#### **AGENDA**

Planning & Organization Committee and Recycling Board Members

Daniel O'Donnell, **President** *Environmental Organization*Tim Rood, **1st Vice President** *City of Piedmont* 

Toni Stein, **2nd Vice President** 

Environmental Educator

Adan Alonzo, Recycling Programs Lorrin Ellis, City of Union City Greg Jones, City of Hayward Peter Maass, City of Albany

Michael Peltz, Solid Waste Industry Representative

Jerry Pentin, City of Pleasanton

Steve Sherman, Source Reduction Specialist
Minna Tao, Recycling Materials Processing Industry

# MEETING OF PLANNING AND ORGANIZATION COMMITTEE AND ALAMEDA COUNTY RECYCLING BOARD

Thursday, February 12, 2015 4:00 p.m.

> StopWaste Offices 1537 Webster Street Oakland, CA 94612 510-891-6500

Via teleconference:
 Lorrin Ellis
Hyatt Regency Chicago
151 East Wacker Drive
Chicago, IL, 60601
(312) 565-1234

Meeting is wheelchair accessible. Sign language interpreter may be available upon five (5) days notice to 510-891-6500.

- I. CALL TO ORDER
- II. ROLL CALL
- III. ANNOUNCEMENTS BY THE PRESIDENT
- Page IV. CONSENT CALENDAR (P&O & RB)
  - 1. Approval of the Draft Joint Minutes of January 28, 2015 (Wendy Sommer) Action
  - 5 2. Board Attendance Record (Wendy Sommer) Information
  - 7 3. Written Report of Ex Parte Communications Information
  - 9 4. Grants Under \$50,000 (Wendy Sommer) Information
    - V. OPEN PUBLIC DISCUSSION

An opportunity is provided for any member of the public wishing to speak on any matter within the jurisdiction of the Board, but not listed on the agenda. Each speaker is limited to three minutes.

- VI. REGULAR CALENDAR (P&O & RB)
- 1. Annual Audit for Fiscal Year 2013/14 (P&O & RB) (Gary Wolff, Wendy Sommer, Pat Cabrera & Gina Peters)

Action

Review and forward the audit report to the Waste Management Authority, Recycling Board and Energy Council for acceptance and filing.

65 **2.** Research on Degradation of Pharmaceuticals in Compost ("Will Bugs Eat Our Action Drugs?") (RB only) (Gary Wolff)

Amend the Recycling Board Budget for FY14-15 to add \$50,000 to Project 2040, funded from the grants-to-nonprofits account balance, and authorize the Executive Director to enter into a grant agreement with the Lawrence Berkeley National Laboratory (or affiliated entity) to perform the research

proposal attached, with minor adjustments if deemed necessary by the Executive Director.

Presentations of Key Discards Management Projects (P&O & RB)
 (Wendy Sommer & Tom Padia)

This item is for information only.

VII. OTHER PUBLIC INPUT

VIII. COMMUNICATIONS/MEMBER COMMENTS Information

Information

IX. ADJOURNMENT

#### DRAFT

## MINUTES OF THE JOINT MEETING OF THE ALAMEDA COUNTY WASTE MANAGEMENT AUTHORITY BOARD (WMA), THE ENERGY COUNCIL (EC), AND THE SOURCE REDUCTION AND RECYCLING BOARD (RB)

Wednesday, January 28, 2015

3:00 p.m.

StopWaste Offices 1537 Webster Street Oakland, CA 94612 510-891-6500

#### Via teleconference:

Steve Sherman 1400 J Street Sacramento, CA 95814 510-773-2776 Michael Peltz Arizona Biltmore 2400 E. Missouri Ave. , Rm. 1200 Phoenix, AZ 85016 602-955-6600

#### I. CALL TO ORDER

First Vice President (WMA), Pauline Cutter, called the meeting to order at 3:04 p.m., and introduced and welcomed the new Board members. The new Board members are: Mayor Trish Spencer (Alameda), Councilmember Susan Wengraf (Berkeley), Councilmember Dianne Martinez (Emeryville), Vice Mayor Suzanne Lee Chan (Fremont), Shelia Young (Oro Loma Sanitary District), and Adan Alonzo (Recycling Programs).

#### II. ROLL CALL

#### WMA, EC & RB

County of Alameda Keith Carson, WMA, EC (arrive 3:12 p.m., left 4:4:15 p.m.)

City of Alameda Trish Spencer, WMA, EC
City of Albany Peter Maass, WMA, EC, RB

City of Berkeley Susan Wengraf, WMA, EC (left 4:35 p.m.)

Castro Valley Sanitary District Dave Sadoff, WMA

City of Dublin Don Biddle, WMA, EC (left 4:30 p.m.)

City of Emeryville Dianne Martinez, WMA, EC
City of Fremont Suzanne Lee Chan, WMA, EC
City of Hayward Greg Jones, WMA, EC, RB

City of Newark Luis Freitas, WMA, EC (left 4:20 p.m.)

City of Oakland

Oro Loma Sanitary District

City of Piedmont

City of Pleasanton

City of San Leandro

City of Union City

Dan Kalb, WMA, EC

Shelia Young, WMA

Tim Rood, WMA, EC, RB

Jerry Pentin, WMA

Pauline Cutter, WMA, EC

Lorrin Ellis, WMA, EC, RB

Environmental Educator Toni Stein, RB (arrive 3:20 p.m.)

Environmental Organization Daniel O'Donnell, RB

Recycling Materials Processing Industry Minna Tao, RB (arrive 4:05 p.m.)

Recycling Programs Adan Alonzo, RB

#### **DRAFT**

Solid Waste Industry Representative Source Reduction Specialist

Michael Peltz, RB (arrive 3:25 p.m. via teleconference) Steve Sherman, RB (arrive 3:30 p.m. via teleconference)

Absent:

City of Livermore Laureen Turner, WMA

#### **Staff Participating:**

Gary Wolff, Executive Director
Wendy Sommer, Deputy Executive Director
Debra Kaufman, Senior Program Manager
Richard Taylor, Counsel, Authority Board
Audrey Beaman, County Counsel
Arliss Dunn, Clerk of the Board

#### III. ANNOUNCEMENTS BY THE PRESIDENTS

Recycling Board President O'Donnell announced the availability of grant funds to non-profits for waste reduction projects in Alameda County and encouraged Board members to take and distribute fliers to organizations in their respective districts. The application deadline is March 19, 2015 at 5:00 p.m.

#### IV. CONSENT CALENDAR (WMA, EC & RB)

1. Approval of the Draft Minutes of November 19, 2014 (WMA & EC-Separate Votes) (Gary Wolff)

Action

- 2. Prop 84 Integrated Regional Water Management Grant, Round 2 Action
  Resolution to Accept Grant (WMA only) (Gary Wolff, Teresa Eade & Wendy Sommer)

  Adopt the Resolution attached.
- 3. Approval of the Draft Minutes of December 11, 2014 (RB only) (Gary Wolff & Wendy Sommer)

Action

4. Recycling Board Attendance Record (RB only) (Gary Wolff & Wendy Sommer)

Information

5. Written Report of Ex Parte Communications (RB only) (Gary Wolff & Wendy Sommer)

Information

6. Minutes of the December 16, 2014 Technical Advisory Group (TAG) (EC only) (Gary Wolff & Wendy Sommer)

Information

Board member Freitas made the motion to approve item #1 of the Consent Calendar for the WMA Board. Board member Pentin seconded with the correction noted below and the motion carried 17--0 (Carson and Turner absent).

(Correction: Board member Biddle volunteered to serve as an interim appointment, not Board member Pentin).

Board member Kalb made the motion to approve the Consent Calendar for the Energy Council. Board member Ellis seconded and the motion carried 16-0 (Carson absent).

Board member Jones made the motion to approve the Consent Calendar for the Recycling Board. Board member Ellis seconded and the motion carried 7-0 (Peltz, Sherman, Stein, and Tao absent).

Board member Sadoff made the motion to approve item #2 of the Consent Calendar for the WMA Board. Board member Pentin seconded and the motion carried 17-0 (Carson and Turner absent).

#### V. OPEN PUBLIC DISCUSSION (WMA, EC & RB)

Ken Bukowski stated that he video records this meeting and other regional meetings and they are available at www.regional-video.com.

#### VI. REGULAR CALENDAR (WMA, EC & RB)

## Change in Officers for Fiscal Year 2014-2015 (WMA only) (Gary Wolff) Staff recommends that the Authority Board 'advance' Board members Cutter and Pentin to the positions of President and First Vice President, and elect a Second Vice President for North County.

Mr. Wolff summarized the staff report. The report is available here: http://www.stopwaste.org/sites/default/files/meeting/Election%20of%20Officers.pdf

Board member Pentin made the motion to advance First Vice President Cutter to the office of President. Board member Biddle seconded and the motion carried 19-0 (Turner absent). Board member Ellis made the motion to advance Board member Pentin to office of First Vice President. Board member Sadoff seconded and the motion carried 19-0 (Turner absent). Board member Maass made the motion to elect Board member Kalb to the office of Second Vice President. Board member Wengraff seconded and the motion carried 19-0 (Turner absent).

### 2. Interim appointment(s) to the Recycling Board for WMA appointee unable to attend future Board Meeting(s) (WMA only) (Gary Wolff)

(P&O and Recycling Board meeting, February 12th at 4:00 pm - StopWaste Offices, 1537 Webster St., Oakland, CA)

Mr. Wolff explained the Interim Appointment process to the new Board members. Any WMA member is eligible to serve as an interim appointment for any WMA member requesting such an appointment. The Board of Supervisors must appoint an interim appointment for Board of Supervisor appointees. Recycling Board members absent two meetings in a row or more than three meetings in a calendar year are automatically dismissed from the Recycling Board. Board members may attend via teleconference by providing the location information to staff.

Board member Ellis requested an interim appointment for the P&O and RB meeting on February 12th. There were no volunteers available. Board member Ellis will attend via teleconference.

### 3. Countywide Integrated Waste Management Plan Factual Changes (RB only) Action (Gary Wolff, Wendy Sommer & Debra Kaufman)

Staff recommends that the Recycling Board review the proposed changes to the CoIWMP, and the 5-year review report, and provide comments (if any).

Debra Kaufman provided an overview of the staff report. The report is available here: <a href="http://www.stopwaste.org/sites/default/files/meeting/rb%20factual%20changes%20coiwmp%202015.pdf">http://www.stopwaste.org/sites/default/files/meeting/rb%20factual%20changes%20coiwmp%202015.pdf</a>

Board member Sadoff inquired if staff looked at remaining airspace with respect to the 34 years of landfill capacity. Ms. Kaufman stated, yes, each landfill was asked to provide information on their current remaining airspace. However, future years of airspace will depend on rates of compaction and actual fill rates.

There were no actionable comments on this item.

#### 4. Overview of our Agency: Past, Present, Future (WMA, EC & RB) (Gary Wolff) Information

Gary Wolff provided a powerpoint presentation about the past, present, and future of the organization. The powerpoint presentation is available here: http://www.stopwaste.org/file/2129/download?token=TOf9YPvw

A video recording of the presentation is available at the following url: <a href="https://www.youtube.com/watch?v=Bph7tEyjK2k&t=22m15s">https://www.youtube.com/watch?v=Bph7tEyjK2k&t=22m15s</a>

Board member Kalb inquired about the new mattress recycling program. Mr. Wolff stated that as part of the agency supported EPR legislation, State legislation passed last year (SB 254 – Hancock), which requires mattress manufacturers to create a statewide stewardship plan for discarded mattresses. StopWaste has provided a

#### **DRAFT**

\$25,000 grant to DR3, a local non-profit mattress recycler that we have supported for year, to implement a pilot project. As part of the work, DR3 will coordinate with cities public works to identify hot spots where abandoned mattresses are often found, then tag them with a unique identifier. Financial incentives—or bounties—will be made available to small business waste haulers and recyclers, often referred to as the "mosquito fleet." The bounty varies by mattress size: King - \$12; Queen - \$10; Full - \$8; Twin - \$6. In April, data collected from the pilot program will used by the Stewardship Organization to decide if they would like to include a "deposit refund system" in their proposal to CalRecycle. Board member Kalb stated that there should be an incentive to not illegally dump the mattress in the first place and questioned if this is included in the current project. Mr. Wolff stated that the results of the pilot project may persuade the stewardship group to propose that each mattress have a deposit at purchase to fund a rebate when the mattress is at its end of life. However, StopWaste does not have the power to decide on a mattress stewardship plan for the state.

Board member Cutter inquired as to the responsible party ticketing the mattresses. Mr. Wolff responded that some of the folks in the Stewardship group i.e. Rebecca Jewell, Waste Management, and Terry McDonald, DR3 are responsible for the outreach efforts. Board member Cutter inquired about the contact person for reporting a mattress. Mr. Wolff stated he will accept any calls or emails and forward to the appropriate person.

Board member Stein commented that it appears in the presentation that there is a clear end of life emphasis with respect to waste diversion and not an emphasis on the life cycle of materials and how it affects diversion with respect to post consumer recycled content as well as push to ensure that legislation is passed so that post consumer recyclables are included for all State purchases, and that it is extended to all counties and cities. Board member Stein added with respect to recycled content purchasing, it is indicated in the presentation as being very important, yet including a mandatory requirement for recycled content at purchase doesn't appear in the picture. Additionally, we need to review the issue of sanitation and the effects on public health in our recycling message. Mr. Wolff responded that as the Boards review the individual projects over the next few months they can decide if there is a sufficient emphasis on recycled content purchasing and extended producer responsibility, and that within Bay-Friendly Landscaping worker health is very important. In the project that includes reducing the purchasing and creation of household hazardous waste (which is a waste reduction project) there's an emphasis on the reduction and purchasing of toxic pesticides, which is both a human health and environmental issue. Board member Stein inquired if is feasible to impose a mandatory program for recycled content in purchases made in the County. Mr. Wolff responded that the program already exists with respect to purchases by the County. The County Charter currently includes that about 5% of Measure D funds is specifically for product purchasing either recycled content or environmentally preferred purchasing. This program also allows member agencies to piggyback on open purchase orders to buy products that meet the specification of the Counties EPP policies. Twice a year, GSA staff (Carolyn Bloede and Karen Cook) host a workshop for member agency purchasing staff to share their insights on environmentally preferred purchasing.

