 covering 800 accounts. A post pilot survey found that approximately one third of the participants opposed City-wide implementation of the program due to odor, increased scavenger sightings, and increased street litter due to overflowing containers. As a result, Seattle decided not to implement EOW collection.

***Contamination Issues***

As discussed in **Appendix B**, RethinkWaste has placed a high priority on minimizing contamination of recycling and organics collection to increase diversion and maximize commodity revenue. If residents are provided an incentive to reduce the frequency of garbage collection, it is possible that contamination of the recycling and compost containers may result. Jurisdictions which have implemented an EOW program and have experienced this problem, include Portland, OR, Seattle, WA, Surrey, BC, and Durham, Ontario.

As part of the pilot project, RethinkWaste will conduct a pre-project baseline contamination sampling survey and monitor this aspect of the program frequently. In addition, RethinkWaste will also be testing the correlation of various public education and outreach strategies with several aspects of participation, including but not limited to the impact on contamination of the recycling and compost set-outs.

***Benefits***

Benefits associated with EOW collection that have been cited include the following:

- Increased diversion;
- Reduced costs; and
- Reduced truck traffic and greenhouse gas emissions.

In addition to greenhouse gas emission reductions, reductions in other vehicle emissions impacting air quality and public health would also result, including reduced generation of particulates contributing to smog.

***Increased Diversion***

As discussed in **Appendix B**, residential recycling rates across the RethinkWaste service area have effectively been flat for the past 3 years. While residents are diverting a significant portion of the targeted materials, the majority of the waste stream is comprised of material that may be diverted through the existing residential recycling and compost services. The potential for increased diversion associated with EOW collection is a significant reason for RethinkWaste to consider this pilot project.

In general, EOW residential garbage collection appears to incentivize recycling and composting, and helps increase recycling awareness. Experience in the United Kingdom has shown that EOW collection results in an increase in both participation in recycling and set-out rates for recycling containers. The Daventry District Council (England) experienced a 45% increase in recyclables collected when they switched to EOW residential garbage collection. Experience also suggests that rather than doubling the amount of garbage per set-out every

[4]Alternate Weekly Waste Collections Work, David Riggle, BioCycle Magazine July 2013.

other week versus weekly, it is more likely to be 1.5 times the weight, due to the reduced capacity for garbage and increased diversion of materials.[5]

**Table 2.6** below provides a summary of reported changes in disposal rates and diversion tonnages for various jurisdictions in North America that have implemented EOW residential garbage collection. As shown, in all cases the jurisdictions reported decreases in disposal and increases in diversion, although as noted, the implementation of EOW residential garbage collection was often done in conjunction with other program changes (e.g., adding collection of organics, increasing organics collection to weekly service), which does not enable the diversion impact specific to EOW collection to be quantified. However, those jurisdictions where the only reported change to the collection program was the implementation of EOW collection (Seattle, WA; North Vancouver, British Columbia, and York, Ontario), all reported an associated decrease in disposal and increased diversion. This finding was supported by a survey of municipalities across North America conducted by the City of Ottawa that found that, in general, **those jurisdictions with EOW collection of garbage and weekly collection of compost have a significantly higher diversion rate than those jurisdictions with weekly collection of garbage**.

**Table 2.6: EOW Residential Garbage Collection Disposal and Diversion Impacts**

| Jurisdiction | Population | Program Phase | Disposal Change | Recycling Change | Organics Change | Diversion Change | Notes |
|---|---|---|---|---|---|---|---|
| **USA** | | | | | | | |
| Portland, OR | 609,456 | Active | -44% | | +24% | | Implemented w/ weekly organics and recyclables collection. |
| Renton, WA | 97,003 | Active | -18% | +27% | +44% | | Implemented w/ updated recycling program and compost program. |
| Seattle, WA | 652,405 | Pilot | -15% | +13% | | +1.3% | Biweekly garbage alone. |
| **Canada** | | | | | | | |
| Durham, ON | 561,258 | Active | -10% | -15% | +6% | +27% | Implemented w/ with organics collection - Phase 1, 4/8 jurisdictions. Has PAYT. |
| Halton, ON | 501,669 | Active | | | | +4% | Implemented w/ region-wide Green Cart program. Has PAYT. |
| Ottawa, ON | 883,391 | Active | | | +25% | +9% | Implemented w/ organics collection increased to weekly. |
| Peel, ON | 1,296,814 | Pilot | -13% | +4% | +9% | +5% | Pilot results, currently being evaluated. Has PAYT. |
| Port Coquitlam, BC | 150,000 | Active | | | +6% | +10% | Implemented w/ increased organics collection frequency seasonally. |
| Surrey, BC | 394,980 | Active | -43% | +81% | +6% | +18% | Implemented w/ with organics collection. |
| Vancouver, BC | 578,040 | Active | -39% | +10% | +2000% | | Implemented w/ organics collection increased to weekly. |
| York, ON | 1,032,524 | Active | | | | +6% | Biweekly garbage alone. |
| average | | | -26% | +20% | +17% | +10% | "Organics Change" does not include Vancouver, BC |
| median | | | -18% | +12% | +9% | +8% | |

As shown in **Table 2.6**, several jurisdictions reported diversion that ranged from 1.3% for Seattle's pilot program to 27% for Durham, Ontario. For purposes of developing planning level projections of the potential diversion that RethinkWaste might achieve with EOW collection we would therefore suggest using relatively conservative planning level estimates as compared to the figures reported in **Table 2.6**.

**Table 2.7** on the following page provides an analysis of the additional tons that would result from the implementation of EOW residential garbage collection by RethinkWaste based on various assumed increases

[5]WRAP Final Report; Alternate weekly collections guidance, July 2007 (page 20 Section 2.6.1 and 2.6.2).

in the residential diversion rate. As an example, if the implementation of EOW collection increased the residential diversion rate by 1%, this would equate to the diversion of an additional 1,736 tons, and increase the system-wide diversion rate by 0.5%. Similarly, if the implementation of EOW collection increased the residential diversion rate by 10%, this would equate to the diversion of an additional 17,360 tons, and increase the system-wide diversion rate by more than 5% to 53.9%.

The greatest potential for cost savings and a potential increase in diversion is associated with the assumption that this program would be implemented system-wide.

The cost savings would be realized through re-routing and reducing the number of collection vehicles. Thus, a system-wide roll-out of this service would likely not transpire until expiration of the current Recology Franchise Agreements in 2020. Implementation of an EOW program in the short term for all or part of the service area may result in underutilized assets (i.e., idle vehicles which depreciation expense is still owed) and would require re-routing, which to gain maximize cost effectiveness, would require a service-area wide roll-out.

**Table 2.7: Projected Diversion Impact of Implementing EOW Collection in RethinkWaste's Service Area (Based on 2014)**

| Assumed Increase in Residential Diversion Percentage | Additional Tons Diverted | Residential Diversion Rate | Total Increase in System-Wide Diversion Rate | System-Wide Diversion Rate |
|---|---|---|---|---|
| 0% | -- | 66.5% | -- | 48.9% |
| 1% | 1,736 | 67.5% | 0.5% | 49.4% |
| 2% | 3,472 | 68.5% | 1.0% | 49.9% |
| 5% | 8,680 | 71.5% | 2.5% | 51.4% |
| 10% | 17,360 | 76.4% | 5.0% | 53.9% |

***Reduced Costs***

EOW garbage collection may result in reduced costs due to:

- Increased collection efficiency and fewer solid waste routes with associated labor, capital and operating and maintenance cost savings;
- Reduced disposal expense due to less generation of garbage; and
- Increased commodity revenue due to increase in collection of recyclable materials.

Mitigating Factors:

- The reduced costs may be limited by an increase in collection costs associated with more recycling and composting routes.
- Higher compost expense may be accrued if participation in compost collection increases, since compost is more expensive than disposal.
- The initial implementation of the program will require an investment in public education, although this outreach would likely supplant other outreach efforts.

Our research suggests that EOW collection, without a weekly option, might result in a total net residential solid waste system savings on the order of perhaps 10-20%. If an option for weekly collection of diapers, pet waste and/or other materials is required, the potential for cost savings may be reduced. While some level of cost

savings would be expected, the potential for increased diversion is perhaps the most significant resulting benefit.

**Table 2.8** illustrates identified cost impacts associated with EOW residential garbage collection reported by a number of jurisdictions.

**Table 2.8: EOW Residential Garbage Collection Cost Savings**

| Jurisdiction | Population | Program Phase | Cost Savings | Other |
|---|---|---|---|---|
| **USA** | | | | |
| Berkeley, CA | 116,768 | Planning Level Projection | $469,000/yr | Estimated if biweekly garbage collection is implemented. |
| Portland, OR | 609,456 | Active | Offset | Stable rates due to reduced solid waste fees and increased food composting fees. |
| Renton, WA | 97,003 | Active | | Increase in customer rates due to organics processing. |
| Seattle, WA | 652,405 | Pilot | $6.4 million/yr. (Based on Pilot Program results) | 30% total cost reduction.<br>30% reduction in truck traffic.<br>15% reduction in hauling emissions. |
| Tacoma, WA | 203,446 | Active | $1 million/yr | 44% reduction in Fuel Costs ~ $163,000.<br>20% reduction in $CO_2$ Emissions. |
| **Canada** | | | | |
| Guelph, ON | 114,940 | Active | $1.5-2.8 million/yr | Includes moving to a cart system. |
| Ottawa, ON | 883,391 | Active | $9 million/yr | Net annual collection savings. |
| Peel, ON | 1,296,814 | Pilot | $5-7 million/yr (Based on Pilot Program results) | Net annual collection savings, without implementation costs. |
| Toronto, ON | 2,503,000 | Active | $343,000 | Savings after one year of implementation in 2002. |

***Reduced Truck Traffic and Greenhouse Gas Emissions***

EOW garbage would be expected to result in reduced greenhouse gas emissions due to:

- Reduced collection vehicles and associated fuel consumption and associated emissions; and
- Reduced methane from organics decomposition at landfill.

The Seattle PUC estimated that EOW pickups should reduce garbage truck traffic by an estimated 30 percent, resulting in a 15 percent drop in trash hauling emissions. The City of Tacoma reported a 20 percent reduction in CO2 emissions.

***Pilot Program Budget***

As stated above, the costs associated with this pilot project are primarily related to public education and outreach, subsidizing a nominal discount to customers who subscribe to participate, data collection and related administrative expenses. We do not anticipate disrupting the collection services provided by Recology which would otherwise result in increased operational costs.

**Table 2.9: EOW Pilot Budget**

| Expense Item | Amount |
|---|---|
| Public Education and Outreach | $25,000 |
| Discount to Customers (4,100 customers; $2.00/month discount for 3 months)* | $49,200 |
| Contamination Sampling | $15,000 |
| Customer Surveys | $5,000 |
| Data Management and Administrative Expense | $15,000 |
| **Total Budget** | $119,200 |

**Assumes full participation which is not anticipated. The discount will only be provided to eligible customers that subscribe to the service during pilot.*

***Rate Structure Considerations***

The Member Agencies rates are by and large publicized as the "solid waste rate." However, the rate actually covers the full cost of collection services which includes recycling, composting, twice annual bulky items collection, initial overages, etc.; as well as the processing of recyclables and compost, operation of the Shoreway Environmental Center, Recology's customer service call center, public education and outreach, etc. If residents are offered EOW garbage collection services, it is likely that they will expect a 50% reduction in cost commensurate with the less frequent service, given the terminology associated with what they are paying for (i.e., the "solid waste rate"). However, as discussed above EOW garbage collection service equates to one fewer truck trip of six every two weeks; thus, reducing on-route vehicle time by 1/6 or 17%, not 50%.

Implementation of a wide-scale EOW program will likely require restructuring rates to shift the paradigm of how the cost of collection services are paid for. This is basically a shift in terminology as currently the Member Agencies associate the cost to ratepayers as their "solid waste rate." However, the rates charged ratepayers do not just cover the cost to collect "solid waste," but rather the full cost of collection services and this change in messaging and adjustment to public perceptions will need to be addressed to avoid confusion and ensure clarity of messaging and transparency.

As mentioned prior, the LRP is not intended to address issues with the current rate structure; however, this is a critical challenge that would need to be addressed in order to implement EOW residential garbage collection service for an entire jurisdiction or to the service area as a whole. This pilot project will explore customers perceptions regarding the terminology used to convey what the "solid waste rate" covers and the services offered.

## d. Commercial Recycling Outreach Program Project

### *Goals*

Through the Member Agencies Franchise Agreements with Recology, the SBWMA ratepayers fund a commercial recycling technical assistance program run by Recology which will cost $912,362 in 2015. Recology reported a commercial sector measured diversion rate of 31% for 2014 (see **Appendix B)**. Another performance measure reported by Recology is the "service level" diversion rate of 53.43%[6]. The difference between these two "diversion rates" is that the former denotes the actual percentage of recycling (which includes compost) tons collected by Recology (thus disposal is 69%) and the latter represents customer subscription levels.

RethinkWaste has developed recommendations to improve the functioning of Recology's Commercial Recycling Outreach Program and increase diversion through the BizSMART commercial recycling and composting collection services. While Recology has increased commercial recycling each year, the company has previously indicated that reporting requirements in the Franchise Agreements for this program are onerous and can be streamlined; unfortunately staff has not received specific feedback on what Recology would like to change in the reports. With this in mind, staff and its consultant R3 took the initiative to try and improve the reports so they are more useful and can be better used by Recology to track progress against specific diversion related metrics.

Staff believes the components of this project, improved reporting and enhanced outreach, are critical pieces needed so Recology can meet the forecasted commercial recycling and commercial organics diversion levels found in **Tables 2.1** and **2.2A**.

Improvement of the current Recology Commercial Recycling Outreach Program supports the following LRP Guiding Principles:

- Leverage existing infrastructure
- Provide cost effective and efficient programs
- Support local, state and national mandates, including meeting the State's 75% recycling goal by 2020
- Increase and maximize participation in programs and services to reduce, reuse, recycle and compost waste
- Promote behavior change through public education

### *Overview*

In reviewing Recology reports and the waste composition data collected by RethinkWaste, the following observations can be shared:

- Approximately 60% of garbage that is sent to landfills by Recology commercial and multi-family customers could be diverted by existing source separation programs;

[6]The "service level" diversion rate is the ratio of collection containers in service for recycling and organics to garbage. Thus, 53% means a little more than ½ of all collection service is for recycling and compost, and a little less than ½ is for garbage.

- Approximately half of targeted recyclables generated by these customers are collected for recycling (for a capture rate of around 50%), yet virtually 100% of commercial and multi-family customers subscribe to recycling collection service so customer participation rates are lagging; and
- Approximately one-third of materials landfilled by commercial and multi-family customers are targeted organics, and levels of subscription in organics collection programs remains low (12-15%).

***Recology Commercial Recycling Outreach Program Franchise Agreement Requirements***

RethinkWaste and Recology have dedicated a considerable amount of resources to outreach and public education for purposes of increasing the diversion of materials from the commercial and multi-family sectors. Section 7.04.A (Commercial Recycling Promotion Staff) of the Recology Franchise Agreement(s) state:

- *Contractor shall maintain a Commercial Recycling promotion program staff that will be primarily responsible for supporting Commercial and Multi-Family Dwelling Accounts and Agency Facilities Recycling-related Collection services. The Commercial Recycling promotion staff for the SBWMA Service Area shall consist of a minimum of the following full-time staff: eight (8) "sales" representatives (recycling coordinators), two (2) diversion auditors and one (1) supervisor (commercial recycling manager) as specified in Attachment O.*

  Note: Per improvements (i.e., amendments) to the Franchise Agreements negotiated in 2012/2013 that resulted in cost savings for both Recology and the SBWMA, the headcount for the Commercial Recycling Outreach Program was reduced from 11 to 9 by eliminating the diversion auditor positions. The direct labor cost associated with Recology's Commercial Recycling Outreach Program Staff for 2014 was $895,393 (2015 is $912,362).

Section 7.04.E states that:

- *Contractor shall provide full on-site waste assessments and technical assistance to, at a minimum, one-hundred (100) of the Agency's largest Commercial Generators (based on weekly Solid Waste generation) annually to assist in maximizing diversion. For all other Commercial Generators, Contractor shall provide technical assistance as needed or requested and visual on-site Collection Container assessments at least once every three (3) years. Contractor shall document the site assessments, the date of the assessment, the Person contracted, the Solid Waste, Source Separated or Targeted Recyclable Materials, and Organic Materials service levels at the time of the assessment, and recommended changes to service level(s). Contractor shall submit results of site assessments monthly, or upon request, provide copies of assessment data and recommendations for individual site assessments.*

  Note: Per the contract amendments mentioned above, the total number of on-site waste assessments which Recology is obligated to perform was reduced from 1,061 to 796.

Section 7.05.A.1 requires Recology to:

Provide on-site assessments to all Multi-Family Residential Complexes containing twenty (20) or more residential units once every three years (Section 7.05.A.1). Therefore, all commercial accounts and all multi-family accounts with 20 or more residential units should have been audited at least once at this point of the term of the agreement which commenced on January 1, 2011, and at least two more times before the end of the current term in 2020.

***Prioritizing Recology Commercial Outreach Efforts and Resources***

Increasing diversion through the BizSMART commercial and multi-family recycling and compost collection services will result from increasing the number of accounts that subscribe to service for each program (Subscription Compliance) and increasing the capture rate of targeted materials by accounts subscribed to each service (Participation Compliance). To support increasing Subscription Compliance and Participation Compliance there are two basic initial pieces of information that should be tracked and reported:

1. Subscription Compliance: How many and which targeted businesses are and are not subscribed to the commercial recycling and commercial organics programs?
2. Participation Compliance: Of those businesses that are Subscription Compliant, what is their level of participation or what percentage of their waste stream is comprised of targeted materials (i.e., both recycling and compost)?

Recology currently tracks and reports overall Subscription Compliance rates by Member Agency[7] and by individual accounts.[8] Recology also tracks and reports the results of the required waste assessments.[9] This information includes estimates of the percentage of disposal comprised of targeted recyclables and organics based on one-time visual observations conducted at the time of the audits, essentially a Participation Compliance snapshot. However, it has not been determined what effort would be needed to combine the pertinent data (i.e., subscription and participation information) into a single report, which would be the most useful way to collect and maintain this data.

Having a list of all accounts that conveniently identifies Subscription Compliance status and Participation Compliance (i.e., the percentage of recyclables and organics in the waste stream) would be extremely useful for purposes of prioritizing efforts to increase diversion and to subsequently establish diversion goals for accounts. Incorporating these two elements into one report (a Commercial Subscription and Participation Compliance Status Report), would facilitate establishing diversion goals and additionally greatly support the ultimate goal of increasing diversion from the commercial and multi-family waste streams. Ideally that report would include each account's business type's designation and would enable the data to be sorted based on the percentage of recyclables and/or organics in each account's waste stream.

**Attachment B (**Example - Commercial Subscription and Participation Compliance Report) provides an example of the type of individual account information envisioned for the Commercial Subscription and Participation Compliance Status Report. RethinkWaste anticipates using a Commercial Subscription and Participation Compliance Report database as follows to focus and prioritize Recology's outreach efforts and resources:

***Commercial Recycling***

- Sort the database by total weekly recycling service level and identify those accounts that are not Subscription Compliant with the commercial and multi-family recycling program and target those businesses for subscription to the recycling program;
- Sort the percentage of recyclables in the "MSW" (i.e., garbage) column (Total Weekly MSW x RCY) from largest to smallest. The accounts with the largest percentages are currently disposing the greatest volume of recyclables and should be prioritized for outreach to increase Participation Compliance.

[7]Recology Quarterly Report worksheet source files provided to RethinkWaste - tab "M7a. Acct Summary Subscription."
[8]Recology Quarterly Report worksheet source files provided to RethinkWaste - tab "M10a. Top 100 MSW Gen Diversion."
[9]Recology Quarterly Report worksheet source files provided to RethinkWaste - tab "M4a. On-site Assmnts Vis Audits."

***Commercial Organics***

- Sort the database by business type and then by total weekly organics service level. Identify all those accounts in "Food Services/Groceries": that are not Subscription Compliant and target those businesses for subscription to the organics program;
- Sort the percentage of organics in the MSW waste stream (Total Weekly MSW x ORG) from largest to smallest. The accounts with the largest percentages are disposing the greatest volume of organics and should be prioritized for outreach to increase Participation Compliance.

**Table 2.10** below provides a comparison of how a Commercial Subscription and Participation Compliance Status Report can be used to assist with setting commercial outreach priorities and tracking and quantifying progress.

Staff also can supplement these reports through utilizing existing contractual tools, namely the Franchise Agreement provisions 7.06 and 7.07, waste generation/characterization studies and program monitoring respectively, to further track and quantify progress towards Subscription and Participation compliance.

**Table 2.10: Commercial Outreach Setting Priorities and Tracking and Quantifying Progress**

| Objectives | Current Method | Enhanced Method |
|---|---|---|
| **Setting Priorities** | Staff meets with representatives from each Member Agency annually to identify specific businesses to target for onsite waste assessments and also develops additional internal annual commercial outreach goals and objectives. | Use Commercial Subscription and Participation Compliance Status Report as basis for setting initial priorities for each Member Agency within each of the following four areas:<br>(1) Increase commercial recycling program Subscription Compliance<br>(2) Increase commercial recycling program Participation Compliance<br>(3) Increase commercial organics program Subscription Compliance<br>(4) Increase commercial organics program Participation Compliance<br>Meet with representatives from each Member Agency annually and revise above priorities. |
| **Tracking and Quantifying Progress** | Limited use of metrics and tracking specific progress related to increasing commercial recycling program and commercial organics program Subscription and Participation Compliance. | Commercial Subscription and Participation Compliance Status Report can be used to track and report:<br>(1) Percentage of commercial accounts that are Subscription Compliant with commercial recycling and organics programs; and<br>(2) Percentage of total commercial waste stream comprised of recyclable materials and organic materials |

The metrics driven approach envisioned by RethinkWaste will facilitate Recology focusing its Commercial Recycling Outreach Program staff resources dedicated to the commercial and multi-family sector to specifically:

- Increase commercial and multi-family organic program Subscription Compliance;
- Increase commercial and multi-family recycling program Participation Compliance; and
- Establish metrics driven diversion goals for commercial account types and specific businesses.

Prioritizing the above three objectives will assist Recology with:

- Identifying commercial recycling Subscription Compliant accounts that have the highest percentage of recyclable materials in their waste stream and targeting those accounts for increased Participation Compliance; and
- Efforts to increase organic program Subscription Compliance focus on identifying which commercial businesses with business type designations of: Food Service/Groceries; Hotels; and Education, are not Subscription Compliant and targeting those accounts for compliance.

***Rationale for Program Improvements***

While RethinkWaste has a mature commercial and multi-family recycling program, 27% of the landfilled commercial tons are comprised of materials targeted by the commercial recycling program. The majority of those tons are comprised of mixed paper (i.e., 64%). However, as shown in **Table 2.11** below, there is virtually 100% Subscription Compliance for the commercial recycling program within both the commercial and multi-family sectors. As such, the opportunity to maximize diversion through increasing subscription levels appears to be largely realized. Any additional increases in the diversion of targeted recyclable materials from the commercial and multi-family waste streams will therefore be largely dictated by the ability of RethinkWaste and Recology to increase Participation Compliance. This simply put means to collect more recycling from the accounts which Recology provides collection service.

**Table 2.11: Commercial and Multi-Family Subscription Compliance Percentages**

| Sector | Subscription Compliance Rates | | |
|---|---|---|---|
| | Solid Waste | Recycling | Organics |
| Commercial | 100% | 99% | 15% |
| Multi-Family | 100% | 98% | 12% |

*Source: Recology San Mateo County*

This project with Recology will focus in-part on providing answers to the following questions and to institutionalize the key takeaways that are learned in answering and documenting the data associated with answering these questions:

1. Which specific businesses are not Subscription Compliant?
2. Of those businesses that are not Subscription Compliant which are non-compliant by choice (i.e., do not wish to participate) and which are non-compliant due to factors beyond their control (e.g., space limitations)?
3. Of those businesses that are Subscription Compliant:
   a. Which have Participation Compliance information (i.e., visual waste composition data from waste audits)?
   b. Can a report be generated that lists the waste composition data for: (1) each of the top 100 commercial accounts; and (2) all commercial accounts, ideally by business type, so that:
      i. Those accounts that have not received waste audits or for which waste composition data is not available can be identified, and future audits planned; and
      ii. Those accounts that have the greatest percentage of recyclables and/or organics in the waste stream can be identified and targeted.
   c. Are there programmatic changes that can be made to increase Participation Compliance?

d. Is there additional outreach, public education or technical support that can be provided to increase Participation Compliance?
e. What specific next steps should RethinkWaste and Recology take to increase BizSMART commercial recycling program Participation Compliance?
f. What if any associated reporting should there be (content, format and frequency)?

Reporting and reports should be used as a tool. The specific information that is tracked and reported should have a clear purpose in support of overall program goals. As such, opportunities to enhance and/or streamline current reporting requirements should be identified to eliminate any unnecessary, labor intensive reporting requirements, and implement new reporting requirements that can service as effective tools for supporting future commercial and multi-family outreach efforts. In order to accomplish this, Recology's capability to generate a Commercial Subscription and Participation Compliance Status Report shall be determined. If that capability does not currently exist, the company will be requested to develop a proposal explaining what it would take to develop that capability.

In addition, to further support efforts to increase the diversion from the commercial and multi-family sectors, RethinkWaste suggest the following goals be applied to the Recology Commercial Recycling Outreach Program:

1. Develop the ability to generate a Commercial Subscription and Participation Compliance Status Report by end of 2015, with the capability to sort accounts based on the established commercial account categories (i.e., business types) and the percentage of recyclables and/or organics in the waste stream.
2. Identify accounts that are not Subscription Compliant and begin tracking whether that is by choice (i.e., do not wish to participate) or due to factors beyond their control (e.g., space limitations)?
3. Begin reporting the results of the waste assessments to enable sorting by the percentage of recyclables and/or organics in the waste stream of each account (i.e., reporting those percentages in dedicated worksheet columns).
4. Set capture rate goals for the commercial and multi-family recycling and organics programs and continue to measure progress via periodic waste composition studies.
5. In cooperation with RethinkWaste, implement a Management by Metrics (M&M) approach to the Commercial Recycling Outreach Program, where feasible, to quantify the effectiveness of specific outreach efforts in support of identifying the most effective deployment of available resources.
6. Achieve a 5% increase in the commercial recycling program Participation Compliance as measured by average tons per account diverted by the end of 2015 and 10% by the end of 2016.
7. Achieve a 100% organics Subscription Compliance for Food Services/Groceries, Hotels and Education accounts by the end of 2015.
8. Realize no more than 10 percent of readily recyclable or compostable materials landfilled by 2020 (i.e., a 90% capture rate).

To support these goals and maximize diversion through enhancing recycling participation rates and organics subscription and participation rates, RethinkWaste would suggest supplementing the existing BizSMART public education and outreach efforts with the following projects:

*Recycling Ambassador Program:* Multi-family continues to be a labor-intensive sector in terms of outreach needs. While the current practice of on-site visits by Recology, using buddy bags, door hangers and the

toolkits have been identified through the consultants' research as best practices, additional tools and efforts are needed to supplement the existing outreach if greater diversion rates are to be achieved.

This pilot would entail recruiting and training MFD tenants as Ambassadors for their complex, to network with their neighbors and educate them on the programs and services. They would support such tactics as a customized newsletters, posters and signage with a door-to-door element. Such programs have been proven to be successful in other communities. As an example, Toronto, Canada needed to increase recycling at its MFD complexes in order to meet a 70% diversion goal by 2010. Their outreach team trained 180 "3R Ambassadors" representing 5% of the buildings in the city. Citywide, MFD recycling rose 13%-20% in four years, and waste generation declined. In addition, results of the program showed that buildings with ambassadors saved an average of 15% on their garbage bills.

In addition, a recycling party to kick off the program, or recognition event at the end of the pilot with incentives or prizes could be used to incentivize participation.

The budget for this outreach pilot to be included in the FY1516 budget would be $25,000-$30,000.

*Commercial Focused Outreach:* To move business beyond compliance with AB 341's mandatory recycling component and simply having recycling service to truly making the most of it to maximize diversion, more touch points are needed to help businesses see value in fully embracing recycling. This outreach pilot would target those businesses identified as having the highest percentage of recyclable or organic materials in their waste stream with the aim of further building upon the relationships already formed by Recology. This effort would include a series of direct mail pieces, both in the form of official letters and brochures/postcards, updated website page with resources, toolkits, direct contact following each targeted piece, increased technical assistance and partnerships with business organizations such as chambers of commerce.

The budget for this outreach pilot to be included in the FY1516 budget would be $25,000-$30,000.

## e. Public Spaces Recycling Pilot Project

### *Goals*

Staff is recommending implementation of a pilot project to increase recycling in two different public space settings: a downtown shopping district area and a park. The project will test public education and promotion strategies, monitor participation, diversion, contamination and assess operational impacts and costs.

A downtown area is recommended due to the high foot traffic and associated generation of high garbage and potential recyclables. Based on the field study observations conducted during RethinkWaste's prior research[10], the City of Burlingame's downtown area is a strong candidate for a potential pilot study. This site could serve as a good baseline to identify the effects of adding public space recycling containers to an area that did not previously have recycling containers.

The second setting, a park area, is selected for the pilot due to this type of setting being underserved in many Member Agencies per observations conducted during RethinkWaste's prior research. Staff will work with a Member Agency to develop and implement a park area pilot project. The pilot will fund a trailer to haul Recology carts (interior of park away from curb or street) to a central location for collection by the company. Public education and outreach strategies will be tested along with the other variables mentioned above for the downtown area. In addition, the parks and recreation staff who handle the containers at the park will be surveyed as part of the pilot project to document their experiences and lessons learned.

This pilot project supports several LRP Guiding Principles including:

- Leverage existing infrastructure
- Provide cost effective and efficient programs
- Increase and maximize participation in programs and services to reduce, reuse, recycle and compost waste
- Support local, state and national mandates, including meeting the State's 75% recycling goal by 2020
- Promote behavior change through public education
- Enhance public education to maximize participation
- JPA Member Agency facilities and the Shoreway facility to serve as models for high diversion activities
- Ensure proposed programs identify any service voids or deficiencies

### *Overview*

RethinkWaste conducted a project with Cascadia Consulting in 2014 to explore improving public space recycling programs with the goal of increasing the amount of recyclables captured. Public space recycling generally refers to permanent recycling containers installed in open areas accessible to the public in locations such as parks, shopping centers, streetscapes, beaches, and may also include temporary recycling bins at special events. Collection from public space recycling containers offers the opportunity to capture recyclables that may otherwise be landfilled. However, public space recycling programs generally recover minimal

[10]RethinkWaste Public Space Recycling Best Practices and Recommendations Summary Report July 2014

quantities of lower value recyclable materials due to improperly designed or implemented programs and the challenges associated with "community" containers. Recyclables are also heavily scavenged from these containers.

The project researched successful public space recycling programs and identified recommended program implementation strategies for RethinkWaste's twelve Member Agencies to improve recovery rates in public space recycling programs. The project entailed a literature review of public space recycling best practices and common barriers and developing case studies of successful public space recycling programs in other jurisdictions. In addition, an online survey of Member Agency staff and a field survey of existing public space recycling and garbage collection programs in RethinkWaste's Member Agencies were also conducted.

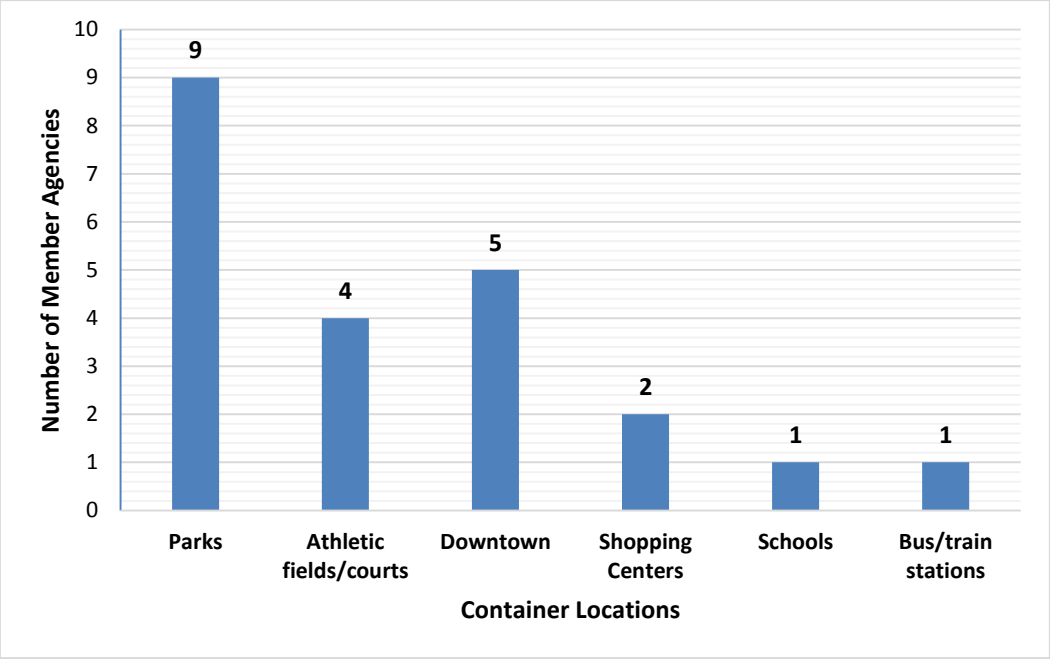
Common best practices resulting from the literature review include: locating recycling containers adjacent to garbage containers, using consistent or standardized container types and messaging (e.g., signs, text, colors), locating containers in high foot traffic areas, and involving all responsible staff in container purchasing and maintenance decisions. The project also included research and interviews to develop case studies of successful public space recycling programs in the following cities: New York City, St. Paul, Philadelphia and Seattle. The case studies identified program costs as the greatest barrier to program success and highlighted the importance of utilizing pilot studies and purchasing containers in stages rather than all at once to manage program costs.

Ten Member Agencies completed a web-based survey that was used to provide insights on current public recycling practices at each Member Agency. The field study performed in eleven Member Agencies documented current recycling infrastructure in public spaces in each Member Agency. The survey and field study results indicate that each Member Agency needs to implement the best practices identified in the literature review and case studies to successfully capture more recyclables in their public space recycling programs, particularly in the areas of container location and design, messaging and program management.

***RethinkWaste Service Area-wide Findings***

The results of surveying Member Agency staff are cited in **Table 2.12** on the following page and identify parks and downtown areas as the most popular and with the highest potential to increase recycling. Identifying high foot traffic areas is important to ensuring sufficient public space recycling and garbage containers to capture the recyclables and garbage that the public generates. The Member Agencies reported that container locations are most commonly selected based on: land use type, pedestrian traffic patterns, and feedback from the public and collection staff.

**Table 2.12: Member Agency Current Public Space Recycling Container Locations**




***Responsible Departments/Divisions***

Member Agencies reported that the current public space recycling programs involve coordination between multiple departments or divisions, as shown in **Table 2.13**. This division of responsibility can lead to budget and servicing issues, so regular and efficient inter-departmental coordination is important to ensure program success.

**Table 2.13: Public Space Recycling Program Member Agency Responsible Departments/Divisions**

| Member Agency | Agency Department/Division | | | | |
|---|---|---|---|---|---|
| | Parks | Streets | Environmental Programs | Public Works | Franchised Hauler |
| Atherton | P, I, S | | | | |
| Belmont | P, I, S | | P | P | S |
| County of San Mateo | | I | P, S | | |
| East Palo Alto | | P, I, S | | | |
| Foster City | P, I, S | | P | | S |
| Hillsborough | | I, S | P | P, I | S |
| Redwood City | P, I | P, I | | | |
| San Carlos | S | I | P | | S |
| San Mateo | P, I, S | P, I, S | P, I, S | | S |

*P=Purchase, I=Installation, S=Service/Collection*

***Implementation of the Pilot Project Service Area Wide***

The results of the pilot project will be analyzed and used by RethinkWaste to design a system-wide program since improvements to public space recycling are needed throughout the service area. The aforementioned research conducted by RethinkWaste in-part resulted in overall recommendations for Member Agency program

design and operation (see **Table 2.14** on the next page). These recommendations are based on the literature review and case study best practice findings, and the Member Agency web and field survey findings, which demonstrated what changes the current Member Agency public space recycling programs need to implement. The pilot project results will be used to develop approaches to assist each Member Agency with adopting the recommendations based on the feasibility for their program.

It is important to note that the recommendations presented in **Table 2.14** on the following page are relevant to all RethinkWaste Member Agencies. RethinkWaste and its Member Agencies should consider developing consistent messaging throughout the RethinkWaste service area to increase awareness and ease of proper participation. In addition, as a long term goal, the purchase of new or replacement containers that are similar throughout the RethinkWaste service area would also be conducive to increasing the public's recognition of the program and containers across jurisdictional boundaries. However, this may not be feasible as some Member Agencies may have their own aesthetic needs for containers, but whenever possible, Member Agencies should work together to create a consistent program across the RethinkWaste service area.

**Table 2.14: Overall Recommendations for Member Agency Public Space Recycling Programs**

| Recommendations | |
|---|---|
| **Container Type** | • Be consistent in container type to avoid confusion among public<br>• Select recycling containers that are clearly different than garbage containers (e.g., color-coded)<br>• Install containers with the proper capacity based on site-specific projected generation and frequency of collection<br>• Ensure containers are properly designed to deter scavenging and illegal dumping<br>• Reduce contamination with restrictive lids designed for desired recyclables (e.g., restricted opening for paper/bottle openings)<br>• Select durable, easy to service containers |
| **Container Location** | • Always locate garbage and recycling containers together<br>• Supply sufficient number of container sets in heavy foot traffic areas (e.g., park entrances, restrooms, train/bus stations)<br>• Research busiest, high-traffic locations for best container placement |
| **Container Signage** | • Ensure design of messaging is consist for all types of containers at all locations<br>• Large, clear, consistent text<br>• Graphics<br>• Multi-lingual<br>• Color-coded containers/lids<br>• Supplemental sign on or around containers can support recycling message |
| **Program Administration** | • Get feedback from collection staff on container design and location<br>• Determine desired recyclables (single-stream vs. select materials) and implement across Member Agencies for consistency<br>• Form a partnership with transit organizations (e.g. Caltrain, SamTrans) to provide public space recycling containers at transit stations<br>• Require franchised hauler to participate in program through the provision/collection of containers as a contract requirement<br>• Track recycling progress (volumes/tonnage) and monitor program for improvements |
| **Program Outreach** | • Assign Recycling Coordinator/Ambassador<br>• Promote program at kick-off/special events<br>• Use social media and agency websites to promote program<br>• Educate city employees, businesses, vendors, and other community members using or providing services near the bins<br>• Items accepted in public space recycling containers should mirror what is accepted in residential/commercial recycling programs |
| **Program Maintenance** | • Place bins near access points (e.g., park entrances) for easy collection<br>• Keep bins cleaned and well maintained to avoid overflow that deters public from using containers properly<br>• Monitor/remove contamination prior to collection<br>• Replace/repair broken or outdated containers/signage<br>• Use existing collection routes to service containers |
| **Program Cost** | • Place containers in locations suitable for the franchised hauler to collect to maximize value of existing franchise agreement(s)<br>• Purchase containers in bulk for cost discounts<br>• Select city staff, hauler, or other contractor to service containers based on the most economical collection and transport process<br>• Partner with business improvement districts, building owners and property managers, schools and universities, transit organizations (e.g. Caltrain, SamTrans) and individual corporate businesses to provide/maintain public containers |

***Common Barriers to Success in Public Space Recycling***

The literature review found that common barriers to implementing and maintaining successful public space recycling programs was securing funding sources for container purchases and ongoing operational costs, such as labor time for collection and maintenance. Insufficient recycling container quantities related to limited funding can lead to reduced capacity to capture recyclables and associated contamination, resulting in lower quality recyclables. Poorly designed containers (including lid shape and signage), poorly located containers, and a lack of outreach can also result in contaminated recycling streams. The most common barriers to successful public space recycling programs cited among the organizations researched as part of the literature review are identified in **Table 2.15.**

**Table 2.15: Literature Review Results: Common Barriers for Public Space Recycling Programs**

| Barriers |
|---|
| Limited funding for container purchases and ongoing program maintenance and collection service. |
| Ensuring consistent collection service based on limitations in existing program infrastructure and contracts. |
| Poorly designed containers and those located in infrequently used areas. |
| Contaminated low quality recyclables recovered. |
| The ability to adapt program needs and design based on local conditions which can vary from site to site. |
| Containers can attract illegal dumping or be used improperly by the public to dispose of trash, which compromises the quality of the recyclables collected. |

***Diversion Potential***

The literature and case study review revealed that tracking volumes of recyclables collected and encouraging feedback from the staff that service/collect materials from the containers are important for monitoring public space recycling program success in recovering recyclables. However, none of the Member Agencies responding to the survey reported that they track the volume of materials collected from public space garbage or recycling containers and this is not currently tracked by Recology. The City of San Mateo did report that their public space recycling program is working and their best practices of color coding recycling containers to match the franchised hauler carts and using the carts themselves in public spaces have aided in public recognition of the containers and subsequent success in recovering recyclables.

The pilot project will attempt to quantify participation, diversion and contamination. The lessons learned will be shared with the intent of developing a system to quantify diversion from public space recycling for each Member Agency.

While in both the downtown area and park setting the garbage containers are anticipated to be filled to capacity daily, the recycling containers will not due to scavenging, based on observations of similar downtown areas and parks. Therefore, the actual diversion results will depend on statistics derived from collection services, anecdotal information obtained through interviews and direct observations conducted during monitoring activities.

***Pilot Project Budget***

As shown in **Table 2.16** below, the FY1415 budget includes $35,000 to implement a public spaces recycling pilot project. The FY1516 budget will include $11,000 in expense to conduct the follow-up surveying and contamination sampling.

**Table 2.16: Budget for FY1415 and FY1516**

| Item | FY1415 | FY1516 |
|---|---|---|
| 16 Sets of Containers (Downtown Area) | $18,000 | |
| Installation | $3,000 | |
| 2 Cart Trailers (2 Park Areas) | $8,000 | |
| Public Education & Outreach | $5,000 | |
| Contamination Sampling | | $10,000 |
| Administration and Surveys | $1,000 | $1,000 |
| Total | $35,000 | $11,000 |

## f. Enhanced Residential Public Education and Outreach Pilot Program

### *Goals*

Identify and implement cost-effective, measurable public education and outreach campaigns for the residential sector with targeted new messages, calls to action, incentives and tools as a pilot program with a primary goal of supporting the JPA's goal of increasing the current SBWMA-wide residential diversion rate of 66.5% to the State's goal of 75% diversion by 2020. Based on historical diversion trends, new and additional efforts are needed to revitalize the residential program as diversion rates have leveled off, and slightly declined this past year.

This pilot program option supports multiple LRP Guiding Principles including:

- Enhance public education to maximize diversion
- Promote behavior change through public education
- Increase and maximize participation in programs and services to reduce and reuse waste
- Provide cost-effective and efficient programs
- Support local, state and national mandates, including meeting the State's 75% recycling goal by 2020

### *Overview*

This pilot program involves developing and implementing dedicated public education campaigns targeting residents and measuring/tracking changes to residential diversion rates. The pilot efforts proposed are based on identified best practices to drive behavioral change and increase participation rates. Current outreach efforts that have proven to be effective to raise awareness and participation, including newsletters, bill inserts, and truck signs, among others would be integrated into the pilot projects. Existing staff would manage the process with assistance from technical consultant(s) to produce any outreach materials needed. The proposed pilot outreach campaigns are detailed below.

While there was a significant increase in residential diversion from 54.7% to 66.2% due to the rollout of new services in 2011, residential diversion has since levelled off to approximately 66%, reaching a high of 66.9% in 2013, and slightly declining to 66.5% in 2014. However, waste characterization research shows that there are still significant amounts of recyclable and organic materials left in the waste stream. To move the current residential diversion rate to 75% equates to an increase of 8.5%. To increase the residential diversion rate by 1% equates to increasing recycling and organic materials collected by approximately 1,736 tons over 2014 tonnages, and decreasing garbage tonnages by the equivalent 1,736 tons at the same time over 2014.

The outreach targeting residents would entail two approaches, with the first being a service area wide approach, and the second, a grassroots/community based approach targeting Member Agencies with below-average residential diversion rates.