#### VII. COMMUNICATIONS/MEMBER COMMENTS (WMA, EC & RB)

Information

Board member Chan commented that the City of Huntington Beach is the first City in the nation to start the process of eliminating their plastic bag ban.

Board member Maass inquired as to the status of the Alameda County Community Choice Aggregation (CCA) feasibility study. Ms. Sommer responded that the Board of Supervisors' Transportation and Planning Committee is meeting on February 2<sup>nd</sup> to discuss the stakeholder and technical committee structure and composition for the CCA process.

#### VIII. ADJOURNMENT (WMA/EC)

The meeting adjourned at 4:40 p.m.

#### 2015 - ALAMEDA COUNTY RECYCLING BOARD ATTENDANCE

	J	F	М	А	М	J	J	Α	S	0	N	D
	REGULAR MEMBERS											
A. Alonzo	Х											
L. Ellis	Х											
G. Jones	Х											
P. Maass	Х											
D. O'Donnell	Х											
M. Peltz	Х											
J. Pentin	Х											
T. Rood	Х											
S. Sherman	Х											
T. Stein	Х											
М. Тао	Х											
	ı	I		INTERII	M APPO	INTEES	, ,		T	T	T	

Measure D: Subsection 64.130, F: Recycling Board members shall attend at least three fourths (3/4) of the regular meetings within a given calendar year. At such time, as a member has been absent from more than one fourth (1/4) of the regular meetings in a calendar year, or from two (2) consecutive such meetings, her or his seat on the Recycling Board shall be considered vacant.

X=Attended A=Absent I=Absent - Interim Appointed

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**DATE:** February 5, 2015

**TO:** Recycling Board

**FROM:** Gary Wolff, Executive Director

Wendy Sommer, Deputy Executive Director

**SUBJECT:** Written Reports of Ex Parte Communications

#### **BACKGROUND**

Section 64.130 (Q)(1)(b) of the Alameda County Charter requires that full written disclosure of ex parte communications be entered in the Recycling Board's official record. At the June 19, 1991 meeting of the Recycling Board, the Board approved the recommendation of Legal Counsel that such reports be placed on the consent calendar as a way of entering them into the Board's official record. The Board at that time also requested that staff develop a standard form for the reporting of such communications. A standard form for the reporting of ex parte communications has since been developed and distributed to Board members.

At the December 9, 1999 meeting of the Recycling Board, the Board adopted the following language:

Ex parte communication report forms should be submitted only for ex parte communications that are made after the matter has been put on the Recycling Board's agenda, giving as much public notice as possible.

Per the previously adopted policy, all such reports received will be placed on the consent calendar of the next regularly scheduled Recycling Board meeting.

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**Date:** February 5, 2015

**TO:** Authority & Recycling Board

**FROM:** Gary Wolff, Executive Director

Wendy Sommer, Deputy Executive Director

**SUBJECT:** Informational Report on Grants Issued Under ED Signature Authority

General Mini-grant and board agendas by giving the Executive Director authority to sign contracts and grant agreements less than \$50,000. A condition of the new grant policy is that staff inform Board members of the small grants issued at the next regularly scheduled Board meeting.

#### Grants - November 16, 2014 - January 15, 2015

Project Name	Grant Recipient	Project Type/Description	Location	Verification	Grant Amount	Board
Reusable Transport Packaging	Ghirardelli Chocolate	Reusable collapsible totes for liquid ingredients, replacing cardboard boxes and wood pallets. Prevents 133 tons solid waste and 285 MTCO2E (metric tons of CO2 equivalent).	San Leandro, CA	Final Report/ Site Visit	\$25,000	WMA (External funding)
Reusable Transport Packaging	WHCI Plumbing	300 Reusable pallets. Replacing wood pallets, preventing 45 tons solid waste and 58.5 MTCO2E.	Union City, CA	Final Report/ Site Visit	\$10,000	WMA (External funding)
Reusable Transport Packaging	Trek Bicycle Corporation	Replace single-use plastic bags with reusable mesh bags, combined with reusable totes, for internal bike components. 1.5 tons solid waste and 2.5 MTCO2E prevented.	Waterloo, WI	Final Report	\$3,500	WMA (External funding)
Reusable Transport Packaging	Finelite, Inc.	Replace single-use stretch wrap for component rack with reusable custom tarp. Eliminates 2.4 tons solid waste and 2.0 MTCO2E.	Union City, CA	Final Report/ Site visit	\$3,500	WMA (External funding)

Reusable Transport Packaging	Boulder Valley School District	Replace cardboard boxes with reusable totes for beef, potato and apple suppliers. Prevent 27 tons solid waste and 68 MTCO2E.	Boulder, CO	Final Report	\$10,000	WMA (External funding)
Reusable Transport Packaging	Terra Bella Family Farm	Replace waxed cardboard with reusable totes for CSA customers using re-used totes from previous grantee. Prevents 15 tons solid waste and 83 MTCO2E.	Pleasanton, CA	Final Report	\$8,000	WMA (External Funding)
Reusable Transport Packaging	Whitefish Enterprises, Inc.	Replace cardboard boxes with reusable totes for candle distribution. Prevents 2 tons solid waste and 11 MTCO2E.	San Leandro, CA	Final Report	\$2,925	WMA (External funding)
Reusable Transport Packaging	Fiddlehead Farms	Replace waxed cardboard boxes with reusable totes for CSA customers. Prevents 23 tons solid waste, 124 MTCO2E.	Corbett, OR	Final Report	\$2,465	WMA (External funding)
Reusable Transport Packaging	Tesla Motors	Replace cardboard, foam and stretch wrap with returnable steel racks. Prevents 1390 tons solid waste and 847 MTCO2E.	Fremont, CA	Final Report/ Site visit	\$10,000	WMA (External funding)



February 5, 2015

**TO:** Programs and Administration Committee

Planning and Organization Committee\Recycling Board

**FROM**: Gary Wolff, Executive Director

Wendy Sommer, Deputy Executive Director Pat Cabrera, Administrative Services Director

BY: Gina Peters, Chief Finance Officer

**SUBJECT:** Annual Audit for Fiscal Year 2013/14

#### **BACKGROUND**

An external audit, required by law, is an independent examination of the financial statements prepared by the Agency. The external auditors' responsibility is to express an opinion on whether the Agency's financial statements give a "true and fair" view of the Agency's state of affairs and operations for the fiscal year being examined.

#### **DISCUSSION**

Fiscal year 2013/2014 financial statements were audited by the auditing firm, Maze and Associates, and they expressed a clean unmodified opinion on the Agency's financial statements. "In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Agency as of June 30, 2014 and the change in financial position and cash flows for the year ended in conformity with accounting principles generally accepted in the United States of America."

The annual financial report was submitted to the State Controller's Office - Department of Local Government Fiscal Affairs by the required deadline. There were no internal control deficiencies noted, however, the auditors proposed one audit adjustment to revise the amortization of Other Post-Employment Benefits (OPEB) assets to agree to the actuarial report. In 2012, the agency made a lump sum payment to satisfy its Net OPEB obligation. This resulted in a net OPEB asset.

The audit report includes a Management's Discussion and Analysis (MD&A) (pages 3-7) and should be read in conjunction with the audited financial statements. The audit report also includes a total Agency (WMA, Recycling Board and Energy Council) Statement of Net Position (page 9); total

Statement of Revenues, Expenses and Changes in Net Position (page 10); and total Statement of Cash Flows (page 11). On pages 25-30, the report shows the Statement of Net Position and the Statement of Revenues, Expenses and Changes in Net Position by Board and by fund.

#### **REVENUE & EXPENSES**

Total actual revenues minus the Revolving Loan Fund income, for FY 13/14 were \$22,212,541, a 10.8% reduction from mid-year estimates. The decrease is primarily attributed to the timing of grant funding (which is linked to grant related expenditures) and lower, property/wind related revenues than estimated. Total actual expenses excluding Revolving Loan Fund related expenses were \$20,832,824, an 18.4% reduction compared to mid-year budgeted expenses due to the timing of grant related expenses as mentioned above.

#### **REVOLVING LOAN FUND (RLF)**

The Agency collected \$136,797 repayments from outstanding loans, bringing the balance of loans receivable to \$240,786 from the previous year balance of \$377,583. No loans were issued in FY 13/14.

#### **NET POSITION**

The Agency functions as an Enterprise Fund and, as such, the difference between assets and liabilities is known as "Total Net Position".

The Authority's Net Position as of June 30, 2014 was \$38.3 million consisting of \$12.9 million reserved for specific purposes by the Board; \$5.9 million for outstanding contracts; \$14.6 million in capital assets; and approximately \$4.9 million was unreserved (this is the figure we used for the beginning available resources for the fiscal year 2014/15 mid-year budget adjustments). The Net Position is comprised of 46% cash, 38% invested in capital assets, and 16% other net assets (which includes the current value of previously paid off pension and other post employment benefits (OPEB) side funds).

The Recycling Board's Net Position (excluding revolving loans) as of June 30, 2014 was \$5.7 million consisting of \$0.7 million reserves; \$1.7 million for outstanding contracts; and \$3.3 million was unreserved (this is the figure we used for the beginning available resources for the fiscal year 2014/15 mid-year budget). The Net Position is comprised of 138% cash offset by 38% other liabilities.

The RLF Net Position as of June 30, 2014 was \$2.1 million consisting of \$0.24 million in loan receivables and \$1.86 million designated for issuing loans and other related expenses. The net position is comprised of 90% cash 10% loan receivables and 1% other liabilities.

The Energy Council's Net Position as of June 30, 2014 was \$1,077.

#### **FISCAL YEAR 2014/2015**

As required, we will be implementing GASB Statement No. 68 in the current fiscal year 2014/2015. Statement 68 requires that we report the net pension liability on the balance sheet. Our current best estimate is that this will reduce our Net Position by approximately \$4.5 million. The agency

participates in a cost-sharing multiple-employer pension plan (Miscellaneous Risk Pool) and has initiated a request to CalPERS to prepare, for a fee, an actuarial study to identify in accordance with GASB Statement No. 68 the Agency's proportionate share of the pool's collective net pension liability. The net pension liability is the unfunded liability for pension benefits promised to current employees, retirees, and their beneficiaries. It is worth noting, however, that the currently unfunded liability is and has been, in practice, funded by a PERS-required higher than normal-cost employer contribution. In that sense, the unfunded liability is a debt to PERS, scheduled to be paid off over a 30 year (or shorter, at our discretion) amortization period.

#### **RECOMMENDATION**

Review and forward the audit report to the Waste Management Authority, Recycling Board and Energy Council for acceptance and filing.

Attachment: Audit Report for FY13/14

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BASIC FINANCIAL STATEMENTS FOR THE YEAR ENDED JUNE 30, 2014 This Page Left Intentionally Blank

For The Year Ended June 30, 2014

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#### ALAMEDA COUNTY WASTE MANAGEMENT AUTHORITY BOARD OF DIRECTORS JUNE 2014

Don Biddle, City of Dublin, President
Jennifer West, City of Emeryville, 1st Vice President
Pauline Cutter, City of San Leandro, 2nd Vice
President

Lena Tam, City of Alameda
Keith Carson, Alameda County
Joanne Wile, City of Albany
Gordon Wozniak, City of Berkeley
Dave Sadoff, Castro Valley Sanitary District

Anu Natarajan, City of Fremont
Barbara Halliday, City of Hayward
Laureen Turner, City of Livermore
Luis Freitas, City of Newark
Dan Kalb, City of Oakland
Laython Landis, Oro Loma Sanitary District
Tim Rood, City of Piedmont
Jerry Pentin, City of Pleasanton
Lorrin Ellis, City of Union City

## ALAMEDA COUNTY SOURCE REDUCTION AND RECYCLING BOARD BOARD OF DIRECTORS JUNE 2014

Anu Natarajan, City of Fremont, President

Daniel O'Donnell, Environmental Organization, 1st Vice President

Laureen Turner, City of Livermore, 2nd Vice President

Barbara Halliday, City of Hayward

Chris Kirschenheuter, Recycling Programs

Michael Peltz, Solid Waste Industry Representative

Jerry Pentin, City of Pleasanton

Steve Sherman, Source Reduction Specialist

Minna Tao, Recycling Materials Processing Industry

Gordon Wozniak, City of Berkeley

Vacant, Environmental Educator

#### ENERGY COUNCIL BOARD OF DIRECTORS JUNE 2014

Lena Tam, City of Alameda, President
Pauline Cutter, City of San Leandro, 2nd Vice President
Barbara Halliday, City of Hayward, 1st Vice President
Keith Carson, Alameda County
Gordon Wozniak, City of Berkeley
Joanne Wile, City of Albany
Don Biddle, City of Dublin
Jennifer West, City of Emeryville
Anu Natarajan, City of Fremont
Luis Freitas, City of Newark
Dan Kalb, City of Oakland
Tim Rood, City of Piedmont
Lorrin Ellis, City of Union City



#### INDEPENDENT AUDITOR'S REPORT

To the Board of Directors Alameda County Waste Management Authority, Alameda County Source Reduction and Recycling Board and Energy Council Oakland, California

#### Report on Financial Statements

We have audited the accompanying financial statements of the Alameda County Waste Management Authority, Alameda County Source Reduction and Recycling Board and Energy Council (Agency) as of and for the year ended June 30, 2014, and the related notes to the financial statements, which collectively comprise the Agency's basic financial statements as listed in the Table of Contents.

#### Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of the financial statements that are free from material misstatement, whether due to fraud or error.