*Service Area Wide Campaign:*

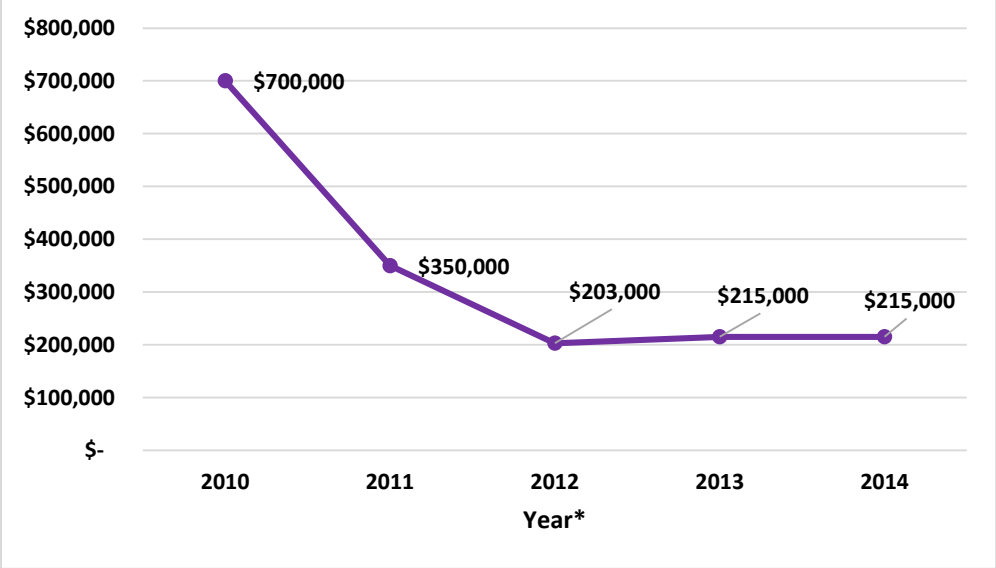
This campaign would be a year-long campaign in FY1617 designed to create new awareness for the CartSMART program, with a focus on the recycle and compost carts. The campaign would include a call to action based on research of messages that motivate the target audience to drive more material out of the garbage into recycling primarily through mass media and advertising using newspapers, online media and

bus shelters, as well as newsletters, bill inserts and direct mail. The difference between this campaign and what has been done the last few years is that it would be focused and build on each other with a uniform theme/tagline/message. While there has been consistency in prior messaging, content and look, it has been focused at a general level of program awareness. In addition, while some advertising has been done to promote special programs like the Door-to-Door HHW program, there has not been any advertising done to promote the overall CartSMART program since its launch in 2011.

As an example of a service area wide approach, Milwaukee's "Recycle for Good" brand and campaign reinvigorated their program and resulted in a 10.4% increase in recycling tonnage. The amount of organic materials set out by residents in the RethinkWaste service area in the last quarter of 2010 increased almost by nearly 2,000 tons when compared to the same period in 2009 because there was consistent messaging and reminders to residents about what went into the green compost cart. There was no change in service, capacity or types of materials accepted in the program. SF Environment also relies heavily on this service area wide approach for its residential outreach.

The budget for this outreach pilot to be included in the FY1617 budget would be approximately $100,000 above the FY1415 budget levels. **Table 2.17** below shows the historical residential outreach spending.

**Table 2.17: CartSMART Residential Outreach Spending for 2010 – 2014**



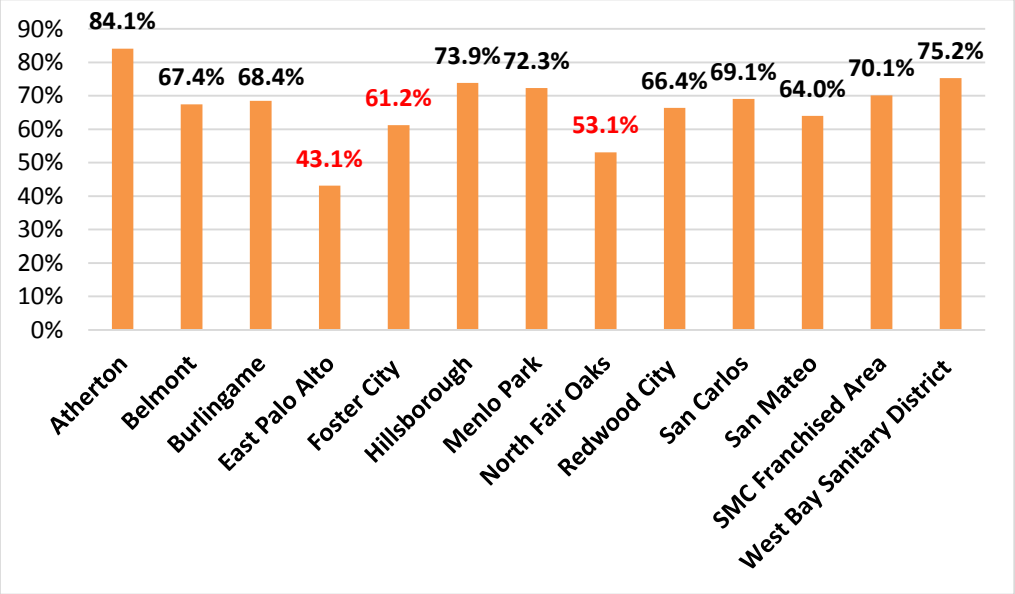

**RethinkWaste operates on a fiscal year budget. The amounts shown in the table are averaged to show costs on a calendar year basis.*

*Community Based Campaign:*
This campaign would also be a year-long campaign in FY1617 targeting Member Agencies with below-average residential diversion rates in comparison to others in the JPA through a grassroots, community based effort incorporating research, cart/door hangers; contests and/or incentives; a "peer-to-peer" strategy featuring residents in newsletters, brochures, social media; and door-to-door outreach among others. The efforts would tie back to the service area wide campaign, but be customized to address the unique needs of

the communities as identified by the specific Member Agency. Research shows that it often takes hearing or seeing a message between six and ten times for it to be recalled.

**Table 2.18** below shows the 2014 measured residential diversion rate by Member Agency. East Palo Alto (43.1%), North Fair Oaks (53.1%) and Foster City (61.2%) have the lowest residential diversion rates. Both East Palo Alto and North Fair Oaks have mandatory garbage subscription levels to address the needs of their respective communities. East Palo Alto mandates a minimum 96-gallon garbage service level and North Fair Oaks requires a minimum 64-gallon garbage service level. While Foster City does not have garbage service level requirements, they do have a high number of smaller residential lots and multi-family complexes with no or limited individual yards that fall under the single-family category due to how they are serviced. These factors contribute to all three communities being the only Member Agencies whose residents continue to set out more garbage than organic materials. As of 2011, all other communities set out more organic materials than garbage by their residents.

**Table 2.18: 2014 Member Agency Measured Residential Diversion Rate**




The budget for this outreach pilot to be included in the FY1617 budget would be approximately $75,000 above the FY1415 budget levels.

## g. Mandatory Residential and Commercial Recycling Ordinance

### *Goals*

SBWMA or its Member Agencies could implement mandatory requirements in order to motivate all residential, commercial, institutional, and public agency generators to separate recyclable and compostable materials from the waste they generate at their homes or places of business, and place it in the appropriate recycling or organics container on a regular basis for collection.

A Mandatory Recycling and Composting Ordinance would need to be carefully developed based on feedback from various stakeholder groups, and publicized adequately to inform all residents, businesses, service providers, and others of the intent and purpose of the ordinance.

This policy tool could be initiated by individual Member Agencies or the SBWMA Member Agencies could participate in a single, uniform ordinance adopted by the SBWMA. An ordinance of this type would be developed to require all single-family residences, multi-family complexes, commercial businesses, institutions, and public agencies to participate in recycling and organics diversion programs offered by RethinkWaste such as the CartSMART and BizSMART programs, notwithstanding specific limitations on the scope of the Franchise Agreements (see Appendix A).

This policy initiative supports several LRP Guiding Principles including:

- Leverage existing infrastructure
- Provide cost-effective and efficient programs
- Increase and maximize participation in programs and services to reduce and reuse waste
- Support local, state and national mandates, including meeting the State's 75% recycling goal by 2020
- Promote behavior change through public education
- Provide incentives to participate in programs where feasible
- Enhance public education to maximize participation

### *Overview*

RethinkWaste would first develop a model ordinance for consideration by the SBWMA Board that could be adopted by the SBWMA or by individual Member Agencies. Upon completion of a comprehensive stakeholder engagement process, RethinkWaste would report back to the Board comments, concerns, inquiries and lessons learned. The Board and/or the Member Agencies could then decide their preferred approach regarding participating in a regional ordinance adopted and administered by RethinkWaste or adopting individual ordinances at the Member Agency level and tasking RethinkWaste to assist with public education/outreach and enforcement.

Local examples of mandatory ordinances include:

**Mandatory Commercial and Multi-Family Residential Recycling Ordinance – City of San Carlos**

Adopted by the City Council in April 2010, the ordinance was implemented in two phases. Commercial and multi-family residential solid waste customers that have 2 cubic yards or more of garbage collection service per week were required to have recycling services by January 1, 2011. Food service establishments and special events that have 2 cubic yards or more of garbage collection service per week were required to have organics collection services by January 1, 2012. Enforcement of the ordinance is a three-step process: issuance of a courtesy notice, issuance of a warning notice, and issuance of a violation notice. The City has the authority to impose administrative penalties of up to $500 per violation. Prior to adoption of the ordinance, SBWMA led an extensive stakeholder outreach process on behalf of the City. According to a case study[11] prepared by the Institute for Local Government, businesses in San Carlos were very supportive of the City's efforts to move from a voluntary to a mandatory recycling program. Many businesses were motivated to support the ordinance because it was a locally designed program as opposed to a potential mandate. Businesses wanted broader coverage – that is, more businesses and material types included – and faster implementation. The mandatory phase of the program began in January 2011. Recology works with the individual businesses proactively to explain the program and promote compliance. To date, no enforcement actions have been taken since the program became mandatory.

**Mandatory Commercial Recycling and Composting Ordinance – Alameda County Waste Management Authority/StopWaste**

The Alameda County Waste Management Authority (StopWaste) was formed in 1976 as a joint powers authority to ensure sufficient landfill capacity in the region. The 17 member agencies include Alameda County, all of the cities in Alameda County and two sanitary districts. In 1990, Alameda County voters passed a ballot initiative that established a 75% goal and assessed fees on tons disposed at landfill to fund waste prevention and recycling programs. The StopWaste Executive Director, Mr. Gary Wolff, provided a detailed presentation on his agency's mandatory commercial recycling ordinance at the RethinkWaste Visioning Workshop on November, 6, 2014.

This ordinance, adopted in January 2012 and phased in over two years, requires businesses, institutions and multi-family properties with five or more units to sort their recyclables from their garbage. Single-family residences up to four units are not affected by the ordinance. Multi-family property owners as well as businesses and institutions that generate food waste, such as restaurants and grocery stores, must also sort compostables from their garbage. These requirements are effective within participating areas of Alameda County.[12]

The ordinance requires the recycling and compost service to be sufficient to handle the amount of targeted materials generated at the location. This includes cardboard, newspaper, white paper, mixed recyclable paper, recyclable glass food and beverage containers, metal (aluminum and steel) food and beverage containers, PET (#1) and HDPE (#2) plastic bottles, food scraps and compostable paper. Unlike other

[11]Institute for Local Government: Adopting a Mandatory Commercial Recycling Ordinance: The Experience of the City of San Carlos http://www.ca-ilg.org/sustainability-case-story/adopting-mandatory-commercial-recycling-ordinance (compiled May 2011).

[12]Member agencies had the opportunity to "opt out" of participation in the mandatory ordinance. Two out of the 17 member agencies have opted-out of Phase 1 (mandatory recycling) and Phase 2 (mandatory composting) of the ordinance and two more of the member agencies have opted-out of Phase 2 only.

communities, where the requirement is on the books, but not enforced, the Authority is making a serious effort to enforce the ordinance. Inspectors hired by StopWaste lift lids of the solid waste containers at businesses and check whether there are recyclable or compostable materials present. Violators receive notices of non-compliance. The intent of enforcement is to change behavior rather than to punish or generate revenue through fines. This intent is codified by the enforcement policies for the ordinance which requires a three step process of Official Notification, Warning, and finally as a last resort, Citation. Implementing these policies requires staff and inspector trainings, inspections, and official communications with regulated parties about enforcement (including legal review). The Authority's 2014-15 budget for enforcement is $1,078,743, which includes: 3 full-time equivalent (FTE) contract inspectors, 1/2 FTE contract enforcement officer (retired Alameda Co. Sheriff), 1/2 FTE clerical, 1/2 FTE inspection/data manager, 1/4 FTE enforcement officer, and 1/4 FTE for IT, media, and communications and non-staff expenses.

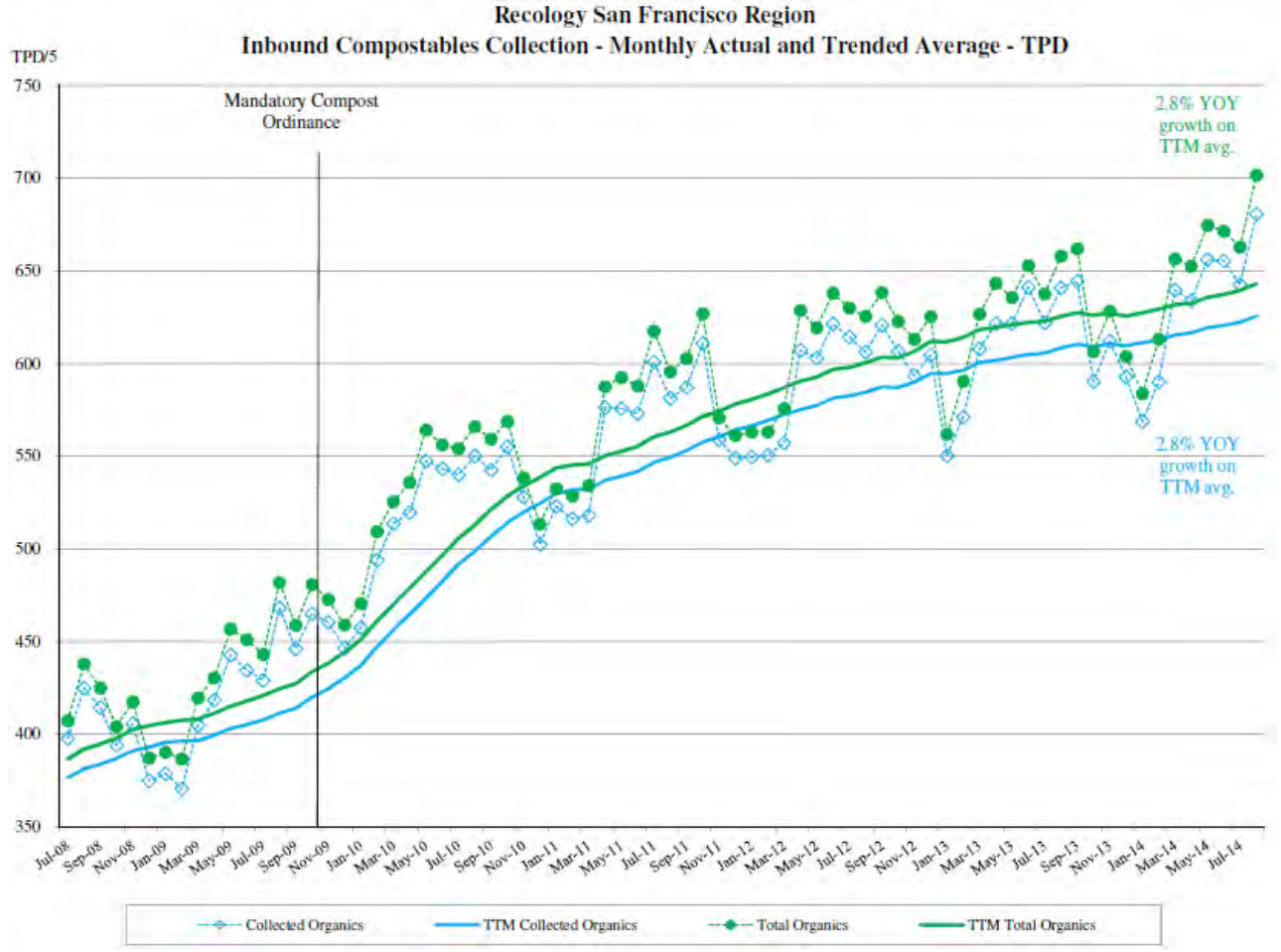
The ordinance is still in the implementation phase, thus no diversion results have been reported. StopWaste has initiated a benchmark study to evaluate its progress towards its goal of less than 10% recyclable and compostable materials disposed in the garbage by 2020.

**Mandatory Recycling and Composting Ordinance – City and County of San Francisco**
San Francisco's Mandatory Recycling and Composting Ordinance requires residents and businesses to keep recyclables and organic materials out of their garbage container. Passed by the San Francisco Board of Supervisors in 2009, it became the first local municipal ordinance in the United States to universally require source separation of all organic material, including food scraps. All residents and businesses are required to subscribe to adequate recycling, composting, and garbage service and to properly participate by ensuring targeted materials are not disposed. Residents can also choose to compost at home and take recyclables to appropriate recycling centers. Building owners can be fined if they fail to provide tenants with adequate recycling, composting and garbage services and information on their proper use. The City has focused its efforts on ensuring that all buildings have the necessary recycling and composting collection services. Door-to-door outreach is conducted by the City's Environment Now interns. San Francisco's Commercial Recycling Manager provided a detailed presentation on his agency's mandatory recycling and composting ordinance at the RethinkWaste Visioning Workshop on November 6, 2014. During this presentation, it was noted that the City's diversion of organics increased by approximately 50% from November 2009 (when the Ordinance was passed) to July 2014. (See **Table 2.19** on the next page.)

Environment Now is a green careers program that helps prepare workers for jobs in the green industry. The interns conduct environmental outreach activities throughout San Francisco including programs for energy efficiency, recycling, toxics reduction and food security, with an emphasis on neighborhoods in need. Because many Environment Now participants come from these underserved communities, they are able to reach traditionally hard-to-reach audiences and boost community participation in the City's environmental initiatives. Environment Now was originally funded through a federal grant and is now included in the outreach budget for the City. Environment Now currently employs ten interns. The 2014 Environment Now budget was $1.5 million and the revenue source was the City's Impound Account (which is a collection rate surcharge).[13]

[13]San Francisco Department of the Environment 2013-2014 Budget
http://www.sfenvironment.org/sites/default/files/agenda/attach/departmentoftheenvironment_budget_fy13and14_0.pdf

**Table 2.19: Mandatory Ordinance Results on San Francisco Organics Materials**




Advantages and disadvantages of mandatory requirements are similar to those of disposal bans and include:

***Advantages***

- Allows local communities to tailor recycling requirements and provides more specificity and certainty of compliance than the requirements under State law
- Ensures that generators of recyclable and compostable materials are fully participating in diversion programs
- Can address all generators (not just those specified under State law)
- Provides an incentive to source-separate materials at home and at work
- Similar to seat belt laws, enacting the requirement will change behavior even without heavy enforcement
- Enforcement can be scaled based on violations
- Instills sustained behavior change

***Disadvantages***

- May appear duplicative of State requirements (for multi-family and commercial)
- Requires education and enforcement

- Could be perceived as onerous

***Mandatory Recycling and Composting Implementation Plan***

A key recommendation from RethinkWaste's mandatory ordinance pilot project for San Carlos was to undertake a stakeholder engagement process to assist in the program design. Businesses in San Carlos encouraged the City to create a level playing field by requiring a broader range of commercial generators (including those with 2 cubic yards or more of solid waste collection) and a broader range of material types (including organics) than the ordinance originally contemplated.

As a result, the ordinance adopted by the City with the endorsement of the Chamber and business community had more requirements than those imposed by the State's AB 341 mandatory commercial recycling law. Staff recommends that the lessons learned from the San Carlos pilot should be considered when developing a future model mandatory recycling ordinance, including, but not limited to:

- Require all customers (residential, commercial, industrial, institutional and member agency facilities) to be covered by the ordinance
- Require all services (recycling, organics, and construction and demolition diversion) to be covered by the ordinance
- In addition to receiving collection services, require customers to sort properly (no recycling or organics in the garbage, no garbage in the recycling or organics)
- Emphasize education rather than enforcement, but provide a scaled enforcement program with courtesy notices, warning notices, and violation notices
- Use existing outreach staff or contractor resources, including the franchised solid waste and recycling service provider to provide outreach and technical assistance, as included in the Franchise Agreements[14]
- Use contract staff to provide quarterly inspections and issuance of notices

Since full scale implementation of the SBWMA CartSMART and BizSmart programs, there is nearly universal acceptance of recycling and organics services by residential customers and recycling services by commercial customers. However, the commercial sector subscription rate for compost collection service is still quite low as discussed above. This will likely change per implementation of AB 1826 which requires businesses to subscribe to compost collection services in a phased in approach from 2016 to 2020 based on levels of organics generation, and thus may significantly increase the commercial sector subscription rate for the BizSMART compost collection services.

For these reasons, staff is recommending the Board consider this policy alternative after 2020 as the results of other programs to increase diversion are tracked and measured. While a mandatory ordinance may result in

[14]Franchise Agreement(s) Section 7.04(I): Mandatory Commercial Recycling Assistance to Agency. In the event Agency adopts a policy or strategy to encourage or require Recycling at Commercial and Multi-Family Dwelling Customers, Contractor shall assist Agency and SBWMA with implementing the policy or strategy. Contractor shall be required to provide Agency with prompt notification of Customers that do not comply with the policy or strategy based on the observations of Contractor's employees. Contractor shall assist the Agency and SBWMA with collecting related data from Commercial and Multi-Family Dwelling Customers and facilitating outreach and education programs focusing on encouraging participation by these Customers in the mandatory Recycling policy or strategy. Upon request from Agency, Contractor shall modify its protocol regarding use of non-collection notices pursuant to subsection 8.02.F to include Solid Waste Containers, in order to assist with implementing Agency's mandatory Commercial Recycling policy or strategy.

significant cost-effective diversion, staff views this approach as a low priority in the short term given the potential to enhance the existing system and make improvements with the goal of increasing diversion. In addition, in the coming years the results of the SBWMA Commercial Recycling Reporting Ordinance will provide valuable insights on commercial sector diversion, which in turn will allow the SBWMA to more fully consider the implications of adopting this policy alternative.

***Mandatory Ordinance Cost Estimate***

In developing a cost estimate for implementing the Mandatory Recycling and Composting ordinance, the following was taken into account:

- Staff time will be needed for program and ordinance development
- Staff time will be needed to conduct stakeholder meetings (assume 24 meetings, two for each Member Agency)
- Education materials including website updates, direct mail, advertisements and press releases
- Contractor resources for quarterly inspections and issuance of notices
  - Assumes 250 commercial customers inspected per quarter, targeting different geographic areas and generator sectors each quarter. (Another 250-500 to be inspected by Recology.)
  - Assumes 500 residential customers inspected per quarter, targeting different geographic areas and generator sectors each quarter
  - Notices would be mailed to non-compliant generators
  - Referrals for technical assistance would be made to existing SBWMA and Recology staff

**Table 2.20** below provides the costs for both the first year of implementation and in subsequent years; these costs are above and beyond existing RethinkWaste outreach spending and the Recology commercial outreach program costs. It is important to note that these projected costs are significantly below the costs of the benchmarked communities, StopWaste and San Francisco, based on several factors:

- SBWMA has significant programs in place for outreach and technical assistance (which is the focus of San Francisco's efforts in implementing its mandatory ordinance)
- SBWMA's territory is somewhat smaller than StopWaste's (17 member agencies compared to 12, 1.5 million population compare to less than 500,000)
- SBWMA staff have been able to implement similar large-scale efforts cost-effectively with minimal staffing

**Table 2.20: Mandatory Ordinance Estimated Program Costs**

| Program Cost | Residential Sector | Commercial Sector | Implementation Expense (Year One) | Second Year & Annually Recurring |
|---|---|---|---|---|
| **Program/Ordinance Development** | N/A | N/A | $5,000 | N/A |
| **Stakeholder Meetings** | $4,000 | $4,000 | $8,000 | N/A |
| **Public Education & Outreach** | $25,000 | $25,000 | $50,000 | $28,000 |
| **Quarterly Inspections** | $160,000 | $80,000 | $240,000 | $240,000 |
| **Total Annual "New" Cost:** | N/A | N/A | $303,000 | $268,000 |

## h. Organic Materials (Green Waste and Food Scraps) Disposal Ban

### *Goals*

RethinkWaste can lead by example in encouraging the County Board of Supervisors to consider adopting an Organic Materials (Green Waste and Food Scraps) Disposal Ban which would significantly increase diversion of these materials from the Ox Mountain landfill. While the SBWMA could adopt an ordinance banning these materials from disposal at Shoreway, this approach may only result in customers bringing these materials to other disposal facilities and essentially drive away business with little impact on diversion. However, if this were a countywide initiative and even a multi-county effort, the impact could be significant with regard to diversion, saving landfill space and reducing the most potent greenhouse gas generating materials deposited in landfills (i.e., green waste and food scraps sent to landfill are potent methane producing materials and methane is 27 times more potent a greenhouse gas than $CO_2$).

This program supports multiple LRP Guiding Principles including:

- Ensure the highest and best use of recoverable materials and implications for end markets so programs are economically and environmentally sustainable
- Reduce and mitigate landfill and other facility impacts
- Support local, state and national mandates, including meeting the State's 75% recycling goal by 2020
- Promote behavior change through public education
- JPA Member Agency facilities and the Shoreway facility to serve as models for high diversion facilities

### *Overview*

Communities across the U.S. have increased participation in recycling and composting programs through the implementation of disposal bans. Most of the focus on disposal bans has been on toxic materials, electronic waste, appliances and yard trimmings. Over half of the states in the U.S. have a disposal ban for yard trimmings. State bans are also supplemented by local bans and enforcement. For example, Mecklenburg County, North Carolina is reinforcing the state ban on plastic beverage containers, aluminum cans, wood pallets and appliances through implementation of local bans and enforcement. The City of Seattle, Washington has achieved a 70% diversion rate in its residential programs through implementation of a local disposal ban of recyclable materials and yard trimmings, where residents may not place recyclable materials or yard trimmings in their collection containers for solid waste. Metro Vancouver, British Columbia is also considering implementation of a food scrap ban. Bans may be enforced at transfer stations, landfills or at the point of collection.

### *Examples of Other Communities*

Each of the disposal bans described below have been implemented at a countywide level. SBWMA operates one of the several transfer and disposal facilities within San Mateo County. Thus, a disposal ban is more likely to be effective if it was implemented in cooperation with the San Mateo County Board of Supervisors, since the Ox Mountain Landfill, the primary disposal facility in the County, is located in the unincorporated area of San Mateo County. In addition, a disposal ban should be implemented throughout the local area, to ensure that self-haulers were not driven away from Shoreway to facilities that do not require separation. To accomplish this, SBWMA would work with other communities in San Mateo and Santa Clara counties and the program operators

of the transfer stations and landfills to implement countywide ordinances requiring targeted materials to be diverted from disposal.

**Plant/Yard Debris – Alameda County Waste Management Authority (StopWaste)**
The Alameda County Waste Management Authority (StopWaste) is a joint powers agency (JPA) which includes as its member agencies all 17 jurisdictions in the County. The plant debris disposal ban took effect January 1, 2010 and was targeted at professional landscapers and gardeners who collect and haul substantial amounts of plant debris to Alameda County solid waste facilities (i.e., transfer stations and landfills). While all communities in Alameda County provide residential curbside collection of plant debris, the ban requires landscapers to segregate the loads of materials brought to transfer stations and landfills. The ban also requires public agencies to separate plant debris from other materials hauled from debris boxes located at municipal corporation yards and materials delivered directly via municipal vehicles. Plant debris that is problematic to effectively compost (such as palm fronds and sod) is exempt from the ban. The ordinance requires landfills and transfer stations to assess a 50% surcharge on mixed loads or require customers to separate their loads. StopWaste spent $100,000 on outreach and technical assistance to implement the ban. In addition, the equivalent of 0.5 full time equivalent (FTE) in staff time was used during the first year of implementation to coordinate efforts and inform landscapers and gardeners of the new requirements. Since 2010, less than 100 hours per year are spent in monitoring and enforcing the ban. StopWaste has not conducted a waste characterization study since enacting the ban; however, staff report that the ban has been very successful and very little plant debris is disposed in landfills.

**Appliances, Cardboard, Tires, Scrap Metal, Wood, Yard Debris – Sonoma County**
Landfills and transfer stations in the County prohibit the disposal of specific materials, including appliances, cardboard, tires, scrap metal, wood and yard debris. The ordinance was enacted by the Sonoma County Board of Supervisors in 1994 and targeted self-haul customers at the County's transfer stations and landfills. Violators are required to pay to the County a sum equal to three times the amount of the County standard tipping fee. The ordinance has been lightly enforced, but the requirement and notification of the requirement has changed the behavior of self-haul generators. The County has spent minimal staff effort in enforcing the ban, but self-haulers at the landfills and transfer stations have generally complied with the requirements.

**Recyclable Materials[15] – Santa Cruz County**
The Santa Cruz County disposal ban took effect on January 1, 2006 and applies to all recyclable and compostable materials. Self-haulers must separate their loads prior to delivering them to the County's transfer stations and landfills. Residential and commercial generators in the county must not place recyclable or compostable materials in solid waste containers. Recyclable materials and yard trimmings collection is available to all residential and commercial customers within the county and is included as a part of the solid waste collection service. Violators are required to remove recyclable materials from solid waste prior to collection or disposal. The Public Works Director is empowered to grant exemptions. The

[15]"Recyclable materials" or "recyclables" means that portion of solid waste which is separated from other solid waste for recycling and includes, without limitation, newspaper, cardboard, office paper, mixed waste paper (including junk mail, catalogues, craft bags and craft paper, paperboard, egg cartons, phone books, brown paper, grocery bags, colored paper, construction paper, envelopes, legal pad backings, shoe boxes, cereal and similar food boxes), computer paper, magazines, aseptic packaging, milk and juice cartons, glass, aluminum cans, trays and foil, tin cans, steel cans, small metal scrap, appliances, PETE, HDPE and mixed plastic containers (all types of numbers 3 through 7), used motor oil, used automotive oil filters, and dry cell batteries. "Recyclable materials" also means yard waste, wood waste and reuse materials.

County has spent minimal staff effort in enforcing the ban, but self-haulers at the landfills and transfer stations have generally complied with the requirements. The County has not enforced the ban at the household or business generator level and the level of compliance with the ordinance is not known.

Advantages and disadvantages of disposal bans include:

***Advantages***

- Ensures that generators of recyclable and compostable materials are fully participating in diversion programs
- Provides an incentive to source-separate materials at job sites and corporation yards
- Similar to seat belt laws, enacting the requirement will change behavior even without heavy enforcement or investment in enforcement
- Enforcement can be scaled based on violations
- Instills sustained behavior change

***Disadvantages***

- Could drive mixed loads to other disposal facilities
- Requires education and enforcement (Santa Cruz County initiated a three-year enforcement schedule: first year - communicated requirements, second year - issued warnings, third year-issued fines)
- Could be perceived as onerous

***Disposal Ban Program Design***

The initial implementation of a disposal ban would apply to self-haul customers and municipal vehicles using the Shoreway Environmental Center (and potentially the Ox Mountain Landfill within the unincorporated area of San Mateo County). Self-haul customers would be expected to only bring segregated loads such that materials could be readily unloaded and placed in their appropriate bins or bunkers. Targeted materials would include those prevalent in the self-haul discard stream, including but not limited to plant debris, yard trimmings and clean lumber. To implement this program, the self-haul customer incentive could be changed so that customers are assessed a surcharge for bringing in loads of targeted material mixed with other solid waste (or these customers could simply be turned away for not being compliant, which is not a preferable alternative). Alameda County requires facility operators to assess a 50% surcharge on mixed loads and Sonoma County can assess a 300% surcharge.

Staff is recommending the Board consider this policy alternative after 2020 as the results of other programs to increase diversion are tracked and measured, particularly implementation of AB 1826. While a disposal ban may result in significant cost-effective diversion, staff views this approach as a low priority in the short term given the potential to enhance the existing system and make improvements with the goal of increasing diversion. In addition, in the coming years the results of the SBWMA Commercial Recycling Reporting Ordinance will provide valuable insights on commercial sector diversion, which in turn will allow the SBWMA to more fully consider the implications of adopting this policy alternative.

***Disposal Ban Cost Estimate***

In developing a cost estimate for implementing the Organic Materials Disposal Ban, the following was taken into account:

- Staff time will be needed for program and ordinance development
- SBWMA supporting development of a Countywide ordinance and participating in countywide stakeholder meetings (assume 300-400 staff hours)
- Education materials including website updates, self-haul flyers, posters, bill inserts, advertisements and press releases
- One-time costs are annualized over 10 years to estimate total annual costs

Based on these assumptions, the total expense for RethinkWaste to implement a disposal ban would be approximately $60,000.

### i. EPR Policy Framework

***Goals***

The SBWMA can support State and federal efforts to build the environmental costs into the price of products and packaging and then require manufacturers to take back products at the end of their useful life. SBWMA already does this on a limited basis through its support of groups like the California Product Stewardship Council (CPSC) and Californians Against Waste (CAW) at the State level. SBWMA has been a long-time supporter of both CPSC and CAW, and annually donates $3,500 and $1,250 to these organizations, respectively.

Adopting a resolution in support of product stewardship would provide a more formal way for SBWMA to weigh-in in a timely manner in response to legislation, issue letters of support or concern, and attend meetings and hearings, as appropriate.

Currently, 37 California counties and 108 cities have adopted product stewardship policy resolutions, representing 64% of the State population.[16]

Product stewardship polices implemented at the State level have had a direct positive effect on SBWMA operations and resources. SBWMA and the Member Agencies receive revenues and avoid the cost of disposal for targeted materials covered by State law. For 2014 the revenues received include:

- Electronic Waste - $70,515
- California Redemption Value Beverage Containers - $3,724,000
- Latex paint (PaintCare program) – $23,124

Adopting a formal product stewardship policy in turn supports several LRP Guiding Principles including:

- Support product stewardship policies and initiatives
- Support local, state and national mandates, including meeting the State's 75% recycling goal by 2020
- Promote behavior change through public education

***Overview***

According to the Institute for Local Self-Reliance, each ton of garbage landfilled or burned, creates about 71 tons of waste on average "upstream" from the mining, manufacturing and distribution of materials in the product lifecycle. By recycling one ton of waste, we can divert one ton of waste from disposal. However, by reducing waste by one ton, through waste prevention strategies, effectively 72 tons of waste (one ton of garbage plus 71 tons of upstream waste) are diverted from disposal.[17]

Product Stewardship is the act of minimizing health, safety, environmental and social impacts, and maximizing economic benefits of a product and its packaging throughout all lifecycle stages. A fundamental premise of

[16]California Product Stewardship Council 2014 Annual Report, http://calpsc.org/mobius/cpsc-content/uploads/2014/12/2013-14_AnnualReport_FINAL_2014_8_15_2014.pdf

[17]Brenda Platt and Neil Seldman, Institute for Local Self-Reliance, Waste and Recycling in the U.S. 2000, GrassRoots Recycling Network, 2000, p. 13. Based on data reported in Office of Technology Assessment, Managing Industrial Solid Wastes from Manufacturing, Mining, Oil, and Gas Production, and Utility Coal Combustion (OTA-BP-O-82), February 1992, pp. 7, 10.

product stewardship is that the producer of the product has responsibility to minimize adverse impacts, along with other stakeholders, such as suppliers, retailers, and consumers, who also play a role. Stewardship can be either voluntary or required by law.

Extended Producer Responsibility (EPR) is a mandatory type of product stewardship that includes, at a minimum, the requirement that the producer's responsibility for their product extends to post-consumer management of that product and its packaging. There are two related features of EPR policy: 1) shifting financial and management responsibility, with government oversight, upstream to the producer and away from the public sector; and 2) providing incentives to producers to incorporate environmental considerations into the design of their products and packaging.

Formed by local zero waste communities, the mission of CPSC is to shift California's product waste management system from one focused on government funded and ratepayer financed waste diversion to one that relies on producer responsibility in order to reduce public cost and drive improvements in product design that promote environmental sustainability. SBWMA has been a local government member of CPSC since its inception. One of the initiatives of the CPSC is to implement producer responsibility at the State level.

On September 19, 2007, CalRecycle adopted an overall framework for an Extended Producer Responsibility System in California. Many of the concepts that are part of this framework have been included in State legislation that has been introduced and that would authorize CalRecycle to implement a statewide product stewardship program and select products that would be regulated under that program. The goal of the legislation is to improve product design, encourage reuse and recycling, address excessive packaging, provide convenient collection alternatives for consumers, provide incentives for producers to reduce the lifecycle impacts of products and packaging, and reduce the use of toxics in products. Since adoption of the framework, the State legislature has enacted several bills addressing problem products including, mercury thermostats, paint, carpet, mattresses, and single-use plastic bags.

Additional problem products targeted for policy acton by CPSC are pharmacueticals and batteries.

There are many specific types of product policies, including:

- Product stewardship where there is shared responsibility (between consumers, ratepayers, local governments and manufacturers) for managing discarded products
- Extended Producer Responsibility where the manufacturer pays for and provides the infrastructure for managing its products from cradle to cradle
- Product redesign where manufacturers are required to make their products less toxics or more recyclable, compostable or repairable
- Recycled content where manufacturers are required to include a minimum amout of recycled content in their products

***Examples of Other Communities***

The CPSC has confirmed that 138 local governments in California have passed an EPR resolution. Attached as **Attachment C** is an example of a model policy is Resolution No. 27741 passed by the City of Santa Rosa City Council on September 28, 2010. In addition, numerous local governments, businesses and non-profits have endorsed CPSC's Product Stewardship and Extended Producer Responsibility: Definitions and Principles which is provided as **Attachment D**.

***Product Policy Resolution Cost Estimate***

No significant costs are expected to be incurred in the adoption of the Extended Producer Responsibility Policy Resolution. SBWMA has been a long-time supporter of both CPSC and CAW. Each of these Sacramento-based advocacy organizations work on product policies at the State level, including product stewardship and Extended Producer Responsibility initiatives, problem product bans and fees, product redesign, and recycled content requirements. These organizations provide timely information on pending legislation and keep SBWMA staff informed on the issues. On occasion, RethinkWaste staff may travel to Sacramento or to regional meetings to participate in discussions regarding the pertinent policy initiatives; however, no significant fiscal impact is anticipated as this travel expense is already budgeted.

***Product Stewardship Policy Resolution Diversion Potential***

The diversion potential of the product policy resolution is directly related to the materials targeted in future legislation. Previous legislative efforts have addressed large items, such as tires, mattresses and carpet; and toxic materials, such as mercury containing devices (e.g., thermostats, switches), used oil, paint and electronics. Current legislative efforts have been aimed at household batteries, pharmaceuticals, and sharps. These products do not represent a significant fraction of the disposed waste by the SBWMA Member Agencies. However, they are difficult to handle, potentially toxic, are expensive for SBWMA to manage appropriately and are, therefore, appropriate targets for product stewardship legislation.

**Table 2.21: Product Policy Resolution Implementation**

| Action Step | Responsible Party | Timeframe | Resources |
|---|---|---|---|
| Develop SBWMA Product Stewardship policy resolution | SBWMA staff | Fall 2015 | Staff time |
| Participate in policy discussions and prepare letters of support for State legislation and local initiatives | SBWMA staff | Ongoing | Staff time |

## 2. Processing and Transfer Infrastructure

### a. Mixed Waste Processing in the Transfer Station

***Goals***

The goal of this project is to design, install and operate a mixed waste processing system in the Transfer Station to recover recyclables and organic materials that are currently being discarded in the trash by residential and commercial franchised customers. As required by state legislation AB 1826, starting in 2016 most commercial, institutional, and MFD locations must implement an organics recycling program. Installing a mixed waste processing system with organics recovery is a method of complying with AB 1826 and can complement existing source separated organics collection programs. Organics that are recovered will be transported to the SVCW wastewater treatment plant to be anaerobically digested to produce green energy (biogas).

The development of a mixed waste processing system in the Shoreway Transfer Station supports multiple LRP Guiding Principles including:

- Support local, state and national mandates, including meeting the State's AB1826 requirements for commercial organics recycling and the 75% recycling goal by 2020
- Leveraging existing infrastructure
- Develop and sustain strategic community partnerships
- Provide cost-effective and efficient programs
- Reduce and mitigate landfill and other facility impacts
- Invest in new, safe technologies and processes for infrastructure
- JPA Member Agency facilities and the Shoreway facility to serve as models for high diversion facilities

***Overview***

Significant improvement in the recovery of recyclable and organic materials can be achieved through a combination of enhancements to collection, outreach programs, and back-end recovery of such materials from the garbage tipped at the Shoreway Transfer Station. Compliance with commercial organic regulation AB 1826 and high levels of diversion can be achieved through a mixed waste processing system in the Transfer Station to significantly increase the agency's overall diversion levels towards the 75% goal. The conceptual project development of a mixed waste processing system to recover recyclables and organic materials from the garbage stream has been under evaluation by staff since last year and project updates have been presented to the Board most recently in January 2015. The state has approved this type of system as an alternative to source separated commercial organics (food rich organics and not green waste) collection programs to comply with future AB 1826 commercial organics recycling requirements. The cost to SBWMA businesses for the implementation of AB 1826 is currently being evaluated by Recology and by SBWMA staff.

***Project Evaluation***

Garbage that is delivered to the Transfer Station is composed of waste from three different sectors collected by Recology – single family residential, multi-family dwelling, and commercial. Though each stream has a different waste composition, **Table 2.22** on the following page shows that there are high volumes of recyclables and organic materials still present in the garbage from all of the sectors, but notably in multi-family and commercial.

By analyzing the waste stream, it is estimated that there is a total of 49,591 tons of recyclable material that could potentially be recovered from the waste stream through a mixed waste processing system.

**Table 2.22: Percent of Recoverable Materials Currently Disposed**

| Sector | Percent of Material Disposed | |
|---|---|---|
| | Recycling Program Targeted Materials | Organics Program Targeted Materials |
| Single-Family Residential | 29% | 15% |
| Multi-Family Residential | 59% | 93% |
| Commercial | 45% | 54% |

*(Table 2.24 provides the amount of Recyclable and Organic materials that are still present in the garbage as determined by waste characterization studies conducted for the Commercial/MFD sector, SFD sector and MFD sector in February 2012, November 2012, and September 2013, respectively).*

Staff has researched the effectiveness of different types of mixed waste processing systems at capturing recyclable and organic materials to determine how much material could be recovered from the SBWMA's franchise waste stream. As part of this research, staff has visited many of the large mixed waste processing systems that are operating in California (see **Table 2.23** for a listing of mixed waste processing facilities) and has consulted with industry experts and system manufacturers. In principle, mixed waste processing systems use similar materials processing technology to the equipment currently operating at the Shoreway MRF to separate single stream recyclable materials (e.g., mixed waste systems employ a combination of screening, air, optical and magnetic separation technologies to recover recyclable and organic material from garbage). Based on the evaluation of mixed waste processing systems currently in operation and the reliability of the sorting equipment used at the Shoreway MRF, staff is confident that a mixed waste system can effectively recover the targeted materials. It should be noted that the system can also process the current stream (~15,000 tons per year) of source separated organic materials that are already collected by Recology or if financially beneficial, this stream can continue to go to composting).

**Table 2.23: List of Mixed Waste Processing Systems in California**

| City | Project Description | Approx. Tons/year Processed |
|---|---|---|
| San Jose | Commercial waste MRF processing system 2013<br>Organics to energy AD project 2014 | |
| Sunnyvale | MSW MRF – operating since 2000 | |
| City of Industry | Athens Mixed Waste MRF – 1997 | 500,000 |
| City of Los Angeles | Athens Mixed Waste MRF – 2014 | 250,000 |
| City of Stanton | CR&R Mixed Waste MRF – 1995 | 300,000 |
| City of Los Angeles | Community Recycling (now Recology) – 1994 | 300,000 |
| City of Huntington Beach | Rainbow Disposal – Mixed Waste MRF | 250,000 |

The number of mixed waste processing technologies in California that target organic material for recovery and treatment is growing. The Bay Area in particular is leading the State in the implementation of these systems to

convert organic material through anaerobic digestion (AD) into green energy and compost. For example, the following projects have been constructed locally:

- San Jose's commercial wet/dry program that was initiated in July 2012 involves mixed waste processing and organic materials recovery at Newby Island and subsequent processing of the food waste fraction at a nearby anaerobic digestion facility operated by Zero Waste Energy (commenced operations in 2014).
- Also in San Jose, Green Waste Recovery installed a mixed waste processing system where recyclable and organic materials are recovered from multi-family accounts and the organic fraction is transported to Z-Best composting facility in Gilroy.
- An a organic material digester was completed in January 2015 at South San Francisco Scavenger/Blue Line Transfer to digest source separated organics into a bio-CNG for use in fueling the collection vehicles.
- Several AD projects that target the organic fraction of the waste stream are in various stages of development and implementation by waste processors and wastewater treatment plants in the Bay Area including Marin Sanitary, Napa wastewater treatment facility and East Bay Municipal Utility District in Oakland.

Since organic material (food waste) is the single largest fraction of the waste stream (roughly 28%), diverting this stream has been a primary focus in designing a mixed waste processing system for Shoreway. Effectively diverting organic materials is a complicated process because it involves two distinct processing steps: first the organic material must be separated from the garbage, and second the organic material must be anaerobically digested in a completely different system to convert the material to biogas. While there are AD systems that are being constructed in the Bay Area to treat the organic fraction from solid waste, staff has found that there is a high capital and operating cost to running a stand-alone AD treatment system. Specifically, the staff evaluated dry anaerobic digestion systems sold by Zero Waste Energy and Harvest Power; and wet anaerobic digestion systems sold by OWS, and Clean World Partners and found the capital intensiveness of these treatment systems has made it difficult for them to compete with the comparatively low-cost of landfilling).