#### Auditor's Responsibility

Our responsibility is to express opinions on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Agency's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Agency's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

F 925.930.0135

#### **Opinions**

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Agency as of June 30, 2014, and the change in financial position and cash flows for the year then ended in conformity with accounting principles generally accepted in the United States of America.

#### Other Matters

#### Required Supplementary Information

Accounting principles generally accepted in the United States of America require that Management's Discussion and Analysis be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic or historical context. We have applied certain limited procedures to this information in accordance with generally accepted auditing standards in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

#### Other Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the Agency's basic financial statements as a whole. The Supplemental Information as listed in the Table of Contents are presented for purposes of additional analysis and are not required parts of the basic financial statements.

The Supplemental Information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with generally accepted auditing standards in the United States of America. In our opinion, the Supplemental Information is fairly stated in all material respects in relation to the basic financial statements as a whole.

#### Other Reporting Required by Government Auditing Standards

In accordance with Government Auditing Standards, we have also issued our report dated January 12, 2015 on our consideration of the Agency's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with Government Auditing Standards in considering the Agency's internal control over financial reporting and compliance.

Pleasant Hill, California January 12, 2015

#### ALAMEDA COUNTY WASTE MANGEMENT AUTHORITY, ALAMEDA COUNTY SOURCE REDUCTION AND RECYLING BOARD AND ENERGY COUNCIL MANAGEMENT'S DISCUSSION AND ANALYSIS FOR THE YEAR ENDED JUNE 30, 2014

The following analysis, prepared by Agency staff, is a brief discussion of the Agency's (Alameda County Waste Management Authority; Alameda County Source Reduction and Recycling Board; and Energy Council) financial activities for the year ended June 30, 2014. Please read it in conjunction with the financial statements and the accompanying notes to those financial statements.

#### FINANCIAL HIGHLIGHTS

- As of June 30, 2014, the Agency assets exceeded its liabilities by \$46,115,667 (reported as net position). The Authority's net position represents 83% and Recycling Board's 17%.
- Cash and short-term investments balance at June 30, 2014 totaled \$28,283,280 of which 63% represents Authority cash, 34% Recycling Board cash and 3% Energy Council cash.
- Tonnage fees from the landfills amounted to \$16,097,294 or 89% of operating revenues.
   Authority's tonnage fees totaled \$7,650,217 and Recycling Board fees totaled \$8,447,077.
- The Agency external grant revenues totaled \$4,111,200 of which Energy Council's portion was \$3,655,592 or 89%.
- The Agency instituted a Benchmark Service.
- Benchmark Fees revenue totaled \$950,002.
- The Agency earned \$64,706 in interest on its investments. Of the interest earned, Authority's portion was \$38,895, Recycling Board \$24,734 and Energy Council \$1,077.
- Operating expenses totaled \$20,943,275. Authority's portion was \$9,279,244 or 44%; the Recycling Board's portion was \$8,008,438 or 38% and \$3,655,593 or 18% for Energy Council.
- The Agency distributed \$4,228,882 of Measure D Fees to the municipalities.
- Benchmark Service related expenses totaled \$819,025.
- There were no additions to capital assets.

#### **OVERVIEW OF THE FINANCIAL STATEMENTS**

The Agency is comprised of three separate Boards, Alameda County Waste Management Authority Board, Alameda County Source Reduction and Recycling Board and Energy Council.

This fiscal year the Agency instituted Benchmark Service. The Benchmark Service provides random anonymous measurements of how much recyclable and compostable material is in garbage containers in Alameda County; analysis of those measurements and reports sent directly to garbage service account holders describing what was found and what people can do to reduce waste at home and at work. The fee ranges from \$1.85 to \$22.15 a year and charged to all residential and commercial garbage accounts in Alameda County. The fee adjusts each July 1, based on the rate of inflation as determined by the change between the prior two Consumer Price Indices for our region. Starting July 1, 2015 the fee will adjust downward if the actual cost of the service in the prior fiscal year (July 1, 2014) is less than the revenue received.

The Agency operates as an Enterprise Fund and presents its financial statements using the full accrual basis of accounting. Revenues are recorded when earned and expenses recorded at the time liabilities are incurred, regardless of when cash is received or paid.

The Agency's financials report includes the three basic financial statements: the Statement of Net Position, the Statement of Revenues, Expenses and Changes in Net Position and the Statements of Cash Flows.

The Statement of Net Position presents information on all of the Agency's assets and liabilities, with the difference between the two reported as net position. The statement provides information about the nature and the amounts of investments in resources (assets) and obligations (liabilities). Over time, increases or decreases in net position may serve as a useful indicator of whether the financial position of the Agency is improving or deteriorating. There are two sections to the Statement of Net Position: Invested in Capital assets and Unrestricted.

The Statement of Revenues, Expenses and Changes in Net Position present the results of the Agency's operations over the course of the fiscal year and information as to how the net position changed during the year. All of the fiscal year's revenues and expenses are accounted for in this statement.

The Statement of Cash Flows provides information about the Agency's cash receipts, cash payments, and net changes in cash resulting from operations, investing and financing activities. The statement shows what the sources and uses of cash were and what the change in the cash balance was during the fiscal year.

#### **Statement of Net Position**

A comparison of the Agency's Statement of Net Position for fiscal year ended June 30, 2014 and 2013 is as follows:

Table 1
Summary Statement of Net Position at June 30, 2014 and 2013

	2014	2013	Increase (Decrease) Amount	Increase (Decrease) Percentage
Current and Other Assets	\$35,458,314	\$33,815,461	\$1,642,853	4.9%
Capital Assets (net of				
depreciation)	14,613,629	14,775,951	(162,322)	(1.1%)
Total Assets	50,071,943	48,591,412	1,480,531	3.0%
Owner to and Other Link liking	0.050.070	2 700 404	475.075	4.004
Current and Other Liabilities	3,956,276	3,780,401	175,875	4.6%
Total Liabilities	3,956,276	3,780,401	175,875	4.6%
Net position:				
Invested in Capital Assets	14,613,629	14,775,951	(162,322)	(1.1%)
Unrestricted	31,502,038	30,035,060	1,466,978	` 4.9%
Total Net Positions	\$46,115,667	\$44,811,011	\$1,304,656	2.9%

Net position may serve over time as a useful indicator of the Agency's financial position. At the close of the fiscal year, June 30, 2014, the Agency's assets exceeded liabilities by \$46 million. The largest portion of the Agency's net position, \$32 million (68.4%) is unrestricted and represents resources that may be used to meet any of the Agency's ongoing obligations. The Board has designated \$14 million (43.3%) of the \$32 million for specific purposes.

The Agency's investment in capital assets (land, buildings, furniture and equipment) amounted to \$15 million (31.6%).

The Agency's has no external restrictions on how any portion of the net position may be used.

#### Statement of Revenues, Expenses and Changes in Net Position

The following table provides a summary of the Agency's operations for the fiscal years ended June 2014 and 2013.

Table 2
Summary Statement of Revenues, Expenses and Changes in Net Position for the years ending June 30, 2014 and 2013

	2014	2013	Increase (Decrease) Amount	Increase (Decrease) Percentage
Operating revenues	\$18,072,025	\$17,915,110	\$156,915	0.8%
Non-operating revenues	4,175,906	3,492,153	683,753	19.5%_
Total Revenues	22,247,931	21,407,263	840,668	3.9%
Operating expenses	20,780,953	19,302,934	1,478,019	7.6%
Depreciation	162,322	163,921	(1,599)	(0.9%)
Total expenses	20,943,275	19,466,855	(1,476,420)	(7.6%)
Change in Net Position	1,304,656	1,940,408	(635,752)	(32.7%)
Beginning net position	44,811,011	42,870,603	1,940,408	4.5%
Ending net position	\$46,115,667	<u>\$44,811,011</u>	\$1,304,656	2.9%

The Statements of Revenues, Expenses, and Changes in Net Position show the results of operations during the course of the year. Operating revenues consist of tonnage fees from the landfills (89%), benchmark fees (5.3%) and other revenues (5.7%) from a variety of sources (wind/property, Use oil campaign, household hazardous waste and bay roc junk mail campaign.

Compared to 2013 operating revenues increased by \$157,000 or 0.8% in fiscal year 2014 as follows: Loss of revenue from the Cooperative Facility Fee Implementation and Diversion agreement between the Authority and Waste Management of Alameda County and Republic Services, which sunsetted on March 15, 2013 (\$1,050,000); slight increase in tonnage fees of \$14,000; increase in Other revenues of \$243,000 and the addition of \$950,000 from the new Benchmark fees.

Non-operating revenues comprised primarily of grants and interest income. Compared to 2013, grants revenues were higher by \$689,000 and interest income decreased slightly by \$5,000 due to lower interest rates.

Total operating expenses for fiscal year 2014 increased by \$1,476,000 or 7.6% over 2013.

#### **Capital Assets**

At June 30, 2014, the Agency has invested \$15 million in capital assets, net of depreciation. The investment in capital assets includes land, buildings, furnishings and equipment. No assets were added to furniture and equipment.

Details of the capital assets, net of accumulated depreciation, as of June 30, 2014 and 2013 are as follows:

	2014	2013	Increase (Decrease) Amount	Increase (Decrease) Percentage
Land (Altamont and Webster Street)	\$9,230,922	\$9,230,922	\$-0-	
Buildings (Webster Street and Education Center)	6,278,660	6,278,660	-0	
Furniture and equipment	259,652	259,652	-0	
Total Capital Assets	\$15,769,234	\$15,769,234	-0	
Less: Accumulated Depreciation	(1,155,605)	(993,283)	(162,322)	(16.3%)
Ending capital assets, net Assets	\$14,613,629	\$14,775,951	\$(162,322)	(16.3%)

Additional information on the Agency's capital assets can be found in note 4 of the notes to financial statement.

#### **Request for information**

The Agency's financial statements are designed to provide a general overview of the Agency's finances and to show the Agency's accountability of the resources it receives and expends. If you have questions about this report, or need additional information, contact the Chief Finance Officer at Alameda County Waste Management Authority, Recycling Board and Energy Council, 1537 Webster Street, Oakland CA 94612.

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# ALAMEDA COUNTY WASTE MANAGEMENT AUTHORITY, ALAMEDA COUNTY SOURCE REDUCTION, AND RECYCLING BOARD AND ENERGY COUNCIL STATEMENT OF NET POSITION JUNE 30, 2014

#### **ASSETS**

Current Assets	
Cash and cash equivalents (Note 2)	\$28,283,280
Accounts receivable	2,381,668
Interest receivable	19,104
Grants receivable	1,572,502
Loans receivable - current (Note 3)	27,517
Total Current Assets	32,284,071
Noncurrent Assets	
Capital Assets - net of accumulated depreciation (Note 4)	14,613,629
Loans receivable - non-current (Note 3)	213,269
Net pension asset (Note 8A)	748,097
Net OPEB asset (Note 8B)	2,212,877
Total noncurrent assets	17,787,872
Total Assets	50,071,943
LIABILITIES	
Current Liabilities	
Accounts payable	2,072,624
Accrued expenses	151,324
Accrued vacation (Note 6)	250,706
Due to other governmental agencies (Note 5)	1,081,849
Unearned revenue	331,180
Total current liabilities	3,887,683
Noncurrent liabilities	
Accrued vacation (Note 6)	68,593
Total Liabilities	2.056.276
Total Elabilities	3,956,276
NET POSITION (Note 7)	
Restricted for:	
Net investment in capital assets	14,613,629
Unrestricted	31,502,038
Total Net Position	\$46,115,667

See accompanying notes to financial statements

### STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION FOR THE YEAR ENDED JUNE 30, 2014

OPERATING REVENUES	
Disposal and waste import mitigation Fees	\$16,097,294
Benchmark fees	950,002
Other	1,024,729
Total Operating Revenues	18,072,025
OPERATING EXPENSES	
Salaries and benefits	5,990,719
Program expenses	14,514,836
Legal and accounting	191,277
Board expenses	46,993
Administrative and other	37,128
Depreciation	162,322
Total Operating Expenses	20,943,275
OPERATING LOSS	(2,871,250)
NON-OPERATING REVENUE	
Grants	4,111,200
Interest income	64,706
Total Non-Operating Revenue	4,175,906
CHANGE IN NET POSITION	1,304,656
Net position, beginning of year	44,811,011
Net position, end of year	\$46,115,667

See accompanying notes to financial statements

# ALAMEDA COUNTY WASTE MANAGEMENT AUTHORITY AND ALAMEDA COUNTY SOURCE REDUCTION AND RECYCLING BOARD AND ENERGY COUNCIL STATEMENT OF CASH FLOWS FOR THE YEAR ENDED JUNE 30, 2014

CASH FLOWS FROM OPERATING ACTIVITIES	
Cash received from customers and users	\$18,482,424
Cash payments to suppliers	(14,506,323)
Cash payments to employees for wages and benefits	(6,020,435)
Net cash provided by (used for) operating activities	(2,044,334)
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES	
Grants	3,421,005
CASH FLOWS FROM INVESTING ACTIVITIES	
Interest income	62,439
Interest meonic	02,439
Net change in cash and cash equivalents	1,439,110
	2,122,220
Cash and cash equivalents at beginning of year	26,844,170
Cash and cash equivalents at end of year	\$28,283,280
Deconciliation of anaroting long to not each mayided by (yeard for)	
Reconciliation of operating loss to net cash provided by (used for)  Operating activities:	
Operating activities.	
Operating loss	(\$2,871,250)
Adjustments to reconcile operating loss to	(4-,01,1,200)
Depreciation	162,322
(Increase) decrease in accounts receivable	273,602
(Increase) decrease in loans receivable	136,797
(Increase) decrease in net pension asset and OPEB asset	78,320
Increase (decrease) in accounts payable	(224,902)
Increase (decrease) in accrued expenses	68,714
Increase (decrease) in amounts due to other governments	(5,313)
Increase (decrease) in unearned revenue	329,964
Increase (decrease) in accrued vacation	7,412
Net cash provided by (used for) operating activities	(\$2,044,334)
The cash provided by (used for) operating activities	(\$4,044,334)

See accompanying notes to financial statements

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#### NOTES TO BASIC FINANCIAL STATEMENTS

For The Year Ended June 30, 2014

#### NOTE 1 – SUMMARY SIGNIFICANT ACCOUNTING POLICIES

#### A. Description of the Authority and its Programs

Alameda County Waste Management Authority, Alameda County Source Reduction and Recycling Board and Energy Council are three separate legal entities

The Alameda County Waste Management Authority (Agency) is a public agency formed in 1976 by a Joint Exercise of Powers Agreement among the County of Alameda, each of the fourteen cities within the county, and two sanitary districts that provide refuse and recycling collection services. The Agency has a seventeen-member board composed of elected officials appointed by each member agency.

The Agency is responsible for preparation of the Alameda County Integrated Waste Management Plan and Alameda County Hazardous Waste Management Plan. It manages a long-range program for development of solid waste facilities and offers a wide variety of other programs in the areas of source reduction and recycling, market development, technical assistance and public education. Funding is provided by per ton disposal and waste import mitigation fees.

The Alameda County Source Reduction and Recycling Board (Recycling Board) was created in 1990 by the voters of Alameda County through a ballot initiative, "Measure D". The elevenmember board includes six citizen experts appointed by the Alameda County Board of Supervisors and five elected officials from the Alameda County Waste Management Authority.

The Recycling Board is responsible for programs that promote source deduction, residential and commercial recycling, recycled product procurement and market development. Program funding is provided from a per ton disposal surcharge at the Altamont and Vasco Road landfills.

The Energy Council was formed in Spring 2013 as a Joint Powers Agency to seek funding on behalf of its member agencies to develop and implement programs and policies that reduce energy demand, increase energy efficiency, advance the use of clean, efficient and renewable resources, and help create climate resilient communities. The Energy Council will assist its members in strengthening staff capacity, providing technical expertise, and securing funds to implement local sustainable energy strategies. To date, thirteen members serve on the Board. Funding for projects comes from external grants and sources.

#### B. Basis of Presentation

The Agency's Basic Financial Statements are prepared in conformity with accounting principles generally accepted in the United States of America. The Government Accounting Standards Board is the acknowledged standard setting body for establishing accounting and financial reporting standards followed by governmental entities in the United States of America.

#### NOTES TO BASIC FINANCIAL STATEMENTS

For The Year Ended June 30, 2014

#### NOTE 1 – SUMMARY SIGNIFICANT ACCOUNTING POLICIES (Continued)

#### C. Basis of Accounting

Enterprise fund financial statements include a Statement of Net Position, a Statement of Revenues, Expenses and Changes in Fund Net Position, and a Statement of Cash Flows.

Enterprise funds are accounted for using "economic resources" measurement focus and the accrual basis of accounting. Accordingly, all assets and deferred outflows of resources, and liabilities and deferred inflow of resources, (whether current or noncurrent) are included on the Statement of Net Position. The Statement of Revenues, Expenses, and Changes in Fund Net Position presents increases (revenues) and decreases (expenses) in total net position. Under the accrual basis of accounting, revenues are recognized in the period in which they are earned while expenses are recognized in the period in which the liability is incurred.

Operating revenues are those revenues that are generated from the primary operations of the fund. All other revenues are reported as non-operating revenues. Operating expenses are those expenses that are essential to the primary operations of the fund. All other expenses are reported as non-operating expenses.

#### D. Compensated Absences

Vested or accumulated vacation leave that is expected to be liquidated with expendable available financial resources is reported as an expense and a liability. Generally, earned vacation may be accumulated up to a maximum of 400 hours by all personnel. Agency employees do not receive compensation for accumulated sick leave unless they retire, in which case they have the option of cashing out half of their sick leave or converting sick leave to service credit. To date all eligible employees have chosen the latter option. Accordingly no sick leave has been accrued.

#### E. Use of Estimates

The preparation of financial statements in conformity with generally accepted accounting principles (GAAP) requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

#### F. Deferred Outflows/Inflows of Resources

In addition to assets, the statement of financial position will sometimes report a separate section for deferred outflows of resources. This separate financial statement element, *deferred outflows of resources*, represents a consumption of net position that applies to a future period(s) and so will *not* be recognized as an outflow of resources (expense) until then. The Agency did not have any items that qualify for reporting in this category.

#### NOTES TO BASIC FINANCIAL STATEMENTS

For The Year Ended June 30, 2014

#### NOTE 1 – SUMMARY SIGNIFICANT ACCOUNTING POLICIES (Continued)

In addition to liabilities, the statement of financial position will sometimes report a separate section for deferred inflows of resources. This separate financial statement element, deferred inflows of resources, represents an acquisition of net position that applies to a future period(s) and so will not be recognized as an inflow of resources (revenue) until that time. The Agency has only one item that qualifies for reporting in this category. Accordingly, the item, unavailable revenue, are deferred and recognized as an inflow of resources in the period that the amounts become available.

#### **NOTE 2 - CASH AND INVESTMENTS**

The Agency invests in investment pools. The Agency carries its investments at fair market value, as required by generally accepted accounting principles. Cash and investments at June 30, 2014 consist of the following:

Cash on hand and in banks	\$598,407
Investment pools	27,684,873
Total cash and cash equivalents	\$28,283,280

#### A. Authorized Investments

The Agency is authorized to invest in the instruments, in the table below, which also identifies certain provisions of the California Government Code or the Agency's investment policy where it is more restrictive:

		Maximum	Maximum
		Percentage of	Investment in
Authorized Investment Type	Maximum Maturity	Portfolio	One Issuer
Alameda County Investment Pool	N/A	None	None
Local Agency Investment Fund (LAIF)	N/A	None	None

#### B. Interest Rate Risk

Interest rate risk is the risk that changes in market interest rates will adversely affect the fair value of an investment. Generally, the longer the maturity of an investment, the greater the sensitivity of its fair value to changes in market interest rates.

#### NOTES TO BASIC FINANCIAL STATEMENTS

For The Year Ended June 30, 2014

#### NOTE 2 - CASH AND INVESTMENTS (Continued)

Information about the sensitivity of the fair values of the Agency's investments to market interest rate fluctuations is provided by the following table, which shows the distribution of the Agency's investments by maturity:

	Remaining Maturity
	(in Months)
Authorized Investment Type	12 Months or less
Alameda County Investment Pool	\$15,858,843
Local Agency Investment Fund (LAIF)	11,826,030
	\$27,684,873

The Agency is considered to be a voluntary participant in an external investment pool. The fair value of the Agency's investment in the pool is reported in the financial statements at amounts based upon the Agency's pro-rata share of the fair value provided by the County Treasurer for the entire portfolio (in relation to the amortized cost of that portfolio). The balance available for withdrawal is based on the accounting records maintained by the County Treasurer, which is recorded on the amortized cost basis.

The Agency is a participant in the Local Agency Investment Fund (LAIF) that is regulated by California Government Code Section 16429 under the oversight of the Treasurer of the State of California. The Agency reports its investment in LAIF at the fair value amount provided by LAIF, which is the same as the value of the pool share. The balance is available for withdrawal on demand, and is based on the accounting records maintained by LAIF, which are recorded on an amortized cost basis. Included in LAIF's investment portfolio are collateralized mortgage obligations, mortgage-backed securities, other asset-backed securities, loans to certain state funds, and floating rate securities issued by federal agencies, government-sponsored enterprises, United States Treasury Notes and Bills, and corporations. At June 30, 2014, these investments matured in an average of 232 days.

#### C. Credit Risk

Credit risk is the risk that an issuer of an investment will not fulfill its obligation to the holder of the investment. This is measured by the assignment of a rating by a nationally recognized statistical rating organization. The State and County pools are not rated.

#### D. Concentration of Credit Risk

Investments in any one issuer (other than U. S. Treasury securities, mutual funds, and external investment pools) that represent 5% or more of total investments. As of June 30, 2014 there were no investments in any one issuer (other than external investment pools) that represent 5% or more of the total Agency investments.

#### NOTES TO BASIC FINANCIAL STATEMENTS

For The Year Ended June 30, 2014

#### **NOTE 2 - CASH AND INVESTMENTS (Continued)**

#### E. Custodial Credit Risk

Custodial credit risk for deposits is the risk that, in the event of the failure of a depository financial institution, the Agency will not be able to recover its deposits or will not be able to recover collateral securities that are in the possession of an outside party. Under California Government Code Section 53651, depending on specific types of eligible securities, a bank must deposit eligible securities posted as collateral with its Agent having a fair value of 105% to 150% of the Agency's cash on deposit. All of the Agency's deposits are either insured by the Federal Depository Insurance Corporation (FDIC) or collateralized with pledged securities held in the trust department of the financial institutions in the Agency's name.

#### NOTE 3 - LOANS RECEIVABLE

The Agency lends out monies to businesses in order to improve their recycling and waste management programs. The Revolving Loan Fund is designed to encourage businesses to reduce the amount of waste going to Alameda County landfills by providing low interest loans for source reduction, recycling, composting, processing or recycled market development efforts. Loan funds are available to existing and start up businesses with projects that reduce waste disposed in Alameda County landfills. To be eligible, businesses must be located in Alameda or an adjacent county, or be relocating to Alameda County. The fund is administered by the Safe-BidCo. on behalf of the Alameda County Source Reduction and Recycling Board. Loans are available from \$10,000 to \$300,000 with interest rates ranging from Wall Street Journal (WSJ) prime to prime plus 6%. Loan terms do not exceed 5 years. As of June 30, 2014, outstanding loans totaled \$240,786.

#### NOTE 4 – CAPITAL ASSETS

Capital assets are stated at cost less accumulated depreciation, which is provided on the straight-line basis over the estimated useful lives of the respective assets. The estimated useful lives of the assets and capitalization thresholds are listed below:

Asset Type	Asset Life	Capitalization Thresholds
Building and improvements	25 to 50 years	\$5,000
Vehicles, furniture, and equipment	5 to 10 years	\$5,000

#### NOTES TO BASIC FINANCIAL STATEMENTS For The Year Ended June 30, 2014

#### NOTE 4 – CAPITAL ASSETS (Continued)

The Agency's capital assets at June 30, 2014 consist of:

	Balance June 30, 2013	Additions	Balance June 30, 2014
Capital assets not being depreciated:	<b>\$0.220.022</b>		\$9,230,922
Land	\$9,230,922		\$9,230,922
Total	9,230,922		9,230,922
Capital assets being depreciated:			
Buildings and improvements	6,278,660		6,278,660
Furniture and equipment	259,652		259,652
Total	6,538,312		6,538,312
Less accumulated depreciation for:			
Building	(841,188)	(\$130,462)	(971,650)
Furniture and equipment	(152,095)	(31,860)	(183,955)
Total	(993,283)	(162,322)	(1,155,605)
Total capital assets being depreciated, net	5,545,029	(162,322)	5,382,707
Total capital assets, net	\$14,775,951	(\$162,322)	\$14,613,629

#### NOTE 5 – DUE TO OTHER GOVERNMENTAL AGENCIES

The Agency provides direct funding to member agencies through the mandated allocation of funds to municipalities. Measure D requires the Agency to disburse 50% of Measure D fees on a per capita basis to municipalities for the continuation and expansion of municipal recycling programs. On June 30, 2014, \$1,081,849 represented the last quarter of Measure D fees that had not yet been remitted.

#### NOTE 6 – LONG-TERM LIABILITIES

A summary of long-term liability activities for the year ended June 30, 2014 is as follows:

	Balance June 30, 2013	Additions	Reductions	Ending June 30, 2014	Due within One Year
Accrued vacation	\$311,887	\$258,118	\$250,706	\$319,299	\$250,706

#### NOTES TO BASIC FINANCIAL STATEMENTS

For The Year Ended June 30, 2014

#### NOTE 7 – NET POSITION

#### A. Net Position

Net Position is the excess of all the Agency's assets and deferred outflows over all its liabilities, and deferred inflows regardless of fund. Net Position are divided into three captions defined below:

Net Investment in Capital Assets describes the portion of Net Position which is represented by the current net book value of the Agency's capital assets, less the outstanding balance of any debt issued to finance these assets and related deferred inflows.

Restricted describes the portion of Net Position which is restricted to use by the terms and conditions of agreements with outside parties, governmental regulations, laws, or other restrictions which the Agency cannot unilaterally alter.

Unrestricted describes the portion of Net Position which is not restricted to use.

#### NOTE 8 - PENSION PLAN AND OTHER POST EMPLOYMENT BENEFITS

#### A. CALPERS Miscellaneous Employees Plan

<u>Plan Description</u> - All qualified permanent and probationary Agency employees are eligible to participate in pension plans offered by California Public Employees Retirement System (CALPERS), an agent multiple-employer defined benefit pension plan which acts as a common investment and administrative agent for its participating member employers. CALPERS provides retirement and disability benefits, annual cost of living adjustments and death benefits to plan members, who must be public employees and beneficiaries. The Agency's employees participate in the Miscellaneous Employee Plan. Benefit provisions under the Plan are established by State statute. Benefits are based on years of credited service, equal to one year of full time employment. Funding contributions for the Plan are determined annually on an actuarial basis as of June 30 by CALPERS; the Agency must contribute these amounts. The Plan's provisions and benefits in effect at June 30, 2014, are summarized as follows:

Hire Date	Prior to 1/1/13	After 1/1/13
Benefit vesting schedule	5 years service	5 years service
Benefit payments	monthly for life	monthly for life
Retirement age	55	62
Monthly benefit factors, as a % of annual salary	2.5%	2%
Required employee contribution rates	8%	6.25%
Required employer contribution rates	14.660%	6.25%

Active plan members in the Agency's defined benefit pension plan prior to January 1, 2013 and after January 1, 2013 are required to contribute 8% and 6.25%, respectively, of their annual covered salary. The Agency is required to contribute the actuarially determined remaining amount necessary to fund the benefits for its members.