Anaerobic digestion is a foundational treatment technology used by wastewater treatment facilities around the world to digest organic materials. Though early conversations with SVCW, staff learned that their wastewater treatment facility located at Redwood Shores, has a large AD system with an excess capacity that could be adapted to process the SBWMA's organic material into biogas that could be used by SVCW to power their plant. Since 2012, the SBWMA and SVCW have been researching a processing partnership that would leverage each other's existing infrastructure and would reduce the capital expense of constructing a stand-alone AD facility. Through a processing partnership, the SBWMA would operate a mixed waste process system at the Transfer Station to extract the organic fraction from the garbage and transport this organic material to SVCW for anaerobic digestion and electricity generation. In 2014, the SBWMA and the SVCW Boards of Directors approved a memorandum of understanding to research the technical and financial feasibility of the concept and both agencies have substantially completed the preliminary research.

***Description of the Processing System and Technology***

A mixed waste processing system to recover recyclable and organic materials would be located inside of the Shoreway Transfer Station and would involve waste processing equipment somewhat similar to the single stream processing system used at the Shoreway MRF. As illustrated in the **Figure 2.1** below, a mixed waste processing system at the Shoreway Transfer Station would first recover recyclable materials that would be

further processed at the Shoreway MRF and sold with the other commodities; and second the organic fraction would be extracted from the waste stream and the recovered organic fraction or slurry would be transported to SVCW in an end-dump trailer for further cleaning and digestion.

**Figure 2.1: Mixed Waste Process Flow Diagram**

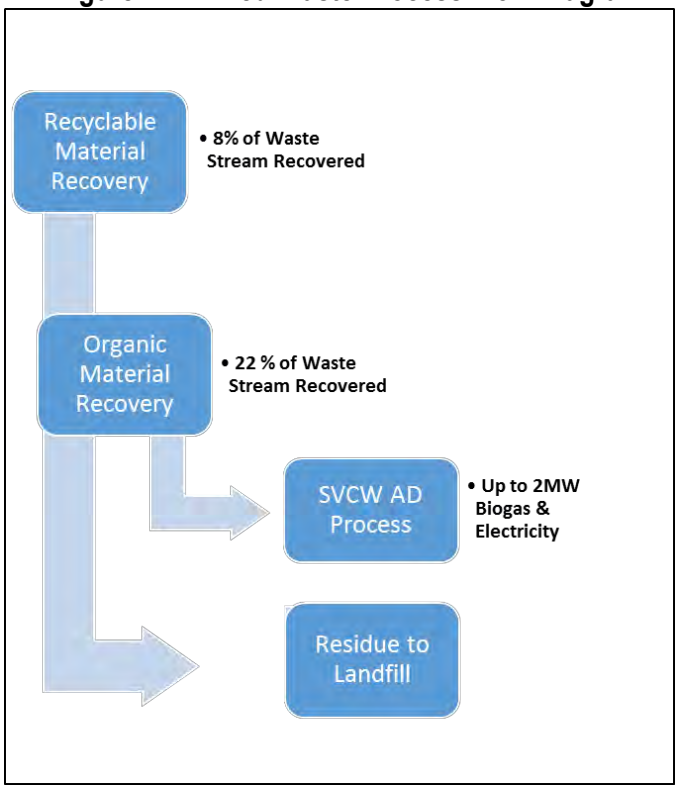
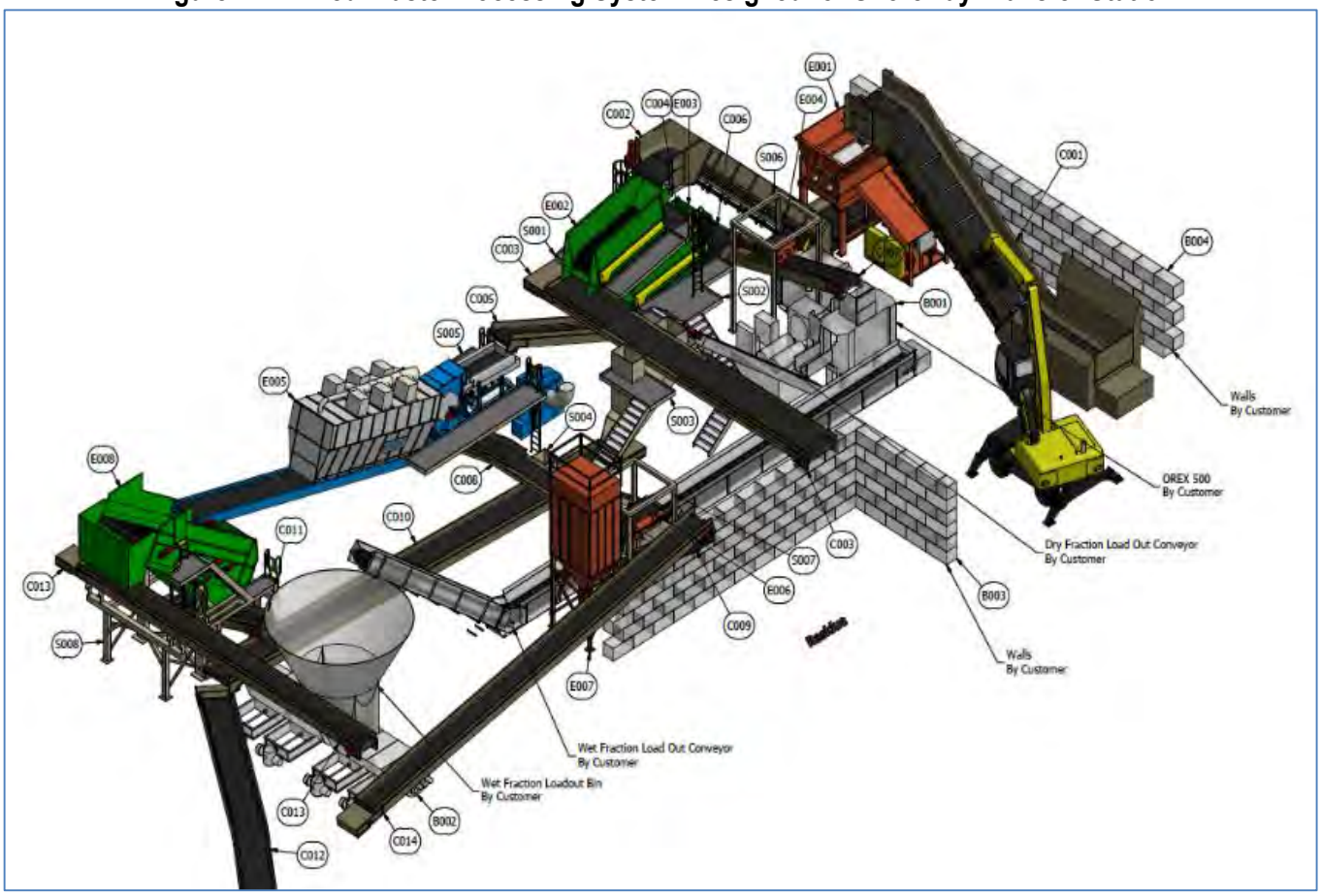


**Figure 2.2: Mixed Waste Processing System Designed for Shoreway Transfer Station**




A mixed waste processing system designed specifically to fit inside of the Shoreway Transfer Station (shown in **Figure 2.2** above) would process the nearly 625 tons per day of garbage delivered by Recology collection vehicles. The system would process waste at a rate of 45 tons per hour, would operate two-shifts per day, and would require an operational and maintenance staff of about fourteen people. SBR would operate the processing system under newly negotiated terms of the Operations Agreement. The mixed waste process system would involve shredding the waste into smaller than 18 inches and then utilizing screening, air, and optical separation systems to separate the waste into recyclable materials (e.g., containers, paper, and metals) and organic material / food waste. The organic materials would be further processed onsite by using an extraction press (a high-pressure press similar to a baler provided by Anaergia) to produce an organic slurry. Roughly seven loads per day of organic slurry would be trucked from the Shoreway Transfer Station to SVCW for cleaning and anaerobic digestion. The biogas produced from the anaerobic digestions process would be used to generate green electricity to power SVCW's onsite power needs or sold to PG&E.

***Financial Analysis***

For the purpose of comparing the proposed mixed waste processing system to the agency's current costs of waste disposal at Ox Mountain, a financial model (proforma) was created that captures project revenues, expenses (capital and operational costs) and projected cash flow for year 1 of this proposed new operation. In terms of revenues, the existing franchise disposal rate of $92 per ton was used as the tipping fee and conservative recovery rates and commodity price assumptions were used for recovered recyclables (i.e., assumes a recovery rate of 75% for containers and 50% for dry paper). Operating cost assumptions include using the 2015 MRF processing fee per ton of $82.73 for all recovered recyclables (i.e., paper and containers) that will require secondary separation, current Ox Mountain disposal rate of $39.62 per ton, current Transfer Station handling fee per ton of $12.59 paid to SBR, current transportation rates per ton mile (equates to $15.73 per ton to Ox Mountain and proposed rate of $6.76 per ton to SVCW) paid to SBR, and a new processing fee of $33.24 per ton or organic material to be paid to SVCW. Capital cost assumptions were as follows: an interest of 4.5% was used; and depreciable life assumptions of 10 years for processing equipment, 30 years for building improvements, and 7 years for rolling stock. **Table 2.24** summarizes the project capital requirements, and depreciation and interest assumptions.

**Table 2.24 Capital for Mixed Waste Processing System**

| Building / Facility | Life | Sq. Ft. | Cost ($) | |
|---|---|---|---|---|
| Building | 30 | 4,400 | 1,902,000 | |
| Site Development | 30 | - | 400,000 | |
| Contingency | 30 | 10% | 230,200 | |
| ***Subtotal*** | | | ***2,532,200*** | |
| **Processing Equipment** | **Life** | | **Sorting Equip.** | **Organics Extraction** |
| System cost w/ 15% site work | 10 | | 5,428,396 | 3,150,000 |
| Transfer Conveyor | 10 | | 500,000 | - |
| Soft Costs | 10 | 10% | 592,840 | 315,000 |
| Contingency | 10 | 10% | 652,124 | 346,500 |
| ***Subtotal*** | | | ***7,173,359*** | ***3,811,500*** |
| **SUBTOTAL** | | | **9,705,559** | **3,811,500** |
| **TOTAL SBWMA CAPITAL** | | | | **13,517,059** |
| *Note: Interest Rate @ 4.5%* | | | | |
| ***Other Capital:*** | | | | |
| SBR Rolling Stock (w/ contingency) | | | 385,000 | 217,433 |
| **TOTAL CAPITAL** | | | | **14,119,492** |

Given these assumptions above, **Table 2.25** on the next page provides a financial summary of the base- case project (year 1) which shows that there would be a net cost (above current Transfer Station operating costs) of **$10.76 per ton** for each ton of solid waste processed by the mixed waste processing system at the Transfer Station.

**Table 2.25: Mixed Waste Processing System – Base-Case System (Small TS with Fiber Recovery)**

| | Current | Proposed | Better / <Worse> |
|---|---|---|---|
| Inbound Tons - Franchise Solid Waste | 177,098 | 177,098 | - |
| Disposed Tons - Franchise Solid Waste | 177,098 | 127,507 | 49,591 |
| New Diverted Tons | - | 49,591 | 49,591 |
| | | | |
| Revenue - Tip Fee | $ 16,293,016 | $ 16,293,016 | $ - |
| Revenue - Commodity Revenue | $ - | $ 3,282,030 | $ 3,282,030 |
| Revenue Total | $ 16,293,016 | $ 19,575,046 | $ 3,282,030 |
| Expense | $ 12,032,038 | $ 17,219,555 | $ (5,187,517) |
| Contribution to Reserves | $ 4,260,978 | $ 2,355,491 | $ (1,905,487) |
| | | | |
| Revenue / Inbound Ton | $ 92.00 | $ 110.53 | $ 18.53 |
| Cost / Inbound Ton | $ 67.94 | $ 97.23 | $ (29.29) |
| Contribution / Inbound Ton | $ 24.06 | $ 13.30 | **$ (10.76)** |
| Incremental Net Contribution / Incremental Diverted Ton | | | $ (38.42) |
| SBWMA Capital | | $ 13,517,059 | |

The estimated collection rate impact for the base-case system would be 1.9%.

Based on a large expected increase in our landfill disposal costs in 2020, the base-case scenario was modified to reflect a 20% increase in disposal costs in 2020. Assuming all other project cost assumptions remained the same, this would lower the estimated collection rate impact to 1.5%. **Table 2.26** shows the modified financial results for the base-case system.

**Table 2.26: Mixed Waste Processing System – Base-Case System w/ 20% Increase in Disposal Rate**

| | Current | Proposed | Better / <Worse> |
|---|---|---|---|
| Inbound Tons - Franchise Solid Waste | 177,098 | 177,098 | - |
| Disposed Tons - Franchise Solid Waste | 177,098 | 127,507 | 49,591 |
| New Diverted Tons | - | 49,591 | 49,591 |
| | | | |
| Revenue - Tip Fee | $ 16,293,016 | $ 16,293,016 | $ - |
| Revenue - Commodity Revenue | $ - | $ 3,282,030 | $ 3,282,030 |
| Revenue Total | $ 16,293,016 | $ 19,575,046 | $ 3,282,030 |
| Expense | $ 13,435,363 | $ 18,229,920 | $ (4,794,558) |
| Contribution to Reserves | $ 2,857,653 | $ 1,345,125 | $ (1,512,528) |
| | | | |
| Revenue / Inbound Ton | $ 92.00 | $ 110.53 | $ 18.53 |
| Cost / Inbound Ton | $ 75.86 | $ 102.94 | $ (27.07) |
| Contribution / Inbound Ton | $ 16.14 | $ 7.60 | $ (8.54) |
| Incremental Diverted Ton | | | $ (30.50) |
| SBWMA Capital | | $ 13,517,059 | |

***Modeling of Alternative Scenarios and Financial Sensitivity***

Several alternatives scenarios were considered in the financial evaluation of the mixed waste processing system at Shoreway described above. Specifically, three alternative scenarios are presented below have potential impacts on the overall system processing costs.

***1) Adjust the size of the Transfer Station building expansion from the assumed 4,400 square foot addition to a 12,000 square foot addition that would include the construction of a new Recology administration building***. The mixed waste processing system designed for the Shoreway Transfer Station assumes that the Transfer Station building will be expanded by 4,400 square feet to accommodate mixed waste processing system, however, the operational space needs of the processing system have not been fully explored and still have a degree of uncertainty. For the purpose of providing a conservative alternative scenario for the Transfer Station building costs, a Transfer Station building design was evaluated that would enlarge the Transfer Station to the site maximum size of 12,000 square feet. In this scenario, the Recology administration building would be demolished for the expanded Transfer Station and a new 10,000 square foot Recology administration building would be constructed. The total capital costs associated with this alternative scenario are $12,497,010 inclusive of a 10% contingency. When compared to the construction costs assumed in the base-case, the large Transfer Station build-out would add $9,964,819 in construction expense and produces financial results summarized below in **Table 2.27.**

**Table 2.27: Mixed Waste Processing System – Alternative Large TS with Fiber Recovery**

| | Current | Proposed | Better / <Worse> |
|---|---|---|---|
| Inbound Tons - Franchise Solid Waste | 177,098 | 177,098 | - |
| Disposed Tons - Franchise Solid Waste | 177,098 | 127,507 | 49,591 |
| New Diverted Tons | - | 49,591 | 49,591 |
| | | | |
| Revenue - Tip Fee | $ 16,293,016 | $ 16,293,016 | $ - |
| Revenue - Commodity Revenue | $ - | $ 3,282,030 | $ 3,282,030 |
| Revenue Total | $ 16,293,016 | $ 19,575,046 | $ 3,282,030 |
| Expense | $ 12,032,038 | $ 18,055,665 | $ (6,023,627) |
| Contribution to Reserves | $ 4,260,978 | $ 1,519,380 | $ (2,741,597) |
| | | | |
| Revenue / Inbound Ton | $ 92.00 | $ 110.53 | $ 18.53 |
| Cost / Inbound Ton | $ 67.94 | $ 101.95 | $ (34.01) |
| Contribution / Inbound Ton | $ 24.06 | $ 8.58 | **$ (15.48)** |
| Incremental Net Contribution / Incremental Diverted Ton | | | $ (55.28) |
| SBWMA Capital | | $ 24,459,419 | |

***2) Adjust the commodity value of the paper recovered by the mixed waste processing system from the assumed average commodity price of $118.00 per ton to $0 per ton***. The mixed waste processing system at the Transfer Station is designed to capture containers (bottles and cans) and paper (cardboard, newspaper, and mixed paper) from the waste stream. There is some concern about quality and "marketability" of the paper that would be recovered from the waste steam primarily due to moisture

contamination. While staff visited other processing facilities to understand the fiber quality that could be captured by a mixed waste processing system at Shoreway, the high degree of waste stream variability coupled with the use of different recovery technologies made it difficult to ascertain paper quality that would be captured though mixed waste processing system at Shoreway. **Table 2.28 Small TS without Fiber Recovery** and **2.29 Large TS without Fiber Recovery** capture the financial impact of not recovering / selling paper ($645,280 per year) on the Small and Large Transfer Station expansion scenarios.

**Table 2.28: Mixed Waste Processing System - Small TS without Fiber Recovery**

| | Current | Proposed | Better / <Worse> |
|---|---|---|---|
| Inbound Tons - Franchise Solid Waste | 177,098 | 177,098 | - |
| Disposed Tons - Franchise Solid Waste | 177,098 | 127,507 | 49,591 |
| New Diverted Tons | - | 49,591 | 49,591 |
| | | | |
| Revenue - Tip Fee | $ 16,293,016 | $ 16,293,016 | $ - |
| Revenue - Commodity Revenue | | $ 2,636,750 | $ 2,636,750 |
| Revenue Total | $ 16,293,016 | $ 18,929,766 | $ 2,636,750 |
| Expense | $ 12,032,038 | $ 17,193,590 | $ (5,161,552) |
| Contribution to Reserves | $ 4,260,978 | $ 1,736,176 | $ (2,524,802) |
| | | | |
| Revenue / Inbound Ton | $ 92.00 | $ 106.89 | $ 14.89 |
| Cost / Inbound Ton | $ 67.94 | $ 97.09 | $ (29.15) |
| Contribution / Inbound Ton | $ 24.06 | $ 9.80 | **$ (14.26)** |
| Incremental Net Contribution / Incremental Diverted Ton | | | $ (50.91) |
| SBWMA Capital | | $ 13,517,059 | |

**Table 2.29: Mixed Waste Processing System – Large TS without Fiber Recovery**

| | Current | Proposed | Better / <Worse> |
|---|---|---|---|
| Inbound Tons - Franchise Solid Waste | 177,098 | 177,098 | - |
| Disposed Tons - Franchise Solid Waste | 177,098 | 127,507 | 49,591 |
| New Diverted Tons | - | 49,591 | 49,591 |
| | | | |
| Revenue - Tip Fee | $ 16,293,016 | $ 16,293,016 | $ - |
| Revenue - Commodity Revenue | $ - | $ 2,636,750 | $ 2,636,750 |
| Revenue Total | $ 16,293,016 | $ 18,929,766 | $ 2,636,750 |
| Expense | $ 12,032,038 | $ 18,081,630 | $ (6,049,592) |
| Contribution to Reserves | $ 4,260,978 | $ 848,136 | $ (3,412,842) |
| | | | |
| Revenue / Inbound Ton | $ 92.00 | $ 106.89 | $ 14.89 |
| Cost / Inbound Ton | $ 67.94 | $ 102.10 | $ (34.16) |
| Net Income per Ton | $ 24.06 | $ 4.79 | **$ (19.27)** |
| Incremental Net Contribution / Incremental Diverted Ton | | | $ (68.82) |
| SBWMA Capital | | $ 24,459,419 | |

***3) Adjustment of the SVCW tip fee for organics slurry by +/-$10 per ton***. SVCW has been working on a parallel path of modeling the financial feasibility of a system to anaerobically digest the 32,300 tons per year of organic fraction produced from the mixed waste processing system at Shoreway. SVCW has not fully vetted all of their capital improvement costs associated with the project and the SVCW tip fee of $33.73 per ton of organic slurry assumed in the base-case could change. It is estimated that SVCW will need to spend $15-$19 million in capital plant improvements to be able to digest the organic slurry material into electricity. To provide a sensitivity analysis on the SVCW tip fee's impact to the SBWMA mixed waste processing cost, a range +/- $10 per ton was analyzed and results in increase or decrease of $365,000 per year or $7.36 per ton for all of the scenarios.

***Project Benefits***

There are numerous project benefits to the agency from the implementation of a mixed waste processing system at the Transfer Station that include:

- Operation of mixed waste processing system with organics recovery and AD at SVCW would meet organics waste recycling requirements of AB1826 and may minimize the need for greatly expanded food waste collection for commercial, institutional, and MFD in the service area after 2018.
- 25-30% of the SBWMA's garbage can be recovered through a mixed waste processing system that can significantly boost the agency's overall measured diversion levels.
- Processing organic fraction at SVCW's wastewater treatment facility reduces capital requirements to treat organic material by leveraging SVCW's existing infrastructure and thereby reduces overall cost project
- The organic materials that are captured though a mixed waste processing system will be diverted from landfill and be anaerobically digested to generate green power.
- Up to two-megawatts of green electricity can be produced on a continuous basis by digesting the organic materials from Shoreway creating a new revenue stream that helps to offset cost of project. The estimated value of the power generated though SVCW's AD and biogas combustion is valued at roughly $2 million per year.
- The sale of additional recyclable materials creates a new revenue stream valued at $3,282,030 per year that helps to lower the cost of the project.
- With less garbage being sent to the landfill the JPA's disposal and transportation cost are reduced which helps to lower the cost of the project; it is estimated that the reduction in garbage disposal at Ox Mtn. landfill would reduce the JPA's annual disposal and transportation cost by $2,652,000 per year. The landfill contract at Ox Mtn. landfill will expire in 2019. A landfill survey completed by the SBWMA in 2014 estimates that tip fees at Ox Mtn. could increase 20% starting in 2020. Reducing the amount of garbage sent to the landfill would reduce the impact of this potential landfill tip fee increase.
- A reduction in the amount of garbage shipped to Ox Mtn. landfill would help preserve the disposal capacity and extend the life of the landfill for the County's future use.
- There are several grant funding opportunities (CalRecycle, California Energy Commission (CEC) and other State entities) that are applicable to this project. In fact, SCVW has recently received a grant of $1.4 million from the California Energy Commission to research how a food waste digestion project such as this could increase energy production.
- The materials diversion success of mixed waste processing system does not rely on changes to existing residential and commercial source separation collection programs managed by Recology.

- Since the SBWMA would own and control the mixed waste processing system at the Transfer Station, there would be a high level of assurance that the money spent to boost diversion would be well spent.
- A mixed waste processing system would not disrupt the Member Agency's revenue streams. Since the Member Agency's collection revenues are tied to garbage service, any reduction in garbage generation translates to a reduction in rate revenue. Diversion achieved through a mixed waste processing system captures recyclable materials after garbage fees have been paid by customers and therefore Member Agency revenues remain unaffected.

Both the SBWMA and SVCW has progressed rapidly in completing the preliminary technical and financial feasibility of the mixed waste processing system. Based on the positive results from the study to date, SVCW has expressed their interest in continuing to develop the project to a point where a "go/no-go" decision can be made. The analysis by both the SBWMA and SVCW have identified areas that require further study and design in order to make a final determination on the project's viability, however, from the research completed to date, no "fatal flaws" have been identified by either SVCW or the SBWMA. The next phase of project feasibility analysis will include: design to a 30% design level on the capital components and structures associated with the project and defining the roles and contractual responsibilities of the many project stakeholders. **Table 2.30** below provides details of the next steps in project development.

**Table 2.30: Mixed Waste Processing System Development Tasks**

| Task | Description | Timeframe |
|---|---|---|
| Updated project budget | Project budget to be included in FY1516 budget | March-June 2015 |
| Additional waste composition research | System capture rates of recyclable and organic material need to be verified though a waste analysis and materials marketability needs to be verified | March-May 2015 |
| Final decisions on viability of fiber recovery and commodity sales | Based on samples collected from waste analysis, the commodity value of recovered fiber will be assessed | May 2015 |
| Final system layout and decision on Transfer Station building construction | Detailed system layout and floor space utilization analysis completed to determine Transfer Station space needs and building construction costs | June 2015 |
| Consult with regulatory agencies | CalRecycle regulates the Transfer Station operation and will need to be consulted about the project for concept approval | July 2015 |
| Development of Draft MOU between SBWMA and SVCW for the Boards of Directors to consider | MOU will be developed that clarifies core terms of project and commits each agency to fund continued project feasibility development to 30% design level | November 2015 |
| Completion of draft agreement with Anaergia for provision of equipment and services | Anaergia is a key vendor stakeholder in process that links organic material extraction at Shoreway and SVCW digestion process and would supply equipment and services | November 2015 |
| Completion of draft agreement with SBR for the operation of the mixed waste processing system | SBR is a key stakeholder in operation of the mixed waste processing system at the Transfer Station and the terms and costs to be agreed upon | November 2015 |
| Grant applications completed to CalRecycle, CEC, and others | Grant opportunities are being explored and present an opportunity to reduce the cost of processing | Ongoing |
| Development of a draft Plan of Finance | Financing options and financing expense estimates for the SBWMA portion of the project will be evaluated | February 2016 |

For the next phase of the mixed waste processing system project development, staff will come back to the Board with a final recommended budget for FY1516 that will include items and estimated costs shown in **Table 2.31** Mixed Waste Processing System – FY1516 Project Development Budget below. It is expected that through the completion of the tasks listed in the **Table 2.30** Implementation Schedule above and items shown in **Table 2.31**, staff will be in a position to present a final mixed waste processing project study and cost proposal to the Board in early 2016 that defines the costs and benefits of the project. (Note that the architectural design fees shown in **Table 2.31** would be removed from the final project costs as the preliminary architectural design work will have been completed in FY1516.)

**Table 2.31: Mixed Waste Processing System – FY1516 Project Development Budget**

| Description of Item | Estimate Cost of Item |
|---|---|
| Transfer Station equipment space utilization assessment | $12,000 |
| Building architectural design (30% design) and estimating | $51,000 ($342,000 Large TS) |
| Waste composition analysis and market study | $30,000 |
| Legal and financial contract development support | $30,000 |
| Project development consulting and permitting support | $60,000 |
| **Total Project development expenses for FY1516** | **$183,000 ($474,000 Large TS)** |

## b. Shoreway Transfer Station and Other Building Improvements

***Goals***

The installation of a mixed waste processing system will require an expansion of the Transfer Station building to meet the equipment and operating space needs of the system as described in **Section 2.B.2.a.** Working with JRMA architects (the firm that designed the master plan improvements completed in 2011) staff has evaluated several Transfer Station building expansion options and has also evaluated several options for building onsite office and public meeting space for the SBWMA. This infrastructure expansion option supports multiple LRP Guiding Principles including:

- Support local, state and national mandates, including meeting the State's 75% recycling goal by 2020
- Leverage existing infrastructure
- Provide cost-effective and efficient programs
- Reduce and mitigate landfill and other facility impacts
- Invest in new, safe technologies and processes for infrastructure
- JPA Member Agency facilities and the Shoreway facility to serve as models for high diversion facilities

***Overview***

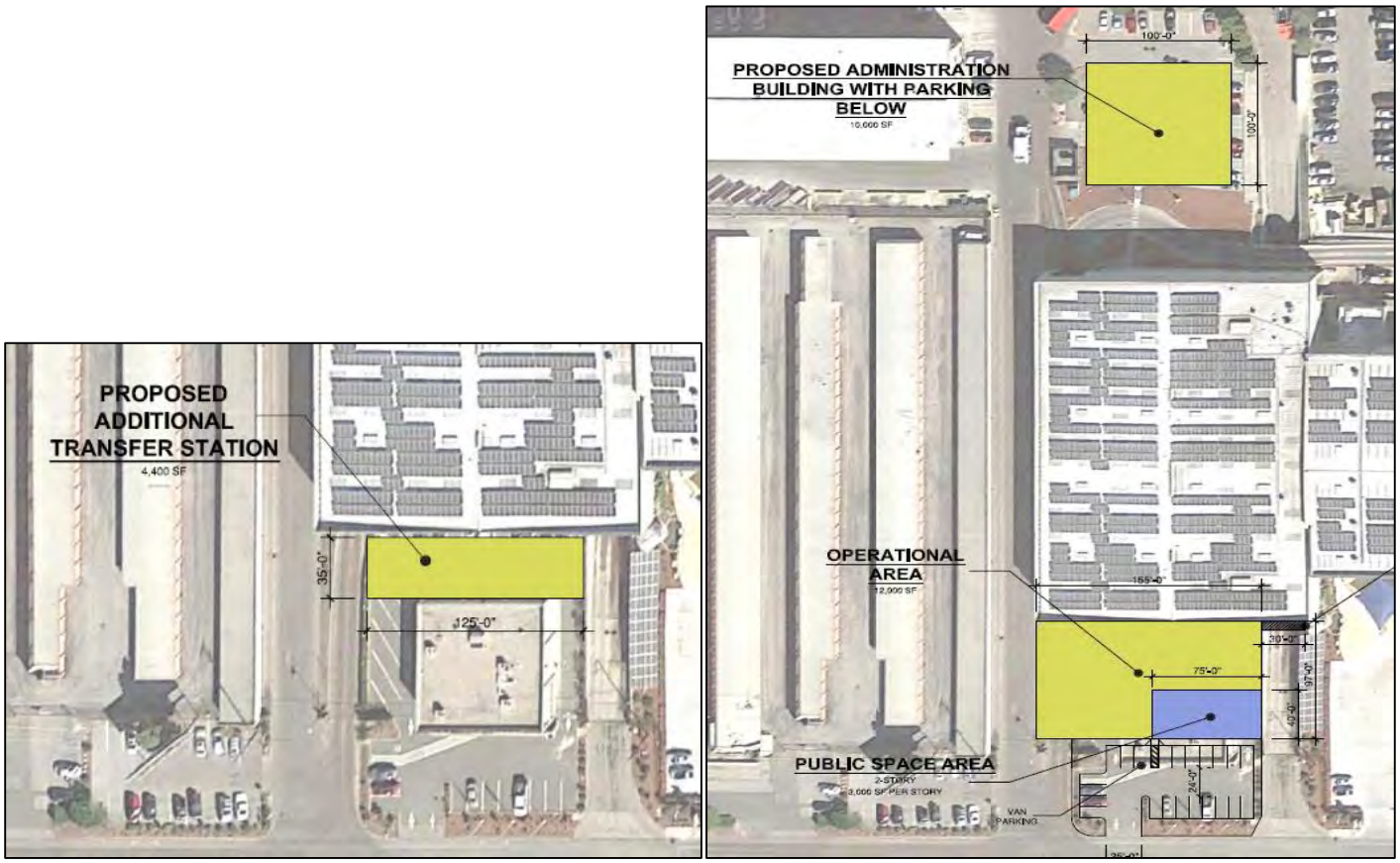
Transfer Station Operational Areas

The existing operational area of the Transfer Station building is roughly 70,000 square feet with 56,000 square feet dedicated to truck unloading, materials storage, and transfer of garbage and green waste into tractor trailers for transport to offsite disposal and processing locations. The mixed waste processing system has been designed to fit into the northwest side of the Transfer Station building and an expansion of the northwestern side of the building would be required. As presented in the mixed waste processing section above, the base-case system assumes a Transfer Station expansion of 4,400 square feet at an estimated cost of $2,532,200.

While the current project evaluation assumes that an additional 4,400 square feet will accommodate the needs of the new processing system operation, the site footprint could accommodate a larger Transfer Station expansion of roughly 12,000 square feet (toward the northwest front of the property to the edge of Shoreway road and in line with the front of the MRF building) if needed for additional materials processing space. In the large Transfer Station expansion of 12,000, the 10,000 square foot Recology administration building would be demolished and a new Recology 10,000 square foot administration building would be constructed behind (to the southeast) the Transfer Station in an area that is currently used for parking. The new Recology administration building would be a two-story structure with understory parking space for employee vehicle parking needs (see **Figure 2.3** for both Transfer Station expansion options). As described below, the larger Transfer Station expansion option would also provide space for SBWMA administrative offices and public meeting space. A budget amount of $25,000 will be included in the FY1516 budget for additional design and concept development to assist in the decision making process on the preferred SBWMA administration area construction.

**Figure 2.3: Proposed Transfer Station Building Expansion Options**

(Shows Small 4,400 sq. ft. and Large 12,000 sq. ft. Transfer Station expansion with new proposed Recology Administration Building with Parking Below shown in back of the Transfer Station)



### c. SBWMA Administrative Offices and Public Meeting Space

The SBWMA leases roughly 2,500 square feet of office space from the City of San Carlos and has use of the adjoining community meeting room at the library building (at no cost) for Board of Directors meeting and other meetings. The current rent expense with utilities is roughly $60,000 per year. Staff has worked with JRMA Architects to evaluate options for creating new SBWMA office and meeting space at Shoreway. Three potential options were evaluated and associated construction costs were estimated. These three options are presented in the tables below.

**Table 2.32: Option 1 – Remodel of Recology Administration Building for SBWMA Offices**

| Description | Cost | Evaluation Findings |
|---|---|---|
| Take over and remodel 3,000 square feet of space on the second floor on the Recology administration building and add an elevator for public access.<br>The site plan below shows the location of proposed additional Transfer Station area and the existing Recology administration building where the SBWMA offices would be located. | $275,000 | This option consumes surplus office space, meeting space and kitchen space used by Recology on an as-needed basis.<br>This options does not provide meeting space for SBWMA Board meetings. The addition of SBWMA staff would strain current parking availability and could require the rental of additional parking offsite. |
| ***The site plan below shows the location of proposed 4,400 sq. ft. Transfer Station expansion and the existing Recology administration building where the SBWMA offices would be located.*** | | |

**Table 2.33: Option 2 – Construction of New Stand Alone SBWMA Office and Public Meeting Space**

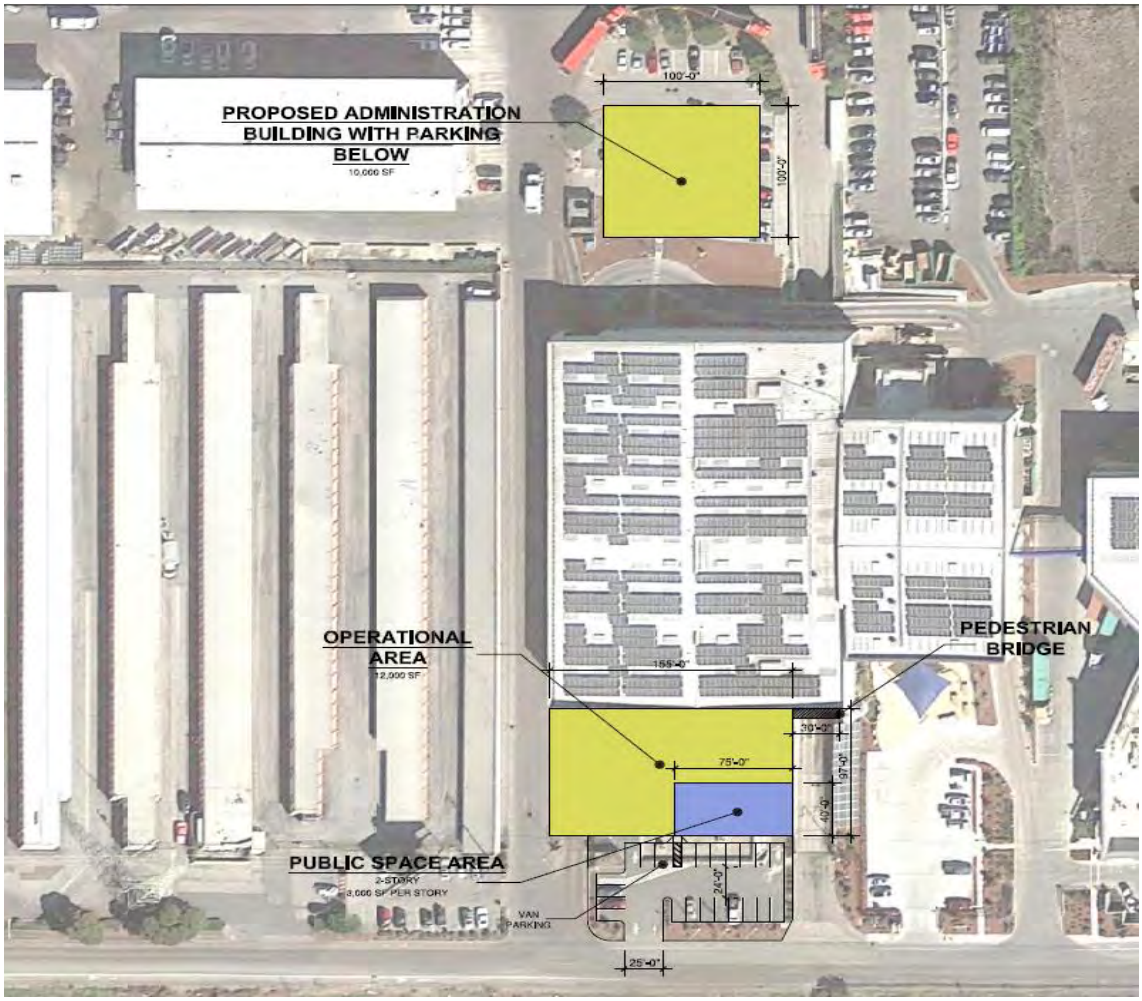
| Description | Cost | Evaluation Findings |
|---|---|---|
| Construction of a new two-story 5,628 sq. ft. stand-alone office building between the MRF and the Transfer Station; this is currently the visitors parking lot. The building has understory parking and 5,628 sq. ft. of upstairs space for SBWMA offices and public meeting space. | $3,339,000 | Provides SBWMA office and meeting space. Building is separate from SBR and Recology buildings.<br><br>Increases onsite parking needs that could require additional parking to accommodate SBWMA staff and meetings.<br>. |

***The site plan below shows in yellow the location of proposed SBWMA office and public meeting space with parking below.***

**Table 2.34: Option 3 - Construction of New SBWMA Office and Public Meeting Space (Shown in Blue) within Transfer Station Expansion**

| Description | Cost | Evaluation Findings |
|---|---|---|
| Construct office and meeting space that would be added to and integrated with an enlargement to the Transfer Station building. Only an option if the Transfer Station is fully built out. | $977,550 | Can only be constructed if the Transfer Station is fully built out for the mixed waste processing system or for TS future processing needs. Two level construction with first level providing 3,000 sq. ft. of meeting space and second level providing 3,000 sq. ft. of office space. The addition of SBWMA staff would require the addition of parking area. |

***The site plan below shows the large Transfer Station expansion labeled "Operational Area" where the current Recology administration building is located, proposed SBWMA office and meeting space shown in blue labeled "Public Space", and a new Recology administration building with parking below shown in yellow behind the existing Transfer Station building.***



## d. MRF Single Stream Processing Equipment and Building Expansion

This section summarizes future processing equipment needs and the expansion of the MRF tipping area. The information is provided for the purposes of completeness related to Shoreway improvements. The SBWMA already has cash reserve funds set aside in an equipment replacement fund for single stream processing equipment replacement and the Board has already approved a budget which includes capital funds for the MRF tipping are expansion ("MRF canopy project").

***MRF Single Stream Processing System Equipment Replacement Schedule***

In 2011, the SBWMA purchased and installed the single stream processing equipment currently operated by SBR to sort residential and commercial recyclables. The SBWMA paid roughly $17 million for the MRF system and the equipment is being depreciated over a 12-year schedule. Due to the intensive use of the equipment and the physical and mechanical wear over time, staff anticipates the need to replace specific system components and has factored equipment replacement expense into the agency's long-term financial forecasts. The equipment replacement schedule shown in **Table 2.35** below shows the expenditures by year on the MRF equipment and the status of the SBWMA's Equipment Replacement Reserve (The MRF Equipment Replacement Schedule was developed in consultation with BHS (the system manufacturer) and reflects the current rate of system utilization (currently operating two 7-hours shifts per day). Note that staff and SBR continue to evaluate the rapid changes in consumer packaging and have included upgrades to specific sort system components to ensure that the Shoreway MRF processing system stays current with the changing inbound recycling stream.

**Table 2.35: MRF Equipment Replacement Schedule**

| Based on MRF Equipment Manufacturer Replacement Estimate | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | FY1415 | FY1516 | FY1617 | FY1718 | FY1819 | FY1920 | FY2021 | FY2122 | FY2223 |
| **Beginning Reserve Balance** | **$1,426,611** | **$1,562,156** | **$1,744,291** | **$1,832,677** | **$1,721,062** | **$1,817,781** | **$1,640,749** | **$1,495,044** | **$1,411,838** |
| **MRF Equipment Reserve** | $295,885 | $295,885 | $295,885 | $295,885 | $295,885 | $295,885 | $295,885 | $295,885 | $295,885 |
| **Forecasted Equipment Replacement** | -$160,341 | -$113,750 | -$207,500 | -$407,500 | -$199,167 | -$472,917 | -$441,591 | -$379,091 | -$559,091 |
| **Ending Reserve Balance** | **$1,562,156** | **$1,744,291** | **$1,832,677** | **$1,721,062** | **$1,817,781** | **$1,640,749** | **$1,495,044** | **$1,411,838** | **$1,148,633** |

### *MRF Building Tipping Area Extension*

The Shoreway MRF is processing roughly 110 tons per day of third party tonnage. The MRF building was designed to handle only the franchise tonnage and the additional third party tonnage has expanded the daily inbound tonnage beyond the building's designed storage capacity. To accommodate the additional tonnage at the MRF, the SBWMA Board budgeted $450,000 in construction capital in FY1415 to expand the MRF tipping area. The MRF tipping area extension project will provide the necessary vehicle unloading area and materials storage space to ensure that the MRF stays in regulatory compliance. The State's solid waste regulatory agency (CalRecycle/LEA) that oversees the Shoreway facility and the City of San Carlos Planning and Building Departments have reviewed and approved the architectural plans for the MRF tipping areas extension project. **Figure 2.4** shows a rendering of the MRF tipping area extension and the location of the new area on the Shoreway site. The actual construction period is estimated to take three months with project completion anticipated in fall of 2015 (depending on whether a contract for construction is approved by the Board at the April or May 2015 meeting, the construction is estimated to end in September or November 2015).

**Figure 2.4: Rendering of Shoreway MRF Tipping Area Extension and Site Plan with Construction Location Shown**

### *Project Cost*

The total cost estimate for the project is $438,741 on a budgeted amount of $450,000.

### e. CNG Fueling System

***Goals***

The conversion of the collection fleet from diesel to CNG fuel and the installation of a CNG fueling system meets the long-term goals of the agency and supports multiple LRP Guiding Principles including:

- Reduce collection fleet emissions
- Provide cost-effective and efficient programs
- Reduce and mitigate landfill and other facility impacts
- Investing in new, safe technologies and processes for infrastructure
- JPA Member Agency facilities and the Shoreway facility to serve as models for high diversion facilities

***Project Details***

Recology operates 127 route collection vehicles and consumes roughly one million gallons of diesel per year to provide collection services to the 12 Member Agencies. Diesel fuel is a significant annual operating expense for Recology, and the SBWMA and Recology have been evaluating ways to reduce the cost of fuel and the collection fleet's air emissions impact. Amongst the nation's largest waste hauling companies, there is a trend to convert collection fleets to CNG fuel to capture the benefit of CNG's lower fuel cost. As discussed in **Section 2.B.1.a** (page 30), CNG is currently less than half the cost of diesel and could potentially provide the $0.99 million in annual savings compared to current fuel costs. Recology uses the Shoreway fuel system infrastructure to fuel all collection vehicles and a conversion of the current diesel collection fleet would require a complete retrofit of the fueling system at Shoreway. Staff has evaluated the logistics, the site constraints, and the costs of installing CNG fuel system so that these infrastructure changes can be factored into the overall cost of converting the collection fleet to CNG.

Given the tight space constraints at Shoreway, the area currently utilized by the diesel fuel system would need to be repurposed to accommodate a new CNG fueling system. This would require the diesel dispensing system (including the three 15,000 gallon UST tanks) be removed and closed to the standards of the State Water Board prior to the installation of a new CNG dispensing system. This process would need to be closely coordinated to minimize the fuel system down-time and the SBWMA would need to ensure that the new CNG fuel system is reliably operating prior to the new CNG collection fleet coming online. Through consultation with Recology, consultants, CNG fuel system vendors, and other agencies SBWMA staff has concluded that Shoreway has enough space for a new CNG fuel system but that the truck parking area will need to be reconfigured (CNG refueling requires that each vehicle be connected to fuel lines overnight, thus each vehicle must have its own dispenser installed in the parking area between trucks which requires greater separation between vehicles than the current parking layout allows).