#### NOTES TO BASIC FINANCIAL STATEMENTS

For The Year Ended June 30, 2014

#### NOTE 8 - PENSION PLAN AND OTHER POST EMPLOYMENT BENEFITS (Continued)

Annual Pension Cost - CALPERS determines contribution requirements using a modification of the Entry Age Normal Method. Under this method, the Agency's total normal benefit cost for each employee from date of hire to date of retirement is expressed as a level percentage of the related total payroll cost. Normal benefit cost under this method is the level amount the Agency must pay annually to fund an employee's projected retirement benefit. This level percentage of payroll method is used to amortize any unfunded actuarial liabilities. The actuarial assumptions used to compute contribution requirements are also used to compute the actuarial accrued liability. The Agency uses the actuarially determined percentages of payroll to calculate and pay contributions to CALPERS. This results in no net pension obligations or unpaid contributions. Annual Pension Costs, representing the payment of all contributions required by CALPERS for the last three fiscal years were as follows:

	Annual	Percentage	Net
Fis cal Year	Pension	of APC	Pension
Ending	Cost (APC)	Contributed	Obligation
June 30, 2012	\$524,142	100%	-
June 30, 2013	696,738	100%	-
June 30, 2014	636,132	100%	-

<u>Funding Status</u> - CALPERS uses the market related value method of valuing the Plan's assets. An investment rate of return of 7.5% is assumed, including inflation at 2.75%. Annual salary increases are assumed to vary by duration of service. Changes in liability due to plan amendments, changes in actuarial assumptions, or changes in actuarial methods are amortized as a level percentage of payroll on a closed basis over nineteen years. Investment gains and losses are accumulated as they are realized and amortized over a rolling thirty-year period.

The Plan's actuarial value (which differs from market value) and funding progress within the most recently available past three years is set forth below at their actuarial valuation date of June 30:

						Unfunded
			Unfunded		Annual	(Overfunded)
	Entry Age		(Overfunded)	Funded	Covered	Liability as %
Valuation Date	Accrued Liability	Value of Assets	Liability	Ratio	Payroll	of Payroll
6/30/2010	\$3,309,064,934	\$2,946,408,106	\$362,656,828	89.0%	\$748,401,352	48.5%
6/30/2011	3,619,835,876	3,203,214,899	416,620,977	88.5%	759,263,518	54.9%
6/30/2012	4,175,139,166	3,686,598,343	488,540,823	88.3%	757,045,663	64.5%

#### NOTES TO BASIC FINANCIAL STATEMENTS

For The Year Ended June 30, 2014

#### NOTE 8 - PENSION PLAN AND OTHER POST EMPLOYMENT BENEFITS (Continued)

Net Pension Asset – As required by State law, effective July 1, 2005, the Agency's Miscellaneous Employee Plan was terminated, and the employees in the Plan were required by CALPERS to join a new State-wide pool. One of the conditions of entry to this pool was that the Agency true-up any unfunded liability in the former Plan, either by paying cash or by increasing its future contribution rates through a Side Fund offered by CALPERS. The Agency satisfied its side Plan's unfunded liability by making a lump sum contribution of \$1,028,633 in July 2011. This resulted in a net pension asset. The net pension asset will be amortized over a 10-year period. Amortization for the year ended June 30, 2014 totaled \$93,511 and is recorded in statement of revenues, expenses and changes in net position. Net pension asset as of June 30, 2014 is \$748,097

#### B. Post Employment Health Care Benefits

#### **Description**

The Agency participates in the CALPERS sponsored health care plan for its employees and long-service retirees and/or their dependents. In addition, the Agency sponsors and administers dental and vision coverage for its employees and/or their dependents.

The Agency provides post-retirement health care benefits to eligible retirees. Prior to January 1, 2007, eligible employees retiring at or after age 50 with a minimum of 5 years of service credit, may opt to continue health care coverage, including spouse and dependents, with a monthly premium paid by the Agency. Vesting requirements have been implemented for employees hired after January 1, 2007.

The Agency has elected to set up a trust fund with the California Employers' Retiree Benefit Trust (CERBT) to fund their plan. The Agency does not have a stand-alone financial statement to their plan. Financial activity of the plan will be included as part of the CERBT's financial statements available through their executive office.

#### NOTES TO BASIC FINANCIAL STATEMENTS

For The Year Ended June 30, 2014

#### NOTE 8 - PENSION PLAN AND OTHER POST EMPLOYMENT BENEFITS (Continued)

The Plan provisions and benefits in effect at June 30, 2014 are summarized as follows:

#### HIRED BEFORE 1/1/2007 HIRED ON OR AFTER 1/1/2007

	HIRED BEFORE 1/1/2007	HIRED ON OR AFTER 1/1/2007
Full Retirement Benefit		
Eligibility Age	50	50 (52 if hired after 2012)
Service Required	5 years	20 years
Benefit Amount	Payment of any PERS premium for retiree and eligible dependents.	Payment of PERS premium for retiree and eligible dependents to limits under Section 22893. In 2014, caps are \$642 for 1-party, \$1,218 for 2-party, and \$1,559 for family.
Benefits End	Paid for life	Paid for life
Partial Retirement Benefit		
Eligibility Age		50 (52 if hired after 2012)
Service Required		10-19 years
Benefit Amount	Not Applicable	Full benefit times vested percentage of 50% to
		95%
Benefits End		Paid for life
PERS Minimum Benefit		
Eligibility Age		50 (52 if hired after 2012)
Service Required		5 years in PERS
Benefit Amount	Not Applicable	\$115 in 2013, \$119 in 2014, and indexed to the medical component of the Consumer Price Index thereafter.
Benefits End		Paid for life
Post-Retirement Death Benefit	Payment of premium for eligible	Payment of premium for eligible dependents for
	dependents for life of spouse or, while eligible, for children.	life of spouse or, while eligible, for children.
Pre-Retirement Death Benefit	PERS minimum to surviving spouse only if that spouse receives continuation of PERS pension as form of annuity.	PERS minimum to surviving spouse only if that spouse receives continuation of PERS pension as form of annuity.
Disability Benefit	Same as Full Retirement Benefit shown above, at any age, as long as service requirement is met.	Same as Full Retirement Benefit shown above, at any age, as long as service requirement is met.

#### NOTES TO BASIC FINANCIAL STATEMENTS

For The Year Ended June 30, 2014

#### NOTE 8 - PENSION PLAN AND OTHER POST EMPLOYMENT BENEFITS (Continued)

#### **Funding Policy and Actuarial Assumptions**

The Agency has elected to fully fund the annual required contribution (ARC) which is determined by an actuary. The contribution requirements of the Agency are established and may be amended by the Board of Directors.

The current year ARC was determined as part of a July 1, 2013 actuarial valuation using the projected unit credit method, which takes into account those benefits that are expected to be earned in the future as well as those already accrued. The actuarial assumptions included (a) 7.50% investment rate of return, (b) 3% payroll growth rate, (c) 2.75% general inflation rate, and (d) health care cost trend rates assumed to increase 5% per year for medical benefits.

Generally accepted accounting principles permit assets to be treated as OPEB assets and deducted from the Actuarial Accrued Liability when such contributions are placed in an irrevocable trust or equivalent arrangement. For the fiscal year ended June 30, 2014, the Agency annual cost for the healthcare plan was \$105,009. The Agency's OPEB asset amortization and the net OPEB asset for the year ended June 30, 2014 were as follows:

Annual required contribution	\$120,200
Interest on net OPEB asset	(164,826)
Amortization of net OPEB asset	149,635
Annual OPEB cost (expense)	105,009
Contribution made	120,200
Increase in net OPEB asset	15,191
Net OPEB asset, beginning of year	2,197,686
Net OPEB asset, end of year	\$2,212,877

The Plan's annual required contributions and actual contributions for the last three years ended June 30 are set forth below:

	Annual OPEB		% of OPEB Cost	
Fiscal Year	Cost	Actual Contribution	Contributed	Net OPEB Asset
6/30/2012	\$290,000	\$2,642,486	911%	\$2,352,486
6/30/2013	154,800	(A)	100%	2,197,686
6/30/2014	105,009	120,200	114%	2,212,877

<sup>(</sup>A) Contribution was fully funded in prior year

#### NOTES TO BASIC FINANCIAL STATEMENTS

For The Year Ended June 30, 2014

#### NOTE 8 - PENSION PLAN AND OTHER POST EMPLOYMENT BENEFITS (Continued)

The Schedule of Funding Progress presents multi-year trend information about whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liability for benefits. Trend data from the actuarial study is presented below:

		Entry Age	Overfunded			Overfunded
	Actuarial	Actuarial	(Underfunded)			(Underfunded) Actuarial
Actuarial	Valuation of	Accrued	Actuarial Accrued	Funded	Covered	Liability as Percentage
Valuation	Assets	Liability	Liability	Ratio	Payroll	of Covered Payroll
Date	(A)	(B)	(A-B)	(A/B)	(C)	[(A-B)/C]
7/1/2011	\$546,600	\$2,911,800	(\$2,365,200)	19%	\$3,189,700	(74.2%)
7/1/2013	3,303,800	2,896,300	\$407,500	114%	4,056,500	10.05%

#### NOTE 9 – RISK MANAGEMENT

The Agency carries commercial insurance coverage for its general liability, property damage, and workers' compensation insurance. The Agency also carries public officials and employee liability insurance, as well as employee dishonesty and forgery/alteration insurance, for those employees who have check signing authority, as well as those employees who handle funds in any manner.

The following types of loss risks are covered through commercial insurance policies as follows:

Type of Coverage (Deductible)	Coverage Limits		
General Liability (\$1,000)	\$2,000,000		
Property (\$1,000)	\$350,000,000		
Boiler and Machinery (\$2,500)	\$25,000,000		
Workers' Compensation (\$1,000)	Statutory Limit		

#### NOTE 10 - COMMITMENTS AND CONTINGENCIES

The Agency's Federal and State grant programs are subject to the provisions of the Federal Single Audit Act as amended and applicable State requirements. In addition, these programs are still subject to further examinations by the grantors and the amount, if any, of expenditures which may be disallowed by the granting agencies cannot be determined at this time. The Agency expects such amounts, if any, to be immaterial.

The Agency is subject to litigation arising in the normal course of business. In the opinion of the Agency attorney's there are no pending litigation which is likely to have a material adverse effect on the financial position of the Agency.

# ALAMEDA COUNTY WASTE MANAGEMENT AUTHORITY, ALAMEDA COUNTY SOURCE REDUCTION AND RECYCLING BOARD AND ENERGY COUNCIL SUPPLEMENTARY SCHEDULE OF NET POSITION - WASTE MANAGEMENT JUNE 30, 2014

	Solid Waste	Mitigation Fees	Benchmark Fees	Total
ASSETS				
CURRENT ASSETS:				
Cash and cash equivalents	\$3,802,970	\$13,603,092	\$345,526	\$17,751,588
Accounts receivable	970,421	216,819	292,374	1,479,614
Interest receivable	4,297	6,749		11,046
Grants receivable	347,716			347,716
Total current assets	5,125,404	13,826,660	637,900	19,589,964
NON-CURRENT ASSETS:				
Capital assets, net of accumulated depreciation	282,138	14,331,491		14,613,629
Net pension asset	748,097			748,097
Net OPEB asset	2,212,877			2,212,877
Due from other funds	4,295,095	19,759	48,473	4,363,327
Total Noncurrent Assets	7,538,207	14,351,250	48,473	21,937,930
TOTAL ASSETS	12,663,611	28,177,910	686,373	41,527,894
LIABILITIES				•
CURRENT LIABILITIES:				
Accounts payable	560,214	326,037	26,337	912,588
Accrued expenses	151,324			151,324
Accrued vacation	250,706			250,706
Due to other funds	1,266,358		529,059	1,795,417
Total current liabilities	2,228,602	326,037	555,396	3,110,035
LONG-TERM LIABILITIES				
Accrued vacation	68,593			68,593
Total long-term liabilities	68,593			68,593
TOTAL LIABILITIES	2,297,195	326,037	555,396	3,178,628
NET POSITION				
NET POSITION	282,138	14,331,491		14,613,629
Net investment in capital assets	10,084,278	13,520,382	130,977	23,735,637
Unrestricted	10,004,276	15,520,502	150,517	
TOTAL NET POSITION	\$10,366,416	\$27,851,873	\$130,977	\$38,349,266

## SUPPLEMENTARY SCHEDULE OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION - WASTE MANAGEMENT FOR THE YEAR ENDING JUNE 30, 2014

	Solid Waste	Mitigation Fees	Benchmark Fees	Total
OPERATING REVENUES				
Fees	\$5,159,537	\$2,490,680		\$7,650,217
Benchmark fees	4-,,	<b>,</b> ,	\$950,002	950,002
Other	607,297	386,602		993,899
Total operating revenues	5,766,834	2,877,282	950,002	9,594,118
OPERATING EXPENSES				
Salaries and benefits	2,559,508	795,749	291,115	3,646,372
Program expenses	3,147,205	1,538,584	527,910	5,213,699
Legal and accounting	151,970	21,003		172,973
Board expenses	46,750			46,750
Administrative and other	37,128			37,128
Depreciation	23,569	138,753		162,322
Total operating expenses	5,966,130	2,494,089	819,025	9,279,244
OPERATING INCOME (LOSS)	(199,296)	383,193	130,977	314,874
NONOPERATING REVENUES				
Grants	455,608			455,608
Interest income	10,954	27,940		38,894
Total nonoperating revenues	466,562	27,940		494,502
NET INCOME BEFORE TRANSFERS	267,266	411,133	130,977	809,376
Transfers in		736,965		736,965
NET POSITION, BEGINNING OF YEAR	10,099,150	26,703,775		36,802,925
NET POSITION, END OF YEAR	\$10,366,416	\$27,851,873	\$130,977	\$38,349,266

ALAMEDA COUNTY WASTE MANAGEMENT AUTHORITY,
ALAMEDA COUNTY SOURCE REDUCTION AND RECYCLING BOARD
AND ENERGY COUNCIL
SUPPLEMENTARY SCHEDULE OF NET POSITION - RECYCLING BOARD
JUNE 30, 2014

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	Municipality	Revolving	Pre-March		Grants to	Source	Market	Recycled Product	
	Allocation	Loan Fund	1995	Discretionary	Non-Profits	Reduction	Development	Price	Total
ASSETS									
CURRENT ASSETS:					;	;			į
Cash and cash equivalents	\$632,369	\$1,904,671	\$564,906	\$2,053,926	\$2,044,544	\$1,068,574	\$1,034,699	\$422,793	\$9,726,482
Interest receivable	587	1,486		5,465	068,69	069,69	060,60	44,546	7,538
Loans receivable - current		27,517							27,517
Due from other funds		11,085	130,075						141,160
Total current assets	1,082,436	1,947,853	694,981	2,194,235	2,134,440	1,158,470	1,124,595	467,741	10,804,751
NON-CURRENT ASSETS:									
Loans receivable - non current		213,269							213,269
TOTAL ASSETS	1,082,436	2,161,122	694,981	2,194,235	2,134,440	1,158,470	1,124,595	467,741	11,018,020
LIABILITIES									
CURRENT LIABILITIES:									
Accounts payable		1,153		44,227	37,607	42,027	88,827	91,433	305,274
Due to other funds Due to other governments	1,081,849	52,249		708,179	246,976	410,502	294,435	153,232	1,865,573 1,081,849
Total current liabilities	1,081,849	53,402		752,406	284,583	452,529	383,262	244,665	3,252,696
TOTAL LIABILITIES	1,081,849	53,402		752,406	284,583	452,529	383,262	244,665	3,252,696
NET POSITION	103		100 700						
Omeanicied	786	2,101,120	094,981	1,441,829	1,849,837	/03,941	/41,333	223,076	1,765,324
TOTAL NET POSITION	\$587	\$2,107,720	\$694,981	\$1,441,829	\$1,849,857	\$705,941	\$741,333	\$223,076	\$7,765,324

# ALAMEDA COUNTY WASTE MANAGEMENT AUTHORITY, ALAMEDA COUNTY SOURCE REDUCTION AND RECYCLING BOARD AND ENERGY COUNCIL SUPPLEMENTARY SCHEDULE OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION - RECYCLING BOARD FOR THE YEAR ENDING JUNE 30, 2014

	Municipality	Revolving	Pre-March		Grants to	Source	Market	Recycled Product	F
OPERATING REVENUES Fees	\$4 223 536	Loan Fund	CACA	\$1.267.061	\$844.708	\$844 708	2844 708	\$422.356	\$8 447 077
Other		\$30,830							30,830
Total operating revenues	4,223,536	30,830		1,267,061	844,708	844,708	844,708	422,356	8,477,907
OPERATING EXPENSES Salaries and benefits		57,003		629,819	209,745	588,264	239,901	23,894	1,748,626
Program expenses Legal and accounting	4,228,882	53,448		341,141 8,486	375,406 2,085	318,737	560,315 2,005	367,028	6,244,957 14,612
Board expenses				243					243
Total operating expenses	4,228,882	110,451		689,626	587,236	909,037	802,221	390,922	8,008,438
OPERATING INCOME (LOSS)	(5,346)	(79,621)		287,372	257,472	(64,329)	42,487	31,434	469,469
NONOPERATING REVENUES Interest income	1,774	4,560		18,400					24,734
Total nonoperating revenues	1,774	4,560		18,400					24,734
NET INCOME (LOSS) BEFORE TRANSFERS	(3,572)	(75,061)		305,772	257,472	(64,329)	42,487	31,434	494,203
Transfers in Transfers (out)		(16,800)	130,075	(435,280)	(92,120)	(145,680)	(160,360)	(16,800)	130,075 (867,040)
Total transfers in (out)		(16,800)	130,075	(435,280)	(92,120)	(145,680)	(160,360)	(16,800)	(736,965)
NET INCOME (LOSS) AFTER TRANSFERS	(3,572)	(91,861)	130,075	(129,508)	165,352	(210,009)	(117,873)	14,634	(242,762)
NET POSITION, BEGINNING OF YEAR	4,159	2,199,581	\$564,906	1,571,337	1,684,505	915,950	859,206	208,442	8,008,086
NET POSITION, END OF YEAR	\$587	\$2,107,720	\$694,981	\$1,441,829	\$1,849,857	\$705,941	\$741,333	\$223,076	\$7,765,324

### SUPPLEMENTARY SCHEDULE OF NET POSITION - ENERGY COUNCIL JUNE 30, 2014

#### **ASSETS**

CURRENT ASSETS:	
Cash and cash equivalents	\$805,210
Interest receivable	520
Grants receivable	1,224,786
Due from other funds	90,000
TOTAL ASSETS	2,120,516
LIABILITIES	
CURRENT LIABILITIES:	
Accounts payable	854,762
Due to other funds	933,497
Unearned revenue	331,180
TOTAL LIABILITIES	2,119,439
NET POSITION	
Unrestricted	1,077
TOTAL NET POSITION	\$1,077

# ALAMEDA COUNTY WASTE MANAGEMENT AUTHORITY, ALAMEDA COUNTY SOURCE REDUCTION AND RECYCLING BOARD SUPPLEMENTARY SCHEDULE OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION ENERGY COUNCIL

#### FOR THE YEAR ENDING JUNE 30, 2014

OPERATING EXPENSES	
Salaries and benefits	\$595,721
Program expenses	3,056,180
Legal and accounting	3,692
Total operating expenses	3,655,593
NON-OPERATING REVENUES	
Grants	3,655,592
Interest income	1,078
Total non-operating revenues	3,656,670
NET INCOME	1,077
NET POSITION, BEGINNING OF YEAR	
NET POSITION, END OF YEAR	\$1,077



# INDEPENDENT AUDITOR'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS

To the Board of Directors Alameda County Waste Management Authority, Alameda County Source Reduction and Recycling Board and Energy Council Oakland, California

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the basic financial statements of the Alameda County Waste Management Authority, Alameda County Source Reduction and Recycling Board and Energy Council (Agency), as of and for the year ended June 30, 2014, and the related notes to the financial statements, and have issued our report thereon dated January 12, 2015.

#### Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered Agency's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of Agency's internal control. Accordingly, we do not express an opinion on the effectiveness of Agency's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A material weakness is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the Agency's financial statements will not be prevented, or detected and corrected on a timely basis. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

#### Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Agency's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

#### Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the result of that testing, and not to provide an opinion on the effectiveness of the Agency's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Agency's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Mage & Apsociates
Pleasant Hill, California
January 12, 2015

ALAMEDA COUNTY WASTE
MANAGEMENT AUTHORITY,
ALAMEDA COUNTY RESOURCE REDUCTION
AND RECYCLING BOARD
AND ENERGY COUNCIL
MEMORANDUM ON INTERNAL CONTROL
AND
REQUIRED COMMUNICATIONS

FOR THE YEAR ENDED JUNE 30, 2014

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# ALAMEDA COUNTY WASTE MANAGEMENT AUTHORITY, ALAMEDA COUNTY RESOURCE REDCUTION AND RECYCLING BOARD AND ENERGY COUNCIL MEMORANDUM ON INTERNAL CONTROL AND REQUIRED COMMUNICATIONS

#### For The Year Ended June 30, 2014

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#### MEMORANDUM ON INTERNAL CONTROL

To the Board of Director of Alameda County Waste Management Authority, Alameda County Source Reduction and Recycling Board and Energy Council Oakland, California

In planning and performing our audit of the basic financial statements of Alameda County Waste Management Authority, Alameda County Source Reduction and Recycling Board and Energy Council (Agency), in accordance with auditing standards generally accepted in the United States of America, we considered the Agency's internal control over financial reporting (internal control) as a basis for designing our auditing procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Agency's internal control. Accordingly, we do not express an opinion on the effectiveness of the Agency's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct misstatements on a timely basis. A material weakness is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the Agency's financial statements will not be prevented, or detected and corrected on a timely basis. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph and was not designed to identify all deficiencies in internal control that might be significant deficiencies or material weaknesses and, therefore, there can be no assurance that all such deficiencies have been identified. In addition, because of inherent limitations in internal control, including the possibility of management override of controls, misstatements due to error or fraud may occur and not be detected by such controls. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Included in the Schedule of Other Matters are recommendations not meeting the above definitions that we believe to be of potential benefit to the Agency.

This communication is intended solely for the information and use of management, others within the organization, and agencies and pass-through entities requiring compliance with *Government Auditing Standards*, and is not intended to be and should not be used by anyone other than these specified parties.

Maze 1 Dociates
Pleasant Hill, California
January 12, 2015

**Accountancy Corporation** 3478 Buskirk Avenue, Suite 215 Pleasant Hill, CA 94523 т 925.930.0902

F 925.930.0135

**■** maze@mazeassociates.com

w mazeassociates.com

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# ALAMEDA COUNTY WASTE MANAGEMENT AUTHORITY, ALAMEDA COUNTY RESOURCE REDCUTION AND RECYCLING BOARD AND ENERGY COUNCIL MEMORANDUM ON INTERNAL CONTROL

#### SCHEDULE OF OTHER MATTERS

#### NEW GASB PRONOUNCEMENTS OR PRONOUNCEMENTS NOT YET EFFECTIVE

The following comment represents new pronouncements taking affect in the next few years. We have cited them here to keep you abreast of developments:

#### **EFFECTIVE FISCAL 2015:**

#### GASB 68 - Accounting and Financial Reporting for Pensions (an amendment of GASB 27)

This Statement will have material impact on the Agency's financial statements. The primary objective of this Statement is to improve accounting and financial reporting by state and local governments for pensions.

This Statement establishes standards for measuring and recognizing liabilities, deferred outflows of resources, and deferred inflows of resources, and expense/expenditures. For defined benefit pensions, this Statement identifies the methods and assumptions that should be used to project benefit payments, discount projected benefit payments to their actuarial present value, and attribute that present value to periods of employee service.

In financial statements prepared using the economic resources measurement focus and accrual basis of accounting, a single or agent employer that does not have a special funding situation is required to recognize a liability equal to the net pension liability. The net pension liability is required to be measured as of a date no earlier than the end of the employer's prior fiscal year (the measurement date), consistently applied from period to period.

Note disclosure and required supplementary information requirements about pensions also are addressed. Distinctions are made regarding the particular requirements for employers based on the number of employers whose employees are provided with pensions through the pension plan and whether pension obligations and pension plan assets are shared.

The following are the major impacts:

• This Statement requires the liability of employers and nonemployer contributing entities to employees for defined benefit pensions (<u>net pension liability</u>) to be measured as the portion of the present value of projected benefit payments to be provided through the pension plan to current active and inactive employees that is attributed to those employees' past periods of service (<u>total pension liability</u>), less the amount of the pension plan's <u>fiduciary net position</u>.

# ALAMEDA COUNTY WASTE MANAGEMENT AUTHORITY, ALAMEDA COUNTY RESOURCE REDCUTION AND RECYCLING BOARD AND ENERGY COUNCIL MEMORANDUM ON INTERNAL CONTROL

#### SCHEDULE OF OTHER MATTERS

## GASB 68 - Accounting and Financial Reporting for Pensions (an amendment of GASB 27) (Continued)

- Actuarial valuations of the total pension liability are required to be performed at least every two
  years, with more frequent valuations encouraged. If a valuation is not performed as of the
  measurement date, the total pension liability is required to be based on update procedures to roll
  forward amounts from an earlier actuarial valuation (performed as of a date no more than 30
  months and 1 day prior to the employer's most recent year-end).
- The actuarial present value of projected benefit payments is required to be attributed to periods of employee service using the entry age actuarial cost method with each period's service cost determined as a level percentage of pay. The actuarial present value is required to be attributed for each employee individually, from the period when the employee first accrues pensions through the period when the employee retires.

#### GASB 69 - Government Combinations and Disposals of Government Operations

This Statement establishes accounting and financial reporting standards related to government combinations and disposals of government operations. As used in this Statement, the term government combinations includes a variety of transactions referred to as mergers, acquisitions, and transfers of operations.

## GASB 71 - Pension Transition for Contributions Made Subsequent to the Measurement Date-an amendment of GASB No. 68

The objective of this Statement is to address an issue regarding application of the transition provisions of Statement No. 68, Accounting and Financial Reporting for Pensions. The issue relates to amounts associated with contributions, if any, made by a state or local government employer or nonemployer contributing entity to a defined benefit pension plan after the measurement date of the government's beginning net pension liability.

Statement 68 requires a state or local government employer (or nonemployer contributing entity in a special funding situation) to recognize a net pension liability measured as of a date (the measurement date) no earlier than the end of its prior fiscal year. If a state or local government employer or nonemployer contributing entity makes a contribution to a defined benefit pension plan between the measurement date of the reported net pension liability and the end of the government's reporting period, Statement 68 requires that the government recognize its contribution as a deferred outflow of resources. In addition, Statement 68 requires recognition of deferred outflows of resources and deferred inflows of resources for changes in the net pension liability of a state or local government employer or nonemployer contributing entity that arise from other types of events. At transition to Statement 68, if it is not practical for an employer or nonemployer contributing entity to determine the amounts of *all* deferred outflows of resources and deferred inflows of resources related to pensions, paragraph 137 of Statement 68 required that beginning balances for deferred outflows of resources and deferred inflows of resources not be reported.

# ALAMEDA COUNTY WASTE MANAGEMENT AUTHORITY, ALAMEDA COUNTY RESOURCE REDCUTION AND RECYCLING BOARD AND ENERGY COUNCIL MEMORANDUM ON INTERNAL CONTROL

#### SCHEDULE OF OTHER MATTERS

Consequently, if it is not practical to determine the amounts of all deferred outflows of resources and deferred inflows of resources related to pensions, contributions made after the measurement date of the beginning net pension liability could not have been reported as deferred outflows of resources at transition. This could have resulted in a significant understatement of an employer or nonemployer contributing entity's beginning net position and expense in the initial period of implementation.