The main component of a CNG fuel system is a central gas compression and storage facility - -a system sized to handle the large number of vehicles at Shoreway would require a compression and storage supply system that would take up roughly 32,000 square feet. This system would need to be connected to PG&E's electrical and gas supply lines. PG&E supplies gas at a fairly low pressure (60 PSI) so the natural gas from the pipeline needs to be compress prior to filling the collection vehicle tanks. Connecting the CNG compression and storage system to the PG&E utility lines (in Shoreway's case at the front of the property roughly one thousand feet from the fuel station) is typically the responsibility of the property owner, while the installation of the CNG gas

compression and storage facility, the individual vehicle fuel connections, and the onsite dispensers are typically installed by a CNG vendor. (See images in **Figure 2.5** where these components are shown displayed in order.)

**Figure 2.5: Components of a CNG Fuel System**

CNG fuel providers offer many contracting and financing options for the installation of a CNG fuel system. Staff has evaluated a "turn-key" contracting method that was recently followed by another JPA, the Monterey Regional Waste Management District (MRWMD), in their conversion from diesel to CNG. In their turn-key contracting method, MRWMD contracted with a CNG fuel vendor to provide "design, build, own, operate, and finance" services to the JPA in exchange for a long-term (15year) fuel purchase agreement. The advantages to this type of arrangement are as follows:

- The CNG vendor takes all risk and responsibility for the fueling system installation and operations.
- All CNG facility maintenance items and costs related to potential interruptions of fuel supply are the responsibility of the CNG system vendor.
- The Collection Services provider would likely contract directly with the CNG fuel vendor for the provision of CNG and the CNG station and thus the SBWMA would be removed from liability.
- The substantial cost of the CNG fuel system (estimated at $2.5M) would be financed by the CNG fuel vendor.
- The existing Shoreway site lease agreement between Recology and the SBWMA can be structured to serve as a contractual tool to transfer the ownership of the CNG fuel system to the SBWMA at the end of the fuel purchase agreement.

If the SBMMA decides to enter into a turn-key CNG system installation agreement as described above, the SBWMA would still bear the responsibility and the cost for timely connection to PG&E's utilities' (from the PG&E utility supply lines to the CNG fuel system). This installation would need to be carefully budgeted and scheduled so that the work is completed prior converting the collection fleet to CNG.

The SBWMA is exploring the potential of including Bio-CNG as a fuel option for the collection truck fleet. Like CNG, Bio-CNG is a methane based gas, but is derived from the decomposition of organic matter rather than from the earth's crust. The benefit of Bio-CNG over CNG is that it is "waste derived" and therefore does not add to atmospheric carbon emissions. As part of the mixed waste processing system and organic materials digestion project that is being developed in conjunction with SVCW, staff is exploring the potential to utilize a portion of the bio-gas from this project for truck fuel. SVCW will be conducting a biogas utilization study that analyzes their facility's power needs and the replacement of grid-power with power generated from bio-gas

from the SBWMA's organic material. If there is excess bio-gas from the anaerobic digestion process, SVCW could potential clean and compress this into Bio-CNG that could be added to the SBWMA CNG supply to create a Bio-blended fuel. (As well as the SVCW project, the SBWMA plans to evaluate all other potential sources of Bio-CNG as a possible truck fuel.) There are many important and complex aspects that will need to be studied in the evaluation of a Bio-CNG fuel including: the cost of the Bio-CNG, the proximity and accessibility of the Bio-CNG source to the truck fleet, quantity and quality of the Bio-CNG fuel, reliability of the supply of Bio-CNG, and collection truck engine manufacturer's warranty restrictions.

***Cost of CNG Fuel System***

As shown in **Table 2.36**, the SMWMA capital costs for utility connection and the costs to the prepare collection vehicle maintenance areas for CNG vehicles is estimated at $1,100,000 - $1,525,000. Prior to converting to CNG, the SBMWA will need to pay for the removal the existing diesel system estimated at one-time costs of $275,000 and pay to install a small diesel tank and dispensing system to fuel the transfer trucks estimated at $100,000.

In 2014, the SBMWA completed a groundwater remediating project to remediate pre-existing contamination at the site. The SBWMA maintains an unspent reserve of approximately $1,240,000 (Allied Waste Remediation Settlement) that could be applied to cover most of the expenses associated with the diesel system removal and CNG connection. (Staff would recommend using the Shoreway remediation fund balance of $1.24 million to help pay for the CNG project costs.)

**Table 2.36: Shoreway CNG Fuel Supply System Project Costs**

| FY1920 | SBWMA Cash Flow | |
|---|---|---|
| | Low Estimate | High Estimate |
| Remove Underground Tanks | $275,000 | $275,000 |
| SBWMA Capital for CNG System | $1,100,000 | $1,525,000 |
| Cash Flow | $1,375,00 | $1,800,000 |
| Shoreway Remediation Funds Available | $1,240,000 | $1,240,000 |
| **CNG Project Cost (Net SBWMA Funds)** | **$135,000** | **$560,000** |

Financing arrangement for the purchase of the CNG compression and storage system are offered by CNG fuel vendors and the terms and scope of the contracts are quite flexible. Financing services provided by the CNG fuel vendor would need to be defined to evaluate the best financial arrangement for the SBWMA. **Table 2.37** on the next page the combined financial picture of the collection operations savings and the SBWMA Shoreway CNG project costs in **Table 2.36** above.

**Table 2.37: Total CNG Costs**

| CNG COLLECTION COST IMPACT | | 2020 | 2021 |
|---|---|---|---|
| Franchised Service Provider (Recology estimates) Net Annual Operating Cost Savings (Fuel and ops. savings - capital expense) | | N/A | ($992,960) |
| Estimated Collection Rate Impact: | | | -1.0% |
| SHOREWAY OPERATIONS EXPENSE (SBWMA) | | | |
| Remove Underground Tanks (one-time expense) | | $275,000 | |
| SBWMA Capital (Low Estimate) | | $1,100,000 | |
| SBWMA Capital (High Estimate) | | $1,525,000 | |
| subtotal: | | $1,375,000 - $1,800,000 | |
| SBWMA Available Funds** | | $1,240,000 | |
| | potential funding needed: | $135,000 - $560,000 | |
| * Annual savings through 10-year franchise Agreement | | | |
| **Current balance in Shoreway remediation fund. Funds leftover from Allied Waste remediation settlement fund. | | | |

***Implementation***

The implementation schedule for a CNG fuel system installation at Shoreway is expected to take one year and would involve a lengthy application, grid evaluation and transformer installation required by PG&E. The schedule for actual site construction (i.e., installation of the connection lines and placement of the CNG compression and storage facility is estimated to take 6 months excluding the SBWMA funds approval process). Since the removal of the existing diesel tank and fuel supply system is a necessary critical path item and since the risk of ground water contamination could significantly lengthen removal process, it is recommended that the time schedule to complete this work be evaluated and completed well in advance (two years prior) of converting the collection fleet to CNG fuel.

## f. Other Shoreway Infrastructure Improvements

As the critical hub for the collection services and materials handling infrastructure, the SBWMA staff closely monitor the condition of the Shoreway Environmental Center and make facility improvements to keep the center functioning efficiently. Staff has evaluated opportunities to improve the efficiency of the facility operations, worker and customer safety and experience and has considered how the Shoreway infrastructure fits into the long-term goals and needs of the JPA. As an outcome of this evaluation process, staff has identified the following projects for further consideration: Shoreway site paving improvements, and implementation energy conservation systems (e.g., battery storage system and LED lighting retrofit).

***Site Paving***

The paving areas around the MRF and Transfer Station were largely replaced with new concrete during the 2011 master plan construction, however, the paved areas in the back half of the Shoreway property have not been improved. These paved areas are heavily used by Recology as their base of operations for truck parking, maintenance and fueling. Staff has been monitoring the condition of the pavement over the past several years and in the areas of heavy vehicle travel, the asphalt paving has started to fail. Of the roughly six acres of paved area, four acres will need to be removed and replaced at some point in the next five years. The rate of failure is largely dependent on the amount of rain during the winters as saturation and instability of the subsoil is the largest factor in hastening the pavement degradation. Staff has obtained cost estimates of $2 million for the removal and replacing four acres of paving to a depth of 6 inches (note that this cost will fluctuate slightly with the price of oil). Patch paving will be performed to maintain the operability of the paved areas on an as-needed basis or until the area is repaved. Staff will include a forecast of this sending in the FY1516 budget, five-year capital spending worksheet.

***Shoreway LED Lighting Retrofit***

***Goals***

The conversion of the Shoreway lighting from the metal halide lighting to newer LED lighting technology meets the long-term goals of the agency and support multiple LRP Guiding Principles including:

- Reduce emissions
- Provide cost-effective and efficient programs
- Reduce and mitigate landfill and other facility impacts
- Invest in new, safe technologies and processes for infrastructure
- JPA Member Agency facilities and the Shoreway facility to serve as models for high diversion facilities

***Overview***

When the master plan construction was completed in 2011, LED lighting technology was not mature and large high-bay light fixtures used at Shoreway were not available. Since 2011, there has been rapid advancement in LED chip technology and the costs for LEDs have come down to the point where it makes financial sense to replace the existing lighting fixtures at Shoreway with energy saving LEDs. There are 783 industrial lighting fixtures (high-bay fixtures) at the Shoreway MRF, Transfer Station and in the Recology shop buildings. The cost

to retrofit all of these fixtures is estimated at $274,000. Staff will work with PG&E on identifying any rebate opportunities for this project.

***Financial Analysis***

A LED lighting retrofit that assumes all of the 783 high-bay lights at Shoreway are replaced with LEDs and is expected to have a payback of approximately 1.3 years (i.e., the project would achieve positive net cash flow after finance payments within 1.3 years). **Figure 2.6** below provides a sample financial analysis of a Shoreway LED lighting retrofit project.

**Figure 2.6: LED Retrofit Energy Saving Analysis**

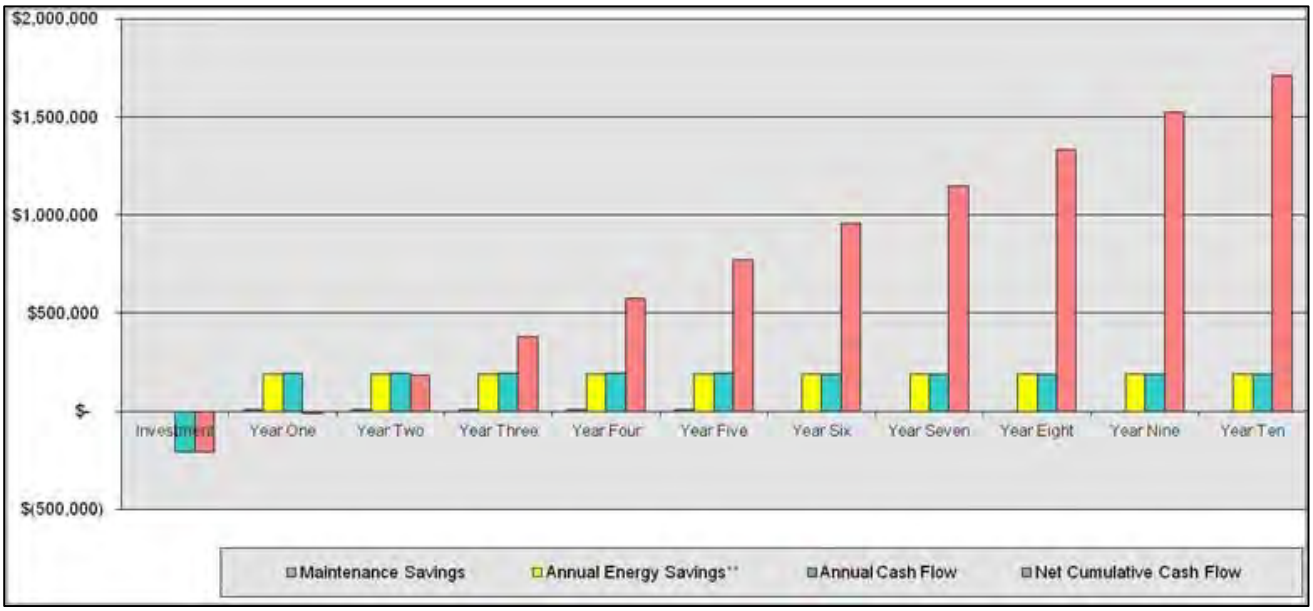
LED Lighting Upgrade Analysis

Prepared for: Shoreway Environmental Center

| | |
|---|---|
| Project Cost: | $274,050.00 |
| *(783 fixtures, includes sales tax and rebate of $125,280.00)* | |
| Annual Energy Savings | $162,611.64 |
| Annual Demand Savings | $15,628.74 |
| Annual Tax Aviodance | $9,756.70 |
| Annual Maintenance savings | $20,877.91 |
| Total Annual Savings | $208,874.99 |
| Return on Investment | 76.22% |
| Payback (Years) | 1.31 |
| Warranty | 10 Years |
| Longevity (based on L70) | 18. 5 Years |

A summary of the cumulative net cash flow impact over a 10 year period is shown in **Table 2.38** on the following page. The LED fixtures are estimated to last roughly 18 years however, with the rapid pace of LED technology improvements along with rising energy costs there will likely be cost justification to retrofit again before the end of the 18 year estimated life.

**Table 2.38: LED Retrofit Ten Year Cumulative Cash Flow Benefit**




***Benefits***

LED technology provides improved CRI (higher clarity), better distribution (improved spread), significantly longer life (10x+), and reduced maintenance and disposal costs (no mercury).

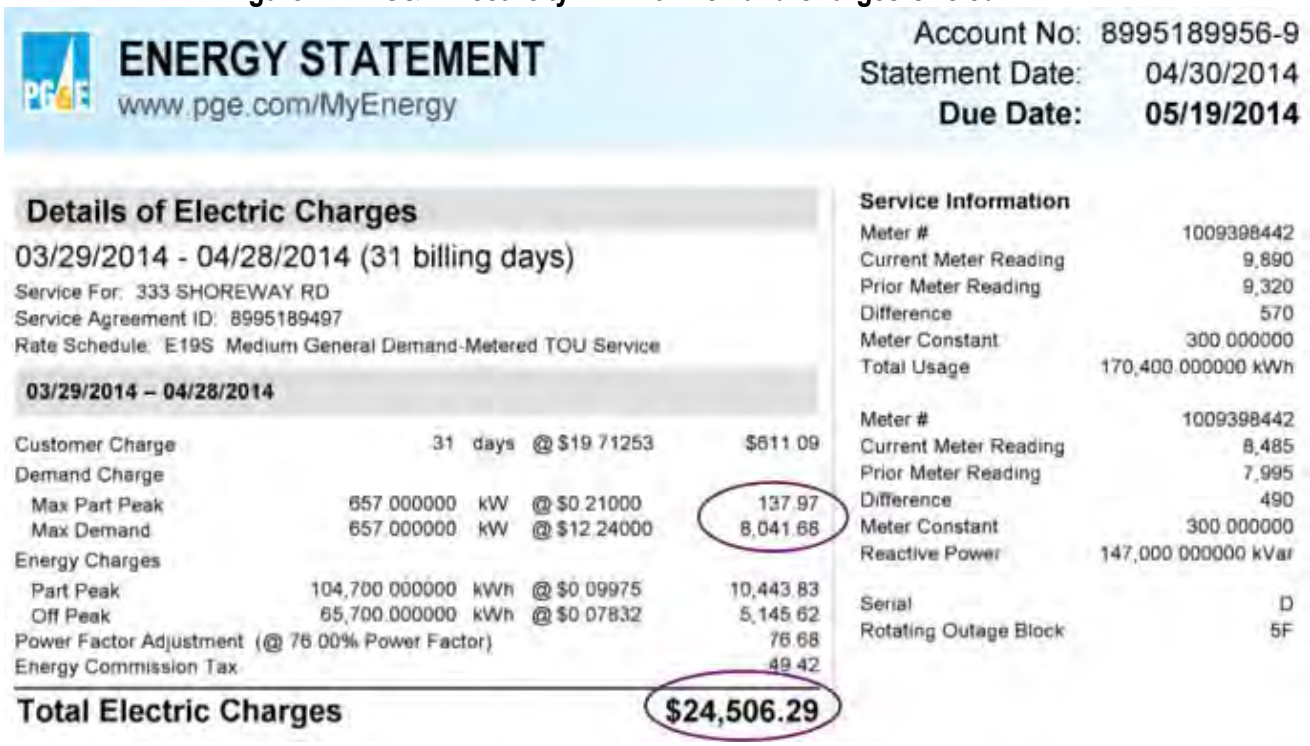
***Implementation***

A pilot project is planned to be completed before the end of this fiscal year (initial pilot project of 90 fixtures costing approximately roughly $45,000). Information regarding the lighting color, intensity, and location would be refined based on the pilot and the full retrofit of the high-bay fixtures at the Shoreway buildings would happen in FY1516.

**Battery Storage Project**

Shoreway's PG&E electric bill consists of two types of charges: *energy* costs, and instantaneous or peak power usage called *demand* costs. The Shoreway MRF has several major pieces of equipment (including balers, large fans used in air separation, and conveyor motors) that cause demand spikes. The demand cost portion of the electric bill from this equipment is significant, sometimes tens of thousands of dollars per month and they vary from 24 cents per kW in winter part peak periods to almost 33 dollars per kW in summer peak periods. **Figure 2.7** shows a portion of a Shoreway electric bill from April 2014 where the demand charge peak during the month was 657 kW, which created a cost of over $8,000, or about one-third of the total bill expense. This is a typical level for Shoreway electric bills, however, as noted above summer Demand rates are almost three times higher than this rate, so Shoreway summer demand charges are even higher and represent an even greater proportion of the total electric bill expense. In addition, PG&E has been increasing the demand charges portion of the power bill (e.g., recently, PG&E raised the summer demand charges 17% from 2014 to 2015). A battery storage system can be used to reduce electric demand charges by capping the spikes or surges in power created by large equipment operating at peak load. In so doing, the battery's storage system "erases" the power demand peaks seen by the PG&E meter and thus reduce PG&E's demand charge

**Figure 2.7. PG&E Electricity Bill with Demand Charges Circled**



ENERGY STATEMENT
www.pge.com/MyEnergy

Account No: 8995189956-9
Statement Date: 04/30/2014
**Due Date: 05/19/2014**

**Details of Electric Charges**

03/29/2014 - 04/28/2014 (31 billing days)

Service For: 333 SHOREWAY RD
Service Agreement ID: 8995189497
Rate Schedule: E19S Medium General Demand-Metered TOU Service

**03/29/2014 – 04/28/2014**

| | | | | |
|---|---|---|---|---|
| Customer Charge | 31 | days | @ $19.71253 | $611.09 |
| Demand Charge | | | | |
| Max Part Peak | 657.000000 | kW | @ $0.21000 | 137.97 |
| Max Demand | 657.000000 | kW | @ $12.24000 | 8,041.68 |
| Energy Charges | | | | |
| Part Peak | 104,700.000000 | kWh | @ $0.09975 | 10,443.83 |
| Off Peak | 65,700.000000 | kWh | @ $0.07832 | 5,145.62 |
| Power Factor Adjustment (@ 76.00% Power Factor) | | | | 76.68 |
| Energy Commission Tax | | | | 49.42 |
| **Total Electric Charges** | | | | **$24,506.29** |

**Service Information**

| | |
|---|---|
| Meter # | 1009398442 |
| Current Meter Reading | 9,890 |
| Prior Meter Reading | 9,320 |
| Difference | 570 |
| Meter Constant | 300.000000 |
| Total Usage | 170,400.000000 kWh |
| Meter # | 1009398442 |
| Current Meter Reading | 8,485 |
| Prior Meter Reading | 7,995 |
| Difference | 490 |
| Meter Constant | 300.000000 |
| Reactive Power | 147,000.000000 kVar |
| Serial | D |
| Rotating Outage Block | 5F |

Because the battery system is constantly discharging and recharging throughout the day and the month, it requires a battery that is able to sustain a high cycle life and therefore are constructed out of lithium-ion that has a cycle life of ~10,000 cycles. Additionally, demand occurs at random times due to random events caused by real time loads turning on and off. Predictably offsetting this demand on a consistent basis, and anticipating and reserving an appropriate amount of battery capacity to compensate for them, requires a complex system and software to perform this task. Five battery storage system vendors were evaluated in 2014. Of these five vendors, GreenCharge Networks and GELI, were short listed because they could accommodate the large battery size required by the Shoreway operation, they had proven technologies that have been installed in several locations, and they provided financing options the SBWMA was looking for.

- STEM
- Sharp Electronics
- Demand Energy
- GreenCharge Networks (GCN)
- GELI (Growing Energy Labs, Inc.)

With the information that has been collected from this survey of battery storage systems, staff has concluded the following:

1) Battery storage systems can provide a meaningful reduction to current PG&E demand charges (estimated at $10,000 or more per year).
2) With the addition of a mixed waste processing system at the Transfer Station, the power usage and energy savings potential will increase.
3) The energy storage market is fast evolving and new technologies and vendors are emerging all of the time.

4) The State rebate program is at risk of running out of funds in future years and this funding pool needs to be monitored to take advantage of available rebates.
5) By reducing PG&E demand charges, a battery storages system will also serve to hedge against future PG&E demand charge increases.

While staff is encouraged at the prospect of the battery storage systems to reduce the current and future demand charges that are a large component of the Shoreway PG&E electrical bill, there will likely be changes at Shoreway and within the battery storage system industry that make it prudent to wait before installing a system. For this reason, staff is recommends a resurvey of the battery storage market and a new financial analysis be completed within two to three years.

### g. Environmental Education Center and Tours Program

***Goals***

Identify environmental education and service learning program expansion options with a primary goal of supporting the JPAs goal of reaching 75% diversion.

Resource conservation messaging, including education on how our current recycling and organics collection and processing programs work, from our existing tour program will be integrated into the classroom in schools in our service area to support and compliment the JPAs recycling outreach to homes, and businesses. Public education and outreach is proven to be most effective when delivered in multiple ways and in a continuous and pervasive manner to our target audience (i.e., where our customers live, learn, work and play).

This program expansion option supports multiple LRP Guiding Principles including:

- Support local, state and national mandates, including meeting the State's 75% recycling goal by 2020
- Increase and maximize participation in programs and services to reduce, reuse, recycle and compost waste
- Develop and sustain strategic community partnerships
- Promote behavior change through public education

***Overview***

This option involves completing a nine-month stakeholder engagement process to address a few critical questions: what environmental education programs fit best into existing efforts in the schools in our service area and what areas for expansion make the most sense? One of the JPA's two existing environmental educators would manage the engagement process, along with a consultant, which would include the following key steps:

- **Expanded Information Gathering and Networking**
  - Survey schools and school districts on their existing recycling/composting programs, school gardens, environmental initiates, and environmental service learning programs to identify best practices. Gather information through onsite visits, surveys, small group meetings, etc.
  - Through such surveying identify environmental education champions and leaders to engage more fully through participation in a blue ribbon committee, adhoc advisory groups, etc.
  - Survey recycling service providers to gain statistics and build profiles of school and district-wide recycling programs and diversion levels to tie back to school tour database (i.e., understand details of school diversion, school recycling program participation, profile and costs of recycling/composting services offered).
  - Develop informational profiles of the "green awareness" of schools: What is their level of interest and current involvement in recycling? What are their challenges and constraints to recycling? What do the schools need the most in order to expand green awareness on campus?
  - As the above information is gathered, revise as necessary the pre and post-tour teacher surveys to capture information about what environmental topics are currently being taught in the classroom so that tour messaging and pre/post curriculum can be custom tailored.

- Convene a blue-ribbon committee, ad hoc advisory groups, and/or focus groups, etc. to explore and discuss environmental education and environmental program best practices and identify how best RethinkWaste can support broader implementation of such best practices. Develop a short-list of pilot program ideas based on feedback from stakeholders.
- Evaluate collaboration opportunities and partnerships with non-profits and businesses for expansion of tour and environmental education programs.
- Host a community workshop if applicable, with panels of educators, non-profit service providers, Green Teams, community service organizations. This may or may not be connected to the blue-ribbon committee noted above.
- Develop an implementation plan, time-line, budget and staffing needs for 1) pilot level expansion of programs and 2) full program build-out.

The budget for this engagement process would include $25,000 in one-time costs to be included in the FY1516 budget as follows:

- $25,000 for consultant support during the engagement process including assistance with managing the blue-ribbon committee process.

Staff believes this is the most cost effective approach with utilization of an existing staff person plus supplemental support from a consultant. An alternative approach of having a consultant lead the engagement process would be more costly and create a missed opportunity for one of our existing environmental educators to more fully engage with our customer base of local schools and environmental educators.

By April 2016, staff would come back with a final report and recommendations on what environmental education programs the JPA can best integrate into our current program to meet the needs of our customers; these will be recommendations vetted by key stakeholders from local schools, nonprofits and related organizations focused on environmental education.

RethinkWaste is fortunate in that there are several innovative and cost-effective programs in the Bay Area where local governments partnered with the community, their waste haulers, local businesses and schools to further robust educational and experiential programs that have quantifiable and measurable outcomes. An example of these best practices implemented by StopWaste can be found in **Attachment E**.

# SECTION 3

**(Previously Section 5)**

# RECOMMENDATIONS AND NEXT STEPS

# 3. Recommendations and Next Steps

## A. Summary of Recommendations

**Table 3.1: Summary of Recommendations for Policies, Program and Shoreway Infrastructure Enhancements**

| Name/Title | Recommendation | Annual Diversion | Cost/Diverted Ton | Project Benefits |
|---|---|---|---|---|
| ***Collection Operational Improvement:*** | | | | |
| **CNG Fleet Conversion Project** | The franchised service provider collection fleet to run on CNG effective 1/1/21 (assumed start of new Franchise Agreements). Recology to include this assumption in their proposal for an extension of their existing Franchise Agreements in 2017. | N/A | N/A | • Net collection ops. cost savings of **$992,960/year** starting in 2021<br>• Approximately 20%-23% reduction in greenhouse gas emissions<br>• **Estimated collection rate reduction of 1%** |
| **SFD Split-Body Collection Vehicle Pilot Project** | Conduct a pilot project in FY1516 to study routing efficiencies using split-body (two-compartment) collection vehicles over two four-week pilot periods between September and November 2015. Recology proposes to conduct the first pilot in Menlo Park and the other in Burlingame and adjoining County pockets. Approximately 8,000 homes per week (two routes) effected during each pilot period. | N/A | N/A | • Pilot project to assess potential routing efficiencies to determine if this type of collection vehicle can be cost effectively deployed in the future in our service area |
| ***Collection Program/Service Enhancement:*** | | | | |
| **SFD Every Other Week Garbage Collection Pilot Project** | Conduct a pilot project in FY1516 to study the cost effectiveness of collecting garbage every other week. Pilot details not final but assumes would cover approximately 8,000 homes (two routes) over a three month period.<br><br>Pilot would have to be approved by the County LEA which enforces State solid waste and related laws and regulations. | Potentially Significant | Determine after pilot | • Potentially significant increase in diversion<br>• Potential cost savings from reduced collection routes<br>• Potential reduction in greenhouse gas and other harmful vehicle emissions<br><br>**Note: Pilot project results to be evaluated to determine if this change in residential service levels and routing are to be included in the future Franchise Agreements. A solid waste rate study would need to be completed to assess this option and others for future consideration in the Franchise Agreements.** |
| **Commercial Recycling Outreach Program Project** | Modify Recology's current reporting requirements to implement a Commercial Subscription and Participation Compliance Status Report for use in setting outreach priorities and tracking progress to diversion goals. Couple this change with enhanced commercial public education and outreach efforts. Project to be implemented in FY1516. | Supports meeting forecasted growth in commercial diversion shown in Table 2.1 and Table 2.2A. | Determine after pilot | • Supports Recology's efforts to achieve the forecasted commercial diversion shown in Table 2.1 and Table 2.2A<br>• Establish clear diversion targets for collection services contractor<br>• Increase return on investment in franchised commercial outreach program |
| **Public Spaces Recycling Pilot Program** | Implement model public spaces recycling collection in a downtown area and a park setting. Goal is to develop a more uniform approach across the Member Agencies that complements the existing residential and commercial recycling and organics collection services. Project to be implemented in FY1415 and FY1516. | Determine after pilot | Determine after pilot | • Increased diversion from the commercial sector (public spaces)<br>• Reduce litter<br>• Expand opportunities to engage public in recycling and reinforce messaging |
| **Enhanced Residential Public Education and Outreach Pilot Program** | Conduct a pilot program focusing on cost-effective, measurable dedicated campaigns service-area wide and for specific Member Agencies with lower diversion rates. Pilot to be conducted in FY1617. | Increase in residential recycling and organic materials:<br>• 2.5% in 2018<br>• 5% in 2019<br>• 2% in 2020<br>Forecasted increase in residential diversion from 66.59% in 2015 to 68.22% in 2020. See Table 2.2A. | Low cost per diverted ton of approximately $28/ton | • Increased diversion from the residential sector of 2,490 tons between 2018-2020<br>• Disposal cost savings of $156,300 between 2018-2020 |

| Name/Title | Recommendation | Annual Diversion | Cost/Diverted Ton | Project Benefits |
|---|---|---|---|---|
| ***Policy Initiative:*** | | | | |
| **EPR Policy Framework** | Establish a framework for Board consideration to facilitate supporting EPR legislation and policy. Implement in FY1516. | N/A | N/A | • Provides SBWMA the opportunity to become engaged in State-wide efforts to enact EPR related policy<br>• Requires product manufacturers to take financial responsibility for collection, recycling and disposal of their products<br>• Provides incentive for manufacturers to design products for recyclability and with reduced toxicity<br>• Reduces cost to ratepayers for proper handling, recycling and disposal of various product types |
| ***Shoreway Infrastructure Enhancement:*** | | | | |
| **Mixed Waste Processing in the Transfer Station** | Installation of a mixed waste processing system located in an expanded footprint in the existing Transfer Station. System to recover recyclables and organics from residential and commercial waste delivered to the Transfer Station by Recology collection vehicles. Recyclables to be processed further at existing onsite MRF. Organics to be transferred to SVCW for digestion and energy production. System can also process, at a projected expense less than existing organics processing, source separated organics from Recology franchised collection programs. System operational in 2018. | 49,591 tons per year of new diversion starting in 2018.<br><br>Would increase overall measured diversion from 55.34% in 2017 to 70.02% in 2020 per Table 2.2B. | $38.42/ton for the base- case scenario (small TS expansion with fiber recovery; see Table 2.25). Large TS expansion with fiber recovery would be $55.28/ton. (See Table 2.27) | • **Estimated collection rate impact of 1.9%. This drops to 1.5% if 20% increase in landfill disposal costs in 2020.**<br>• Significant diversion potential of 49.590 tons/year starting in 2018<br>• Low cost per diverted ton<br>• Leverages existing infrastructure at SVCW to reduce the project capital costs<br>• Reduction of greenhouse gasses through recovery of green energy from waste and reduced landfilling<br>• Viable project for State grant funding |
| **Shoreway Transfer Station Building Improvements** | Expand Transfer Station footprint to accommodate a mixed waste processing system. Two Transfer Station expansion scenarios: small expansion of 4,400 sq. ft. or large expansion of 12,000 sq. ft. Small expansion would not provide for new office and public meeting space. Large expansion would require demolition of Recology Administration building and construction of new Administration building. Large expansion would allow for new office and public meeting space as described further below. | N/A. Transfer Station building expansion options are part of mixed waste processing system project. | TS building expansion costs are included in the above figures. | • See above |
| **SBWMA Administrative Offices and Public Meeting Space** | Pursue one of three options to provide for onsite (at Shoreway) SBWMA office space and new public meeting space (e.g., for Board meetings, seasonal workshops and other public needs). There are three options for SBWMA office space with two of the options also providing public meeting space.<br><br>Option 1 would be to remodel 3,000 sq. ft. of space on the second floor of Recology Administration Building; this option does not provide for public meeting space. Option 1 is possible if do small Transfer Station expansion.<br><br>Option 2 would consist of constructing a new two-story building in the existing visitor parking lot. The first floor would be a parking garage and the second floor will be split between office space and public meeting space totaling 5,614 sq. ft.<br><br>Option 3 would be associated with the large Transfer Station expansion scenario. Office space and public meeting space would be housed in a two-story building adjacent to the Transfer Station. Both floors would be approx. 3,000 sq. ft.<br><br>Staff recommends that no decision be made on these improvements until a final decision is made on the mixed waste processing project and related Transfer Station building improvements. | N/A | N/A | • All options would provide for SBWMA office space and thus save approx. $60,000 per year in office lease costs<br>• Options 2 and 3 would provide for public meeting space for Board meetings and other public meetings and onsite public events |

| Name/Title | Recommendation | Annual Diversion | Cost/Diverted Ton | Project Benefits |
|---|---|---|---|---|
| **MRF Single Stream Processing Equipment Replacement** | No recommended change to existing Board policy or direction. Staff to include a forecast for MRF equipment replacement in the FY1516 budget; the budget will include a rolling five-year capital budget. Existing cash reserves include an equipment replacement reserve fund to pay for such equipment replacement. | N/A | N/A | N/A |
| **MRF Building Tipping Area Expansion** | This is an existing identified and budgeted project to construct a MRF canopy to expand tipping area for collection vehicles to unload recyclables. Project required to handle 3rd party tonnage into MRF. FY1415 budget of $450,000. Current project construction estimate of $438,741. | N/A | N/A | N/A |
| **CNG Fueling System at Shoreway** | Installation of a CNG fueling system at Shoreway in 2020 to support future fuel needs for collection fleet. Would also involve the closeout of the existing UST system. Would add one new AST for diesel for SBR transfer trailers. | N/A | N/A | • Supports conversion of the collection fleet to CNG with significant operational cost savings<br>• Eliminates future potential groundwater contamination at Shoreway from fueling operations |
| **Other Shoreway Infrastructure Improvements:**<br>***Site Paving***<br><br>***New LED Lighting*** | No recommended change to existing Board policy or direction. Staff to include a forecast for site paving costs in capital spending portion of FY1516 budget.<br><br>LED lighting retrofit in the MRF, Transfer Station and Recology maintenance shops. | N/A | N/A | • Extend life of pavement in the corp. yard area used by Recology.<br>• **Estimated collection rate impact of 0.2%**<br><br>• Power cost savings after 1.3 year payback period<br>• **Estimated collection rate reduction of 0.2%**<br>• Improved interior lighting for safer environment |
| **Environmental Education Center and Tour Program Enhancements** | Conduct a stakeholder engagement process in FY1516 to determine what additional components can be added to our existing environmental educational efforts with a focus on increasing recycling and composting efforts at schools in our service area. RethinkWaste is only minimally engaged in school or community based environmental education outside of the existing tour program. | TBD | TBD | • Complements existing RethinkWaste recycling outreach efforts to residents and businesses<br>• Engages local educators to identify synergies to maximize effectiveness of new programs<br>• Enhances return on investment in broader outreach campaigns |

**Table 3.1** on the previous pages summarizes all of the recommendations for Board consideration. The recommendations are broken out into collection related operational improvements, programs/services enhancements; policy initiatives; and Shoreway infrastructure improvements. As stated in **Section 1** (Executive Summary) of this Report, these recommendations do not address other critical items such as the expiration of future contracts and what actions are recommended (see **Appendix A, Table A.1** for a summary of JPA contracts and Member Agency Franchise Agreements) as those actions will be addressed through a separate process.

Cost estimates associated with the recommendations are current year estimates. Preliminary collection rate impacts with the recommendations are summarized below in **Table 3.2** below.

**Table 3.2: Collection Rate Impact**

| LRP PROJECTS | Life (yrs.) | Annual Financial Impact - Positive / (Negative) | Collection Rate Impact | |
|---|---|---|---|---|
| CNG Collection Fleet Conversion | 10 | $992,960 | -1.0% | rate reduction |
| Mixed Waste Processing ($13.5M) | 10 - 30 | ($1,905,487) | 1.9% | rate increase |
| SBWMA Admin. Offices Option #1 ($275k) | 10 | $32,500 | 0.0% | rate reduction |
| Shoreway - Paving ($2M) | 10 | ($200,000) | 0.2% | rate increase |
| Shoreway - LED Lighting Improvements ($274K) | 10 | $181,600 | -0.2% | rate reduction |
| **TOTAL BASE CASE RATE IMPACT** | | | **0.9%** | |

Finally, it is critical to understand that the Long Range Plan is really a "blueprint" for future Board actions related to increasing measured diversion, and driving operational improvements. As outlined on the following pages and in **Table 3.3**, there are a number of decisions that flow from the recommendations in **Table 3.1**.

As shown in **Table 2.2B** and **Table 3.3** below, implementing the recommendations will increase measured diversion from our forecasted baseline of 57.59% in 2020 to an estimated 70.02% in 2020. These figures include 26,500 tons of new diversion data added beginning 2015 as a result of the implementation of the Commercial Recycling Reporting Ordinance. The new tons are based on an extrapolation of tonnage numbers provided by 23 companies that registered and reported their first quarter 2015 data via our Ordinance, including estimated data from eight large retailers (e.g., grocery, drug stores, hardware, general home goods, etc.), some of which have registered but not yet submitted reports. The new tons excludes any construction and demolition debris recycling.

**Table 3.3: Baseline Forecast w/ Enhanced Residential Public Education and MSW Processing Starting in 2018**

| Projected Future Measured Diversion Rate % by Sector for 2015-2020 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Year | | | | | | | |
| | Actual Results | | Projected Results | | | | | |
| Sector | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
| **Residential** | 66.90% | 66.48% | 66.59% | 66.59% | 66.59% | 71.32% | 76.35% | 76.60% |
| **Commercial/MFD** | 29.77% | 31.04% | 41.06% | 43.46% | 45.49% | 55.57% | 64.26% | 64.26% |
| **Overall** | 48.83% | 48.90% | 52.98% | 54.26% | 55.34% | 62.92% | 69.90% | 70.02% |
| Note: Preliminary Commercial Recycling Reporting Ordinance data is included. | | | | | | | | |

## B. Timeline and Cost Projections Associated with Future Decisions by SBWMA Board and/or Member Agencies

In order to implement the recommendations outlined in **Table 3.1**, the following decisions by year will be requested of the SBWMA Board and/or Member Agencies**. Table 3.4** graphically depicts the overall timeline for the recommended policies, programs, and Shoreway enhancements.

***Timeline***

**2015**

- **SFD Split-body Collection Vehicle Pilot Project** – SBWMA Board decides whether to include one-time expenses of $16,391 in FY1516 budget. Board also provides direction to Recology as to whether to include one-time expenses of $55,422 in their 2016 Compensation application submitted in June.

- **SFD Every Other Week Garbage Collection Pilot Project** – SBWMA Board decides whether to include one-time expenses of $119,200 in FY1516 budget. No impact on 2015 or 2016 Recology compensation.

- **Commercial Recycling Outreach Program Project** – SBWMA Board decides whether to include one-time expenses of $50,000 - $60,000 in FY1516 budget. No impact on 2015 or 2016 Recology compensation.

- **Public Spaces Recycling Pilot Program** – SBWMA Board decides whether to include one-time expenses of $11,000 in FY1516 budget. No impact on 2015 or 2016 Recology compensation.

- **Extended EPR Policy Framework** – SBWMA Board decides whether to adopt an EPR Policy Framework.

- **Mixed Waste Processing in the Transfer Station** – SBWMA Board decides whether to include one-time project development expenses of $183,000 in FY1516 budget. No impact on 2015 or 2016 contractor compensation.

- **SBWMA Administrative Offices and Public Meeting Space** – SBWMA Board decides whether to include $25,000 in one-time costs in FY1516 budget to further refine building cost estimates. Board could also decide to move forward on Option 1 ($275,000) to remodel the upstairs portion of the Recology Administration building or Option 2 ($3.33 million) to build a new two-story building in the visitors parking lot. Staff recommends that no decision be made on these improvements until a final decision is made on the mixed waste processing project and related Transfer Station building improvements.

- **MRF Single Stream Processing Equipment Replacement** – SBWMA Board will adopt annual budget with five-year capital spending plan (plan updated each year for a rolling five-year period). Sufficient cash reserves already in place for forecasted equipment replacement needs.

- **MRF Building Tipping Area Expansion** – SBWMA Board considers approval of construction contract award in April or May 2015. Capital line item already included in adopted FY1415 budget.

- **Site Paving** – SBWMA Board approval of FY1516 budget with five-year capital spending plan to include site paving needs.

- **New LED Lighting** – SBWMA Board will decide whether to approve or not inclusion of the estimated $274,000 in the FY1516 capital budget.

- **Environmental Education Center and Tour Program Enhancements** – SBWMA Board decides whether to include $25,000 in one-time costs in FY1516 budget to complete stakeholder engagement process.

**2016**

- **CNG Fleet Conversion Project** - SBWMA and Member Agencies decide if CNG fleet to be included in future scope of work for Franchise Agreements (2017 decision by Member Agencies (MAs) whether to extend or not current Recology Franchise Agreements beyond 12/31/20).

- **SFD Split-body Collection Vehicle Pilot Project** – Based on pilot project results, SBWMA and Member Agencies decide if split-body vehicles to be included in future scope of work for Franchise Agreements.

- **SFD Every Other Week (EOW) Garbage Collection Pilot Project** – Based on pilot project results, SBWMA and Member Agencies decide if EOW solid waste collection to be included in future scope of work for Franchise Agreements.

- **Commercial Recycling Outreach Program Project** – Based on outreach pilot project results, SBWMA Board decides if expanded commercial outreach should be continued.

- **Public Spaces Recycling Pilot Program** – Based on pilot project results, SBWMA and Member Agencies decide if there is to be a full scale rollout across service area; could impact SBWMA FY1617 budget and Recology 2017 compensation.

- **Enhanced Residential Public Education and Outreach Pilot Program** – SBWMA Board decides whether to include one-time expenses of $175,000 in FY1617 budget. No impact on 2016 or 2017 Recology compensation.

- **Mixed Waste Processing in the Transfer Station** – SBWMA Board makes decision on project based on updated project financial proforma. If decision is to implement, then would initiate project design and permitting in 2016 and develop plan of finance. Capital costs in FY1617- FY1718 budgets. Would also negotiate updated MOU with SVCW for Board consideration.

  The above decision would also relate to the associated Transfer Station building improvements required to accommodate the new mixed waste processing system.

- **SBWMA Administrative Offices and Public Meeting Space** – The above decisions may effect which option, if any, the Board chooses for new SBWMA office space and public meeting space at the Shoreway Environmental Center.

- **Environmental Education Center and Tour Program Enhancements** - When staff completes the stakeholder engagement process then recommendations will come back to the Board for consideration for FY1617 budget.

**2017**

- **Enhanced Residential Public Education and Outreach Pilot Program** – Based on pilot project results, SBWMA Board decides if ongoing enhanced outreach effort is to be continued. Staff assumes $25,000 in new spending in FY1718 and FY1819. Kevin – should I add this sentence to the exec summary too?

- **Mixed Waste Processing in the Transfer Station** – Board approval of construction contract award for building improvements and purchase of processing equipment. Negotiate Operations Agreement amendment for SBR compensation to operate new processing system; such amendments require approval of the SBWMA Board and separate approval by two-thirds (at least 8 of the 12) of the Member Agencies.

  The above decision would also relate to the associated Transfer Station building improvements required to accommodate the new mixed waste processing system.

  If issuance of new debt is needed to finance the project then this will require SBWMA Board approval and separate approval by two-thirds (at least 8 of the 12) of the Member Agencies.

**2018/2019**

- **CNG Fueling System** – SBWMA Board approval of Shoreway project expenses for site improvements, including closeout of USTs, installation of new AST, and site improvements required for new CNG fueling system. Current estimate of $1.375 million to $1.8 million with $1.24 million in Shoreway remediation funds available to help offset costs.

**2021**

- **Mandatory Residential and Commercial Recycling Ordinance** – Analyze programmatic efforts through 2020 to determine measured diversion rate and progress towards State goal of 75%. If still short of goal then the SBWMA Board may decide to approve new policy tools.

- **Organic Materials (Green Waste and Food Scraps) Disposal Ban** – Analyze programmatic efforts through 2020 to determine measured diversion rate and progress towards State goal of 75%. If still short of goal then the SBWMA Board may decide to approve new policy tools.

***Cost Projections***

**Table 3.5** on page 111 summarizes all the cost projections associated with each of the recommendations by year. In the upcoming fiscal year (FY1516) there are a number of recommendations for one-time expenditures to support implementation of pilot projects, and complete additional technical and financial analysis of the mixed waste processing system, including building improvements.

For FY1516, the projected spending from the operating expense budget totals $439,591 with $206,591 for collection related programs and outreach, and $233,000 related to Shoreway operations. $274,000 is also recommended as a capital expense to retrofit large lighting fixtures in the MRF, Transfer Station, and Recology maintenance shop with high efficiency LED lights. A $55,422 adjustment is also recommended to Recology's 2016 compensation to cover costs associated with the split-body collection vehicle pilot project.

$175,000 is recommended to be included in the FY1617 operating budget to complete a residential outreach pilot to measure potential enhancements to diversion levels. Future residential diversion increases are assumed starting in calendar year 2018 based on increased outreach spending of $25,000 in FY1718 and FY1819.