This Statement amends paragraph 137 of Statement 68 to require that, at transition, a government recognize a beginning deferred outflow of resources for its pension contributions, if any, made subsequent to the measurement date of the beginning net pension liability. Statement 68, as amended, continues to require that beginning balances for other deferred outflows of resources and deferred inflows of resources related to pensions be reported at transition only if it is practical to determine all such amounts.

The provisions of this Statement are required to be applied simultaneously with the provisions of Statement 68.

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#### REQUIRED COMMUNICATIONS

To the Board of Director of Alameda County Waste Management Authority, Alameda County Source Reduction and Recycling Board and Energy Council Oakland, California

We have audited the basic financial statements of the Alameda County Waste Management Authority, Alameda County Source Reduction and Recycling Board and Energy Council (Agency) for the year ended June 30, 2014. Professional standards require that we communicate to you the following information related to our audit under generally accepted auditing standards and *Government Auditing Standards*.

#### Significant Audit Findings

Management is responsible for the selection and use of appropriate accounting policies. The significant accounting policies used by the Agency are described in Note 1 to the financial statements. The following pronouncements became effective, but did not have a material effect on the financial statements:

GASB 65 – <u>Items Previously Reported as Assets and Liabilities</u>

GASB 67 - Financial Reporting for Pension Plans - an Amendment of GASB Statement No.25

GASB 70 - Accounting and Financial Reporting for Nonexchange Financial Guarantees

#### Unusual Transactions, Controversial, or Emerging Areas

We noted no transactions entered into by the Agency during the year for which there is a lack of authoritative guidance or consensus. All significant transactions have been recognized in the financial statements in the proper period.

#### Estimates

Accounting estimates are an integral part of the financial statements prepared by management and are based on management's knowledge and experience about past and current events and assumptions about future events. Certain accounting estimates are particularly sensitive because of their significance to the financial statements and because of the possibility that future events affecting them may differ significantly from those expected. The most sensitive estimate(s) affecting the Agency's financial statements were:

- Management's estimate of the depreciation: is based on useful lives determined by management. These lives have been determined by management based on the expected useful life of assets as disclosed in Note 4. We evaluated the key factors and assumptions used to develop the depreciation estimate and determined that it is reasonable in relation to the basic financial statements taken as a whole.
- Accrued vacation: are estimated using accumulated unpaid leave hours and hourly pay rates in effect at the end of the fiscal year. We evaluated the key factors and assumptions used to develop the accrued compensated absences and determined that it is reasonable in relation to the basic financial statements taken as a whole.
- Estimated Fair Value of Investments: As of June 30, 2014, the Agency held approximately \$28 million of cash and investments, as measured by fair value. Fair value is essentially market pricing in effect as of June 30, 2014. These fair values are not required to be adjusted for changes in general market conditions occurring subsequent to June 30, 2014.

#### Disclosures

The financial statement disclosures are neutral, consistent, and clear.

#### Difficulties Encountered in Performing the Audit

We encountered no significant difficulties in dealing with management in performing and completing our audit.

#### Corrected and Uncorrected Misstatements

Professional standards require us to accumulate all known and likely misstatements identified during the audit, other than those that are clearly trivial, and communicate them to the appropriate level of management. Management has corrected all/certain such misstatements. In addition, none of the misstatements detected as a result of audit procedures and corrected by management were material, either individually or in the aggregate, to each opinion unit's financial statements taken as a whole.

#### Disagreements with Management

For purposes of this letter, a disagreement with management is a financial accounting, reporting, or auditing matter, whether or not resolved to our satisfaction, that could be significant to the financial statements or the auditor's report. We are pleased to report that no such disagreements arose during the course of our audit.

#### Management Representations

We have requested certain representations from management that are included in a management representation letter dated January 12, 2015.

#### Management Consultations with Other Independent Accountants

In some cases, management may decide to consult with other accountants about auditing and accounting matters, similar to obtaining a "second opinion" on certain situations. If a consultation involves application of an accounting principle to the Agency's financial statements or a determination of the type of auditor's opinion that may be expressed on those statements, our professional standards require the consulting accountant to check with us to determine that the consultant has all the relevant facts. To our knowledge, there were no such consultations with other accountants.

#### Other Audit Findings or Issues

We generally discuss a variety of matters, including the application of accounting principles and auditing standards, with management each year prior to retention as the governmental unit's auditors. However, these discussions occurred in the normal course of our professional relationship and our responses were not a condition to our retention.

#### Other Matters

#### Other Information Accompanying the Financial Statements

With respect to the supplementary information accompanying the financial statements, we made certain inquiries of management and evaluated the form, content, and methods of preparing the information to determine that the information complies with accounting principles generally accepted in the United States of America, the method of preparing it has not changed from the prior period, and the information is appropriate and complete in relation to our audit of the financial statements. We compared and reconciled the supplementary information to the underlying accounting records used to prepare the financial statements or to the financial statements themselves.

With respect to the required supplementary information accompanying the financial statements, we applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We did not express an opinion nor provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

\*\*\*\*\*

This information is intended solely for the use of the Board of Directors and management and is not intended to be, and should not be, used by anyone other than these specified parties.

Maze & Amociates
Pleasant Hill, California
January 12, 2015

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**DATE:** February 5, 2015

TO: Alameda County Recycling Board

**FROM:** Gary Wolff, Executive Director

**SUBJECT:** Research on Degradation of Pharmaceuticals in Compost ("Will Bugs Eat Our Drugs?")

#### **BACKGROUND**

Alameda County has adopted first-in-the-nation legislation that requires pharmaceutical companies to develop and implement stewardship programs for unused pharmaceuticals. The County also accepts for disposal pharmaceuticals through the existing countywide household hazardous waste program funded by our agency. It is now possible for Alameda County residents to drop off unused pharmaceuticals at about 20 sites in the County. Once collected at a drop-off site, the pharmaceuticals are transported for high temperature (>1,200 F) incineration at an approved facility. This is currently the only USEPA approved method for destroying pharmaceuticals.

The citizens' initiative known as Measure D that was passed in 1990 in Alameda County (creating the Recycling Board and a funding stream to support local recycling programs) included a ban on waste incineration and a funding provision for "planning, research, and studies directed at furthering the purposes of this Act." Mr. Arthur Boone, one of the citizens who helped develop the Measure and a well-known and widely respected recycling advocate, previously requested that the Board fund a study of the potential for pharmaceutical destruction in compost piles.

A scope of work and budget for this type of study is attached. The work will be implemented by a highly qualified team of researchers affiliated with the Lawrence Berkeley National Laboratory. Dr. Gary Andersen, Senior Staff Scientist and Ecology Department Head, will be the Principal Investigator. The study will test the hypothesis that the accelerated levels of microbial metabolism that occur during the hottest phase of the thermophilic composting process will break down and ultimately consume all pharmaceutical compounds that are present. As a first step towards developing an alternative to incineration of pharmaceuticals, they propose to explore the destruction of pharmaceutical waste in compost piles by spiking the piles with various pharmaceutical blends and then monitoring the progress of compound destruction through advanced mass spectroscopy and other techniques. Dr. Andersen's team is already engaged in compost research at the proposed test facility in Nicassio; a facility that is registered as an experimental site with Marin County and the State Water Resources

Control Board. Andersen's team has working relationships with staff of these agencies, as well as with staff at CalRecycle and USEPA.

#### DISCUSSION

This project is for scientific research. Its results could show that controlled composting is capable of destroying a wide range of pharmaceutical compounds, or the opposite. Or the study could lead to ambiguous results that would necessitate further research. We explored the possibility of a larger study -- with less chance of ambiguous results -- funded in part by the San Francisco Department of the Environment (SFE), but despite initial interest they eventually declined on the grounds that they are not authorized to fund research. In contrast, such research is explicitly authorized in Measure D. Dr. Andersen tells us that there are other possible sources of funds for future studies, if the result of this study were promising but inconclusive. I concur, because the water and wastewater industries are struggling with the existence of 'emerging contaminants' in both water supplies and wastewater discharges. Research on emerging contaminants is growing, and has been well supported by government and charitable research foundations focused on water and wastewater. However, little research has been done on the potential for destruction of these compounds in high-temperature compost piles.

As reported to the Boards last month, our account balances (revenues already collected but not yet allocated for spending or designated in a reserve) are substantial. The estimated fiscal year-end grants to non-profits account balance is \$1,163,157, so the cost of \$50,000 for this study is affordable. Authorizing this spending will increase our current fiscal year core budget, but it is a one-time appropriation that will not affect our future core budgets.

#### **RECOMMENDATION**

Amend the Recycling Board Budget for FY14-15 to add \$50,000 to Project 2040, funded from the grants-to-nonprofits account balance, and authorize the Executive Director to enter into a grant agreement with the Lawrence Berkeley National Laboratory (or affiliated entity) to perform the research proposal attached, with minor adjustments if deemed necessary by the Executive Director.

Attached Research Proposal: "The Fate of Pharmaceutical Compounds in Thermophilic Compost"

#### The Fate of Pharmaceutical Compounds in Thermophilic Compost

Gary L. Andersen Project PI with Musahid Ahmed, Yigang Fang and Lauren Tom

Lawrence Berkeley National Laboratory Berkeley,

#### **ABSTRACT**

Reducing waste that enters landfills is a cornerstone in developing a countywide strategy for environmental sustainability. By a combination of eliminating material entering the landfill, reuse, recycling and composting Alameda County has become a leader in environmental stewardship towards the goal of mitigating climate change activity, reducing greenhouse gasses and providing a healthy environment for future generations. Pharmaceuticals represent a special challenge without any satisfactory disposal solution. When flushed down toilets or thrown into the garbage, active ingredients migrate to watersheds and eventually contaminate drinking water. The current alternative, and only method of disposal allowed by law, is to dispose of unused medications in one of the approved Alameda County Drug Disposal Sites. Once collected at one of the sites the pharmaceuticals are transported for high temperature incineration at an approved facility. The disadvantages of incineration of pharmaceutical waste includes the energy required for compete destruction of the waste in addition to the release of greenhouse gases and up to 180 milligrams allowable particulate matter per cubic meter into the atmosphere. This proposed study seeks to understand if a recently developed and optimized thermophilic composting method can serve as an alternative to the current incineration practice for the disposal of used pharmaceuticals. We hypothesize that the rapid microbial metabolism in an active thermophilic composting process will be sufficient to degrade and consume pharmaceutical waste to a level that is safe for landscape application. We propose to spike defined concentrations of a set of selected pharmaceutical compounds and monitor decay during a complete thermophilic composting process. We will use pre-consumer food waste, such as would be found in restaurants or grocery stores, as the compost source. The fate of the pharmaceutical compounds will be measured over the course of a three month thermophilic composting process by an antibiotic sensitivity assay as well as by a series of advanced mass spectrometry methods developed in the Chemical Sciences Division of Lawrence Berkeley Lab. Our goal is to identify the impact of composting on the decay of pharmaceutical compounds that are likely to be found in drop-off drug disposal sites. This information will be used for future monitoring strategies and to work with Federal, State, and Local regulators in developing a clear set of guidelines for future composting efforts.

#### INTRODUCTION

#### The case for compost:

Disposal of organic waste through landfill or wastewater treatment generates significant quantities of greenhouse gasses and causes contamination of both soil and water through untreated and hazardous compounds. In addition, recycling of carbon, nitrogen and other essential nutrients back into the biosphere is short-circuited. Organic material in landfill undergoes anaerobic decomposition with the evolution of methane and other greenhouse gasses as the primary respiratory route. Wastewater treatment also generates large amounts of greenhouse gasses and in the optimization of treatment seeks reduce or remove nutrients from the effluent.

Current agricultural practices rely on the extensive use of chemical fertilizer, which is known to deplete other naturally occurring nutrients from the soil. Chemical fertilizer is also not sustainable as nitrogen is produced from fossil fuel using the Haber-Bosch process while increasingly scarce supplies of phosphorus and potassium are mined. Application of chemical fertilizer dramatically increases agronomic yield in the short term while at the same time having the unintended consequence of significantly increasing indigenous soil microbial activity. The increased microbial respiration releases large amounts of CO2 into the atmosphere and depletes the soil of trace nutrients.

Much of the soil in Alameda County is poor in nutrients and plant fertility. This may be due to years of spreading chemical fertilizers for lawn maintenance or destruction of the topsoil. A proven way of restoring fertility to the soil is the addition of organic compost as fertilizer. As opposed to a rapid and short-term release of nutrients by chemical fertilizer, organic compost releases N, P, and K for long periods at rates comparable to what is used by the plants. Vegetables and fruits grown in nutrient depleted soil have measurably lower levels of vitamins and minerals. Studies by Ryals et al. have demonstrated that the addition of compost to nutrient-poor soils dramatically increases the long-term incorporation of carbon into the soil as well as increasing soil water retention capability. Their work demonstrated that compost amendments elevated soil respiration by an average of 18% and over three years net ecosystem carbon storage increased by 25-70% in addition to the direct addition of compost C. Poorly managed soils often go from greenhouse gas emitting systems to carbon sinks by the application of compost. The California Air Quality Resource Board has recently approved a protocol for application of compost that will provide carbon credits to the landowner.

As a step towards limiting carbon emissions into the atmosphere, California legislation has mandated the reduction of the landfill waste stream. Green waste from food or plant clippings in several municipalities of Alameda County has been successfully diverted to composting operations. Without the input of paper, sludge and other organic wastes, green waste is free of heavy metals and other contaminants and more likely to be accepted for horticultural applications. Even with established green-waste composting programs, there are restaurants and supermarkets that still dump their waste to landfill. Additional demand for compost could create a financial incentive to divert even more green waste from landfill disposal.