Based on the results of the various pilots conducted in 2015 and 2016, there will be follow-up SBWMA Board and/or Member Agency decisions in 2016, 2017 and 2018 regarding full-scale rollout of programs and services (e.g., enhanced public education and outreach, Public Spaces recycling, etc.) and future franchised collection service operations (e.g., use of split-body collection vehicles and EOW solid waste collection). Notably, any changes to collection service operations would need to be analyzed from a rate perspective along with any other changes proposed by Recology and/or recommended by the SBWMA Board and Member Agencies.

Major decisions on the Shoreway facility capital improvements are assumed to occur in 2016 for the mixed waste processing system and related Transfer Station building expansion. Currently, the assumed base-case project would involve spending $13.51 million, with $2.53 million for a small expansion of the Transfer Station and $10.58 million for processing equipment. Project funding sources could include the use of current undesignated cash reserves estimated at $3.9 million (FY1415 mid-year budget document), new incremental undesignated cash reserves resulting from tipping fee increases at Shoreway, State grant funding, and new debt (bank loan, bonds, etc.) An analysis of tipping fees and other aspects of the Shoreway operations budget would need to be completed as part of any Board decision-making process for this project.

The above decisions related to the mixed waste processing project will also effect potential options related to the development of SBWMA office space and public meeting space at Shoreway. The SBWMA currently spends approximately $60,000 per year to lease office space, and the Board Chair and Vice Chair requested an analysis of alternatives be included in the Long Range Plan. Three options are presented with a cost range of $275,000 (to remodel the upstairs portion of the Recology Administration building) to $3.33 million (to build a new two-story building in the visitors parking lot). Another option at a cost of $977,550 would be tied to the large expansion option for the Transfer Station. The lowest cost of $275,000 provides for SBWMA office space, but no provision for public meeting space; if this option was pursued, however, an offsite location would need to be secured for Board meetings. The next lowest cost option at $977,750 provides office and meeting space and is tied to a much more expensive (i.e., $9.9 million higher) Transfer Station expansion scenario that is not the preferred option for the mixed waste processing project. The preferred alternative would be the $3.3 million option that provides for both SBWMA office space and public meeting space on a long-term basis.

Finally, in 2019 the Board would face decisions around capital expenditures to support installation of a new CNG fueling system at Shoreway. Fortunately, the current estimated project costs of $1.38 - $1.8 million would largely be covered by an existing source of funds; $1.24 million is currently available in a Shoreway remediation fund. Further, the net project costs would be more than offset by the annual franchised collection services operational savings identified at approximately $1 million per year starting in 2021.

**Table 3.4: Implementation Timeline for Recommended Policies, Program and Shoreway Infrastructure Enhancements**

| Policies, Programs, and Shoreway Infrastructure Enhancements | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|---|---|---|---|---|
| **COLLECTION PROGRAMS** | | | | | | | | | | |
| CNG Fleet Conversion Project | | | | | | | | | | |
| SFD Split-Body Collection Vehicle Pilot Project | | | | | | | | | | |
| SFD Every Other Week (EOW) Garbage Collection Pilot Project | | | | | | | | | | |
| Commercial Recycling Outreach Program Project | | | | | | | | | | |
| Public Spaces Recycling Pilot Program | | | | | | | | | | |
| Enhanced Residential Public Education and Outreach Pilot Program | | | | | | | | | | |
| Mandatory Residential and Commercial Recycling Ordinance | | | | | | | | | | |
| Organic Materials (Green Waste and Food Scraps) Disposal Ban | | | | | | | | | | |
| EPR Policy Framework | | | | | | | | | | |
| **SHOREWAY OPERATIONS** | | | | | | | | | | |
| Mixed Waste Processing in the Transfer Station | | | | | | | | | | |
| Shoreway Transfer Station Building Improvements | | | | | | | | | | |
| SBWMA Administrative Offices and Public Meeting Space | | | | | | | | | | |
| MRF Single Stream Processing Equipment Replacement | | | | | | | | | | |
| MRF Building Tipping Area Expansion | | | | | | | | | | |
| CNG Fueling System | | | | | | | | | | |
| Other Shoreway Infrastructure Improvements | | | | | | | | | | |
| *Site Paving* | | | | | | | | | | |
| *New LED Lighting* | | | | | | | | | | |
| Environmental Education Center and Tour Program Enhancements | | | | | | | | | | |
| Collection Programs | Symbol: Reverse diagonal stripe pattern shown above means potential full-scale rollout. | | | | | | | | | |
| Shoreway Operations | | | | | | | | | | |

**Table 3.5: Summary of Projected Costs by Year**

| Policies, Programs, and Shoreway Infrastructure Enhancements | Costs | | | | | |
|---|---|---|---|---|---|---|
| | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
| **COLLECTION PROGRAMS** | | | | | | |
| **CNG Fleet Conversion Project** | | | | | Franchise collection service provider to purchase new CNG compatible collection vehicles. Based on current fleet would be 127 vehicles at an estimated net increase (in collection vehicle capital) of **$5.136M**. | |
| **SFD Split-Body Collection Vehicle Pilot Project** | **$16,391** in FY1516 budget. | **$55,422** in 2016 Recology Compensation. | | | | |
| **SFD Every Other Week (EOW) Garbage Collection Pilot Project** | **$119,200** in FY1516 budget. | | | | | |
| **Commercial Recycling Outreach Program Project** | **$50,000 - $60,000** in FY1516 budget. | | | | | |
| **Public Spaces Recycling Pilot Program** | **$11,000** in FY1516 budget. | | | | | |
| **Enhanced Residential Public Education and Outreach Pilot Program** | | **$175,000** in FY1617 budget | $25,000 on FY1718 | $25,000 on FY1819 | | |
| **EPR Policy Framework** | Existing staff time | | | | | |
| **SHOREWAY OPERATIONS** | | | | | | |
| **Mixed Waste Processing in the Transfer Station** | **$183,000** in FY1516 budget for project development expense (refined design, waste comp. analysis, etc.). | | **$10.98 million** for processing equipment. Includes 10% contingency. | | | |
| **Shoreway Transfer Station Building Improvements** | | **$2.53 million** for Transfer Station - small expansion or **$13.47 million** for Transfer Station - large expansion. Includes $977,550 for 2-story admin. bldg to house SBWMA offices and public meeting space. Both TS expansion scenario figures include 10% contingency. | | | | |
| **SBWMA Administrative Offices and Public Meeting Space** | **$25,000** in one-time costs in FY1516 budget to further refine building cost estimates. | **Option 1 ($275,000)** to remodel the upstairs portion of the Recology Admin. building or **Option 2 ($3.33 million)** to build a new two-story building in the visitors parking lot. Staff recommends that no decision be made on these improvements until a final decision is made on the mixed waste processing project and related Transfer Station building improvements. | | | | |
| | | | | | | |

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| Policies, Programs, and Shoreway Infrastructure Enhancements | Costs | | | | | |
|---|---|---|---|---|---|---|
| | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
| **MRF Building Tipping Area Expansion** | Project already in adopted FY1415 budget. | | | | | |
| **CNG Fueling System** | | | | | **$1.375 million to $1.8 million**. $275,000 in non-capx and $1.1 million - $1.525 million in capital. **$1.24 million in Shoreway remediation funds available to help offset costs.** | |
| **Other Shoreway Infrastructure Improvements** | | | | | | |
| ***Site Paving*** | Forecasted spending to be included in five-year capital budget in FY1516 budget documents. | | | | | |
| ***New LED Lighting*** | $274,000 in one-time costs in FY1516 budget. | | | | | |
| **Environmental Education Center and Tour Program Enhancements** | $25,000 in one-time costs in FY1516 budget. | | | | | |

# APPENDICES:

- **Appendix A – State and Local Policy and Regulatory Framework**
- **Appendix B – Waste Reduction, Recycling and Composting Policies, Programs and Shoreway Infrastructure**

# ATTACHMENTS:

- **Attachment A – Recology Split-Body Pilot Proposal**
- **Attachment B – Commercial Subscription and Participation Compliance Report**
- **Attachment C – Example of EPR Policy**
- **Attachment D – CPSC Product Stewardship and EPR: Definitions and Principles**
- **Attachment E – Environmental Education Best Practices and Partnerships**

A Public Agency

# STAFF REPORT

| | |
|---|---|
| To: | SBWMA Board Members |
| From: | Kevin McCarthy, Executive Director |
| | Marshall Moran, Finance Manager |
| Date: | June 25, 2015 Board Meeting |
| Subject: | Resolution Approving FY1516 Operating Budget |

## Recommendation

It is recommended that the SBWMA Board of Directors approve Resolution No. 2015-20 attached hereto authorizing the following action:

Adoption of the FY1516 operating budget.

If the Board decides to not approve the budget a budget continuation resolution is also attached. Adoption of the FY1516 budget would approve the capital projects shown in Attachment A, capital worksheet, for FY1516, subject to specific Board approval for projects exceeding the Purchasing Policy limit of $50,000 which will be brought back for Board approval at the appropriate time. Budget approval does not approve any capital for the forecasted future fiscal years.

## Summary

The budget figures shown in Attachment A have been updated per changes noted in the May 28, 2015 budget staff report, notably an update on tonnage figures and related budget assumptions using data through April 2015. Additionally, staff added $30,000 to the Long Range Plan budget line item to address research on zero waste related policy options and an assessment of processing and treatment technologies for identified waste streams as part of the Zero Landfill Working Group project.

After reviewing all of the budget changes the estimated net income improved $41,293. Staff adjusted downward the assumed average franchise tipping fee increase from 3.77% to 2.16%. Staff also reduced the average assumed public tipping fee increase from 1.9% to 0.9%. This produces budget results in line with what was previously provided the Board in the April and May budget staff reports. In total, these assumed franchised tipping fee adjustments result in an estimated collection rate impact of 0.6%. Table 10 on page 10 of the staff report breaks out this estimated collection rate impact by Member Agency.

## Analysis

*Overview*

In Attachment A you will find the FY1516 detailed operating budget (including cash reserve balances, revenues, expenses and capital budget) with forecasted revenues of $42,523,900 and expenses of $41,003,014. The expense detail in Attachment A is organized by the five main areas of our budget (i.e., Administration, Contract Compliance and Support, Recycling - AB 939 and AB 341 Compliance, Collection Operations, and Shoreway Operations). These first four areas of the budget are referred to as the SBWMA program budget, exclusive of Shoreway Operations. The program budget totals $3,815,114 inclusive of $662,800 of pass through costs associated with the Door-to-Door HHW collection program. The budget document also includes a variance column (FY1516 budget vs. adopted FY1415) by line item and includes notes where applicable to explain a line item. This variance to the adopted budget was used given that the mid-year budget figures changed very little from the adopted budget figures. Further program expense line item detail can be found in Attachment B and detail for Shoreway commodity revenue and operations expense can be found in Attachment F.

Shoreway Operations includes all South Bay Recycling (SBR) compensation, disposal and processing expenses and all other direct expenses related to the SBWMA's responsibilities and obligations as the owner of the facility. The Shoreway operating expenses are largely non-discretionary expenses (e.g., SBR operator compensation, disposal and processing expense and franchise fee payments to the City of San Carlos) and are variable to tonnage delivered to the Shoreway facility and to annual calendar year contractual CPI-based compensation adjustments. These expenses total 90.7% of the total expense.

The current organization chart and details on personnel related budget assumptions can be found in Attachments C and D, respectively. No changes are proposed in staffing levels or in employee benefits. However, the budget reflects a 10-week overlap of the current retiring Finance Manager with a new Finance Manager to help ensure a successful transition given the critical nature of this position.

*Proposed New Projects and Activities in FY1516*

The upcoming fiscal year is a critical transition year as the JPA begins to implement a new long range plan and prepares its Member Agencies for critical decisions related to their Franchise Agreements with Recology. The FY1516 budget includes all the recommended long range plan projects assumed for FY1516 totaling $430,000 in spending pending Board direction including:

- Implement an every other week residential garbage collection pilot ($120,000).
- Develop and implement public education and notification to residents participating in the Recology residential split-body collection vehicle pilot project ($17,000).
- Develop and implement enhanced commercial recycling outreach targeting businesses and multi-family ($60,000).
- Implement a stakeholder engagement process for the environmental education center and tour program ($25,000).
- Completion of conceptual designs for a Shoreway Transfer Station mixed waste processing system to recover organics materials and other recyclables from residential and commercial solid waste ($183,000).
- Complete Recology administration building remodel design assessment to accommodate SBWMA offices ($25,000).

Staff also added $30,000 to the Long Range Plan budget line item related to the Zero Landfill Working Group project requested by the Board in May.

$45,000 is budgeted to complete the financial analysis of both Recology's and SBR's actual cost of operations to prepare to forecast future collection costs. Consultant(s) will assist staff with analyzing the contractor's actual costs vs. compensation. Budgeted figures are relatively modest based on the assumption that both contractors are expected to share information on their actual operational costs.

Staff will continue to analyze the JPA's cost of operations and to that end work activities are assumed as follows:

- Evaluate the current model used for outsourced HR and payroll administration by a third party and make recommendations for changes if appropriate.

Finally, staff is budgeting for some new community events at Shoreway including:

- Host three seasonal (summer, fall, spring) compost and mulch giveaway events at Shoreway. With the JPA having free compost availability it makes sense for the JPA to help do its part to support water conservation efforts given our continued drought. $3,000 is included in the budget for outreach to support the events. There will be additional synergies to promote the use of compost and mulch products with the pending relocation of Lyngso from their Redwood City location to the Hatcher Press property adjacent to our Shoreway facility.
- "America Recycles Day" event at Shoreway in November. The event will be modeled after our annual Earth Day event which typically draws 300-400 visitors. Funds for the event are included in the Shoreway education center budget which remains unchanged at $60,000 from FY1415.

*Ongoing Core Staff Responsibilities*

- Continued oversight and contract administration support for the 12 collection services Franchise Agreements with Recology San Mateo County (RSMC). This work is accomplished with approximately two full-time employees, one fewer than when the 12 new Franchise Agreements went into effect on January 1, 2011.
- Manage all public education activities to support the residential collection services and manage the development of the outreach materials for the commercial collection programs. $240,000 is budgeted for residential outreach and $185,000 for commercial outreach. Another $80,000 is earmarked for outreach for the HHW door-to-door collection program. In addition to the SBWMA's $185,000 for commercial outreach, Recology has a budget of over $900,000 per year to cover management of the Commercial Recycling Outreach program with a staff of nine; this expense is included in Recology's compensation and not in the SBWMA budget.
- Continued oversight of the SBR Shoreway operations and management of all disposal and processing contracts with one full-time employee.
- Management of the annual contractor compensation adjustment process, including review of the 2016 RSMC and SBR compensation applications, and completion of final reports (Recology and SBR) for 2016.
- Support of existing recycling programs, notably ongoing residential public outreach; AB 341 commercial recycling outreach; expanded outreach to support multi-family recycling; and oversight and outreach for the HHW Door-to-Door collection services for 12 Member Agencies.
- Management of the Shoreway Education Center tour program, including the school tours and public tours. This program is educating 5,000 tour visitors per year with two full-time employees.
- Management of all ongoing capital repairs and maintenance at the 16-acre Shoreway facility, including nearly 200,000 square feet of building space and $20 million in equipment owned by the SBWMA. This work is managed by the same employee that manages the SBR contract and all disposal and processing contracts. Please see Attachment E for a brief description on each capital project.

Attachment G provides a summary of historical outreach spending and associated program results from 2010 to 2014. Notably, as residential outreach spending has declined and leveled off there has been a corresponding leveling off and reduction in diversion rates and participation rates. As part of the 2015 Long Range Plan, staff is recommending an enhanced residential outreach pilot in FY1617. Commercial outreach spending is budgeted to increase $60,000 as recommended in the 2015 Long Range Plan.

*Financial Summary*

Overall, the preliminary FY1516 budget reflects solid financial results with fully funded cash reserves, an undesignated cash reserve balance of $3.175 million, and an overall increase in the operating budget of 3.6%. Franchise solid waste and organics tipping fees are assumed to increase by 2.16% effective January 1, 2016 which effects half the fiscal year. Prudent management of controllable expenditures and Shoreway operating and disposal and processing contracts tied to CPI price adjustments continues to align costs with revenue.

As shown in Table 1 on the next page, FY1516 contribution to cash reserves is projected at $1,520,886 which is $818,939 less than our FY1415 adopted budgeted (2% of revenue) largely due to lower commodity revenue of $1,181,800 on lower commodity prices, and higher SBWMA program budget and slightly offset by lower interest expense of $52,400. After capital expenditures and bond principal payments, the net contribution to cash reserves is projected to be negative $986,114. Capital spending for FY1516 is forecasted to be $392,750 higher than the adopted FY1415 budget largely due to the delay in the MRF canopy project.

Contributing factors to higher operating expenses include higher SBWMA program expense of $247,439 with a notable line item increase of $227,500 for long range plan projects, and $141,300 for the door to door HHW collection program (higher expense 100% offset by revenue). Shoreway operating expenses for SBR compensation is assumed to increase $678,500 or 4%. This is largely driven by higher MRF volume which has no visible revenue impact due to lower commodity prices reducing commodity revenue. Disposal and processing costs increase by $350,500 or 2.5%.

Table 1

| FY1516 SUMMARY | | | | | |
|---|---|---|---|---|---|
| **CATEGORIES** | FY1415 Adopted Budget | FY1415 Mid-Year Budget[1] | FY1516 Budget [2] | **Variance** | **%** |
| Total Revenue | $41,927,800 | $41,263,900 | $42,523,900 | $596,100 | 1% |
| Total Operating Expense | $36,702,475 | $36,219,636 | $38,169,914 | ($1,467,439) | -4% |
| **Earnings Before Interest:** | **$5,225,325** | **$5,044,264** | **$4,353,986** | **($871,339)** | **-17%** |
| Interest Expense | $2,885,500 | $2,885,500 | $2,833,100 | $52,400 | 2% |
| **Contributions to Cash Reserves:** | **$2,339,825** | **$2,158,764** | **$1,520,886** | **($818,939)** | **-35%** |
| Capital Expenditures, adjusted | ($925,000) | ($265,000) | ($1,204,000) | ($279,000) | 30% |
| Bond Principal Payment | ($1,205,000) | ($1,205,000) | ($1,303,000) | ($98,000) | 8% |
| **Net Contribution to Cash Reserves:** | **$209,825** | **$688,764** | **($986,114)** | **($1,195,939)** | **-570%** |

[1] Mid-year projection for capital spending has been reduced from $910,000 to $265,000 given certain projects not occuring in FY1415.
[2] FY1516 capital net of equipment replacement reserve funding of $113,750.

Note: Interest is shown separately in this table only. All other schedules have interest combined with operating expense.

## Revenues

Table 2 below provides a summary of revenue by line item with total operating revenues for FY1516 budgeted to be $596,100 (1.4%) higher than our FY1415 adopted budget. Higher franchise tipping fee (rates charged at Shoreway for franchise tons delivered by Recology) and higher than expected public volumes is largely offset by lower commodity revenue. MRF host fee revenues received for handling 3rd party recyclables (from Recology) are increasing on higher volume over FY1415. The HHW revenue of $662,800 is fully offset by the HHW collection costs of $662,800 included in the SBWMA program budget. HHW revenue increase is largely due to two Member Agencies joining the program in March 2015 (Town of Atherton and City of Redwood City).

As noted at the bottom of Table 2, the commodity revenues shown are net of the 28% revenue share ($1,064,400) paid to SBR and payments to Shoreway buyback customers ($897,900).

Table 2

| FY1516 REVENUES | | | | | |
|---|---|---|---|---|---|
| Revenues | FY1415 Adopted Budget | FY1415 Mid-Year Projections | FY1516 Budget | Variance | Variance % |
| Tip Fee Revenues | $32,221,900 | $31,773,100 | $33,602,300 | $1,380,400 | **4.3%** |
| Non Franchised | $6,229,700 | $5,952,900 | $6,982,300 | $752,600 | **12.1%** |
| Franchised | $25,992,200 | $25,820,200 | $26,620,000 | $627,800 | **2.4%** |
| Net Commodity Sales Revenues* | $8,674,800 | $8,272,300 | $7,668,100 | ($1,006,700) | **-11.6%** |
| MRF - Host Fees | $361,800 | $390,400 | $443,500 | $81,700 | **22.6%** |
| Interest Income | $56,500 | $67,400 | $48,200 | ($8,300) | **-14.7%** |
| HHW and Other Revenue | $612,800 | $760,700 | $761,800 | $149,000 | **24.3%** |
| Total Revenues: | $41,927,800 | $41,263,900 | $42,523,900 | $570,000 | **1.4%** |
| *Gross commodity sales – 28% revenue share with SBR and buyback payments. | | | | | |

As shown in Table 3 below, franchise tonnage is projected to be 3,788 tons higher (1.3%) than the FY1415 budget with a weighted average tip fee increase of $0.97/ton or 1.1% (solid waste and organics rates increase 2.16% effective January 1, 2016). Public volumes are forecast to increase 8.0% with tipping fees up 3.7% (0.0% increase for solid waste and 4.2% for green waste effective January 1, 2016). The weighted average tipping fee increase figures below account for the proposed price changes and forecasted volumes (tons and yards) and the January 1, 2016 price increase impacting half of FY1516.

Table 3

| TIP FEE REVENUE | FY1415 Adopted Budget | FY1415 Mid-Year Projections | FY1516 Proposed Budget | 2016 vs 2015 Budget Variance | % |
|---|---|---|---|---|---|
| **Franchise** | | | | | |
| Tons | 280,747 | 278,776 | 284,535 | 3,788 | 1.3% |
| Wtd Avg.Tip Fee | $ 92.58 | $ 92.62 | $ 93.56 | $ 0.97 | 1.1% |
| Franchise Revenue | $ 25,992,156 | $ 25,820,153 | $ 26,620,000 | $ 627,844 | 2.4% |
| **Public** | | | | | |
| Yards | 182,976 | 170,994 | 197,704 | 14,728 | 8.0% |
| Wtd Avg.Tip Fee | $ 34.05 | $ 35.49 | $ 35.32 | $ 1.27 | 3.7% |
| Public Revenue | $ 6,229,698 | $ 6,068,575 | $ 6,982,300 | $ 752,602 | 12.1% |
| **Total Tip Fee Revenue** | **$ 32,221,854** | **$ 31,888,728** | **$ 33,602,300** | **$ 1,380,446** | **4.3%** |

Table 4 below provides the detail on the franchise tonnage and public yards forecast for FY1516. Franchise solid waste tons are expected to increase 3.6% while organics decline 2.8% due to continued drought conditions.

Public solid waste yards are expected to increase 8.0% compared to FY1415. Strong growth is projected for construction & demolition business likely due to heightened construction activity locally.

Table 4

| Total TS Tonnage and Yardage | | FY1415 Adopted Budget | FY1415 Mid-Year Projections | FY1516 Proposed Budget | 2016 vs 2015 Budget Variance | % |
|---|---|---|---|---|---|---|
| **Franchise** | | | | | | |
| SBWMA Solid Waste | *tons* | 176,143 | 177,835 | 182,529 | 6,386 | 3.6% |
| SBWMA Organics | *tons* | 100,815 | 97,043 | 97,988 | -2,826 | -2.8% |
| SBWMA Dirt, Inert, Other | *tons* | 3,790 | 3,898 | 4,018 | 228 | 6.0% |
| ***sub-total Franchise*** | | **280,747** | **278,776** | **284,535** | **3,788** | **1.3%** |
| Non-SBWMA Weighed Dirt | *tons* | 5,099 | 6,122 | 6,804 | 1,705 | 33.4% |
| **Total Tons** | | **285,846** | **284,898** | **291,339** | **5,492** | **1.9%** |
| **Public** | | | | | | |
| Public Solid Waste Yards | *yards* | 67,277 | 55,672 | 63,580 | -3,696 | -5.5% |
| Public Green Waste Yards | *yards* | 48,209 | 43,562 | 51,825 | 3,616 | 7.5% |
| Public C&D | *yards* | 67,490 | 71,761 | 82,298 | 14,808 | 21.9% |
| **Total Yards** | | **182,976** | **170,994** | **197,704** | **14,728** | **8.0%** |

Table 5 below summarizes budgeted commodity revenue detail. Commodity revenues are budgeted at $9,630,366 which is $1,181,824 or 10.9% lower than FY1415 budget. MRF commodity tonnage sold is higher than FY1415 budget by 4,354 tons, but is more than offset by lower budgeted commodity prices of $28.56/ton. Commodity prices have continued to slide since our mid-year budget projections in January 2015, but are forecasted to increase slightly over the next year. The weighted average commodity revenue per ton figure of $142.70 is somewhat below historical averages which have been around $165-$170 per ton but is well above the effective floor price (i.e., Shoreway Operations Agreement minimum revenue guarantee per year of $5,598,060) we receive from SBR of $85.69/ton. The JPA's rate stabilization fund effectively buffers against needing large tip fee increases to mitigate any significant temporary drops in commodity revenue as experienced in the fall of 2008 as far as meeting bond covenants.

Table 5

| COMMODITY REVENUE | FY1415 Adopted Budget | FY1415 Mid-Year Projections | FY1516 Proposed Budget | 2016 vs 2015 Budget Variance | % |
|---|---|---|---|---|---|
| Tons Sold | 63,134 | 64,935 | 67,488 | 4,354 | 6.9% |
| Wtd Avg. Price | $ 171.26 | $ 162.75 | $ 142.70 | $ (28.56) | -16.7% |
| **Gross Revenue** | **$ 10,812,190** | **$ 10,568,093** | **$ 9,630,366** | **$ (1,181,824)** | -10.9% |
| Revenue Share w/ SBR | $ (1,521,368) | $ (1,407,569) | $ (1,064,410) | 456,958 | -30.0% |
| Buyback Payments | $ (615,972) | $ (888,242) | $ (897,939) | -281,967 | 45.8% |
| **Net Commodity Revenue** | **$ 8,674,850** | **$ 8,272,282** | **$ 7,668,018** | **$ (1,006,832)** | **-11.6%** |
| **Price / Volume Impact** | | **Price** | **Volume** | **Total** | |
| Tonnage Change | | $ 142.70 | $ 4,354 | $ 621,305 | |
| Price Change | | $ (28.56) | $ 63,134 | $ (1,803,128) | |
| **Total Change (Gross)** | | | | **$ (1,181,824)** | |

See Attachment F (Tables 2 and 3) for more detail on commodity price trends and tonnage.

Expenses

Table 6 below summarizes all budgeted expenses for FY1516 which overall are 3.6% above FY1415 adopted budget levels.

Table 6

| FY1516 EXPENSE SUMMARY | | | | | | |
|---|---|---|---|---|---|---|
| EXPENSE CATEGORIES | FY1415 Adopted Budget | FY1415 Mid-Year Budget | FY1516 Budget | FY1516 Budget % of Total | Variance | % |
| SBWMA Program | $2,901,375 | $2,893,175 | $3,148,814 | 7.7% | $247,439 | 8.5% |
| HHW Collection | $521,500 | $645,261 | $666,300 | 1.6% | $144,800 | 27.8% |
| Shoreway Operations | $31,732,800 | $31,168,200 | $32,760,200 | 79.9% | $1,027,400 | 3.2% |
| Interest Expense | $2,885,500 | $2,885,500 | $2,833,100 | 6.9% | ($52,400) | -1.8% |
| Franchise Fees to San Carlos | $1,546,800 | $1,513,000 | $1,594,600 | 3.9% | $47,800 | 3.1% |
| **Total Expense** | **$39,587,975** | **$39,105,136** | **$41,003,014** | **100.0%** | **$1,415,039** | **3.6%** |

Table 7 below breaks out the SBWMA Program expense categories.

Table 7

| FY1516 SBWMA PROGRAM EXPENSES | | | | | |
|---|---|---|---|---|---|
| EXPENSE CATEGORIES | FY1415 Adopted Budget | FY1415 Mid-Year Budget | FY1516 Budget | Variance | % |
| Administrative Expenses | $1,762,475 | $1,754,275 | $1,766,814 | $4,339 | 0.2% |
| Contract Compliance & Support | $257,400 | $257,400 | $291,000 | $33,600 | 13.1% |
| Recycling & AB 939 Compliance | $881,500 | $881,500 | $1,091,000 | $209,500 | 23.8% |
| Total SBWMA Program Expense w/o HHW Pass Through Costs: | $2,901,375 | $2,893,175 | $3,148,814 | $247,439 | 8.5% |

*Program Budget*

The SBWMA proposed FY1516 program expense budget is $3,148,814, exclusive of Shoreway operations and HHW collection services, which is 8.5% higher than the FY1415 adopted budget. Notable variances within the program (category) areas of the budget include:

- Contract Compliance and Support expenses – *13.1% or $33,600 higher than FY1415 adopted budget.*
  - $20,000 for a financial analysis of SBR's actual operational costs vs. compensation.
  - $25,000 for a financial analysis of Recology's actual operational costs vs. compensation.
  - $35,000 for on-call consultant support for the new Finance Manager.
  - The above costs are partially offset by lower costs for annual financial and systems audit of contractors, and reduced consultant support for rate work.
- AB 939 and AB 341 Compliance – *23.8% or $209,500 higher than FY1415 adopted budget.*
  - $227,500 higher expenses for long range plan projects
- Collection Operations – *27.8% or $144,800 higher than FY1415 adopted budget.*
  - $141,300 higher expense for the Door-to-Door HHW collection program largely due to a full-year effect of the recent rollout of new services in Atherton and Redwood City. HHW expense is fully offset by HHW revenue.

Further expense line item detail can be found in Attachment B. A fuller discussion on staff wage and benefit costs can be found under "Personnel" on the next page.

*Shoreway Operations*

Table 8 below summarizes budgeted Shoreway operations expenses for FY1516 which are 2.8% above FY1415 adopted budget levels.

Table 8

| FY1516 EXPENDITURE DETAIL FOR SHOREWAY OPERATIONS | | | | | |
|---|---|---|---|---|---|
| EXPENSE CATEGORIES | FY1415 Adopted Budget | FY1415 Mid-Year Budget | FY1516 Budget | Variance | % |
| SBR Compensation* | $17,061,200 | $17,015,900 | $17,739,700 | $678,500 | 4.0% |
| Disposal and Processing* | $14,121,800 | $13,628,500 | $14,472,300 | $350,500 | 2.5% |
| Insurance Shoreway | $213,400 | $213,000 | $211,400 | ($2,000) | -0.9% |
| Education Center | $75,000 | $60,000 | $60,000 | ($15,000) | -20.0% |
| Debt Service Bond Interest | $2,885,500 | $2,885,500 | $2,833,100 | ($52,400) | -1.8% |
| Other Operating Expenses | $226,000 | $216,000 | $241,000 | $15,000 | 6.6% |
| Taxes (Sewer) | $35,400 | $34,800 | $35,800 | $400 | 1.1% |
| Franchise Fee (San Carlos)** | $1,546,800 | $1,513,000 | $1,594,600 | $47,800 | 3.1% |
| Total Shoreway Operations: | $36,165,100 | $35,566,700 | $37,187,900 | $1,022,800 | 2.8% |

** Expense projection based on estimated facility tonnage*

*** Expense projection based on estimated gate revenue (tipping fees x estimated tons)*

Notable variances from the FY1415 adopted budget include:

- Higher Shoreway operator expenses of $678,500 in payments to SBR; $420,700 from assumed January 1, 2016 compensation rate increases, mix of materials (more MRF tons but less transfer station tons), and changes to mix to organics processor destinations. These expenses are slightly reduced from lower transportation costs and SBR interest expense. SBR's 2016 compensation rates are estimated to increase approximately 1.8% which effects half of the fiscal year. (See Attachment F, Table 4 for detail).
- Disposal and processing expenses are higher than the FY1415 adopted budget by $350,500 primarily from higher assumed disposal and processing rates effective January 1, 2016 and 4,205 higher total tons (9,211 more solid waste tons, 1,061 higher C&D tons but 6,068 lower organics tons). (See Attachment F, Table 5 for detail).
- The Education Center budget is $15,000 lower due largely to lower than expected school busing costs which are assumed to be $19,000 for the upcoming fiscal year.
- Interest on our bonds to build the 2009 Master Plan improvements will decline by $52,400 in FY1516.

*Personnel*

As detailed in Attachment D, the Administrative staff and AB 939 program staff budget line items reflect an assumed merit increase pool of 3% of total wages and no changes in salary ranges; such merit increases total $20,642 – half in fiscal year. Per Board discussion and direction at the May 22, 2014 Board meeting, the Board will separately review and consider approval of the final merit increase pool in November 2015.

The SBWMA continues to have a very sustainable and cost effective business model for how the Agency manages its employee costs with key points as follows:

- The SBWMA is a non-PERs agency. Our seven current employees are offered a self-directed 401(a) and 457(b) plans, very similar to private sector 401(k) plans. <u>We have no employee pensions and thus no long-term pension obligations</u>. We do not participate in the Social Security system. There are no post-retirement benefits.
- All employees are non-represented; there are no collective bargaining agreements with our employees.
- There are no automatic salary adjustments for employees such as a COLA adjustment or step increases. Employee performance is evaluated each year and merit increases are granted on a calendar year basis using the Board approved merit increase pool and within the salary range of each position.
- There are no proposed changes to the benefit package as identified in the Board approved updated Employee Handbook on February 26, 2015.
- The above factors result in a low benefit to wage ratio of 35.7%.

The SBWMA also has one contract position, Recycling Programs Manager, through Local Government Services (LGS) which provides PERs benefits. This position's profile is similar to municipal agencies and thus the position recruitment focused on municipal employees who normally have PERs benefits.

Per Board direction, Appendix D also includes details on the SBWMA's benefit plans.

<u>Capital Spending</u>

Proposed FY1516 capital spending of $1,317,750 is $392,750 higher than the adopted FY1415 budget amount of $925,000 largely due to the $450,000 project for expansion of the MRF tipping area with a canopy extension to the existing building. The actual spending for FY1415 will be lower by $450,000 due to the delay in the canopy project into FY1516.

Additional detail on capital projects can be found on the capital projects worksheet included in Attachment A and Attachment E. Per Board feedback, staff has added a forecast for capital spending for the four fiscal years after FY1516; this provides a five-year snapshot of estimated capital spending. The forecast includes recommended capital projects in the 2015 Long Range Plan and for the first-time includes expected MRF equipment replacement costs.

## Reserve Balances

Table 9 below captures the reserve balance projections for FY1516 compared to the FY1415 adopted budget. The undesignated reserve balance is projected to be $3.175 million which is $0.9 million higher than the FY1415 adopted budget but $1.3 million lower than the FY1415 mid-year budget. This is primarily due to $0.7 million higher FY1314 actual balance than was used in the adopted budget but was used in the mid-year budget – it was not finalized by the auditor until November 2014. The proposed FY1516 budget is lower than the FY1415 mid-year budget due to lower Contribution to Cash Reserves and higher capital expenditures.

Table 9

| | ACTUAL FY1314 | ADOPTED BUDGET FY1415 | MID-YEAR BUDGET FY1415 | PROPOSED BUDGET FY1516 |
|---|---|---|---|---|
| **UNRESTRICTED:** | | | | |
| RATE STABILIZATON (10% of expense) | $ 3,703,283 | $ 3,906,648 | $ 3,845,988 | $ 4,033,671 |
| EMERGENCY RESERVE (10% of total expense) | $ 3,703,283 | $ 3,906,648 | $ 3,845,988 | $ 4,033,671 |
| EQUIPMENT REPLACEMENT (ANNUAL) | $ 1,130,726 | $ 1,542,328 | $ 1,542,328 | $ 1,499,514 |
| UNDESIGNATED | $ 4,589,433 | $ 2,530,236 | $ 4,527,022 | $ 3,175,018 |
| **TOTAL UNRESTRICTED GENERAL RESERVES** | **$ 13,126,724** | **$ 11,885,859** | **$ 13,761,325** | **$ 12,741,874** |
| **COMMITTED:** | | | | |
| BOND PRINCIPAL PAYMENT FUND | $ 1,004,167 | $ 1,058,330 | $ 1,058,330 | $ 1,091,667 |
| **TOTAL GENERAL RESERVES** | **$ 14,130,891** | **$ 12,944,189** | **$ 14,819,655** | **$ 13,833,541** |
| | *$ 14,130,891* | *$ 12,944,189* | *$ 14,819,655* | *$ 13,833,541* |
| **Other LT Projects (Fully Funded)** | | | | |
| **SHOREWAY REMEDIATION PROJECT** | **$ 1,289,283** | **$ 1,209,283** | **$ 1,209,283** | **$ 1,239,800** |

Note: the FY1314 Rate Stabilization and Emergency Reserves have been recalculated using the same methodology as the other periods. It had inadvertently been calculated differently. The total unrestricted reserve is unchanged at $13.12 million.

Despite the high undesignated cash reserve balance, staff is assuming tipping fee increases at the Shoreway facility effective January 1, 2016 so as to meet bond covenant requirements (which are on a calendar year basis). The FY1516 budget figures produce estimated bond covenant requirements results of 1.007 for the break-even test (minimum of 1.0 required) and 1.47 for the debt coverage test (minimum of 1.4 is required). While a revenue transfer from cash reserves can be made to comply with the bond covenant requirements, staff believes it's important to maintain our undesignated cash reserve balances to help meet future capital requirements at Shoreway related to the Long Range Plan. Also, the full year impact of the tip fee increase will improve these bond covenant test results.

## Background

At the April 23 and May 28, 2015 Board meetings staff provided detailed presentations on the preliminary FY1516 budget and answered questions from Board Members.

On January 22, 2015 the Board conducted a mid-year review of the FY1415 budget and adopted a revised budget to reflect $175,000 in additional one-time expense for SBR operations associated with impacts from the slow-down at the Port of Oakland. This FY1415 budget adjustment was subsequently revised upwards, per Board approval at the May 2015 Board meeting, to a not to exceed amount of $196,798.

On June 26, 2014 the SBWMA Board of Directors adopted the FY1415 Operating Budget, inclusive of the SBWMA program budget and Shoreway Operations.

## Fiscal Impact

For FY1516 staff is projecting contribution to cash reserves of $1,520,886 which is $818,939 below our FY1415 adopted budget contribution of $2,339,825 (see Table 1 on page 4 of the staff report). This lower contribution is 1.95% of total revenue due primarily to the following factors:

- Lower net commodity revenue (gross commodity revenue – commodity revenue share with SBR) from lower prices of $724,800
- Higher SBWMA program expense of $247,439 primarily due to additional Long Range Plan projects
- Lower bond interest expense of $52,400

Non-operating obligations (i.e., bond principal payment and capital expenditures) are not included in the contribution to cash reserves but are paid out of contributions to arrive at Net Contribution to Cash Reserves (i.e. Cash Flow). These obligations include: bond principal payment ($1,303,000) and NET capital expenditures ($1,204,000). Net Cash Flow after deducting these items for FY1516 is negative $986,114. All cash flow items are included in the reserve calculation. (See Table 1 on page 4 of the staff report.)

The assumed increases in franchise tipping fees of 2.16% effective January 1, 2016 will have an estimated collection rate impact for calendar year 2016 of 0.6%. If no franchise tipping fee increases are assumed in the budget the net contribution to cash reserves would drop by $260,700 and estimated bond covenant test results would drop from 1.007 to 1.001 for the break-even test (1.0 minimum) and from 1.47 to 1.41 for the debt coverage test (1.4 minimum). The Board reviews actual recommendations for tipping fee adjustments at the November Board meeting for calendar year 2016. Franchise tipping fees did not increase for calendar year 2015.

Table 10 below shows the 0.6% impact of franchise tip fee increases on total collection rates and each Member Agency's estimated rate impact. The table also shows the potential impact on the residential 32 gallon cart size rates. (Note: only Member Agencies set rates so this table is hypothetical).

Table 10

**Shoreway Franchise Tip Fee Increase: January 1, 2016 - 2.16%**
***Estimate***

| 2016 Collection Rate Impact | % Increase* | Residential Monthly Rate Impact (32 gal.) Cost/Month | 2015 32 gal. rate / mo |
|---|---|---|---|
| Atherton | 0.6% | $0.35 | $ 55.00 |
| Belmont | 0.4% | $0.14 | $ 34.86 |
| Burlingame | 0.6% | $0.14 | $ 23.85 |
| East Palo Alto[1] | 0.7% | $0.29 | $ 40.77 |
| Foster City | 0.6% | $0.14 | $ 22.00 |
| Hillsborough | 0.5% | $0.24 | $ 50.80 |
| Menlo Park | 0.6% | $0.13 | $ 23.40 |
| North Fair Oaks | 0.6% | $0.17 | $ 27.31 |
| Redwood City | 0.6% | $0.16 | $ 27.30 |
| San Carlos | 0.5% | $0.15 | $ 31.18 |
| City San Mateo | 0.6% | $0.26 | $ 46.41 |
| West Bay Sanitary District | 0.5% | $0.20 | $ 37.60 |
| County San Mateo (CFA) | 0.5% | $0.19 | $ 34.96 |
| **TOTAL SBWMA** | **0.6%** | | |

[1] All residential accounts receive a 96-gallon garbage cart.

* The rate increase % is for total collection revenue. Member Agencies decide how to allocate the actual rate increase across residential and commercial account service levels.

Attachments:

Resolution 2015-20
A – FY1516 Budget
B – Programmatic Detail (Staff Resources and Description of Key Projects and Work Activities)
C – Organization Chart
D – Personnel Summary
E – Capital Project Description
F – Back-Up Financial and Operational Data
G – Historical Outreach Spending and Program Results

Rethink waste
South Bayside Waste Management Authority
A Public Agency

# RESOLUTION NO. 2015-20

## RESOLUTION OF THE SOUTH BAYSIDE WASTE MANAGEMENT AUTHORITY BOARD OF DIRECTORS ADOPTING THE FY1516 OPERATING BUDGET

WHEREAS, the South Bayside Waste Management Authority (SBWMA) proposed budget as presented is balanced and provided sufficient funds for normal operations.

NOW THEREFORE, BE IT RESOLVED, by the Board of Directors of the South Bayside Waste Management Authority that the Board adopts the FY1516 operating budget.

PASSED AND ADOPTED by the Board of Directors of the South Bayside Waste Management Authority, County of San Mateo, State of California on the 25th day of June, 2015, 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 District | | | | |

I HEREBY CERTIFY that the foregoing Resolution No. 2015-20 was duly and regularly adopted at a regular meeting of the South Bayside Waste Management Authority on June 25, 2015.

ATTEST:

_____
Bill Widmer, Chairperson of SBWMA

_____
Cyndi Urman, Board Secretary

Rethink waste
South Bayside Waste Management Authority
A Public Agency

# RESOLUTION NO. 2015-21

## RESOLUTION OF THE SOUTH BAYSIDE WASTE MANAGEMENT AUTHORITY BOARD OF DIRECTORS GRANTING AUTHORITY FOR CONTINUED APPROPRIATIONS AND EXPENDITURES FOR SIXTY (60) DAYS

WHEREAS, the South Bayside Waste Management Authority (SBWMA) is on a fiscal year July 1 - June 30th; and

WHEREAS a budget for FY1516 will not be ready for review and approval by the Board of Directors until after the start of FY1516; and

WHEREAS, there is a continued need to conduct business by the SBWMA after the start of FY1516 budget year.

THEREFORE, BE IT RESOLVED, that the Board grants the Executive Director continued authority for appropriations and expenditures at the current level for the first sixty (60) days of FY1516 for the SBWMA.

PASSED AND ADOPTED by the Board of Directors of the South Bayside Waste Management Authority, County of San Mateo, State of California on the 25th day of June, 2015, 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 District | | | | |

I HEREBY CERTIFY that the foregoing Resolution No. 2015-21 was duly and regularly adopted at a regular meeting of the South Bayside Waste Management Authority on June 25, 2015.

ATTEST:

_____
Bill Widmer, Chairperson of SBWMA

_____
Cyndi Urman, Board Secretary

## FY1516 BUDGET

| CAPITAL PROJECTS | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PROJECT DESCRIPTION | | | ADOPTED BUDGET FY1415 | MID YEAR PROJECTION FY1415 | YTD 4/2/15 | PROPOSED BUDGET FY1516 | FORECAST FY1617 | FORECAST FY1718 | FORECAST FY1819 | FORECAST FY1920 |
| 570300 | SF044 | Transfer Station (TS)Tipping floor resurfacing | 200,000 | - | - | 100,000 | 100,000 | 100,000 | 100,000 | 100,000 |
| 570300 | SF045 | Site paving repairs and restriping[3] | | | | | | 600,000 | | 1,400,000 |
| 570300 | SF047 | Site signage | 40,000 | 40,000 | - | - | | | | |
| 570300 | SF049 | Truck shop building maintenance | 20,000 | 20,000 | - | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 |
| 570300 | SF050 | TS building maintenance | 20,000 | 20,000 | - | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 |
| 570300 | SF051 | MRF building maintenance | 25,000 | 25,000 | - | 225,000 | 125,000 | 125,000 | 125,000 | 125,000 |
| 570300 | SF052 | Admin building maintenance | 40,000 | 40,000 | - | 20,000 | 115,000 | 40,000 | 40,000 | 40,000 |
| 570300 | SF053 | Site maintenance | 25,000 | 25,000 | - | 65,000 | 30,000 | 30,000 | 30,000 | 30,000 |
| 570300 | SF055 | Fire suppression | | | | 15,000 | | 15,000 | | |
| 570300 | SF056 | Repairs to landfill tipper | 70,000 | 70,000 | - | 15,000 | 15,000 | 15,000 | 15,000 | 15,000 |
| 570300 | SF060 | Education center exhibits | 15,000 | - | - | - | | 15,000 | | |
| 570300 | SF061 | MRF tip area canopy | 450,000 | 25,000 | 21,200 | 450,000 | | | | |
| 570300 | SF062 | Electric charging station | 20,000 | | 0 | - | | 15,000 | | |
| 570300 | SF063 | Replace diesel fuel storage and dist. System[3] | | | | - | | | | 275,000 |
| | SF066 | CNG fueling station[1, 3] | | | | | | | | 1,312,500 |
| 570300 | SF064 | Energy storage system | | | | - | | | | |
| 570300 | SF065 | Baler reline | | | | - | | 120,000 | | |
| 570300 | new | Mixed waste processing equipment[3] | | | | - | | 10,984,400 | | |
| | new | Transfer Station building improvements[3] | | | | | 2,532,200 | | | |
| | new | LED Lighting retrofit[3] | | | | 274,000 | | | | |
| | new | MRF equipment replacement[2] | | | | 113,750 | 207,500 | 407,500 | 199,167 | 472,917 |
| 520321 | SF013 | PROGRAM CONTINGENCY | | | | | | | | |
| | | SUBTOTAL CAPITAL PROJECTS: | 925,000 | 265,000 | | 1,317,750 | 3,164,700 | 12,506,900 | 549,167 | 3,810,417 |

[1] $1,240,000 available in Shoreway Remediation fund to help cover capx.
[2] Equipment Replacement cash reserve funds will cover these expenses.
[3] 2015 Long Range Plan recommended projects.

CAPITAL

## FY1516 BUDGET

| | ACTUAL FY1314 | ADOPTED BUDGET FY1415 | MID-YEAR BUDGET FY1415 | PROPOSED BUDGET FY1516 |
|---|---|---|---|---|
| **UNRESTRICTED:** | | | | |
| RATE STABILIZATON (10% of expense) | $ 3,703,283 | $ 3,906,648 | $ 3,845,988 | $ 4,033,671 |
| EMERGENCY RESERVE (10% of total expense) | $ 3,703,283 | $ 3,906,648 | $ 3,845,988 | $ 4,033,671 |
| EQUIPMENT REPLACEMENT (ANNUAL) | $ 1,130,726 | $ 1,542,328 | $ 1,542,328 | $ 1,499,514 |
| UNDESIGNATED | $ 4,589,433 | $ 2,530,236 | $ 4,527,022 | $ 3,175,018 |
| **TOTAL UNRESTRICTED GENERAL RESERVES** | **$ 13,126,724** | **$ 11,885,859** | **$ 13,761,325** | **$ 12,741,874** |
| **COMMITTED:** | | | | |
| BOND PRINCIPAL PAYMENT FUND | $ 1,004,167 | $ 1,058,330 | $ 1,058,330 | $ 1,091,667 |
| **TOTAL GENERAL RESERVES** | **$ 14,130,891** | **$ 12,944,189** | **$ 14,819,655** | **$ 13,833,541** |
| | *$ 14,130,891* | *$ 12,944,189* | *$ 14,819,655* | *$ 13,833,541* |
| **Other LT Projects (Fully Funded)** | | | | |
| **SHOREWAY REMEDIATION PROJECT** | **$ 1,289,283** | **$ 1,209,283** | **$ 1,209,283** | **$ 1,239,800** |

Reserves Cash Flow

**REVENUES BY MAJOR CATEGORY**

| REVENUE SUMMARY | | ACTUAL FY1314 | ADOPTED BUDGET FY1415 | MID-YEAR PROJECTION FY1415 | YTD 4/2/15 | PROPOSED BUDGET FY1516 | Variance to Adopted Budget | Variance to Appvd Bud % | |
|---|---|---|---|---|---|---|---|---|---|
| **ADMINISTRATIVE REVENUES** | | | | | | | | | |
| 409100 | INVESTMENT INCOME | 155,458 | 56,500 | 67,400 | 27,925 | 48,200 | (8,300) | -14.7% | |
| 409101 | INVESTMENT (GASB 31) MARKET VALUE ADJ | | | | | | - | | |
| 409200 | INTEREST INCOME | 8,292 | | | | | - | | |
| **TOTAL ADMINISTRATIVE** | | **163,750** | **56,500** | **67,400** | **27,925** | **48,200** | **(8,300)** | -14.8% | |
| **OPERATIONS** | | | | | | | | | |
| 480026 | TIPPING FEES - Non Franchised | 6,096,285 | 6,229,700 | 5,952,900 | 3,878,714 | 6,982,300 | 752,600 | 12.1% | |
| 480027 | TIPPING FEES - Franchised | 25,605,623 | 25,992,200 | 25,820,200 | 17,599,788 | 26,620,000 | 627,800 | 2.4% | Reflects higher assumed tipping fees effective 1/1/16. |
| 480028 | COMMODITY SALES | 10,739,075 | 10,812,200 | 10,568,100 | 6,769,345 | 9,630,400 | (1,181,800) | -10.9% | Soft commodity markets. |
| 480029 | COMMODITY REVENUE SHARE | (1,235,181) | (1,521,400) | (1,407,600) | 1,564,801 | (1,064,400) | 457,000 | -30.0% | Lower revenue share due to lower commodity revenues. |
| 522717 | BUYBACK PAYMENTS | (762,049) | (616,000) | (888,200) | (606,381) | (897,900) | (281,900) | 45.8% | Higher payments due to greater customer volumes. |
| 480025 | E-SCRAP REVENUE | 70,287 | 66,300 | 94,500 | 7,218 | **50,000** | (16,300) | -24.6% | |
| 480033 | MRF Host Fee - 3RD PARTY TONS | 203,848 | 361,800 | 390,400 | 296,584 | 443,500 | 81,700 | 22.6% | 2nd shift tons and higher host fee. |
| 480031 | HHW DOOR TO DOOR COLLECTION SERVICE | 492,980 | 521,500 | 641,200 | 383,585 | 662,800 | 141,300 | 27.1% | Service added in Atherton and Redwood City eff. 3/1/15. |
| 480032 | PERFORMANCE INCENTIVE / DISINCENTIVE | | - | | | | - | #DIV/0! | |
| | COMMERCIAL RECYCLING REPORTING ORDINANCE | 888 | 25,000 | 25,000 | | 25,000 | - | | Fee revenue from commercial recyclers per Ordinance. |
| 480008 | MISCELLANEOUS REVENUE | | | | - | **24,000** | | 0.0% | CA Paint Care program payments. |
| **TOTAL OPERATIONS** | | **41,211,756** | **41,871,300** | **41,196,500** | **29,893,656** | **42,475,700** | **580,400** | 1.4% | |
| | | | | | | | | | |
| **TOTAL REVENUE** | | **41,375,506** | **41,927,800** | **41,263,900** | **29,921,581** | **42,523,900** | **596,100** | 1.4% | |
| | | | | | | | | | |
| **CONTRIBUTION TO CASH RESERVES** | | **3,851,834** | **2,339,825** | **2,158,764** | | **1,520,886** | **(818,939)** | -35.0% | |
| % OF REVENUE | | | 5.6% | | | | -1.95% | | |

## GENERAL OPERATING EXPENSES BY MAJOR CATEGORY

| EXPENDITURE SUMMARY | | | ACTUAL FY1314 | ADOPTED BUDGET FY1415 | MID-YEAR PROJECTION FY1415 | YTD SPENT 4/2/15 | PROPOSED BUDGET FY1516 | Variance to Adopted Budget | Variance % to Adopted Budget | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **ADMINISTRATIVE EXPENSES** | | | | | | | | | | |
| 520305 | | ADMINISTRATIVE STAFF | 463,454 | 566,900 | 567,500 | 386,662 | 565,798 | (1,102) | -0.2% | Staff wages and benefits for Exec. Dir., Finance Manager & Board Sec. 2.25 month overlap with new Finance Manager (July-early September); estimated cost of $40,370. |
| 520306 | | AB 939 PROGRAM STAFF | 701,035 | 703,000 | 692,300 | 485,688 | 731,661 | 28,661 | 4.1% | Staff wages and benefits for Recycling, Outreach, Compliance and Shoreway. |
| 520328 | | EMPLOYEE RECRUITMENT / HR SUPPORT | | 25,000 | 25,000 | 450 | 5,000 | (20,000) | -80.0% | |
| 520337 | | PEO COST (HR & PR FEES) | 18,408 | 19,000 | 19,400 | 6,000 | 19,900 | 900 | 4.7% | Fees paid to contract HR and payroll service provider. |
| 520312 | | BOARD COUNSEL | 115,565 | 65,000 | 65,000 | 22,169 | 55,000 | (10,000) | -15.4% | Contracted legal counsel services. |
| 520300 | | BOARD MEETINGS | 6,903 | 3,000 | 3,000 | 2,281 | 3,000 | - | 0.0% | |
| 520310 | | ACCOUNTING SERVICES (City of San Carlos) | 128,036 | 131,900 | 131,900 | 65,950 | 136,530 | 4,630 | 3.5% | Estimated fees paid to current vendor pending results of RFP process. |
| 520334 | | INFORMATION TECHNOLOGY | 26,999 | 27,000 | 27,000 | 25,096 | 28,000 | 1,000 | 3.7% | Fees paid to IT service provider. |
| 520338 | | WEBSITE | 12,578 | 15,000 | 15,000 | 12,578 | 11,500 | (3,500) | -23.3% | Fees paid to website management service provider. |
| 520301 | | ANNUAL FINANCIAL AUDIT | 11,730 | 9,700 | 9,700 | 5,500 | 9,300 | (400) | -4.1% | Fees paid to auditors to complete FY & calendar year financial statements. |
| 520701 | | D&O INSURANCE | 43,817 | 32,500 | 34,600 | 34,570 | 39,000 | 6,500 | 20.0% | Annual insurance premium for Director's and Officer's insurance. |
| 520202 | | BANK FEES | 5,364 | 7,900 | 7,900 | 5,581 | 8,000 | 100 | 1.3% | Bank fees inclusive of fees paid to BNY as the Bond Trustee. |
| 520203 | | RENT (office lease) | 46,925 | 53,000 | 52,450 | 39,314 | 54,300 | 1,300 | 2.5% | Assumes one-year extension on lease with one option year at current terms. |
| 520204 | | PRINTING AND POSTAGE | 112 | 150 | 150 | 71 | 150 | - | 0.0% | |
| 520107 | | UTILITIES & PHONE | 15,213 | 17,000 | 17,000 | 10,181 | 17,500 | 500 | 2.9% | City going out to bid for new janitorial services but currently approx. $2,000/qtr. |
| 520905 | | OFFICE/TENANT IMPROVEMENTS | 395 | 1,000 | 1,000 | 654 | 1,000 | - | 0.0% | |
| 520201 | | OFFICE SUPPLIES | 14,594 | 17,000 | 17,000 | 12,446 | 15,500 | (1,500) | -8.8% | |
| 520215 | | OFFICE EQUIPMENT COSTS | 21,365 | 25,500 | 25,500 | 14,407 | 24,300 | (1,200) | -4.7% | This may change if we need to change phones with new service. |
| 520504 | | PUBLICATIONS & PUBLIC NOTICES | 1,440 | 3,000 | 3,000 | - | 3,000 | - | 0.0% | Assumes notice for 2 bids. |
| 520501 | | PROFESSIONAL DUES & MEMBERSHIPS | 2,187 | 2,300 | 2,300 | 1,014 | 2,300 | - | 0.0% | |
| 520801 | | VEHICLE MILEAGE & TOLLS | | 125 | 75 | 39 | 75 | (50) | -40.0% | |
| 520105 | | CELL PHONES | 3,667 | 4,000 | 4,000 | 2,892 | 4,500 | 500 | 12.5% | Reimbursement for employee work related cell phone costs. |
| 520503 | | CONFERENCE & MEETINGS | 7,973 | 10,000 | 10,000 | 5,477 | 10,500 | 500 | 5.0% | Staff attendance at trade conferences and travel related to budgeted projects. |
| 520502 | | TRAINING | 2,387 | 6,500 | 6,500 | 1,250 | 5,500 | (1,000) | -15.4% | Up to $1250/employee per year for qualified educational, job related development activities, and personal development as approved by Executive Director. |
| 520511 | | SPONSORSHIPS & DONATIONS | 9,000 | 9,000 | 9,000 | 6,500 | 9,500 | 500 | 5.6% | Sponsorships for Acterra, SSMC, CAW and CPSC. |
| 522706 | | COMPUTER PURCHASE | 7,902 | 8,000 | 8,000 | 6,555 | 6,000 | (2,000) | -25.0% | Two new laptops. Minor other hardware. |
| **TOTAL ADMINISTRATIVE** | | | **$ 1,667,049** | **$ 1,762,475** | **$ 1,754,275** | **$ 1,153,325** | **$ 1,766,814** | **$ 4,339** | **0.2%** | |
| **CONTRACT COMPLIANCE AND SUPPORT** | | | | | | | | | | |
| 520307 | | RATE REVIEW | 32,179 | 40,000 | 40,000 | 6,377 | 25,000 | (15,000) | -37.5% | 3rd party consulting support if needed. |
| **TOTAL RATE REVIEW** | | | **32,179** | **40,000** | **40,000** | | **25,000** | **(15,000)** | **-37.5%** | |
| **CONSULTANT SUPPORT** | | | | | | | | | | |
| 520308 | | FACILITY IMPROVEMENT OVERSIGHT | | 30,000 | 30,000 | 16,733 | 50,000 | 20,000 | 66.7% | Operations assessment @$20K, disaster mgt. plan, utility analysis for CNG and mixed waste processing. |
| 520309 | HCM01 | CONTRACT MANAGEMENT SUPPORT | 58,914 | 66,400 | 66,400 | 14,496 | 55,000 | (11,400) | -17.2% | Annual financial audit of RSMC and SBR at $40k. $15k for reviewing annual route assessment. |
| 520309 | HCS02 | COLLECTION SERVICES FRANCHISE ADMIN. | 53,353 | 75,000 | 75,000 | 11,844 | 80,000 | 5,000 | 6.7% | $15k call center monitoring. $40k annual reporting system audit. $25k operational assessment. |
| | | FINANCE MANAGER SUPPORT - NEW | | | | | 35,000 | 35,000 | | On-call consultant support as needed. |
| 520336 | | QUARTERLY LOAD CONTAMINATION MONITORING | 41,801 | 46,000 | 46,000 | 43,895 | 46,000 | - | 0.0% | Bi-annual Recology contamination sampling. |
| **TOTAL CONSULTANT** | | | **154,068** | **$ 217,400** | **$ 217,400** | **$ 86,969** | **$ 266,000** | **$ 48,600** | **22.4%** | |
| **TOTAL CONTRACT COMPLIANCE & SUPPORT** | | | **$ 186,247** | **$ 257,400** | **$ 257,400** | **$ 86,969** | **$ 291,000** | **$ 33,600** | **13.1%** | |

**GENERAL OPERATING EXPENSES BY MAJOR CATEGORY**

| EXPENDITURE SUMMARY | | | ACTUAL FY1314 | ADOPTED BUDGET FY1415 | MID-YEAR PROJECTION FY1415 | YTD SPENT 4/2/15 | PROPOSED BUDGET FY1516 | Variance to Adopted Budget | Variance % to Adopted Budget | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **RECYCLING - AB939 AND AB 341 COMPLIANCE** | | | | | | | | | | |
| **RECYCLING ADMINISTRATION** | | | | | | | | | | |
| 520311 | | CIWMB ANNUAL REPORTS | 20,311 | 25,000 | 25,000 | 19,750 | 25,000 | - | 0.0% | CalRecycle Electronic Annual Report for 10 Member Agencies. |
| 520341 | | SBWMA ANNUAL REPORT | 3,000 | 5,000 | 5,000 | - | 5,000 | - | 0.0% | |
| 520309 | HDV01 | DIVERSION PROGRAM SUPPORT | 17,534 | 60,000 | 60,000 | - | 45,000 | (15,000) | -25.0% | Public Spaces pilot and related Member Agency Assistance. |
| 520508 | | RECYCLING REPORTING ORDINANCE EXPENSES | | | | | 15,000 | 15,000 | | |
| 520604 | | EVENT GIVEAWAYS | | 1,500 | 1,500 | | 1,500 | - | 0.0% | |
| **TOTAL RECYCLING ADMINISTRATION** | | | **40,845** | **91,500** | **91,500** | **19,750** | **91,500** | **$ -** | **0.0%** | |
| **LONG RANGE PLAN/DIVERSION PROGRAMS** | | | | | | | | | | |
| 520340 | | LONG RANGE PLAN ALTERNATIVES | 51,358 | 232,500 | 247,500 | 115,119 | 460,000 | 227,500 | 97.8% | EOW Pilot - $120k; Split-Body Pilot Outreach - $17k; Commercial Outreach - $60k; Education stakeholder engagement process - $25k. $183k mixed waste processing system project development to 30% design level and estimate. $25k to further refine admin. building options. Zero landfill analysis/taskforce at $30k. |
| **TOTAL LONG RANGE PLAN/DIVERSION PROGRAMS** | | | **51,358** | **232,500** | **247,500** | **115,119** | **460,000** | **227,500** | **97.8%** | |
| **COMMERCIAL PROGRAMS** | | | | | | | | | | |
| 520331 | | LARGE EVENT/VENUE CONSULTING | | 7,500 | 7,500 | - | 7,500 | - | 0.0% | MD Note - Carry over project from FY1415. If done before end of FY, not needed then. |
| 520608 | | CLIMATE CHANGE REPORTING | 26,909 | 23,000 | 23,000 | 2,924 | 27,000 | 4,000 | 17.4% | Repurpose 2nd trailer as mobile education trailer, will explore grant funding opportunities. Incorporating all of Shoreway requires much more reporting requirements and review by outside auditors. |
| 520604 | COE01 | COMMERCIAL RECYCLING TECHNICAL ASSIST. | 48,766 | 85,000 | 85,000 | 21,504 | 75,000 | (10,000) | -11.8% | $15k-AB1826 and AB341 Compliance Outreach; $20K commercial toolkit; $10k-business awards program; $30k-commercial accounts research. |
| 520604 | COE02 | PURCHASE COMM/MFD CONTAINERS FOR RECOLOGY | 35,894 | 60,000 | 60,000 | 16,666 | 60,000 | - | 0.0% | $20k for buddy bags, $20k for other commercial containers, $20k for municipal bldgs. All purchases for Recology. |
| 520604 | CDRCY | C&D RECYCLING PROGRAM | | - | | - | | - | #DIV/0! | |
| 520604 | MF001 | MULTI-FAMILY OUTREACH | 15,346 | 50,000 | 50,000 | 12,359 | 50,000 | - | 0.0% | Includes $10K AB1826 and AB 341 compliance, $20K MFD toolkit updates/additions; $10K battery/cell outreach; $10K-MFD awards program. |
| **TOTAL COMMERCIAL PROGRAMS** | | | **126,915** | **225,500** | **225,500** | **53,452** | **219,500** | **(6,000)** | **-2.7%** | |
| **RESIDENTIAL PROGRAMS** | | | | | | | | | | |
| 520604 | QNL01 | QUARTERLY NEWLESTTER DESIGN/SETUP | 1,455 | 15,000 | 20,000 | 17,991 | 20,000 | 5,000 | 33.3% | Design/produce 3 newsletters. |
| 520604 | QNLPM | QUARTERLY NEWLETTER PRINTING/MAILING | 82,248 | 95,000 | 90,000 | 27,578 | 90,000 | (5,000) | -5.3% | Assumes 2 direct mail newsletters and one sent via bill insert. |
| 520604 | RES01 | RESIDENTIAL OUTREACH PROGRAMS | 136,895 | 135,000 | 120,000 | 47,868 | 120,000 | (15,000) | -11.1% | Includes $70K on-going outreach/support for existing programs; $12K annual residential service notice development; $15K website/social media maintenance and updates; $23,000 mobile phone app annual fee. |
| 520604 | COMPS | COMMUNITY EVENTS | | 1,000 | 1,000 | 675 | 5,000 | 4,000 | 400.0% | Covers compost giveaway, e-scrap/shred and coats drive promotion. |
| 520604 | HHWUW | HHW DOOR TO DOOR COLLECTION OUTREACH | 69,778 | 80,000 | 80,000 | 61,775 | 80,000 | - | 0.0% | Ongoing promotion for in program, includes direct mail, print and outdoor advertisements. |
| 520335 | | CURBSIDE HOUSEHOLD BATTERY OUTREACH | 2,866 | 5,000 | 5,000 | 3,200 | 5,000 | - | 0.0% | |
| 520604 | ECE01 | ELECTRONIC COLLECTIONS EVENTS | | 1,000 | 1,000 | 945 | - | (1,000) | -100.0% | Included under "Community Events" line item. |
| **TOTAL RESIDENTIAL PROGRAMS** | | | **293,242** | **332,000** | **317,000** | **160,031** | **320,000** | **(12,000)** | **-3.6%** | |
| **TOTAL RECYCLING - AB939 AND AB 341 COMPLIANCE** | | | **$ 512,360** | **$ 881,500** | **$ 881,500** | **$ 348,352** | **$ 1,091,000** | **$ 209,500** | **23.8%** | |
| **SUBTOTAL SBWMA PROGRAM BUDGET** | | | **$ 2,365,656** | **$ 2,901,375** | **$ 2,893,175** | **$ 1,588,646** | **$ 3,148,814** | **$ 247,439** | **8.5%** | |
| **COLLECTION OPERATIONS** | | | | | | | | | | |
| 522710 | | HHW DOOR TO DOOR COLLECTION SERVICES | 490,847 | 521,500 | 641,200 | 331,706 | 662,800 | 141,300 | 27.1% | Added Atherton and Redwood City effective 3/1/15. This is a pass through expense 100% offset by revenue. |
| 522719 | | SHRED EVENT SERVICE | | | 4,061 | 1,692 | 3,500 | 3,500 | #DIV/0! | |
| **TOTAL COLLECTION OPERATIONS** | | | **490,847** | **521,500** | **645,261** | **333,398** | **666,300** | **144,800** | 27.8% | |
| **TOTAL SBWMA PROGRAM BUDGET** | | | **$ 2,856,503** | **$ 3,422,875** | **$ 3,538,436** | **$ 1,922,043** | **$ 3,815,114** | **$ 392,239** | **11.5%** | |

EXPENDITURES

**GENERAL OPERATING EXPENSES BY MAJOR CATEGORY**

| | EXPENDITURE SUMMARY | ACTUAL FY1314 | ADOPTED BUDGET FY1415 | MID-YEAR PROJECTION FY1415 | YTD SPENT 4/2/15 | PROPOSED BUDGET FY1516 | Variance to Adopted Budget | Variance % to Adopted Budget | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **SHOREWAY OPERATIONS** | | | | | | | | | |
| 522712 | OPERATOR COMPENSATION - SBR | 16,359,877 | 17,061,200 | 17,015,900 | 11,438,736 | 17,739,700 | 678,500 | 4.0% | Payments per ton by JPA to SBR for facility operations services per Ops. Agreement. |
| 522713 | DISPOSAL & PROCESSING COSTS | 13,357,426 | 14,121,800 | 13,628,500 | 9,255,474 | 14,472,300 | 350,500 | 2.5% | Payments per ton by JPA to third party disposal and processing vendors such as Ox. Mtn. landfill, organics processors, etc. |
| 520710 | INSURANCE SHOREWAY | 203,081 | 213,400 | 213,000 | 211,439 | 211,400 | (2,000) | -0.9% | Annual insurance premiums paid by SBWMA for Shoreway property and liability insurance. |
| 522714 | SHOREWAY FACILITY COST | 171,369 | 160,000 | 160,000 | 117,594 | 175,000 | 15,000 | 9.4% | Facility repair and maintenance projects not treated as "capital" projects. |
| 570300 | SHOREWAY MAINTENANCE - New | 25,219 | | | | | - | #DIV/0! | |
| 522718 | EDUCATION CENTER OPERATIONS | 38,589 | 75,000 | 60,000 | 21,457 | 60,000 | (15,000) | -20.0% | Budget for three special public events, school busing ($19k), tour supplies, etc. |
| 522716 | MAINTENANCE - OX MTN TIPPER | 28,421 | 36,000 | 36,000 | 21,488 | 36,000 | - | 0.0% | Monthly maintenance charge for truck tipper that JPA owns and Republic operates at Ox. Mtn. |
| 520901 | SHOREWAY MRF EQUIP. MAINTENANCE > $10k | | 30,000 | 20,000 | 18,501 | 30,000 | - | 0.0% | Unplanned MRF equipment repairs greater than $10k are responsibility of JPA. |
| 520324 | TAXES (SEWER) | 32,540 | 35,400 | 34,800 | 33,630 | 35,800 | 400 | 1.1% | |
| **SUBTOTAL SHOREWAY OPERATIONS** | | **$ 30,216,522** | **$ 31,732,800** | **$ 31,168,200** | **$ 21,118,319** | **$ 32,760,200** | **$ 1,027,400** | **3.2%** | |
| **SHOREWAY OTHER** | | | | | | | | | |
| 521104 | DEBT SERVICE BOND INTEREST | 2,943,529 | 2,885,500 | 2,885,500 | 485,935 | 2,833,100 | (52,400) | -1.8% | Solid Waste Enterprise Revenue Bond interest payments. |
| 522702 | FRANCHISE FEE | 1,507,118 | 1,546,800 | 1,513,000 | 1,164,428 | 1,594,600 | 47,800 | 3.1% | 5% franchise fee payments by JPA to City of San Carlos. |
| **SUBTOTAL SHOREWAY OTHER** | | **$ 4,450,647** | **$ 4,432,300** | **$ 4,398,500** | **$ 1,650,363** | **$ 4,427,700** | **$ (4,600)** | **-0.1%** | |
| **TOTAL SHOREWAY OPERATING EXPENSE** | | **$ 34,667,169** | **$ 36,165,100** | **$ 35,566,700** | **$ 22,768,682** | **$ 37,187,900** | **$ 1,022,800** | **2.8%** | |
| **TOTAL OPERATING EXPENSES** (SBWMA Program + Shoreway Operations) | | **$ 37,523,672** | **$ 39,587,975** | **$ 39,105,136** | **$ 24,690,725** | **$ 41,003,014** | **$ 1,415,039** | **3.6%** | |

**RethinkWaste FY1516 Program Budget**

# ADMINISTRATION

**FY1415 Adopted Budget: $1,762,475**

**FY1516 Preliminary Budget: $1,766,814**

**SBWMA Staff Resources:** Kevin McCarthy, Executive Director; Marshall Moran, Finance Manager; and Cyndi Urman, Board Secretary/Office Manager.

**Approximate FTEs (reflects estimated allocation of staff resources to this program area): 1.7 FTEs = 0.90 (Office Manager/Board Secretary), 0.45 (Finance Manager), and 0.35 (Executive Director).**

**Description:** Provides for overall administrative operations of the agency, including: personnel administration, budget development, financial projections, expense payment processing, fiscal management, Board of Directors administration, customer service, risk management, records retention, and information technology. Budget for these functions is captured under "Administrative Expenses."

**FY1516 Key Projects/Activities**

***Budget and Financial Analysis***

- Review the FY1516 budget to identify budget variances and plan for a mid-year adjustment if needed.
- Prepare the FY1617 budget for Board review and approval.
- Prepare two calendar year financial projections to support Shoreway tip fee assumptions and to "test" bond covenant requirements.
- Review existing tipping fees and develop recommended 2016 tipping fee adjustments if needed.

***Accounting and Fiscal Management***

- Complete FY1415 financial audit and 2015 calendar year financial statements for bond reporting.
- If applicable, manage the transition of a new vendor for the Annual Financial and Accounting Services contract. ***NEW PROJECT***
- Complete the transition from the current Finance Manager to a new Finance Manager. ***NEW PROJECT***
- Maximize use of competitive bidding for technical consulting services particularly for scopes of work exceeding $50,000.
- Meet bond covenants and reporting requirements as specified in the Indenture to ensure compliance including the two debt coverage ratios.
- Monitor South Bay Recycling (SBR) monthly reporting (per Operations Agreement) of tonnage and review their monthly invoice for accuracy and tie all payments to source data.
- Manage monthly cash transfers to/from SBR (per Operations Agreement) for commodity revenue, public revenue, and payments for operations. Review and verify SBR's detailed monthly calculation of commodity revenue.
- Manage monthly billing to and payment from Recology for disposal at Shoreway as prescribed in the Member Agency franchise agreements.
- Ensure all procedures are followed and receipts and payments to vendors are supported by proper documentation and made on timely basis such that cash flow is optimized.

## Administration (Continued)

- Review the Quarterly Investment Report to the Board prepared by the City of San Carlos.
- Renew general insurance policies (property, general liability, EIL, D&O, etc.) and ensure proper coverage is maintained.

***Human Resources***

- Manage the payroll and benefits administration, including managing the annual renewal of employee benefit plans to ensure cost effective and competitive plans.
- Make timely payments to vendors for payroll, retirement plan, and HSA plan.
- Monitor payroll process and ensure timely and accurate payment to employees.
- Evaluate the current model used for outsourced HR and payroll administration by a third party and make recommendations for changes if appropriate. ***NEW PROJECT***

***Board of Directors Administration***

- Maintain the Board of Directors webpage to ensure accurate and up to date information is available.
- Update as needed the website's Board Member portal feature to house information of interest.
- Maintain accurate and up-to-date records for the SBWMA, including Board meeting minutes, resolutions, ordinances and contracts.
- Update as necessary the Board of Directors JPA and Contracts Resources Binder.
- Deliver Board Packets to the Board of Directors accurately and on time.
- Manage to compliance with record retention and other Board adopted policies.
- Meet with Board Members, particularly any new Board Members, to address questions and concerns and any unique Member Agency needs.
- Respond to Board Members, and Member Agency staff communications in a timely, professional and accurate manner.

***Customer Service***

- Provide high quality customer service to members of the public that contact the SBWMA, including providing helpful, accurate and timely information.

## RethinkWaste FY1516 Program Budget

## CONTRACT COMPLIANCE AND SUPPORT

**FY1415 Adopted Budget: $257,400**

**FY1516 Preliminary Budget: $291,000**

**SBWMA Staff Resources:** Cliff Feldman, Recycling Programs Manager; Marshall Moran, Finance Manager; Monica Devincenzi, Recycling Outreach and Sustainability Manager; and Hilary Gans, Facility Operations and Contracts Manager.

**Approximate FTEs (reflects estimated allocation of staff resources to this program area): 1.32 FTEs = 0.60 (Recycling Programs Manager), 0.30 (Finance Manager), 0.30 (Executive Director), 0.10 (Recycling Outreach and Sustainability Manager), and .02 (Office Manager/Board Secretary).**

**Description:** Staff services provided in this area includes:

- Continued oversight and contract administration support for the 12 collection services franchise agreements with Recology, including follow-up work on audit findings and financial auditing.
- Continued oversight of SBR's operations per the Shoreway Operations Agreement (**see "Shoreway Operations" budget worksheet**).
- Management of the annual Member Agency rate review process, including review of the 2016 Recology and SBR compensation applications, and completion of the SBWMA final reports reviewing the Recology and SBR compensation applications and consolidated rate report for 2016. Initiate audit work and review of operational data included in the 2016 compensation applications.

**FY1516 Key Projects/Activities**

***Contract Administration***

- Review 2015 Annual Report from Recology required per the Member Agency franchise agreements.
- Hire contractor to conduct 2015 rate (calendar) year audit of collection services and facility operations reports, tonnage data and customer service systems. This project is conducted annually due to the fiscal impact associated with the self-reported information contained in the company's annual reports and compliance with related performance standards. Implement 2014 rate year audit findings as appropriate.
- Hire contractor to conduct 2015 rate year audit of financial systems (includes Recology's revenue reconciliation) of both contractors to verify financial risks to SBWMA and its Member Agencies. This project is conducted annually due to the fiscal impact of data included in reports submitted by the companies and since significant ongoing financial transactions are conducted between the companies.
- Implement 2014 audit findings as appropriate and follow up with Recology to ensure progress on implementing audit recommendations.
- Complete two semi-annual load contamination monitoring events as required in the Member Agency's franchise agreements with Recology. Per Member Agency's franchise agreements and because the SBWMA manages the Shoreway facility, SBWMA is tasked with overseeing various aspects of ensuring that contamination of recycle and compost materials is kept low to maximize commodity revenue.
- Hire a contractor to conduct Recology customer service call center monitoring and evaluation of compliance per the Member Agency's Franchise agreements. This project is conducted annually due to the fiscal impact associated with compliance of performance standards related to the operation of the customer service call center.

## Contract Compliance and Support (Continued)

- Hire a contractor to assist with conducting a review of Recology's collection services operations to identify their actual costs of operations and make recommendations as appropriate for future operational and program improvements. ***NEW PROJECT***
- Hire a contractor to assist with conducting a review of SBR's operations and management of Shoreway to identify their actual costs of operations and make recommendations as appropriate for future operational improvements. ***NEW PROJECT***
- Provide prompt responses to questions/issues/complaints that are raised by the public and Member Agencies regarding their franchise agreements and the services provided by Recology. The RethinkWaste phone number is publicized and staff frequently responds to requests from the public.
- Provide prompt responses to questions/issues/complaints that are raised by the public and Member Agencies regarding their experiences using the Shoreway facility and the services provided by SBR.
- Develop a Member Agency snapshot report for 2015 and make presentations to Member Agency governing bodies upon request. This snapshot report has been well received by the Member Agencies in prior years and staff shall continue to consolidate the key operational and programmatic metrics of the services provided and be available to present this information in public meetings upon request.

***Rate Review, Analysis and Projections***

- Complete SBWMA final rate reports providing a review of the Recology and SBR compensation applications for the 2016 rate year per the Member Agency's franchise agreements and Operations Agreement, respectively. Per the franchise agreements with Recology and the Operations Agreement with SBR, the SBWMA is tasked with consolidating the pertinent data required to project the revenue requirement needed for the subsequent rate year which directly results in determining the rates that need to be charged by each Member Agency.
- Continue to provide direction and support to Recology with making changes or improvements to their Annual Compensation Application. Staff will make efforts to continuously improve this key Application submitted by Recology each year.
- Analyze the very detailed cost adjustments in the Compensation Applications from Recology and SBR. Verify the companies follow the prescribed contractual requirements and approved compensation methodology per the franchise agreements and Operations Agreement, respectively. Conduct a detailed review of any Recology special issues if needed.
- Prepare financial analysis for projected revenue and total collection costs, residual cost impact from prior year, and include pass-through costs (disposal and agency fees) to determine total rate adjustment for each Member Agency per the franchise agreement(s).
- Prepare a variance analysis of 2016 total collection cost vs. 2015 cost by detailed cost categories by Member Agency to aid in understanding collection cost changes. Per feedback from our Member Agencies, this useful variance analysis is prepared annually to assist decision makers with analyzing and recommending rate increases.
- Provide ongoing rate analysis support and projections of 2016 rate impacts associated with changes to any assumptions.
- Update 5-year collection cost projection by Member Agency for collection cost components: Recology cost, disposal expense and Member Agency fees.
- Support Member Agencies with analysis of rate issues and attend rate hearings or rate related meetings as requested.

## Contract Compliance and Support (Continued)

- Review Recology's Revenue Reconciliation Report; develop outside audit of financial risks including SBR's payments to SBWMA. The financial information provided in the Recology Revenue Reconciliation Report is self-reported and is a key component in determining the subsequent revenue requirement needed to establish rates for Recology's annual compensation increase.

*NOTE: KEY PROJECT AND ACTIVITY DETAILS ARE LISTED IN ORDER BELOW BY BUDGET LINE ITEM; THEY ARE NOT LISTED IN THE ORDER SHOWN IN THE TEXT.*

| Budget Expense Category | Description of Program for FY1516 | FY1415 Adopted | FY1415 Mid-Year | FY1516 Proposed |
|---|---|---|---|---|
| **Contract Compliance and Support – Consultant Support** | | **$257,400** | **$257,400** | **$291,000** |
| Rate Review and Support | • Rate analysis and support for Member Agencies, including outside support for accounting temporary worker. | $40,000 | $40,000 | $25,000 |
| Facility Improvement Oversight | • Preparation of a preliminary Disaster Management Plan related to the Shoreway facility operations **($30k)**. The SBWMA does not currently have a Disaster Management Plan.<br>• Hire contractor to assist with conducting review of SBR's operations and management of Shoreway to identify actual costs of operations and make recommendations as appropriate for future operational improvements **($20k).** | $30,000 | $30,000 | $50,000 |
| Contract Management Support | • Conduct annual financial audit of Recology. This audit reviews distribution of franchise and other fees to Member Agencies, annual revenue reconciliation and other aspects of financial related reporting and franchise agreement compliance **($40k).** Limited route auditing related to Annual Route Assessments **($15k).** | $66,400 | $66,400 | $55,000 |

| | | | | |
|---|---|---|---|---|
| Collection Services Franchise Administration | • SBWMA is required per franchise agreements to support Member Agencies with contract compliance issues, including monitoring and auditing the companies reporting, systems and customer service functions and ensuring compliance with any previous audit findings and recommendations **($40,000)**; conducting customer service call center monitoring to test customer service data self-reported by company which pertains to calculation of performance incentives/disincentives and liquidated damages **($15,000)**; and, conducting an operational and cost assessment of Recology's collection services operations **($25,000)**. | $75,000 | $75,000 | $80,000 |
| Finance Manager Support (NEW) | • On-call consultant support by retired Finance Manager to new Finance Manager for major tasks completed for the first time like rate forecasting, tipping fee analysis, mid-year budget review and new budget preparation. | N/A | N/A | $35,000 |
| Bi-Annual Contamination Monitoring | • Twice per year contamination monitoring per Article 6.02 of the franchise agreements to determine the contamination level of various material categories (e.g., single family targeted recyclable materials, etc.) **($46,000)**. | $46,000 | $46,000 | $46,000 |

## RECYCLING OUTREACH AND PROGRAMS – AB 939, AB 341 AND AB 1826 COMPLIANCE

**FY1415 Adopted Budget: $881,500**

**FY1516 Preliminary Budget: $1,091,000**

**SBWMA Staff Resources:** Cliff Feldman, Recycling Programs Manager; and Monica Devincenzi, Recycling Outreach and Sustainability Manager.
**Approximate FTEs (reflects estimated allocation of staff resources to this program area): 1.22 FTEs = 0.8 (Recycling Outreach and Sustainability Manager), 0.25 (Recycling Program Manager), 0.15 (Executive Director), and 0.02 (Office Manager/Board Secretary).**

**Description:** Staff services provided in this area to ensure compliance with state-mandated waste reduction, recycling and reporting requirements per the California Integrated Waste Management Act of 1989 (Assembly Bill (AB) 939), mandatory commercial recycling (AB 341), and the more recent legislation pertaining to mandatory organics recycling by the commercial sector (AB 1826) include:

- Development and implementation of public education and outreach strategies to promote residential and commercial waste reduction and recycling collection programs and services.
- Oversight of any Recology San Mateo County (Recology) services under the 12 collection services franchise agreements with the Member Agencies.
- Prepare and submit State mandated CalRecycle Annual Reports required per AB 939 on behalf of 10 participating Member Agencies.
- Implement recommended 2015 Long Range Plan projects.

**FY1516 Key Projects/Activities**

***Public Education and Outreach***

- Develop, implement and manage new AB 1826 and ongoing AB 341 outreach activities, including producing and disseminating brochures, inserts and letters of non-compliance for Member Agency and Recology use. The State's AB 341 and AB 1826 require all public agencies to implement public education efforts to encourage businesses to comply with this mandatory commercial recycling law (AB 341) and commercial organics collection (AB 1826) and the SBWMA can most effectively manage this effort on behalf of all Member Agencies.
- Develop, submit and manage the 2016 Recology Annual Public Education Plan (per the Member Agency's franchise agreements) in coordination with Recology and the Adhoc Public Education Subcommittee, including an evaluation of most cost-effective ongoing outreach activities and tools.
- Investigate public funding (e.g., grants, and public-private or public-public partnerships, as applicable) opportunities for outreach programs and activities.
- Promote residential collection services (per the franchise agreements) through three *rethinker* newsletters, five bill inserts and presentations at community groups, organizations and events in collaboration with Recology.
- Continue to develop and implement outreach strategies to increase participation and customer knowledge of CartSMART and BizSMART franchised collection services, including tailoring programs to meet specific community needs.
- Continue to develop and implement outreach strategies to increase participation and customer knowledge of the Door-to-Door HHW Collection program which is now provided to all twelve SBWMA Member Agencies. This very popular program provides an easy and convenient means for residents to have HHW and Universal Waste collected directly from their homes without the need to transport it themselves.

## Recycling Outreach and Programs – AB 939, AB 341 and AB 1826 Compliance (Continued)

- Measure the effectiveness of ongoing outreach tools and determine if modifications or improvements are needed or if different tools are required.
- Conduct the annual BizSMART@Work Awards program to recognize businesses and multi-family complexes for their 2014 diversion efforts.
- Provide outreach and other support to Member Agencies for compost giveaways and shred/e-scrap recycling events per the franchise agreements with Recology.
- Provide outreach materials for three seasonal compost and mulch giveaway events to be held at Shoreway. ***NEW PROJECT***

***Recycling (Diversion Programs)***

- Continue implementation of the SBWMA-wide Commercial Recycling Reporting Ordinance to collect diversion data that is currently unavailable. Significant commercial recycling activity is carried out by the private sector; however, the SBWMA does not have data on these activities. The only commercial recycling data available is provided by Recology per the franchise agreements. This data is needed to continue updating the diversion figures used in the Long Range Plan and to assist with planning future potential expanded diversion efforts as required by State mandate.
- Continue implementation of the pilot Public Space Recycling project. This project is focused on increasing the opportunity for the public to conveniently and cost-effectively recycle in public spaces (e.g., parks). ***NEW PROJECT***
- Continue to develop and implement cost-effective, ongoing outreach strategies and additional multi-family outreach materials in coordination with Recology and the Adhoc Public Education Subcommittee.
- Manage the Audit of Recology's 2015 Annual Report regarding the company's performance and compliance. The data in this report is self-reported by Recology and it impacts various fiscal implications and the measurement of performance standards associated with fiscal impacts, thus annually auditing this report is part of the due diligence of effective contract administration.