One example of an application that would require significant amounts of compost derived from local urban food waste would be the application of compost to landscaped areas along the easements for California's extensive roadway system. The compost serves as a nutrient source and soil conditioner. This would allow for increased groundwater retention and restored soil fertility in the treated areas. Increased plant productivity and mitigation of greenhouse gases into the environment over an extensive area in California could help cities reach their goal of zero net emissions by 2020.

We have developed a thermophilic compost prototype system that is currently in place in Marin County. This work, which has been conducted in conjunction with the County of Marin, the Marin Carbon Project and the National Park Service has demonstrated not only the effectiveness of the test method, but has demonstrated that, correctly managed, thermophilic digestion of green waste can achieve very high temperatures, well over 160 degrees F (70° C) for more than three weeks, well above current regulatory standards for conventional composting and levels regulators deem necessary for pathogen destruction. For these tests, green waste is mixed with straw, or wood chip bulking agents to maintain oxic (aerobic) conditions. Fecal waste may be added, if necessary, to increase favorable C:N ratios. We have demonstrated the impact of these high temperatures on shifts in the microbial community and full quantification of microbial risks beyond those identified by current composting regulations, which we believe are essential for widespread acceptance of the process.

Upon successful completion of the project that is the subject of this proposal, a logical next step for future work will be to study the impact of finished compost that may still contain low but allowable levels of pharmaceutical waste when applied to soil. We will assess the microbial community dynamics from the composting process to application of the compost to the soil and determine the fate of microbes and the pharmaceutical waste throughout the process. We measure the changes in microbial community composition, the reduction and elimination of human pathogens and changes in methane generating organisms

with the Berkeley Lab developed PhyloChip (<a href="http://esd.lbl.gov/research/facilities/andersenlab/phylochip.html">http://esd.lbl.gov/research/facilities/andersenlab/phylochip.html</a>). The PhyloChip's ability to conduct an overall census of the microbial population in a single test has already revealed many insights into microbial ecology of the composting process.

The case for an alternative method for the disposal of used pharmaceuticals: Currently, most used or expired pharmaceuticals are dumped by individuals into their garbage or flushed down the toilet. The resulting waste is transported to either landfill or a wastewater treatment plant. In either case detectable levels of pharmaceutical waste have been detected to go into the watershed or municipal water system.

Despite the increasing evidence of the presence of pharmaceuticals in the environment, the human risks are poorly understood. It was only after the development of liquid chromatography-tandem mass spectrometry in the 1990s that pharmaceutically active compounds could be detected in the environment. Recent advances mass spectrometry now allows for an even more precise and sensitive characterization of pharmaceutical compounds in water and soil. Studies by Halling-Sorensen found pharmaceuticals in both aquatic and terrestrial environments, especially in wastewater treatment plants. These results were confirmed by Wiegel, who found that the river Elbe and its tributaries were contaminated with pharmaceuticals such as diclofenace and ibuprofen from a nearby municipal sewage treatment plant. In Canada, Lissemore found that antibiotics and pharmaceuticals persisted in the watershed, including lincomycin, monensin and carbamazepine.

A recently published study by the EPA examined 56 of the top active pharmaceutical ingredients (APIs) in a survey of 50 metropolitan wastewater treatment plants. A variety of compounds related to blood pressure management were the most common APIs found, including valsartan, which was consistently found at the highest levels across all WWTPs. Ibuprofen and antipsychotic drugs were also consistently found. Wu was able to detect estriol/ethinyl estradiol and ibuprofen in water with a more sensitive LC-MS/MS equipped with a HPLC for separation of the analytes.

Alameda County has developed a program to dispose of unused medications at one of the approved Alameda County Drug Disposal Sites. This program was recently aided by the passage of the "Secure and Responsible Drug Disposal Act of 2010" by the US Congress (S. 3397). This law removed the restriction that only law enforcement could take back narcotics and controlled substances. It is now possible for Alameda County residents to drop off unused pharmaceuticals at any of over 20 sites throughout the county.

Once collected at one of drop-off the sites, the pharmaceuticals are transported for high temperature (>1,200 F) incineration at an approved facility. The disadvantage of incineration of pharmaceutical waste is that it has been demonstrated to produce a large number of pollutants from the combustion of the chemical compounds including fine particulates, NO<sub>2</sub> and CO<sub>2</sub>. Long-term exposures to these compounds have been found to present both acute and chronic health impacts on local residents as well as providing an increase in greenhouse gas emissions.

A citizens' initiative known as Measure D was passed in 1990 in Alameda County to support local recycling programs and initiate a countywide R&D program. As part of Measure D, a ban on waste incineration was adopted for Alameda County. We hypothesize that the accelerated levels of microbial metabolism that occur during the hottest phase of the thermophilic composting process will break down and ultimately consume all pharmaceutical compounds that are present. As a first step towards developing an alternative to incineration of pharmaceuticals, we propose to explore the possibility of using an optimized thermophilic composting process as a method for the destruction of pharmaceutical waste and monitoring the progress of compound destruction through advanced mass spectroscopy and other techniques.

#### STUDY DESIGN

#### Compost Set Up

Green waste material will be taken to our study site in Nicassio CA where it is mixed with a defined amount of additional bulking agents (wood chips, sawdust, or straw) to maximize oxygen availability using a modified, agricultural vertical feed mixer. This optimizes moisture content and aerobic structure. The mixer includes scales to measure the correct ratio mix, and its output conveyor is modified to allow placement of the mixed material directly into the compost cell, thus eliminating handling and minimizing operator exposure to the waste. The piles are monitored for temperature, moisture, oxygen concentration, as well as methane, NO and CO2 emission with real-time monitoring probes connected to a central data logger. We have designed a test bed that consists of a series of modular enclosures (up to 9) each of which is able to accommodate approximately 2 cubic meters of compostable material. The modular nature of the compost cells allows them to scale to any size of operation. At the current project site straw bales form the sides of the compost enclosures. We will construct 3 compost piles to serve as biological replicates for pharmaceutical decay measurements.

The Nicassio site is registered with the County of Marin and the State Water Resources Board as an experimental site for the composting of waste from all sources. We believe that working with regulators is essential as a first step for drafting reasonable regulations for the future. At the local level we are working with Mark Janofsky (MJanofsky@co.marin.ca.us) from the Marin County Department of Public Health. We are also working with Reinhard Hohlwein (Reinhard.Hohlwein@CalRecycle.ca.gov) of the Permitting and Assistance Branch, Central Region Department of Resources, Recycling and Recovery in Sacramento. We are also working with Jared Blumenfeld (blumenfeld.jared@epa.gov), Administrator for EPA's Pacific Southwest Region (Region 9). Communication at the local, state and federal level will ensure that regulators are knowledgeable of any progress we make through this project.

To spike the compost piles, three liters of initial compostable material will be mixed with defined concentrations of three different classes of pharmaceutical waste. The first will be a defined weight and volume containing a random assortment of pills provided by Stop Waste from one of the drop-off stations. The second and third class will be HPLC-grade antibiotic (Tetracyclin) and ibuprofen, respectively. All of the pharmaceuticals will be combined and solubilized in 600 ml of water. An aliquot will be taken to measure the concentration of the active pharmaceutical ingredients (APIs) with a GC-MS/MS. The compostable material will be divided three ways and each liter will be mixed with 200 ml of the solubilized pharmaceutical solution and placed in a fine-mesh bag with attached cord. Each of the bags will be placed near the center of the replicate compost piles. Two measurement for the first week and weekly measurements for the following 11 weeks will be taken for each of the three replicate spiked samples. A control measurement will be taken for each replicate and time point adjacent to the mesh bag containing the spiked APIs to account for potential diffusion. An additional control will consist of the targeted APIs spiked into a bag of fully composted material with minimal microbial activity and at ambient temperature. This will measure the decay rate with marginal microbial activity.

The goal of this project is to determine if it is possible to achieve at least 99.99% destruction and removal efficiency of the added pharmaceuticals by the thermophilic composting process. This is the level of removal required by the EPA that must be demonstrated by a waste incinerator to receive an operating permit.

#### Samples for Analysis

Time Points	13
Replicates	3

Pharmaceutical Mixes	3
Inside/Outside of Bag Control	2
Total Number of Compost Samples	234
Additional Ambient Control	18
Total Samples to be Characterized	252

We will sample at 13 different time points, with 3 replicate compost piles, each containing 3 pharmaceutical mixes. We will have a control for each sample taken from outside of the mesh bag that contains the pharmaceutical mixed with compost. In addition, we will also take fully composted material and heat one hour to reduce the microbial population. This material will be kept at room temperature with very little expected microbial activity. We will calculate the reduction in pharmaceutical concentration from the beginning compared with the 12th week with 3 replicates for each of 3 pharmaceutical mixes.

#### **Analysis Methods**

We propose to use direct electrospray ionization mass spectrometry (ESI-MS), nanospray desorption electrospray ionization MS (nanoDESI-MS), and secondary ion MS (SIMS) to study the selected samples.

ESI is capable of converting homogeneous sample extractions as well as sample solutions into singly and multiply charged ions, and introduce into a Q-TOF mass spectrometer for analysis. This will provide the overall information on the components of the sample.

A second method, nanoDESI, compared to ESI, requires minimal sample preparation, and provides additional spatial information. Solvent will be deposited on the sample surface via fine silica capillary, forming a tiny droplet for sampling, which then will be picked up and transferred by a secondary capillary to the vicinity of mass spectrometer inlet. Aiding with the high potential between the solvent and MS inlet, solvent will be quickly eliminated and nanospray will form. This method would hold the most promise for eventually performing misprints in the field.

The third method, SIMS, can achieve high-resolution imaging, thus provides more insights than ESI/nanoDESI. Samples will be pumped and dehydrated in a preload chamber before sending to a high vacuum chamber for measurement. A Bismuth ion gun generates ions to raster sample surface. The secondary ions will be collected and analyzed by a time-of-flight.

A fourth method will be to use classic antibiotic sensitivity testing through a dilution method to measure the degradation of the antibiotic waste.

Approximately one gram of the compost will be mixed with one ml of bacterial

broth, allowed to diffuse for 10 minutes and centrifuged to collect the liquid containing the composted antibiotic. Microdilution testing uses 0.05 ml liquid volumes in a microtiter plate format. Serial dilution of the sample identifies the lowest concentration in which the antibiotic-sensitive bacterium is able to grow.

#### **Sample Preparation**

For ESI, the sample should be homogenous solutions, either being extracted from raw samples, or dissolving standard samples into certain solvents followed by filtration.

For both nanoDESI and SIMS, the compounds of interest should be of solid "thin-layer" shape, situated on a glass slide or a silicon wafer. Every effort will be made to minimize the surface roughness. For nanoDESI, the sample will be directly examined with two closely positioned capillaries dragging a nanoliter-sized droplet across the sample surface. For SIMS, it will be pumped down under vacuum to below 1x10-6 mTorr to remove moisture before loading into the main chamber for measurements.

Prior to the start of this project we will confirm that all three spectroscopy methods are capable of specifically measuring the combined pharmaceutical waste and the spiked ibuprofen. For the actual test, we will use the spectroscopy method that performed the best of the three for sensitivity and reproducibility. We will also confirm that the antibiotic sensitivity method can measure the antibiotic concentration.

#### **Deliverables:**

At nine months after initial receipt of funds we will provide a report and/or submitted scientific manuscript on the fate of pharmaceutical compounds in thermophilic compost to the Stop Waste Organization. The results of this targeted study will serve as a guide to determine if the rate of pharmaceutical degradation in thermophilic compost is sufficient for consideration of large-scale destruction of pharmaceutical compounds and further research.

#### **BUDGET**

#### Personnel

Gary Andersen Ph.D (Project PI) Senior Staff Scientist and Ecology Department Head will serve as overall coordinator of the project and will be responsible for project design and implementation. He will ensure that all deliverables are met.

Musahid Ahmed Ph.D Senior Staff Scientist for the Advanced Light Source and the Chemical Sciences Division is an internationally renowned expert on biological mass spectrometry. (<a href="http://www-als.lbl.gov/index.php/ring-">http://www-als.lbl.gov/index.php/ring-</a>

<u>leaders/870</u>) He has developed the techniques to use latest generation, most advanced mass spectrometry technology for detection of APIs for this project.

Yigang Fang, Ph.D is a postdoctoral researcher for Dr. Ahmed. He will work with Dr. Ahmed to adapt the mass spectroscopy technologies to work in the thermophilic compost matrix.

Lauren Tom is a research associate working for Dr. Andersen. She will assist Dr. Andersen in thermophilic compost pile construction and obtaining samples for measurement.

Total Labor Cost: \$40,000

Materials, supplies and use time on the machines: \$10,000

Total Project Costs: \$50,000

#### REFERENCES

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**DATE:** February 2, 2015

**TO:** Planning & Organization Committee/Recycling Board

**Programs & Administration Committee** 

**FROM:** Gary Wolff, Executive Director

Wendy Sommer, Deputy Executive Director

BY: Tom Padia, Recycling Director

**SUBJECT:** Presentations of Key Discards Management Projects

#### **BACKGROUND**

As a follow-up to the Agency history/Strategic Planning overview presented to the joint Board meeting on January 28 and as a prelude to the FY 15/16 Budget development and adoption, staff is planning to present highlights of key Agency programs to the P&O/RB and P&A Committees in February, March and April. Key projects from the Discards Management arena will be presented in February, from the Product Decisions portfolio in March and from projects that span both areas in April.

#### **DISCUSSION**

Discards Management projects involve the disposition of products, packaging and materials at the end of their useful life. The motto for Discards Magament is "Put it here, not there." The goal is to have less than 10 percent readily recoverable material in loads going to landfill by 2020. Key focus areas include residential food scraps and compostable paper, commercial recyclables and compostables, and construction and demolition debris. Target audiences include single and multifamily residents, commercial/industrial/institutional waste generators, and K-12 students. Project managers from a half dozen key projects and focus areas will present highlights to the Committees.

#### **RECOMMENDATION**

This is an information item.