***Long Range Plan***

- Implement an Every Other Week residential garbage collection pilot **($120,000)**. ***NEW PROJECT***
- Develop and implement public education and notification to residents participating in the Recology Residential Split-Body Collection Vehicle pilot project **($17,000)**. ***NEW PROJECT***
- Develop and implement enhanced Commercial Recycling Outreach targeting businesses and multi-family **($60,000).** ***NEW PROJECT***
- Implement a stakeholder engagement process for the Environmental Education Center and Tour Program. **($25,000)**. ***NEW PROJECT***
- Completion of conceptual designs for a Shoreway Transfer Station Mixed Waste processing system to recover organics materials and other recyclables from residential and commercial solid waste **($183,000).** ***NEW PROJECT***
- Complete Recology administration building remodel design assessment to accommodate SBWMA offices **($25,000)**. ***NEW PROJECT***
- Complete research on zero waste related policy options and an assessment of processing and treatment technologies for identified waste streams **($30,000).** ***NEW PROJECT***

## Recycling Outreach and Programs – AB 939, AB 341 and AB 1826 Compliance (Continued)

*NOTE: KEY PROJECT AND ACTIVITY DETAILS ARE LISTED IN ORDER BELOW BY BUDGET LINE ITEM; THEY ARE NOT LISTED IN THE ORDER SHOWN IN THE TEXT.*

| Budget Expense Category | Description of Program for FY1516 | FY1415 Adopted | FY1415 Mid-Year | FY1516 Proposed |
|---|---|---|---|---|
| **Recycling Outreach and Programs – AB 939 and AB 341 Compliance** | | **$881,500** | **$881,500** | **$1,091,000** |
| CIWMB (CalRecycle) Annual Report | • SBWMA annually provides the necessary research and data compilation to draft and submit State mandated Electronic Annual Reports for ten Member Agencies to comply with requirements of AB 939 **($25,000)**. | $25,000 | $25,000 | $25,000 |
| SBWMA Annual Report | • This annual report provides a snapshot of key metrics and milestones for the prior year. This budget expense covers design and production costs of this report **($5,000)**. | $5,000 | $5,000 | $5,000 |
| Diversion Program Support | • Continue implementation of pilot Public Spaces Recycling project to ensure the public is provided an opportunity to recycle at parks and other public spaces and provide Member Agency assistance with as needed. **($45,000).** | $60,000 | $60,000 | $45,000 |
| Recycling Reporting Ordinance Expenses | • Continue implementation and notification of the SBWMA-wide Commercial Recycling Reporting Ordinance to collect diversion data that is currently unavailable. | N/A | N/A | $15,000 |
| Event Giveaways | • Promote the various programs and services at Member Agency community events, primarily held in the spring and summer and include educational and promotional items as giveaways. **($1,500).** | $1,500 | $1,500 | $1,500 |

| | | | | |
|---|---|---|---|---|
| Long Range Plan Alternatives | • Implement project includes in the draft Long Range Plan provided to the Board in March 2015. Projects include:<br>- Every Other Week residential garbage collection pilot **($120,000)**;<br>- Recology Residential Split-Body Collection Vehicle pilot project **($17,000)**;<br>- Enhanced Commercial Recycling Outreach **($60,000)**;<br>- Stakeholder engagement process on education and outreach project **($25,000)**;<br>- Residential and Commercial Mixed Waste Processing system project development **($183,000)**; and,<br>- Recology administration building design assessment **($25,000)**.<br>- Zero Landfill Working Group research on policy and technology options **($30,000).** | $232,500 | $247,500 | $460,000 |
| Large Event/Venue Consulting | • Staff is in the process of repurposing one trailer for collection of niche/reusable items at events. Staff is also considering repurposing the second trailer as a mobile education trailer to be used at community events. Will be exploring grant funding opportunities. **($7,500)**. | $7,500 | $7,500 | $7,500 |
| Large Event/Venue Recycling Services | • Use of trailers limited compared to prior years – expense not anticipated **($0)**. | $0 | $0 | $0 |
| Climate Change Reporting and Policy Options | • Staff reports GHG emissions for the SBWMA office and Shoreway Environmental Center, and is assisting with SBR's annual reporting framework, both through The Climate Registry **($27,000)**. | $23,000 | $23,000 | $27,000 |

| | | | | |
|---|---|---|---|---|
| Commercial Recycling Technical Assistance | • Commercial accounts collection services assessment and research to understand utilization of services and commercial recycling outreach effectiveness **($30,000);**<br>• To comply with the AB 341 (mandatory commercial recycling mandate) and AB 1826 (mandatory commercial organics recycling) , staff is charged with outreach and education to commercial/MFD sector and directly making presentations and hosting workshops at Multi-Family Dwelling HOA's and Chambers of Commerce **($15,000).**<br>• Conduct annual Business Awards Program recognizing businesses for their 2014 diversion efforts **($10,000).**<br>• Maintain and update commercial Toolkit in collaboration with Recology that includes sector specific outreach materials (e.g., messaging specific for restaurants, offices, etc.) **($20,000).** Staff to continue to collaborate with Recology on assessing the effectiveness of outreach efforts. | $85,000 | $85,000 | $75,000 |
| Purchase Commercial/MFD Containers for Recology | • SBWMA is required per Franchise Agreements with Recology to purchase various types of internal containers to facilitate diversion at commercial and multi-family dwelling customers. Specifically, this expense will cover annual purchase of Slim Jims, desk-side recycling containers and Buddy Bags that the company will distribute to businesses and multi- family customers throughout the SBWMA service area **($40,000).** Another **$20,000** is assumed for purchase of containers for municipal buildings such as city hall complexes. | $60,000 | $60,000 | $60,000 |
| C&D Recycling Program | • Develop an SBWMA list of certified C&D processors based on physical audits conducted by other jurisdictions and provide permit counter and related assistance to increase C&D recycling to Member Agencies upon request. | $0 | $0 | $0 |

| | | | | |
|---|---|---|---|---|
| Multi-Family Outreach | • To comply with the AB 341 (mandatory commercial recycling mandate) and AB 1826 (mandatory commercial organics recycling) , staff is charged with outreach and education to the commercial/MFD sector and directly making presentations and hosting workshops at Multi-Family Dwelling HOA's and Chambers of Commerce **($10,000).**<br>• SBWMA is required per Franchise Agreements with Recology to provide outreach materials in the form of the toolkit. The toolkit includes posters, brochures and flyers on programs and service, move-in/move-out guides and a property manager guide. Staff will continue to update existing toolkit materials and develop cost-effective strategies and additional materials as needed in collaboration with Recology **($20,000).** Staff to collaborate with Recology on developing plan to assess the toolkit's effectiveness.<br>• Promote subscriptions to Recology MFD batteries/cell phones collection service through targeted outreach pieces and strategies **($10,000).**<br>• Conduct the annual Multi-Family Awards Program recognizing multi-family complexes for their 2014 diversion efforts **($10,000).** | $50,000 | $50,000 | $50,000 |
| Rethinker Newsletter Design/ Set-up | • SBWMA is required per Franchise Agreements with Recology to develop the *rethinker* newsletter for SFD and MFD residents. Previously this was a quarterly newsletter, however, per Board approved FY1415 budget, it is now published 3 times per year. Development of the newsletter content and layout **($20,000).** | $15,000 | $20,000 | $20,000 |
| Rethinker Newsletter Printing/Mailing | • SBWMA is required per Franchise Agreements with Recology to develop and issue the *rethinker* newsletter to single family and multi-family residents. Previously this was a quarterly newsletter, however, per the Board approved FY1415 budget, it is now published 3 times per year. This is for printing and mailing/insertion of 3 issues **($90,000).** Staff has assumed two are direct mailed and one is inserted into the garbage bill.<br><br>Staff will continue to promote sign-ups for the electronic version to reduce costs. | $95,000 | $90,000 | $90,000 |

| | | | | |
|---|---|---|---|---|
| Residential Outreach Programs | • SBWMA is responsible for all outreach and education efforts, including ongoing outreach support/maintenance for existing collection programs through brochures, posters, flyers and new opportunities such as signs on Recology collection vehicles, and addressing niche issues including illegal dumping, storm water trash, anti-scavenging **($70,000).**<br>• Update annual residential Service Notice per Franchise Agreements with Recology that will provide key program and services related information **($12,000).**<br>• RethinkWaste website and social media (FB, Twitter, You Tube) outreach, includes maintenance and updates to keep current and relevant **($15,000).**<br>• Mobile Phone App annual fee for RethinkWaste and all Member Agencies, to continue making it more convenient for tech-savvy customers to have access to program information and make service requests/report issues **($23,000).** | $135,000 | $120,000 | $120,000 |
| Community Events | • SBWMA is responsible for assisting Member Agencies with promotion of Community Events, including compost giveaway and shred/e-scrap events, and coats for kids **($2,000).**<br>• Provide outreach materials for three seasonal compost and mulch giveaway events to be held at Shoreway **($3,000).** | $1,000 | $1,000 | $5,000 |
| HHW Door-to-Door Collection Outreach | • Continue ongoing "rolling" public education/marketing campaign to further promote these services to participating Member Agencies. Promotional activities will include direct mail, outdoor and print advertising, social media, etc. **($80,000)**.<br>• Continue discussion with WM Curbside, LLC for the company to provide the service to Member Agency facilities if the program can be negotiated in a cost effective manner staff will promote and manage this enhanced service (included above). | $80,000 | $80,000 | $80,000 |
| Curbside Household Battery Outreach | • Continue to promote curbside recycling of household batteries and cell phones collection service provided by Recology as this is one of the programs requiring additional awareness per the results of 2012 Customer Satisfaction Survey **($5,000).** | $5,000 | $5,000 | $5,000 |
| Electronics Collection Events | • SBWMA is responsible for assisting Member Agencies with promotion of the E-scrap and shred events **($0).** Now included in Community Events. | $1,000 | $1,000 | $0 |

**RethinkWaste FY1516 Program Budget**

## COLLECTION OPERATIONS (curbside cell phone/battery collection and Door-to-Door HHW program only)

**FY1415 Budget: $521,500**

**FY1516 Budget: $666,300**

**SBWMA Staff Resources:** Cliff Feldman, Recycling Programs Manager; and Monica Devincenzi, Recycling Outreach Manager

**Approximate FTEs (reflects estimated allocation of staff resources to this program area): 0.29 FTEs = 0.15 (Recycling Program Manager), 0.10 (Recycling Outreach and Sustainability Manager), and 0.04 (Office Manager/Board Secretary).**

**Description:** Staff services provided in this area is to ensure compliance with state-mandated Universal Waste recycling and disposal regulations through administration of the Door-to-Door Household Hazardous Waste (HHW) collection services with WM Curbside LLC and oversight of the household batteries and cell phone collection services provided by Recology.

**FY1516 Key Projects/Activities (*outreach projects listed below are included in the Recycling – AB 939, AB 341 and AB 1826 Compliance category of our SBWMA program budget*)**

- Implement additional public education and outreach to increase collection of HHW through the Door-to-Door HHW collection program.
- Continue discussions for a potential contract extension with WM Curbside LLC as the current contract expires on December 31, 2015; however, the SBWMA has the option to extend this contract for one more year through the end of 2016.
- Identify alternatives to the contract with WM Curbside, LLC. ***NEW PROJECT***
- Continue discussions with management at WM Curbside LLC to expand the HHW collection services to Member Agency facilities such as corporation yards and begin managing this new service.
- Continue and expand public education and outreach to increase participation in Recology's franchised recycling collection services with specific emphasis on increasing the collection of cell phones and batteries from the Multi-Family Dwelling sector which includes approximately 3,800 customers and 41,000 residential living units.

*NOTE: KEY PROJECT AND ACTIVITY DETAILS ARE LISTED IN ORDER BELOW BY BUDGET LINE ITEM; THEY ARE NOT LISTED IN THE ORDER SHOWN IN THE TEXT.*

| Budget Expense Category | Description of Program for FY1516 | FY1415 Adopted | FY1415 Mid-Year | FY1516 Proposed |
|---|---|---|---|---|
| | **Collection Operations** | **$521,500** | **$641,200** | **$666,300** |
| HHW Door To Door Collection Services | • Disposal and processing expenses paid by RethinkWaste to WM Curbside LLC for operating the Door-to-Door Household Hazardous Waste Collection Services for all 12 Member Agencies. | $521,500 | $641,200 | $662,800 |
| Shred Event Services | • Expenses to pay vendor for shred services at events. | $0 | $0 | $3,500 |

## SHOREWAY OPERATIONS

**FY1415 Budget: $36,165,100**

**FY1516 Budget: $37,187,900**

**SBWMA Staff Resources:** Hilary Gans, Facility Operations and Contracts Manager; Marshall Moran, Finance Manager; Faustina Mututa, Environmental Education Coordinator; and Heather Co, Environmental Education Associate.

**Approximate FTEs (reflects estimated allocation of staff resources to this program area): 3.47 FTEs = 1.0 (Facility Manager), 2.0 (Environmental Education staff), 0.25 (Finance Manager), 0.20 (Executive Director) and 0.02 (Office Manager/Board Secretary).**

**Description:** This includes SBWMA staff directed activities regarding Shoreway operations including: oversight of SBR operations per the Operations Agreement, including contract compliance and review and payment of SBR invoices; Shoreway facility capital repairs and maintenance; education center operations, exclusive of staff wages and benefits which are included in the Administration portion of the SBWMA program budget; management of disposal and processing contracts, including review and payment of invoices; facility insurance; and billing Recology for tons delivered to Shoreway.

**FY1516 Key Projects/Activities**

***Contract Administration***

- Continued operational oversight and contract compliance of Materials Recovery Facility (MRF), transfer station, and transportation operations performed by SBR to meet or exceed contractual standards and financial and environmental goals.
- Ongoing management of third party recycling and disposal contracts for solid waste, organics, and construction and demolition (C&D) debris.
- Manage organics processing contracts for residential and commercial organics to meet operational, financial and environmental requirements.
- Continue to identify and pursue new third party tonnage opportunities to generate net income to help lower our Shoreway operating costs.
- Hire a contractor to assist with conducting a review of SBR's operations and management of Shoreway to identify their actual costs of operations and make recommendations as appropriate for future operational improvements. ***NEW PROJECT***

***Management of Facility Infrastructure and Improvements***

- Ongoing management of Shoreway Facility capital and maintenance projects at or below budget.
- Completion of conceptual designs for a Shoreway transfer station processing system to recover organics materials and other recyclables. ***NEW PROJECT***
- Complete a sign plan identifying recommended improvements onsite to enhance customer service, safety and operational results. ***NEW PROJECT***
- Complete a Disaster and Emergency Management Plan for the Shoreway operations. ***NEW PROJECT***
- Develop and implement a dust mitigation plan for the Shoreway MRF. ***NEW PROJECT***

## Shoreway Operations Continued

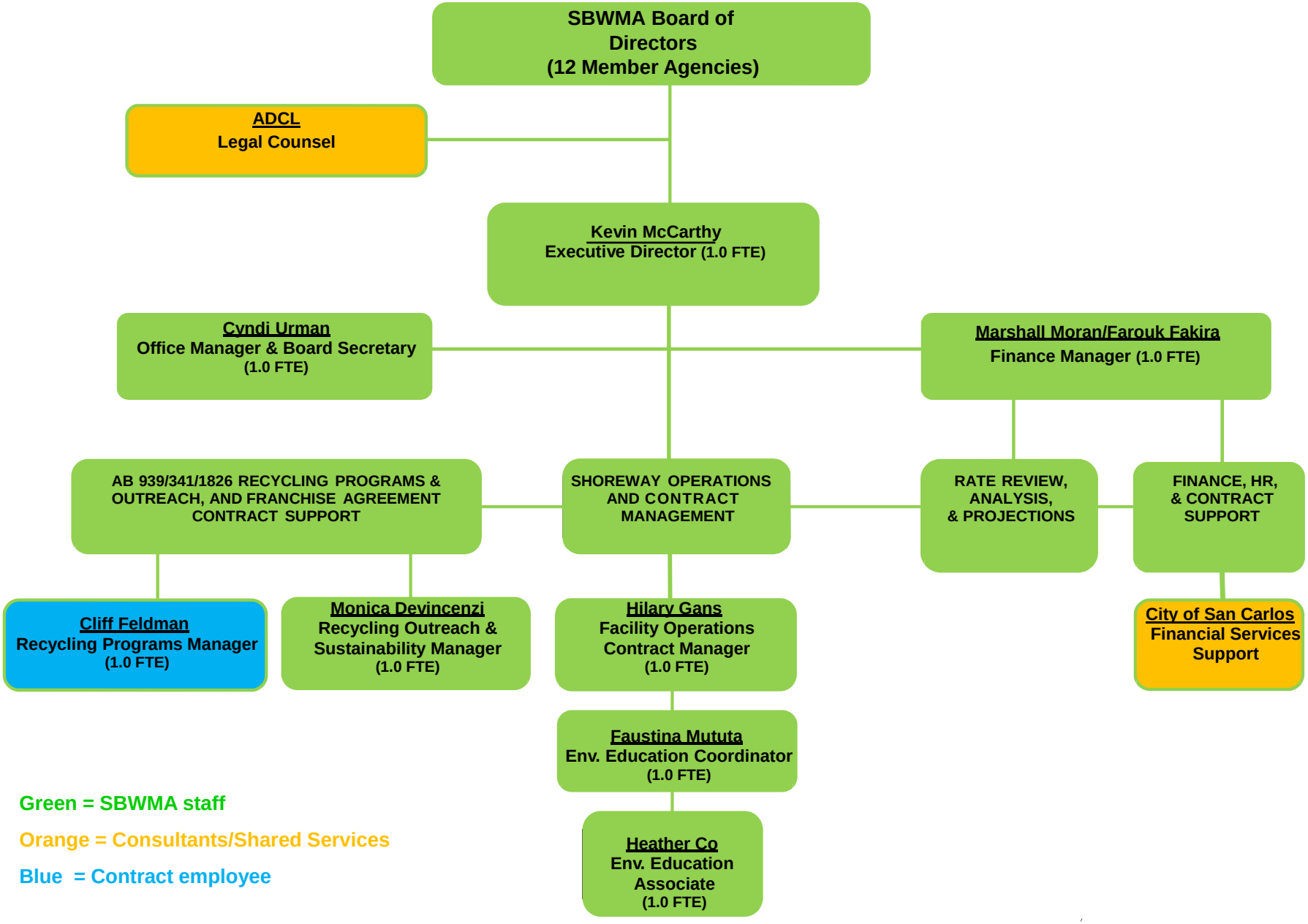
***Tour Program***

- Conduct the Shoreway school and public tours program, including developing new partnership opportunities to support the program, and to meet goals for increased number of visitors. The goal is to increase total tour visitors by 5% over prior year totals.
- Conduct onsite events and activities that increase community awareness of the waste reduction, recycling and composting programs in the service area and also further the resource conservation message of our Environmental Education program. Events and activities include the following: "Earth Day" community event at Shoreway, "America Recycles Day" event at Shoreway ***(NEW)***, and "Fix-it Clinic" or similar event at Shoreway; "Recycled Art" Contest, Tile-art project and installation of tiles at MRF, and Poster contest; School compost donation program; and "Night at Shoreway" two time per year. Investigate public funding (e.g., grants, and public-private or public-public partnerships, as applicable) opportunities as applicable for the tour program.

| Budget Expense Category | Description of Program for FY1516 | FY1415 Adopted | FY1415 Mid-Year | FY1516 Proposed |
|---|---|---|---|---|
| | **Shoreway Operations** | **$31,732,800** | **$31,168,200** | **$32,760,200** |
| Operator Compensation | • Contractually required payments (per ton and/or per ton mile rates) by SBWMA to SBR to operate the MRF and Public Recycling Center, scale house and Transfer Station, and transport materials for disposal and processing. Includes reimbursement of contractor pass through costs (i.e., interest payments, supplemental processing fees, buyback payments, universal waste disposal and processing expenses, backhaul charges for compost and mulch, etc.). | $17,061,200 | $17,015,900 | $17,739,700 |
| Disposal and Processing Costs | • Tipping fees paid by SBWMA to third party vendors (under contract w/ RethinkWaste) for disposal (Republic Services Ox Mountain landfill), and processing (Zanker Road for C&D, Recology Grover for composting, and Republic Services Newby Island for composting). All such contracts include per ton rates subject to annual CPI adjustments. | $14,121,800 | $13,628,500 | $14,472,300 |
| Insurance Shoreway | • Annual insurance premiums paid by SBWMA for Shoreway property and liability insurance, excluding Director's and Officer's insurance which is shown in a line item under Administrative expense. | $213,400 | $213,000 | $211,400 |
| Shoreway Facility Cost | • Non capital related expenses to maintain the 16-acre Shoreway Environmental Center, including nearly 300,000 square feet of building space and $20 million in equipment owned by SBWMA. | $160,000 | $160,000 | $175,000 |

| | | | | |
|---|---|---|---|---|
| Education Center Operations | • Non labor related expenses to manage Shoreway facility school and public visitor tour program. Includes $19K for busing assistance within our service area, funds for Trash to Art Contest, annual Earth Day event and America Recycles Day events, compost donations to schools, safety equipment and supplies, and outreach materials. | $75,000 | $60,000 | $60,000 |
| Maintenance – Ox Mountain Tipper | • Non capital related expenses associated with maintaining a hydraulic tipper (used to unload transfer trailers at the landfill). The tipper is owned by SBWMA, but operated by Republic at their Ox Mtn. landfill. | $36,000 | $36,000 | $36,000 |
| Shoreway MRF Equipment Maintenance >10k | • Unplanned MRF equipment repairs greater than $10k are the responsibility of JPA per the Operations Agreement with SBR. | $30,000 | $20,000 | $30,000 |
| Taxes (sewer) | • Sewer fees paid to the City of San Carlos. | $35,400 | $34,800 | $35,800 |
| **Shoreway Other** | | **$4,432,300** | **$4,398,500** | **$4,427,700** |
| Debt Service Bond Interest | • Annual interest payments on the 2009A Solid Waste Enterprise Revenue Bonds of $53.5 million. | $2,885,500 | $2,885,500 | $2,833,100 |
| Franchise Fee | • 5% franchise fee paid by SBWMA to City of San Carlos for the Shoreway facility. The fee is collected on gate (tipping) fees, but not on commodity revenues. There is no floor or cap on the fees paid to City of San Carlos. | $1,546,800 | $1,513,000 | $1,594,600 |
| **TOTAL SHOREWAY OPERATIONS EXPENSE** | | **$36,165,100** | **$35,566,700** | **$37,187,900** |

# SBWMA Organization Chart (June 2015)



# PERSONNEL AND BENEFIT ASSUMPTIONS FOR FY1516

| Staff: | FY1415 | Proposed FY1516 |
|---|---|---|
| Executive Director | 1.0 | 1.0 |
| Facility Operations Contract Manager | 1.0 | 1.0 |
| Finance Manager | 1.0 | 1.0 |
| Recycling Outreach & Sustainability Manager | 1.0 | 1.0 |
| Recycling Programs Manager* | 1.0 | 1.0 |
| Board Secretary/Office Manager | 1.0 | 1.0 |
| Environmental Education Coordinator | 1.0 | 1.0 |
| Environmental Education Associate | 1.0 | 1.0 |
| Total Staff | 8.0 | 8.0 |

* Contract employee employed by Local Government Services, a public joint powers agency, with PERs benefits.

## FY1516 Proposed Position Changes

No recommended changes to headcount.

The budget reflects up to 10-weeks of overlap (July – early September 2015) between the current Finance Manager and a newly hired Finance Manager; this is to ensure a successful transition given the critical nature of this position. The estimated cost for this overlap period in wages and benefits is $40,370.

## Budget Assumptions for Merit Increases

A merit increase pool of 3.0% of wages is assumed for all positions, except for the Executive Director, within the current salary ranges. Actual merit increases are awarded by the Executive Director on a calendar year basis per the Board adopted Compensation Policy. The Board will separately consider and approve or not the actual merit increase pool for calendar year 2016.

## Salary Ranges

The salary ranges were last modified in June 2013 per Board approval. No changes to the salary ranges are currently proposed for FY1516.

| Position | Current Salary | % of Top of Salary Range | Current Salary Range/Year |
|---|---|---|---|
| Executive Director | $191,931 | N/A | N/A |
| Finance Manager (new hire eff. 6/1/15) | $124,000 | 88.4% | $112,196 - $140,245 |
| Facility Operations Contract Manager | $136,233 | 97.1% | $112,196 - $140,245 |
| Recycling Program Manager[1] | $137,583 | 98.1% | $112,196 - $140,245 |
| Recycling Outreach & Sustainability Manager | $116,992 | 92.7% | $100,976 - $126,220 |
| Office Manager/Board Secretary | $65,983 | 88.5% | $59,659 - $74,573 |
| Environmental Education Coordinator | $69,676 | 85.4% | $65,267 - $81,580 |
| Environmental Education Associate | $56,419 | 86.5% | $52,208 - $65,250 |
| [1] Contract employee through Local Government Services | | | |

## Employee Benefits

No proposed changes in the employee benefit plans. Total benefit expense as percent of base compensation is estimated at 35.7% for FY1516. A summary of the current benefits is as follows:

*Deferred Compensation (Retirement):* SBWMA has adopted a self-directed retirement plan under Section 401(a) of the Internal Revenue Service Code to which the Employer contributes an amount equal to 10 percent of the employee's base

salary. The plan is with John Hancock which holds all of the employee accounts. The employee vests in the 401(a) retirement plan immediately. SBWMA also has a 457b plan into which employees can voluntarily contribute. SBWMA matches the first 2% of employee contributions.

Employees may join both plans on the first of the month following the date of hire. The contribution amounts are subject to IRS limitations.

SBWMA does not participate in the federal Social Security system which would cost 6.2% of salary up to the statutory limit of $117,000.

*Group Health Insurance – General:*
SBWMA strives to offer group insured plans for medical, dental, vision, life insurance, and long term disability insurance for the benefit of the employee and his/her family that are competitive with similar industry benefits. The health insurance is brokered through Arrow Benefits Group.

*Medical insurance:*
The SBWMA currently offers a high deductible HSA medical plan with UnitedHealthCare for employees and their families. There is a 20% copay after the deductible has been met for most services. Currently, four employees participate in the plan and three employees have opted out. The premium is age based – the average premium is $1,078 per month plus the HSA average contribution of $417 per month per employee.

*Dental insurance:*
Dental insurance is provided by Guardian Insurance for employees and their families. Basic care is covered 100% and major care (crowns, dentures) is covered at 60% up to the maximum annual benefit of $1,500. The average monthly premium per employee is $200.

*Vision Plan:*
Vision insurance is provided by Guardian Insurance for employees and their families. A $10 copay applies to most services. Frames are covered up to $120 once per year. The average monthly premium per employee is $45.

*Life Insurance:*
Term life insurance is provided by Guardian on the employee is provided at 100% of salary up to $200,000. The average monthly premium per employee is $96.

*HR and Payroll Support:*
The SBWMA currently utilizes a CPE HR, a third party professional employment organization for the following scope of work:
(a) Support on an as needed basis regarding human resources issues including, but not limited to, hiring, firing and discipline.
(b) Support on an as needed basis regarding compliance with federal, state and local laws and ordinances regarding employment.
(c) Consult on various Client projects as agreed upon.
(d) Provide payroll and payroll tax filing services.
(e) Workers' Compensation insurance.

We pay $112 / month per employee for their services.

| CAPITAL PROJECTS - FIVE YEAR FORECAST | | | | | | |
|---|---|---|---|---|---|---|
| Project Name | Proposed FY1516 | Forecast | | | | Project Summary |
| | | FY16/17 | FY17/18 | FY18/19 | FY19/20 | |
| Transfer Station tipping floor resurfacing | 100,000 | 100,000 | 100,000 | 100,000 | 100,000 | Heavily worn areas of the Transfer station concrete floor need routine repair. |
| Site paving repairs and restriping | - | - | 600,000 | - | 1,400,000 | Repair and resurfacing of Recology truck parking area. Includes restriping for traffic flow and new parking layout after CNG fuel system install. |
| Site signage | - | - | - | - | - | Additional way-finding signage, replacement of faded signs. |
| Truck Shop building maintenance | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | Budget is for unanticipated capital repairs to the building and utilities. Past items include roof replacement, HVAC replacement, rollup door repair, etc. (Two buildings totaling ~20,000 square feet used by Recology for truck maintenance and repairs). |
| Transfer Station building maintenance | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | Budget is for unanticipated capital repairs to the building and utilities. Past items include tunnel pump and electrical repairs. (~75,000 square foot building used by SBR for the unloading of and transfer of garbage, green waste, food scraps, C&D and other materials). |
| MRF building maintenance | 225,000 | 125,000 | 125,000 | 125,000 | 125,000 | Budget is for unanticipated capital repairs to the building and utilities and anticipated repairs to worn areas of the tipping floor ($100K per year). Past projects include door replacement, flooring replacement, etc. (~70,000 square foot building used by SBR to process recyclables). |
| Admin. building maintenance | 20,000 | 115,000 | 40,000 | 40,000 | 40,000 | Budget is for unanticipated capital repairs to the building and utilities. Past projects include, HVAC duct replacement, fire code upgrades, transformer replacement, etc. (~11,000 square foot office building occupied by Recology staff). FY16/17 included $75K for new HVAC system. |
| Site maintenance | 65,000 | 30,000 | 30,000 | 30,000 | 30,000 | Budget is for unanticipated capital repairs to site utilities and paving for the 16 acre site Shoreway facility. Funding also for stormwater improvements. |
| Fire suppression | 15,000 | | 15,000 | | | Additional water supply to new MRF canopy area for fire suppression. |
| Repairs to landfill tipper | 15,000 | 15,000 | 15,000 | 15,000 | 15,000 | Budget is for unanticipated repairs to hydraulic tipper at the Ox. Mountain Landfill owned by the JPA but operated by Republic Services to empty garbage from transfer trailers. |
| Education center exhibits | | | 15,000 | | | Additional small exhibit on the energy inputs for manufacturing and recycling materials; complements existing exhibit on how products come from renewable and/or nonrenewable resources. |
| MRF tip area canopy | 450,000 | | | | | Extension of MRF tipping area to accommodate additional facility tonnage from third-parties. Project planned to be completed in FY14/15. |
| Electric charging station | - | | 15,000 | | | Electric vehicle charging station and electrical installation to be installed in the visitor parking area. |
| Replace diesel fuel storage and dist. system | | | | | 275,000 | Removal of old underground fuel tanks and replace with small tank and fuel system for SBR transfer trucks only. Project linked to CNG fleet conversion. |
| CNG fueling station[1] | | | | | 1,312,500 | Installation of utility connection to CNG fueling system to supply CNG fuel for anticipated collection contractor vehicle fleet fuel conversion. CNG system installation cost estimated at $4M to be financed by fuel supplier. $1,240,000 available in Shoreway Remediation fund to help cover project expenses. |
| Baler Reline | | | 120,000 | | | Planned reline of SBWMA balers in the MRF that are used to compress/bale commodities prior to shipment to end consumers. |
| Mixed waste processing system equipment | | | 10,984,400 | | | Mixed waste processing and organics separation system (in conjunction with SVCW or similar entity) for increased recyclable material recovery and conversion of the organics stream into a biogas. Financing arrangements to be determined. |
| Transfer Station building improvements | | 2,532,200 | | | | 4,400 square foot Transfer Station building expansion to accommodate the mixed waste processing system. |
| LED lighting retrofit | 274,000 | | | | | Conversion of existing metal halide high-bay lights to energy efficient LED lights in all buildings. (Includes rebate from PG&E) |
| MRF equipment replacement[2] | 113,750 | 207,500 | 407,500 | 199,167 | 472,917 | MRF sort system equipment replacement of worn equipment funded from Equipment Replacement cash reserve. |
| Subtotal | $1,317,750 | $3,164,700 | $12,506,900 | $549,167 | $3,810,417 | |
| Total (w/ designated funds applied) | $1,204,000 | $2,957,200 | $12,099,400 | $350,000 | $2,097,700 | |

[1] $1,240,000 available in Shoreway Remediation fund to help cover capx.

[2] Equipment Replacement cash reserve funds will cover these expenses.

Attachment F

## Back-up Financial and Operational Data

This attachment provides additional supporting data and explanations for variances in revenue and Shoreway Environmental Center operating expense figures for FY1516 vs. FY1415.

### OPERATING REVENUE

Table 1 provides supporting data on commodity revenue projections.

- Commodity tonnage (sold) is up 6.9% from the FY1415 budget.
- Commodity prices are currently experiencing a slump and are budgeted to decrease an average of $28.56 per ton (full-year comparison of FY1516 vs. FY1415) based on current prices which have been forecasted to increase slightly going forward.
- Revenue share with SBR is on a calendar year basis so the budgeted fiscal year revenue is not the basis for the revenue share expense.
- Buyback payments are the CRV rates paid to public customers who "drop off" eligible recyclables at Shoreway. Volume and therefore payments have increased including more clean cardboard and PET plastic.

Table 1 – Commodity Revenue

| **COMMODITY REVENUE** | **FY1415 Adopted Budget** | **FY1415 Mid-Year Projections** | **FY1516 Proposed Budget** | **2016 vs 2015 Budget Variance** | **%** |
|---|---|---|---|---|---|
| Tons Sold | 63,134 | 64,935 | 67,488 | 4,354 | 6.9% |
| Wtd Avg. Price | $ 171.26 | $ 162.75 | $ 142.70 | $ (28.56) | -16.7% |
| **Gross Revenue** | **$ 10,812,190** | **$ 10,568,093** | **$ 9,630,366** | **$ (1,181,824)** | -10.9% |
| Revenue Share w/ SBR | $ (1,521,368) | $ (1,407,569) | $ (1,064,410) | 456,958 | -30.0% |
| Buyback Payments | $ (615,972) | $ (888,242) | $ (897,939) | -281,967 | 45.8% |
| **Net Commodity Revenue** | **$ 8,674,850** | **$ 8,272,282** | **$ 7,668,018** | **$ (1,006,832)** | **-11.6%** |
| **Price / Volume Impact** | | **Price** | **Volume** | **Total** | |
| Tonnage Change | | $ 142.70 | $ 4,354 | $ 621,305 | |
| Price Change | | $ (28.56) | $ 63,134 | $ (1,803,128) | |
| **Total Change (Gross)** | | | | **$ (1,181,824)** | |

Table 2 provides a history of commodity prices per ton by quarter. The figures shown are the blended average price per ton for all commodities sold in a given quarter.

Table 2

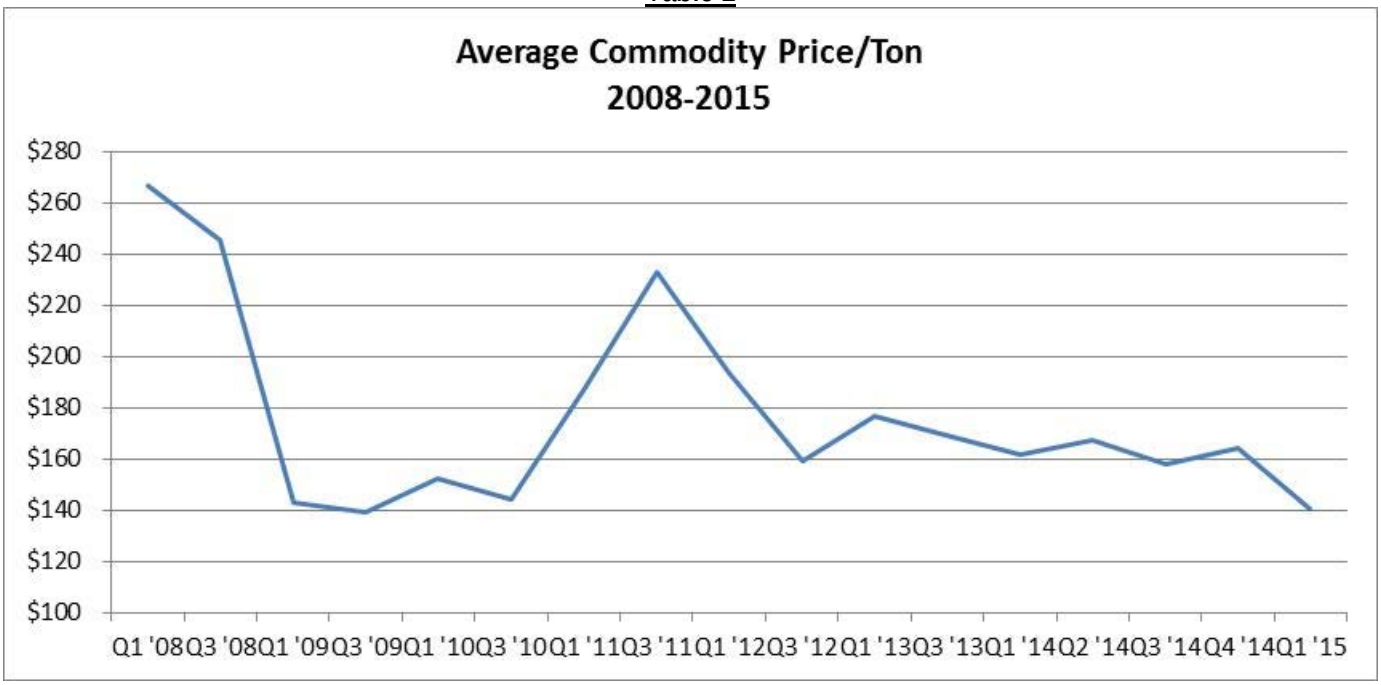



Table 3 shows the actual commodity tonnage, average price and revenue sold by commodity type as of December 2014 YTD (twelve months) from all customers: curbside residential, commercial, buyback, and drop-off.

Table 3 – Commodity Revenue Detail

| Outbound Commodity Tons & Revenue - 2014 | | | | | |
|---|---|---|---|---|---|
| **Commodity** | **Tons** | **Price / Ton** | **Revenue** | **% Tons** | **% Revenue** |
| OCC (cardboard) | 17,584 | $ 142 | $ 2,496,199 | 26.9% | 22.4% |
| ONP #8 (newspaper) | 14,667 | $ 104 | $ 1,521,697 | 22.5% | 13.6% |
| Mixed Paper | 14,832 | $ 96 | $ 1,416,883 | 22.7% | 12.7% |
| Glass (Mix) | 13,004 | $ 97 | $ 1,256,553 | 19.9% | 11.3% |
| PET (plastic) | 1,151 | $ 1,612 | $ 1,855,022 | 1.8% | 16.6% |
| Tin | 1,083 | $ 166 | $ 180,146 | 1.7% | 1.6% |
| Bi Metal | 502 | $ 135 | $ 67,866 | 0.8% | 0.6% |
| HDPE Natural (plastic) | 472 | $ 941 | $ 444,036 | 0.7% | 4.0% |
| HDPE Color (plastic) | 466 | $ 624 | $ 290,853 | 0.7% | 2.6% |
| Mixed Rigid Plastic | 464 | $ 251 | $ 116,296 | 0.7% | 1.0% |
| Glass (Clean) | 430 | $ 128 | $ 55,156 | 0.7% | 0.5% |
| Plastic 3-7 | 341 | $ 105 | $ 35,979 | 0.5% | 0.3% |
| Aluminum | 320 | $ 4,431 | $ 1,416,004 | 0.5% | 12.7% |
| Mixed Film Plastic | 17 | $ 60 | $ 1,031 | 0.0% | 0.0% |
| **Total** | **65,332** | **$ 171** | **$ 11,154,399** | **100.0%** | **100.0%** |
| | | | | | |
| Total Fibers | 47,083 | $ 115 | $ 5,434,779 | 72.1% | 48.7% |
| Total Containers | 18,249 | $ 313 | $ 5,719,621 | 27.9% | 51.3% |
| **Total** | **65,332** | **$ 171** | **$ 11,154,399** | **100.0%** | **100.0%** |
| CRV from state included in price of PET, HDPE, glass, and aluminum | | | | | |
| *approximate* | | | | | |

## SHOREWAY OPERATING EXPENSES

Table 4 provides supporting data for SBR's operating expense.

- MRF inbound tons are up 8.6% over the FY1415 budget causing their budgeted expense to increase accordingly.
- SBR is paid on a fee per ton as approved by the Board for calendar year 2015. The FY1516 budgeted fee increase to SBR on 1/1/2016 is assumed to be 1.8% (half of the fiscal year).
- The Transfer Station and transportation tonnage matches the total disposal tonnage in Table 5.
- The transportation blended rate below reflects the rates to all five destinations (i.e., landfill, organics processors, and C&D processor).
- Total expense is budgeted to increase by $663k primarily due to higher MRF volume.

Table 4 – SBR Operating Expense

| SBR OPERATING EXPENSE | | | | | | |
|---|---|---|---|---|---|---|
| a. **Summary** | **FY1415 Adopted Budget** | **FY1415 Mid-Year Projections** | **FY1516 Proposed Budget** | **2016 vs 2015 Budget Variance** | **%** |
| MRF | $ 5,502,124 | $ 5,702,512 | $ 5,976,863 | 474,739 | 8.6% |
| Transfer Station | $ 4,434,402 | $ 4,487,365 | $ 4,544,231 | 109,829 | 2.5% |
| Transportation | $ 6,913,235 | $ 6,863,854 | $ 7,022,945 | 109,710 | 1.6% |
| Port Slowdown Extra Cost | | **$ 175,000** | **$ -** | 0 | |
| Canopy Construction Impact | | | $ 15,000 | | |
| Interest | $ 211,488 | $ 211,488 | $ 180,684 | -30,804 | -14.6% |
| **TOTAL SBR EXPENSE** | **$ 17,061,249** | **$ 17,440,218** | **$ 17,739,700** | **$ 663,474** | **3.9%** |
| b. **SBR Expense Detail** | **FY1415 Adopted Budget** | **FY1415 Mid-Year Projections** | **FY1516 Proposed Budget** | **2016 vs 2015 Budget Variance** | **%** |
| **MRF** | | | | | |
| Tons, net | 62,672 | 64,935 | 67,488 | 4,816 | 7.7% |
| Rate | $ 87.79 | $ 87.82 | $ 88.56 | $ 0.77 | 0.9% |
| Expense | **$ 5,502,124** | **$ 5,702,512** | **$ 5,976,863** | **$ 474,739** | **8.6%** |
| **Transfer Station** | | | | | |
| Tons | 353,556 | 357,760 | 357,760 | 4,204 | 1.2% |
| Rate | $ 12.54 | $ 12.54 | $ 12.70 | $ 0.16 | 1.3% |
| Expense | **$ 4,434,402** | **$ 4,487,365** | **$ 4,544,231** | **$ 109,829** | **2.5%** |
| **Transportation** | | | | | |
| Tons | 353,556 | 357,760 | 357,760 | 4,204 | 1.2% |
| Wtd. Avg. Rate | $ 19.55 | $ 19.19 | $ 19.63 | $ 0.08 | 0.4% |
| Expense | **$ 6,913,235** | **$ 6,863,854** | **$ 7,022,945** | **$ 109,710** | **1.6%** |
| Port Slowdown Extra Cost | | **$ 175,000** | | | |
| **Interest** | 211,488 | $ 211,488 | $ 180,684 | $ (30,804) | -12.8% |
| Canopy Construction Impact | | | $ 15,000 | | |
| **TOTAL SBR EXPENSE** | **$ 17,061,248** | **$ 17,440,218** | **$ 17,739,700** | **$ 678,451** | **4.0%** |

Table 5 below provides supporting data for the disposal and processing expense.

- Disposal processors generally receive a CPI adjustment on January 1.
- The budget rates below are affected by the two rates in each fiscal year and the number of tons assumed in each period; i.e. the change in mix also affects the budgeted average rates below.
- Outbound tons are based on inbound franchise tons and public yards converted to estimated tons.

Table 5 – Disposal & Processing Expense

| DISPOSAL & PROCESSING EXPENSE | FY1415 Adopted Budget | FY1415 Mid-Year Projections | FY1516 Proposed Budget | 2016 vs 2015 Budget Variance | % |
|---|---|---|---|---|---|
| **a. Summary** | | | | | |
| Solid Waste | $ 8,195,189 | $ 8,223,160 | $ 8,751,543 | $ 556,354 | 6.8% |
| Organics | $ 4,499,569 | $ 4,061,457 | $ 4,106,324 | $ (393,245) | -8.7% |
| C&D, dirt | $ 1,480,759 | $ 1,443,588 | $ 1,630,185 | $ 149,426 | 10.1% |
| Other | $ 192,526 | $ 289,141 | $ 289,141 | $ 96,615 | 50.2% |
| **Subtotal** | **$ 14,368,043** | **$ 14,017,346** | **$ 14,777,193** | **$ 409,150** | **2.8%** |
| Paid by SBR | $ (246,226) | $ (293,180) | $ (304,887) | $ (58,661) | 23.8% |
| **TOTAL DISPOSAL EXPENSE** | **$ 14,121,817** | **$ 13,724,166** | **$ 14,472,300** | **$ 350,488** | **2.5%** |
| **B. Detail** | | | | | |
| **Solid Waste (Ox Mtn)** | | | | | |
| Tons, net | 209,704 | 209,474 | 218,915 | 9,211 | 4.4% |
| Rate | $ 39.08 | $ 39.26 | $ 39.98 | $ 0.90 | 2.3% |
| Expense | **$ 8,195,189** | **$ 8,223,160** | **$ 8,751,543** | **$ 556,354** | **6.8%** |
| **Organics (Newby, Grover)** | | | | | |
| Tons, net | 112,773 | 103,193 | 106,705 | (6,068) | -5.4% |
| Rate | $ 39.90 | $ 39.36 | $ 38.48 | $ (1.42) | -3.6% |
| Expense | **$ 4,499,569** | **$ 4,061,457** | **$ 4,106,324** | **$ (393,245)** | **-8.7%** |
| **C&D (Zanker)** | | | | | |
| Tons, net | 31,078 | 29,003 | 32,139 | 1,061 | 3.4% |
| Rate | $ 47.65 | $ 49.77 | $ 50.72 | $ 3.08 | 6.5% |
| Expense | **$ 1,480,759** | **$ 1,443,588** | **$ 1,630,185** | **$ 149,426** | **10.1%** |
| **Other** | | | | | |
| Tires | 6,354 | 8,500 | 5,319 | (1,035) | -16.3% |
| Mattresses | 20,332 | 24,967 | 27,316 | 6,984 | 34.3% |
| Appliances | 8,810 | 19,195 | 17,661 | 8,851 | 100.5% |
| Hazardous Waste | 151,487 | 129,858 | 233,833 | 82,346 | 54.4% |
| Misc. | $ 5,543 | $ 11,418 | 5,013 | (530) | -9.6% |
| Expense | **$ 192,526** | **$ 289,141** | **$ 289,141** | **$ 96,615** | **50.2%** |
| **Summary** | | | | | |
| TS Tons | 353,555 | 341,670 | 357,760 | 4,205 | 1.2% |
| Wtd Avg.Rate | $ 39.94 | $ 39.97 | $ 40.45 | $ 0.51 | 1.3% |
| **Disposal Expense** | **$ 14,121,816** | **$ 13,657,636** | **$ 14,472,300** | **350,484** | **2.5%** |

| Historical Outreach Spending and Program Results - 2010 to 2014 | | | | | |
|---|---|---|---|---|---|
| | CALENDAR YEAR | | | | |
| CATEGORY | 2010 | 2011 | 2012 | 2013 | 2014 |
| **Overall** | | | | | |
| Total Measured Diversion | 39.2% | 46.6% | 47.7% | 48.8% | 48.9% |
| Total Outreach Spending* | $900,000 | $500,000 | $310,000 | $301,000 | $324,000 |
| **Residential Collection Services** | | | | | |
| *Metrics:* | | | | | |
| Measured Diversion % | 54.7% | 66.2% | 66.7% | 66.9% | 66.5% |
| Monthly Participation % - Garbage | - | 92.0% | 84.7% | 90.3% | 88.9% |
| Monthly Participation %- Recycling | - | 86.3% | 85.6% | 86.8% | 84.2% |
| Monthly Participation % - Organics | - | 76.7% | 74.6% | 72.0% | 70.7% |
| Annual Pounds Per Household Set-Out - Garbage | - | 1,274 | 1,276 | 1,252 | 1,223 |
| Annual Pounds Per Household Set-Out - Recycling | - | 699 | 878 | 878 | 859 |
| Annual Pounds Per Household Set-Out - Organics | - | 1,619 | 1,679 | 1,653 | 1,526 |
| On-Call Bulky Item Collections | - | N/A** | 23,854 | 27,271 | 28,063 |
| Curbside Battery Pounds Collected | - | 47,340 lbs. | 58,640 lbs. | 66,560 lbs. | 72,700 lbs. |
| *Spending:* | | | | | |
| Outreach Spending* | $700,000 | $350,000 | $203,000 | $203,000 | $215,000 |
| **Door-to-Door HHW Collection Services** | | | | | |
| Door-to-Door HHW Pounds Collected*** | - | 286,680 lbs. | 302,422 lbs. | 345,773 lbs. | 277,915 lbs. |
| Door-to-Door Outreach Spending* | $80,000 | $80,000 | $49,000 | $61,000 | $54,000 |
| **Commercial Collection Services** | | | | | |
| Measured Diversion | 24.7% | 25.9% | 27.8% | 29.8% | 31.0% |
| Outreach Spending* | $120,000 | $70,000 | $58,000 | $37,000 | $55,000 |

Note: Spending figures above excludes staff costs. Staff resources for program management and outreach for franchised collection services has declined from 3 FTEs to 2 FTEs since rollout of new franchised collection services in 2011.

* SBWMA operates on a fiscal year budget. The amounts shown in the table are averaged to show costs on a calendar-year basis. The majority of the ongoing commercial outreach costs are primarily associated with the purchase of "buddy bags" and internal collection containers for Recology.

** 2011 data not available/provided by Recology.

***The drop in 2014 pounds are primarily attributable to three factors: 1) when initiating service in a community, we typically see a high level of participation given the extensive outreach to the community; 2) residents participating for the first time contribute significant amounts of materials due to many residents storing their materials for a number of years and when this pent up demand is met, less items are set out going forward, or residents have less need to schedule an appointment for a longtime; and 3) reduced outreach effort due to budgetary constraints during the first half of 2014 since the SBWMA operated on a fiscal year budget. In addition, there is a lag time between when an outreach effort is initiated and when it has an impact due to how quickly thereafter appointments are made and when the material is collected.

# STAFF REPORT

| | |
|---|---|
| To: | SBWMA Board Members |
| From: | Cliff Feldman, Recycling Programs Manager |
| Date: | June 25, 2015 Board of Directors Meeting |
| Subject: | Resolution Approving Findings from Review of Collection Services and Facility Operations Reports, Tonnage Data and Customer Service Systems Audits |

## Recommendation

It is recommended that the SBWMA Board of Directors approve Resolution No. 2015-18 attached hereto authorizing the following action:

> Approve the Findings from Review of Collection Services and Facility Operations Reports, Tonnage Data and Customer Service Systems Audits for calendar year 2014.

## Analysis

The audit work performed by R3 Consulting (R3) commenced in March 2015 and was concluded with submittal of the June 2015 project report provided as Exhibit A. R3 identified compliant and non-compliant (with the contractor's contractual obligations) items with both Recology San Mateo County (Recology) and South Bay Recycling (SBR) operations and reporting for calendar year 2014. The goal of the auditing is to review the largely self-reported financial and operational information provided by the contractors to ensure the accuracy of the information and to make sure proper management systems are in place. The results of this auditing work are summarized in the recommendations consolidated in Section 9 of the report (Exhibit A). While the SBWMA conducts this audit annually, the scope of work varies somewhat depending upon the findings from the previous audit report, as staff adjusts the level of effort required to fit the critical areas requiring auditing.

### *Recology*

The primary emphasis of the auditing work was related to assessment of the information provided in Recology's Annual Report for 2014 issued to the Member Agencies on February 14, 2015. The auditing focused on tons collected, customer service data, and calculation of liquidated damages and performance incentive/disincentive payments.

The Recology Franchise Agreement(s) are structured to place a high priority on customer service and diversion program performance; the Agreements include performance standards to incentivize high performance. Meeting or not meeting these standards has financial implications to both the Member Agencies and Recology. Specifically, Recology can earn incentive payments through high performance or pay disincentive payments for not meeting standards (e.g., annual diversion from landfill achieved). Relatedly, if certain customer service and operational performance standards are not met, then Recology is subject to paying liquidated damages.

The information self-reported by Recology in its Annual Report (which in many cases consolidates the information in the Monthly and Quarterly Reports), is used to determine compliance with the performance standards. While Recology is provided an allowance that must be exceeded before being deemed non-compliant for some performance standards (e.g., unauthorized collection hours, improper placement of containers, excessive noise complaints), for others there is zero tolerance (e.g., unacceptable employee behavior, missed pick-ups, vehicle fluid spills). The threshold based quantification of these performance standards is directly

measured from the customer service call center data compiled and reported by Recology. As customer calls and complaints are received by Recology, these calls are given a "Reason Code," which then necessitates a variety of follow-up measures depending on the nature of the inquiry or complaint.

Recology ultimately uses the Reason Code data to report on its compliance with the various performance standards and resultant Liquidated Damages payments to the Member Agencies and the Performance Incentive/Disincentive payments to/from the Member Agencies. While there were few if any glaring deficiencies in Recology's performance, Recology fell short of operating its call center in accordance with the standards prescribed in the Franchise Agreement(s) and thus slightly under-reported the financial impact of quantifying the types of calls received related to lapses of service and customer complaints.

The audit revealed the company under reported the number of complaints collection quality, including: missed pick up initial complaints, improper placement of containers, excessive noise and unacceptable employee behavior. Table 1 below summarizes the corrections that should be made to Recology's Annual Report for liquidated damages and performance incentives/disincentives as a result of the R3 audit and the Call Center Monitoring performed by Environmental Science Associates (ESA). The adjustments to payments to/from the Member Agencies will be captured in the revised Recology's 2016 Application for an Adjustment to Contractor's Compensation issued to the Member Agencies and SBWMA on July 24, 2015.

Table 1

| **Adjustment to Liquidated Damages and Performance Incentives/Disincentives Paid to the Member Agencies** | |
|---|---|
| **Performance Standard** | **Owed to Member Agencies** |
| Unacceptable Employee Behavior | $14,750 |
| Spills of Vehicle Fluids | $1,500 |
| Missed Pick Up Collection Events | $1,800 |
| Call Center Monitoring | $2,650 |
| Total | $20,700 |

While improvements have been made over the past several years as a result of Recology implementing recommendations per this annual audit, due to the continued issues related to Recology not consistently coding and reporting customer inquiries and complaints, the R3 audit report includes recommendations to improve the company's processes and system to ensure calls are handled properly. Staff worked with Recology to develop the prior and current recommendations, which the company has agreed to implement.

*SBR*

The audit did not find any material mathematical inaccuracies in SBR's reporting for 2013 and therefore no recommendations for follow up by SBR are included in the R3 report.

## Background

The Member Agencies Collection Services Franchise Agreements with Recology prescribe numerous performance standards and also require the company to compile information and submit Monthly, Quarterly and Annual Reports. The information and data contained in these reports is substantially self-reported by the Recology. For example, all of the Performance Incentives and Disincentives (Attachment I of the Franchise Agreements) with the exception of disincentives related to contamination are self-reported by Recology. In addition, the Liquidated Damages (Attachment J of the Franchise Agreements) events are also self-reported by

the company. The Shoreway Facility Operations Agreement with SBR requires the company to accurately record and report on tonnage.

Staff issued the Request for Qualifications (RFQ) for Collection Services and Facility Operations Contractor Data, Records, Systems and Reports Auditing in January 2015 and received proposals from two consultant firms. After evaluating the proposals, conducting interviews and following up with pertinent references, staff selected R3 Consultants to perform this audit for calendar year 2014. R3 was contracted for this work for calendar year 2013 and Hilton, Farnkopf and Hobson (HF&H) consultants performed this work the two years prior (i.e., 2012 and 2011).

To summarize the scope of work, the project entailed a thorough auditing of both Recology and SBR's data compilation, management, storage and reporting for 2014. The audit included assessing Recology's call center functions to ensure the accuracy of transcribing and reporting information, complaints and requests for service from customers. The scope of auditing SBR's operations was limited to the scale house operations (i.e., tonnage reporting) and reporting of commodity revenues.

The general rationale for this project was to conduct an audit to ensure the accuracy of customer service and related operational data and tonnage reporting. Thus, the auditing work reveals how well both Recology and SBR obtained, compiled and reported data to the Member Agencies per the requirements prescribed in the Franchise Agreement(s) and Shoreway Facility Operations Agreement, respectively.

The cost for R3 to conduct this audit was $36,159 for FY1415, $46,000 for FY1314, and for HF&H it was $47,030 for FY1213 and $70,000 for FY1112. The prior audits resulted in additional payments to the Member Agencies (and SBWMA) by Recology of $8,426 for calendar year 2014, $16,650 for calendar year 2013 and $109,445 for calendar year 2012.

## Fiscal Impact

The fiscal impact results in revisions to the Liquidated Damages and Performance Disincentive payments calculated by Recology in its 2014 Annual Report. The audit results in increased Liquidated Damages and Performance Disincentive payments owed by Recology to the Member Agencies totaling $20,700.. These additional Liquidated Damages and Disincentive payments will be applied to partially offset the Performance Incentives due to the company in the Recology 2015 Compensation Application.

***Attachments:***

Resolution 2015-18

Exhibit A – R3 Consultants 2014 Audit Report: Findings from Review of Collection Services and Facility Operations Reports, Tonnage Data and Customer Service Systems. (Available online only at www.rethinkwaste.org)

# RESOLUTION NO. 2015-18

## RESOLUTION OF THE SOUTH BAYSIDE WASTE MANAGEMENT AUTHORITY BOARD OF DIRECTORS APPROVING THE FINDINGS FROM REVIEW OF COLLECTION SERVICES AND FACILITY OPERATIONS REPORTS, TONNAGE DATA AND CUSTOMER SERVICE SYSTEM AUDITS FOR 2014

WHEREAS, the South Bayside Waste Management Authority (SBWMA) Board of Directors has authorized an annual audit of Recology San Mateo County and South Bay Recycling:

WHEREAS, the SBWMA contracted R3 Consultants to perform the audit of Recology and SBR for calendar year 2014.

WHEREAS, the audit results found in Exhibit A increase Liquidated Damages and Performance Disincentives payments due to the Member Agencies totaling $20,700.

NOW, THEREFORE BE IT RESOLVED that the South Bayside Waste Management Authority hereby approves the Findings from Review of Collection Services and Facility Operations Reports, Tonnage Data and Customer Service Systems Audits for calendar year 2014.

PASSED AND ADOPTED by the Board of Directors of the South Bayside Waste Management Authority, County of San Mateo, State of California on the 25th day of June, 2015, 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 District | | | | |

I HEREBY CERTIFY that the foregoing Resolution No. 2015-18 was duly and regularly adopted at a regular meeting of the South Bayside Waste Management Authority on June 25, 2015.

ATTEST:

Bill Widmer, Chairperson of SBWMA

Cyndi Urman, Board Secretary

A Public Agency

# STAFF REPORT

| | |
|---|---|
| To: | SBWMA Board Members |
| From: | Marshall Moran, Finance Manager |
| Date: | June 25, 2015 Board of Director's Meeting |
| Subject: | Resolution Approving Findings from 2014 Financial and Accounting Systems Audit of Recology and SBR |

## Recommendation

It is recommended that the SBWMA Board of Directors approve Resolution No. 2015-19 attached hereto authorizing the following action:

Approve the Report on the 2014 Financial and Accounting Systems Audit of Recology and SBR

## Summary

The SBWMA annually hires a consultant to review the significant financial transactions associated with the contracts with Recology and SBR. R3 Consultants was chosen to perform this audit after an RFP process as the lowest bidder following three years with HFH as the audit firm. We are pleased to report that no substantial financial errors were found with either contractor's financial reports and payments. Several operational improvements are recommended. Approval of this report means that the Board approves the revenue reconciliation balances owed to/from each Member Agency and Recology as shown in Table 1; these balances are incorporated into the annual revenue requirement figures to be considered for approval by the Board at the September 24, 2015 Board meeting .

## Analysis

The financial audit work covering calendar year 2014 performed by R3 Consulting commenced in April 2015 and has concluded with submittal of the audit report attached (see Attachment A) detailing separate recommendations for Recology San Mateo County (Recology) and South Bay Recycling (SBR). This audit work is an important part of our fiduciary responsibilities to our Member Agencies as it relates to monitoring contractor financial compliance with their respective agreements (i.e., Member Agency Franchise Agreement and Shoreway Operations Agreement). An important part of this audit process is to verify that all information from the contractor's is properly reported by Member Agency. While errors in allocation of financial data between Member Agencies would have no impact on Recology, it could have a big impact on individual agencies.

R3 reviewed the reporting of financial data and payments to the SBWMA and our Member Agencies by Recology and SBR as applicable. There was approximately $100 million of rate payer's gross billings that flowed through Recology's financial reporting system. Another approximately $17 million was paid by SBR to the SBWMA for recycling commodities and gate revenue collected from public customers using the Shoreway Environmental Center.

### *Recology*

For Recology, the primary focus of the audit is the 2014 Revenue Reconciliation which is submitted by Recology on March 31 each year for the prior calendar year. This report reconciles the amount paid to Recology (from gross customer billings less payment to Member Agencies for franchise and other fees and to the SBWMA for disposal

and processing fees at the Shoreway Environmental Center) compared to the Board approved compensation owed to Recology for providing collection services by Member Agency. The result is a surplus or shortfall owed to/from Recology by Member Agency. In total, the 2014 surplus is $3,104,353 which is 3.1% of gross revenue as shown in Table 1.

Table 1

| 2014 REVENUE RECONCILIATION FINAL | RECOLOLGY BILLING | RECOLOGY PAYMENTS & ADJUSTMENTS | | | | NET AMOUNT "PAID" TO RECOLOGY | AMOUNT OWED TO RECOLOGY | BALANCE DUE (TO) / FROM RECOLOGY |
|---|---|---|---|---|---|---|---|---|
| | | Less: Expenses | | | | Subtotal | | FINAL |
| Service Areas | Revenue Billed | Disposal/ Processing | Agency Fees | "Extra" Services by Recology | Other, 2012 Balance | Revenue Less Expenses | Recology Base Services | Surplus/ (Shortfall) |
| Atherton | $ 3,171,510 | $ (953,731) | $ (322,865) | $ (28,355) | $ 529,570 | $ 2,396,129 | $ 1,500,193 | $ 895,936 |
| Belmont | 7,082,709 | (1,393,253) | (1,759,198) | (76,581) | (644,512) | 3,209,165 | 3,661,970 | (452,805) |
| Burlingame | 10,843,338 | (3,058,137) | (1,804,941) | (96,060) | 1,042,174 | 6,926,374 | 5,702,623 | 1,223,751 |
| East Palo Alto | 4,709,232 | (1,494,796) | (800,820) | (57,139) | 106,172 | 2,462,649 | 2,381,568 | 81,081 |
| Foster City | 5,098,547 | (1,472,508) | (379,949) | (18,566) | 258,556 | 3,486,080 | 3,641,950 | (155,870) |
| Hillsborough | 3,208,385 | (698,649) | (309,565) | (9,784) | 220,512 | 2,410,899 | 1,962,793 | 448,106 |
| Menlo Park | 10,230,283 | (2,710,862) | (1,688,520) | (129,546) | (50,790) | 5,650,565 | 5,827,004 | (176,439) |
| North Fair Oaks | 2,683,045 | (764,397) | (141,127) | (32,404) | 35,269 | 1,780,386 | 1,697,075 | 83,311 |
| Redwood City | 18,105,131 | (5,011,342) | (2,449,497) | (112,591) | 1,022,956 | 11,554,657 | 10,259,750 | 1,294,907 |
| San Carlos | 8,233,855 | (1,870,213) | (947,517) | (95,039) | 214,542 | 5,535,628 | 5,206,847 | 328,781 |
| San Mateo | 21,740,840 | (5,499,658) | (2,942,862) | (331,476) | (754,507) | 12,212,337 | 12,567,686 | (355,349) |
| West Bay | 1,518,900 | (399,732) | (82,264) | (16,000) | 0 | 1,020,904 | 988,359 | 32,545 |
| County | 3,207,739 | (769,103) | (181,746) | (19,047) | (193,233) | 2,044,610 | 2,188,212 | (143,602) |
| SBWMA Total | $ 99,833,514 | $ (26,096,381) | $ (13,810,871) | $ (1,022,588) | $ 1,786,709 | $ 60,690,383 | $ 57,586,030 | $ 3,104,353 |
| % | 100% | 26% | 14% | 1% | -2% | 61% | 58% | 3.1% |

The significant findings from the review of Recology's Revenue Reconciliation are summarized below:

- The balances reported by Recology in their Revenue Reconciliation report are verified as accurate.
- The frequency of updating truck tare weights was agreed to change from annually to quarterly. Recology changed to semi-annual tare weight updates but needs to adhere to the agreed upon quarterly update.

Disposal expense for Recology is a pass-through expense between the Member agencies and the SBWMA which means Recology has no impact from over or under stating tons and disposal expense. To avoid variances in disposal expense found in prior years, this expense was reconciled and agreed to by Recology and SBWMA staff prior to the issuance of Recology's report.

Eight of our Member Agencies have a 2014 surplus balance with Recology. As noted in the MOU section E.3 (see Attachment B), agencies with surplus balances can request by July 31, 2015, a refund from Recology of the surplus balance. These funds belong to the rate payers and not to the Member Agency so care must be taken to keep these funds separate from the Member Agency general fund. If a refund is not requested, the balance will be retained by Recology and rolled into future balances. All balances (surplus or shortfall) will be part of the draft Total Revenue Requirement reported by the SBWMA to the Member Agencies on August 14, 2015 in the Draft Report Reviewing Recology's 2016 Compensation Application. All balances held by Recology are "owned" by the rate payers and not Recology. All Recology keeps after the Revenue Reconciliation and audit is what was approved by the Board as compensation for each rate year. The 2014 Revenue Reconciliation from Recology is found in Attachment C.

Table 2 below compares the final 2014 surplus/shortfall balance to what was estimated in the 2015 Total Rate Report issued by the SBWMA in September 2014. The actual results for many Member Agencies are very close to staff's projections. In most cases, the negative variances are due to lower billed revenue than projected, not to cost issues. Negative variances due to lower revenue were experienced in Menlo Park, Redwood City, and County of San Mateo (CFA). Negative variances due to slightly higher disposal tonnage were experienced in Atherton and Menlo Park. (The 2014 estimate is from the September 25, 2014 Board package, 5B staff report on the 2015 Recology Compensation Application, Exhibit A, Table 8.)

Table 2

| 2014 SURPLUS / (SHORTFALL) | ESTIMATE *@ Sept. 2014* | FINAL *@ June 2015* | Variance |
|---|---|---|---|
| Member Agency: | | | *Better / (Worse)* |
| Atherton | $ 908,231 | $ 895,936 | $ (12,295) |
| Belmont | (493,136) | $ (452,805) | $ 40,331 |
| Burlingame | 1,096,649 | $ 1,223,751 | $ 127,102 |
| East Palo Alto | 22,593 | $ 81,081 | $ 58,488 |
| Foster City | (216,065) | $ (155,870) | $ 60,195 |
| Hillsborough | 445,478 | $ 448,106 | $ 2,628 |
| Menlo Park | (59,356) | $ (176,439) | $ (117,083) |
| North Fair Oaks | 76,263 | $ 83,311 | $ 7,048 |
| Redwood City | 1,301,850 | $ 1,294,907 | $ (6,943) |
| San Carlos | 293,974 | $ 328,781 | $ 34,807 |
| San Mateo | (397,476) | $ (355,349) | $ 42,127 |
| West Bay | 35,926 | $ 32,545 | $ (3,381) |
| County | (131,935) | $ (143,602) | $ (11,667) |
| **SBWMA Total** | **$ 2,882,996** | **$ 3,104,351** | **$ 221,357** |

*SBR*

For SBR, the audit verified that the payments made by SBR to the SBWMA for public revenue and gross commodity revenue were accurate. In addition, the audit reviewed the scale house procedures and has made recommendations on various improvements.

It should be noted that staff has worked extensively with SBR throughout 2014 to correct errors and make improvements in their reporting to the SBWMA. SBR has been highly cooperative in this effort to improve their reports. Such ongoing efforts eliminated a number of issues that likely would have been identified in the R3 audit.

## Background

The Member Agency's Collection Services Franchise Agreements with Recology prescribe numerous reporting and payment requirements including paying franchise fees to the Member Agencies and payments to the SBWMA for disposal and processing fees ("tipping fees") at the Shoreway facility. Recology also must track collected tonnage by material and Member Agency, allocate disposal cost to Member Agencies and prepare an annual revenue reconciliation showing the net surplus or shortfall owed to/from Recology by each Member Agency.

The Shoreway Facility Operations Agreement with SBR requires the company to pay to the SBWMA all commodity revenue (from the sale of commodities) and public gate revenue.

The information and data contained in both contractors' reports are substantially self-reported by the companies and therefore this annual audit is imperative from a financial perspective to help ensure accuracy in total and by Member Agency. This is not a certified audit nor are statistically valid tests conducted but the audit is based on cost effective and reasonable industry practices.

The general purpose of the audit was to perform an evaluation and verification of financial reporting systems, processes and record keeping, analysis and audit of billing and revenue, and analyze and audit the allocation of revenue and costs to the twelve Member Agencies. The cost of the audit is approximately $38,000 and was approved by the Board at the March 2015 meeting.

To summarize the scope of work, this project entailed a thorough review and verification of Recology San Mateo County's (Recology) 2014 Annual Revenue Reconciliation, Attachment Q revenue and costs, and customer billing rates. The South Bay Recycling review included a verification of public revenue and commodity revenue reported and paid to the SBWMA for 2014. Tonnage reporting and commodity prices are reviewed.

## Fiscal Impact

The fiscal impact of the audit is the cost of $38,000 which is lower than the budgeted amount of $58,600. The actual cost is lower due to reduced scope of services from past year's and a lower cost proposal from R3 than last year's audit cost by HFH, including a 15% discount for doing two audits with the same audit firm.

***Attachments:***

Exhibit A - R3 Financial Systems Audit of 2014 Collection Services and Facility Operations Contractors Report (Available online only at www.rethinkwaste.org)

Exhibit B – MOU with Recology on Interest Calculation on Surplus/Shortfall Balances

Exhibit C – Recology Revenue Reconciliation (3/31/2015)

# RESOLUTION NO. 2015-19

## RESOLUTION OF THE SOUTH BAYSIDE WASTE MANAGEMENT AUTHORITY BOARD OF DIRECTORS APPROVING FINDINGS FROM 2014 FINANCIAL AND ACCOUNTING SYSTEMS AUDIT OF RECOLOGY AND SBR

WHEREAS, the South Bayside Waste Management Authority Board of Directors previously approved the need for an annual Financial Systems audit of our contractors – Recology and SBR, and

WHEREAS, the South Bayside Waste Management Authority Board of Directors approved the selection of R3 Consultants to perform the audit, and

WHEREAS, R3 has submitted their audit report to the SBWMA staff, and

WHEREAS, the SBWMA staff has reviewed the audit report and recommends the South Bayside Waste Management Authority Board of Directors to approve the audit report and the recommendations in Attachment A.

NOW, THEREFORE BE IT RESOLVED that the South Bayside Waste Management Authority hereby approves the Financial Systems audit report prepared by R3 and agrees to their recommendations.

PASSED AND ADOPTED by the Board of Directors of the South Bayside Waste Management Authority, County of San Mateo, State of California on the 25th day of June, 2015, 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. 2015-19 was duly and regularly adopted at a regular meeting of the South Bayside Waste Management Authority on June 25, 2015.

ATTEST:

Bill Widmer, Chairperson of SBWMA

Cyndi Urman, Board Secretary

# Exhibit A

## MEMORANDUM OF UNDERSTANDING

This is a Memorandum of Understanding by and between Recology San Mateo County (Recology) and the South Bayside Waste Management Authority, a California JPA (SBWMA).

A. Recology is the Franchisee for each of the twelve (12) JPA Member Agencies of the SBWMA for the collection of solid waste and recyclables pursuant to Franchise Agreements (the Franchise Agreements) entered into with each respective Member Agency.

B. Article 11 of the Franchise Agreements all provide that the SBWMA shall annually review the Recology Application for an Adjustment to Contractor's Compensation and provide a report to the SBWMA Board of Directors for consideration of a binding vote to approve the recommended Recology compensation for the subsequent rate year.

C. Article 11 of the Franchise Agreements also provides for an Annual Revenue Reconciliation that reconciles the amount owed to Recology compared to the amount retained by Recology for the prior year which generates a surplus or shortfall by agency. It also calculates interest owed to Recology for a shortfall.

D. In 2012 and 2013, the SBWMA Board approved Recology compensation for rate years 2013 and 2014, respectively, that included a reconciliation of:

1. Any surplus paid to Recology and any shortfall owed to Recology by a Member Agency for 2011 and 2012 were included in setting Recology's total compensation for 2013 and 2014, respectively.

2. Recology submitted to the SBWMA an interest calculation for both

years which was charged to Member Agencies on any shortfall and credited interest to Member Agencies on any surplus. The SBWMA reports to the Board included this interest charge or credit by Member Agency in both years.

E. Recology and the SBWMA Board have reviewed their prior understanding regarding the payment of interest and reviewed the language and intent of the Franchise Agreements. Commencing with

the Recology Application, due in June 2014, for an Adjustment to Contractor's Compensation for 2015, they desire to clarify the process to calculate interest and conform to the intent of the Agreements as follows:

1. Any Member Agency that has generated a surplus balance with Recology for 2013 can receive a refund from Recology provided it requests the refund in writing on or before July 31, 2014, provided the surplus balance was generated due to the Member Agency setting rates higher than those recommended by the SBWMA. If it does not request a refund by July 31, 2014, any such surplus will be accounted for in the Recology Application for an Adjustment in Contactor's Compensation for 2015 and applied to the rate setting recommended for 2015.

2. Any Member Agency that generated a shortfall balance with Recology for 2013 will have the shortfall accounted for in the 2013 Revenue Reconciliation and recommended 2015 rates. However, if the shortfall was the result of the Member Agency setting rates lower in 2013 than had been recommended in the SBWMA Report approved by the SBWMA Board, it shall be charged the prevailing interest rate (prime plus 1%) on the shortfall balance delineated in the 2013 Revenue Reconciliation.

3. No interest will be credited to a Member Agency on any surplus balance for 2013 and in all future years. Member Agencies may request by July 31 of each year and Recology will comply with the request for a refund in a reasonable time frame. Any surplus not requested to be refunded will be credited in the next Revenue Reconciliation and applied to the next Recology Application for an Adjustment to Contractor's Compensation.

4. Recology shall not receive any interest on shortfalls in 2014 and in future years unless the Member Agency adjusts its rates below the rate adjustment recommended in the SBWMA Report and approved by the SBWMA Board.

| SBWMA | | RECOLOGY | |
|---|---|---|---|
| _____ | | _____ | |
| Kevin McCarthy | Date | Mario Puccinelli | Date |
| Executive Director | | General Manager | |

Recology San Mateo County
Revenue Reconciliation
Rate Year 2014
Revenue Reconciliation of Gross Revenue
Billed to Approved Contractor's Compensation
and Surplus/Shortfall

| | Atherton | Belmont | Burlingame | E Palo Alto | Foster City | Hillsborough | Menlo Park | North Fair Oaks | Redwood City | San Carlos | San Mateo | West Bay | Unincorporated County | Member Agency Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Gross Revenue Billed | $ 3,171,510 | 7,082,709 | 10,843,338 | 4,709,232 | 5,098,547 | 3,208,385 | 10,230,283 | 2,683,045 | 18,105,131 | 8,233,855 | 21,740,840 | 1,518,900 | 3,207,739 | 99,833,514 |
| Less: | | | | | | | | | | | | | | |
| Pass-Through Costs | 1,276,596 | 3,152,451 | 4,863,078 | 2,295,616 | 1,852,457 | 1,008,214 | 4,399,382 | 905,524 | 7,460,839 | 2,817,730 | 8,442,520 | 481,996 | 950,849 | 39,907,252 |
| Unscheduled and Intermittent Services | 28,355 | 76,581 | 96,060 | 57,139 | 18,566 | 9,784 | 129,546 | 32,404 | 112,591 | 95,039 | 331,476 | 16,000 | 19,047 | 1,022,588 |
| Net Revenue Billed | 1,866,559 | 3,853,677 | 5,884,200 | 2,356,477 | 3,227,524 | 2,190,387 | 5,701,355 | 1,745,117 | 10,531,701 | 5,321,086 | 12,966,844 | 1,020,904 | 2,237,843 | 58,903,674 |
| Contractor's Compensation | 1,500,193 | 3,661,970 | 5,702,623 | 2,381,568 | 3,641,950 | 1,995,295 | 5,803,085 | 1,697,075 | 10,259,750 | 5,213,150 | 12,567,686 | 988,359 | 2,188,212 | 57,600,916 |
| Agency Specific Contract Changes | | | | | | (32,502) | 23,919 | | | (6,303) | | | | (14,886) |
| Approved Contractor's Compensation | 1,500,193 | 3,661,970 | 5,702,623 | 2,381,568 | 3,641,950 | 1,962,793 | 5,827,004 | 1,697,075 | 10,259,750 | 5,206,847 | 12,567,686 | 988,359 | 2,188,212 | 57,586,030 |
| 2012 (Surplus)/Shortfall | (497,833) | 605,887 | (979,717) | (99,809) | (243,061) | (200,778) | 47,746 | (33,155) | (961,651) | (214,542) | 709,290 | (187,547) | 181,653 | (1,873,517) |
| Interest on 2012 (Surplus)/Shortfall | (31,737) | 38,625 | (62,457) | (6,363) | (15,495) | (19,734) | 3,044 | (2,114) | (61,305) | — | 45,217 | (11,956) | 11,580 | (112,695) |
| Combine 2012 Surplus with 2013 Shortfall | | | | | | | | | | | | 199,503 | | 199,503 |
| Total Due Recology San Mateo County for Rate Year 2014 | 970,623 | 4,306,482 | 4,660,449 | 2,275,396 | 3,383,394 | 1,742,281 | 5,877,794 | 1,661,806 | 9,236,794 | 4,992,305 | 13,322,193 | 988,359 | 2,381,445 | 55,799,321 |
| Surplus/(Shortfall) for Rate Year 2014 | $ 895,936 | (452,805) | 1,223,751 | 81,081 | (155,870) | 448,106 | (176,439) | 83,311 | 1,294,907 | 328,781 | (355,349) | 32,545 | (143,602) | 3,104,353 |

Note: In accordance with the Memorandum of Understanding, interest is applied to the shortfall between net revenue billed and the approved amount due Recology if rates are set below those recommended in the SBWMA report approved by the SBWMA Board. Interest is applied to 50% of the difference during the rate year in which the difference occurred (2014) because the difference occurs throughout the year and to 100% of the difference in the immediately following year (2015) because the difference exists the entire year. The interest applied to both years is the prime rate in effect when the SBWMA issued the report for that year plus one percent (1%). The prime rate has been 3.25% since December 16, 2008.

Recology San Mateo County
Revenue Reconciliation
Rate Year 2014
Statement of Gross Revenue Billed

| | Atherton | Belmont | Burlingame | E Palo Alto | Foster City | Hillsborough | Menlo Park | North Fair Oaks | Redwood City | San Carlos | San Mateo | West Bay | Unincorporated County | Member Agency Total | Other | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Revenues: | | | | | | | | | | | | | | | | |
| Refuse Collection operations | | | | | | | | | | | | | | | | |
| Residential | $ 2,910,739 | 2,940,806 | 2,066,993 | 2,038,461 | 1,711,941 | 3,192,876 | 2,913,683 | 1,031,057 | 9,284,746 | 3,415,855 | 6,321,856 | 1,169,957 | 2,449,064 | 41,448,034 | — | 41,448,034 |
| Commercial & Multi-Family Dwelling | 260,633 | 3,864,627 | 6,555,233 | 2,319,694 | 2,852,475 | 112,200 | 7,086,663 | 1,651,988 | 7,764,817 | 4,259,021 | 14,083,322 | 334,719 | 758,606 | 51,903,998 | — | 51,903,998 |
| Debris Box | — | 206,384 | 2,043,701 | 310,431 | 534,131 | | 229,549 | | 1,055,568 | 555,147 | 1,335,405 | | — | 6,270,316 | — | 6,270,316 |
| Hauling revenue adjustments | (404,431) | (237,403) | (281,508) | 18,791 | 367,983 | (331,291) | 154,779 | 8,133 | (332,633) | (328,180) | (452,151) | (21,596) | (28,391) | (1,867,898) | — | (1,867,898) |
| Other | 138 | 6,441 | 9,513 | 1,861 | | 1,837 | 45,530 | 233 | — | 8,286 | 257 | — | 3,751 | 77,847 | 985,742 | 1,063,589 |
| Total operating revenues | $ 2,767,079 | 6,780,855 | 10,393,932 | 4,689,238 | 5,466,530 | 2,975,622 | 10,430,204 | 2,691,411 | 17,772,498 | 7,910,129 | 21,288,689 | 1,483,080 | 3,183,030 | 97,832,297 | 985,742 | 98,818,039 |
| **RECONCILIATIONS:** | | | | | | | | | | | | | | | | |
| 2014 revenue adjustment [1] | $ 945,416 | | 1,247,000 | 31,854 | (161,371) | 564,880 | (175,267) | 77,469 | 1,276,520 | 328,067 | (359,306) | 240,031 | (167,316) | 3,847,977 | — | 3,847,977 |
| 2013 (incentives)/disincentives | (2,395) | (11,280) | (33,983) | (16,423) | (15,327) | (2,878) | (23,827) | (7,592) | (54,105) | (18,063) | (60,521) | (1,576) | (5,239) | (253,209) | — | (253,209) |
| 2012 (surplus)/shortfall | (497,833) | 605,887 | (979,717) | (99,809) | (243,061) | (200,778) | 47,746 | (33,155) | (961,651) | (214,542) | 709,290 | (187,547) | 181,653 | (1,873,517) | — | (1,873,517) |
| Interest on 2012 (surplus)/shortfall | (31,737) | 38,625 | (62,457) | (6,363) | (15,495) | (19,734) | 3,044 | (2,114) | (61,305) | - | 45,217 | (11,956) | 11,580 | (112,695) | — | (112,695) |
| | 413,451 | 633,232 | 170,843 | (90,741) | (435,254) | 341,490 | (148,304) | 34,608 | 199,459 | 95,462 | 334,680 | 38,952 | 20,678 | 1,608,556 | — | 1,608,556 |
| Adjustment to booked 2012 (surplus)/ shortfall (timing difference) | (9,020) | (395,829) | 110,665 | 71,950 | 67,271 | (10,199) | (6,475) | (42,741) | 133,174 | 232,718 | 117,471 | (17,356) | 7,713 | 259,342 | — | 259,342 |
| Rate Stabilization account | | 70,892 | 177,411 | | | | | | | | | 14,224 | | 262,527 | — | 262,527 |
| Late Charges on Delinquent Payments | | (6,441) | (9,513) | (1,861) | | (1,837) | (45,142) | (233) | | (8,230) | | | (3,682) | (76,939) | — | (76,939) |
| Adjustment to booked Hillsborough 2011 Shortfall (timing difference) | | | | | | (96,691) | | | | | | | | (96,691) | — | (96,691) |
| Adjustment to booked San Carlos Compactor billing | | | | | | | | | | 3,776 | | | | 3,776 | — | 3,776 |
| Adjustment to booked E Palo Alto Tax Roll billing | | | | 40,646 | | | | | | | | | | 40,646 | — | 40,646 |
| SBWMA Reimb of Repairs | | | | | | | | | | | | | | — | (26,103) | (26,103) |
| SBR Fuel and Electric Revenue | | | | | | | | | | | | | | — | (950,619) | (950,619) |
| Gross Revenue Billed | $ 3,171,510 | 7,082,709 | 10,843,338 | 4,709,232 | 5,098,547 | 3,208,385 | 10,230,283 | 2,683,045 | 18,105,131 | 8,233,855 | 21,740,840 | 1,518,900 | 3,207,739 | 99,833,514 | 9,020 | 99,842,534 |

[1] Revenue is recognized on an accrual basis when services are performed. This amount represents the difference between amounts billed and the contractual targeted compensation for services provided.

Recology San Mateo County
Revenue Reconciliation
Rate Year 2014
Statement of Pass-Through Costs

| | Atherton | Belmont | Burlingame | E Palo Alto | Foster City | Hillsborough | Menlo Park | North Fair Oaks | Redwood City | San Carlos | San Mateo | West Bay | Unincorporated County | Member Agency Total | Other | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Disposal Fees: | | | | | | | | | | | | | | | | |
| **Residential** | | | | | | | | | | | | | | | | |
| MSW | $ 156,943 | 301,850 | 340,727 | 609,570 | 294,127 | 207,165 | 407,364 | 257,361 | 926,952 | 402,022 | 1,154,054 | 106,428 | 247,635 | 5,412,198 | — | 5,412,198 |
| Organics | 706,838 | 366,543 | 469,483 | 331,653 | 247,110 | 412,364 | 736,075 | 187,160 | 1,144,639 | 546,383 | 1,285,611 | 224,840 | 369,938 | 7,028,637 | — | 7,028,637 |
| **Commercial** | | | | | | | | | | | | | | | | |
| MSW | 34,871 | 197,676 | 687,159 | 118,226 | 205,892 | 12,812 | 781,313 | 169,843 | 1,277,918 | 523,587 | 1,197,574 | 36,141 | 82,503 | 5,325,515 | 47,249 | 5,372,764 |
| Organics | 27,271 | 47,869 | 183,843 | 35,040 | 178,647 | 19,447 | 320,596 | 44,009 | 283,164 | 81,265 | 262,569 | 12,877 | 23,486 | 1,520,083 | — | 1,520,083 |
| **Multi-Family Dwelling** | | | | | | | | | | | | | | | | |
| MSW | | 200,525 | 268,459 | 253,638 | 294,508 | | 201,529 | 89,802 | 656,161 | 145,352 | 966,092 | 2,559 | 38,552 | 3,117,177 | — | 3,117,177 |
| Organics | | 6,087 | 4,867 | 7,471 | 3,710 | | 11,619 | 198 | 10,756 | 11,504 | 27,365 | 156 | 331 | 84,064 | — | 84,064 |
| **Debris Box** | | | | | | | | | | | | | | | | |
| MSW | 623 | 45,835 | 685,812 | 109,355 | 106,104 | | 44,463 | | 378,262 | 74,352 | 384,421 | | | 1,829,227 | — | 1,829,227 |
| Organics | | | | | 51,395 | | 20,469 | | 59,968 | 215 | | | | 132,047 | — | 132,047 |
| **City Facilities** | | | | | | | | | | | | | | | | |
| MSW | 6,628 | 18,070 | 161,287 | 20,310 | 45,487 | 35,189 | 107,089 | 15,632 | 191,293 | 53,738 | 173,576 | 1,571 | | 829,870 | — | 829,870 |
| Organics | 20,557 | 10,695 | 79,089 | 9,533 | 6,623 | 11,672 | 80,345 | 392 | 65,578 | 14,190 | 35,421 | 936 | 6,658 | 341,689 | — | 341,689 |
| **City Self Hauled** | | | | | | | | | | | | | | | | |
| MSW | | 121,342 | | | 31,777 | | | | 1,666 | 15,896 | 12,975 | | | 183,656 | — | 183,656 |
| Organics | | 5,869 | | | 7,128 | | | | 14,985 | 1,709 | | | | 29,691 | — | 29,691 |
| Total Disposal | $ 953,731 | 1,322,361 | 2,880,726 | 1,494,796 | 1,472,508 | 698,649 | 2,710,862 | 764,397 | 5,011,342 | 1,870,213 | 5,499,658 | 385,508 | 769,103 | 25,833,854 | 47,249 | 25,881,103 |
| Franchise and Other Fees | | | | | | | | | | | | | | | | |
| Franchise Fees | $ 284,865 | 633,001 | 709,643 | 368,284 | 235,930 | 290,066 | 595,975 | 127,108 | 2,331,902 | 729,457 | 751,909 | 71,118 | 151,484 | 7,280,742 | — | 7,280,742 |
| Allied Balancing Account | | | | | | | | | | | | | | — | — | — |
| Street Sweeping Fee | 24,000 | 425,350 | 234,960 | 232,536 | 96,600 | | | | | 85,300 | 320,000 | | | 1,418,746 | — | 1,418,746 |
| Management Fee | | | | | | | 300,000 | | | | | | | 300,000 | — | 300,000 |
| AB939 Fee | 14,000 | 248,121 | | | | | | | 72,366 | | 892,755 | | | 1,227,242 | — | 1,227,242 |
| Administration Fee | | | 177,411 | | | | | | 45,229 | | | | | 222,640 | — | 222,640 |
| Landfill Closure Fee | | | 443,527 | | | | 739,830 | | | | 978,198 | | | 2,161,555 | — | 2,161,555 |
| HHW Fee | | 62,822 | 49,200 | | 47,419 | 19,499 | 52,715 | 14,019 | | 52,260 | | 11,146 | 30,262 | 339,342 | — | 339,342 |
| Rate Stabilization Fee | | | | | | | | | | | | | | — | — | — |
| Collection Vehicle Fee | | 177,229 | | | | | | | | | | | | 177,229 | — | 177,229 |
| Litter Control Fee | | 141,783 | | 200,000 | | | | | | | | | | 341,783 | — | 341,783 |
| NDPES Litter Impact Fee | | 70,892 | | | | | | | | | | | | 70,892 | — | 70,892 |
| Steam Cleaning Fee | | | 75,000 | | | | | | | 10,000 | | | | 85,000 | — | 85,000 |
| Resource Conservation Fee | | | | | | | | | | | | | | — | — | — |
| City Manager Fee | | | 115,200 | | | | | | | 32,300 | | | | 147,500 | — | 147,500 |
| Asst City Manager Fee | | | | | | | | | | 38,200 | | | | 38,200 | — | 38,200 |
| Franchise and Other Fees | $ 322,865 | 1,759,198 | 1,804,941 | 800,820 | 379,949 | 309,565 | 1,688,520 | 141,127 | 2,449,497 | 947,517 | 2,942,862 | 82,264 | 181,746 | 13,810,871 | — | 13,810,871 |
| RECONCILIATIONS: | | | | | | | | | | | | | | | | |
| Rate Stabilization Fee | | 70,892 | 177,411 | | | | | | | | | 14,224 | | 262,527 | — | 262,527 |
| Total Franchise and other Fees | 322,865 | 1,830,090 | 1,982,352 | 800,820 | 379,949 | 309,565 | 1,688,520 | 141,127 | 2,449,497 | 947,517 | 2,942,862 | 96,488 | 181,746 | 14,073,398 | — | 14,073,398 |
| Total Pass-Through Costs | $ 1,276,596 | 3,152,451 | 4,863,078 | 2,295,616 | 1,852,457 | 1,008,214 | 4,399,382 | 905,524 | 7,460,839 | 2,817,730 | 8,442,520 | 481,996 | 950,849 | 39,907,252 | 47,249 | 39,954,501 |

Recology San Mateo County
Revenue Reconciliation
Rate Year 2014
Statement of Revenue Billed
for Unscheduled and
Intermittent Services

| | Atherton | Belmont | Burlingame | E Palo Alto | Foster City | Hillsborough | Menlo Park | North Fair Oaks | Redwood City | San Carlos | San Mateo | West Bay | Unincorporated County | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Revenue Billed | | | | | | | | | | | | | | |
| Attachment Q revenues | $ 60,226 | 106,883 | 117,277 | 57,236 | 18,566 | 44,095 | 148,904 | 32,773 | 112,591 | 108,065 | 351,724 | 20,149 | 22,382 | 1,200,871 |
| Less: | | | | | | | | | | | | | | |
| Back yard collection fees | 29,035 | 3,395 | 4,887 | — | — | 33,333 | — | 369 | — | 3,522 | 6,989 | 4,149 | 3,335 | 89,014 |
| Total Unscheduled Services | 31,191 | 103,488 | 112,390 | 57,236 | 18,566 | 10,762 | 148,904 | 32,404 | 112,591 | 104,543 | 344,735 | 16,000 | 19,047 | 1,111,857 |
| Less Included Franchise Fee | 2,836 | 26,907 | 16,330 | 97 | — | 978 | 19,358 | — | — | 9,504 | 13,259 | — | — | 89,269 |
| Unscheduled Services less Franchise Fees | $ 28,355 | 76,581 | 96,060 | 57,139 | 18,566 | 9,784 | 129,546 | 32,404 | 112,591 | 95,039 | 331,476 | 16,000 | 19,047 | 1,022,588 |

Note: Member Agencies keep the first 20% of backyard collection fees because the cost to service 20% of the customers is included in Contractor's Compensation. The backyard collection fees are within the 20% threshold and therefore are reduced from the total of Unscheduled Services revenue.