

Authority Board (WMA) & Energy Council (EC)

Jerry Pentin, **WMA, President**
City of Pleasanton, WMA
Dan Kalb, **WMA 1st Vice President, EC President**
City of Oakland, WMA, EC
Greg Jones, **WMA 2nd Vice President, EC 1st Vice President**
City of Hayward, WMA, EC
Lorin Ellis, **EC 2nd Vice President**
City of Union City, WMA, EC
Keith Carson, County of Alameda, WMA, EC
Jim Oddie, City of Alameda, WMA, EC
Peter Maass, City of Albany, WMA, EC
Susan Wengraf, City of Berkeley, WMA, EC
Dave Sadoff, Castro Valley Sanitary District, WMA
Don Biddle, City of Dublin, WMA, EC
Dianne Martinez, City of Emeryville, WMA, EC
Suzanne Lee Chan, City of Fremont, WMA, EC
Laureen Turner, City of Livermore, WMA
Mike Hannon, City of Newark, WMA, EC
Shelia Young, Oro Loma Sanitary District, WMA
Tim Rood, City of Piedmont, WMA, EC
Deborah Cox, City of San Leandro, WMA, EC

Wendy Sommer, Executive Director

AGENDA

**MEETING OF THE
ALAMEDA COUNTY WASTE MANAGEMENT
AUTHORITY (WMA) BOARD
AND
THE ENERGY COUNCIL (EC)**

Wednesday, February 17, 2016

3:00 P.M.

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

Meeting is wheelchair accessible. Sign language interpreter may be available upon five (5) days notice by calling 510-891-6500. Members of the public wanting to add an item to a future agenda may contact 510-891-6500.

I. CALL TO ORDER

II. ROLL CALL

III. ANNOUNCEMENTS BY THE PRESIDENTS - *(Members are asked to please advise the boards or the council if you might need to leave before action items are completed)*

Page **IV. CONSENT CALENDAR**

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|----|--|---------------|
| 1 | 1. Approval of the Draft WMA Minutes of January 27, 2016 (Wendy Sommer) | Action |
| 5 | 2. Annual Audit for Fiscal Year 2014/15 (Pat Cabrera & Gina Peters)
Staff recommends that the WMA Board and the Energy Council review, accept and file the FY 2014/15 audit report. | Action |
| 7 | 3. Assessment Criteria for Product Decisions Activities (Justin Lehrer)
Staff recommends that the WMA Board review and approve the proposed criteria for evaluating targets and programs and direct staff to use the adopted criteria to inform adjustments to the Product Decision Targets, propose organics projects, and develop future programs. | Action |
| 11 | 4. Organics Processing Development Reserve Usage & Criteria (Debra Kaufman)
The P&A Committee by a vote of 10-0 (Carson and Turner absent) recommended that the WMA Board affirm that the \$1 million EBMUD reserve is no longer reserved for EBMUD, and direct staff to incorporate the fund within the OPD reserve, and to budget some part of those funds for organics diversion projects that go beyond in-county processing capacity using the proposed product decisions criteria. | Action |

13	5. Grants Under \$50,000 (Wendy Sommer)	Information
15	6. Minutes of the January 19, 2016 Technical Advisory Group (Karen Kho)	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 boards or council, but not listed on the agenda. Total time limit of 30 minutes with each speaker limited to three minutes.	
	VI. CLOSED SESSION: CONFERENCE WITH LEGAL COUNSEL—EXISTING LITIGATION (Gov't Code 54956.9(d)(1) Name of case: Waste Connections Inc. v. Alameda County Waste Management Authority, Kings County Superior Court Case No. 16-C0022 (confidential materials mailed separately)	
	VII. REGULAR CALENDAR	
19	1. Updated Multi Year Fiscal Forecasts (Pat Cabrera & Mark Spencer) This item is for information only.	Information
25	2. Unfunded Liability (Pat Cabrera) Staff recommends that the WMA Board adopt a pension funded status goal of 90% which is estimated to cost approximately \$1.6M. Assuming the agreement with NextEra for the conservation easement is finalized, staff recommends that the WMA approve using those proceeds to make a lump sum payment to CalPERS to pay the unfunded liability (UL) sufficient to achieve the 90% funded status level.	Action
27	3. External Funding Priorities (Karen Kho) This item is for information only.	Information
	4. Interim appointment(s) to the Recycling Board for WMA appointee unable to attend future Board Meeting(s) (Wendy Sommer) (P&O and Recycling Board meeting, March 10 th 2016 at 4:00 pm – StopWaste Offices, 1537 Webster Street, Oakland, CA)	Action
	VIII. COMMUNICATIONS/MEMBER COMMENTS	Information
	IX. ADJOURNMENT	

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**MINUTES OF THE MEETING OF THE
ALAMEDA COUNTY WASTE MANAGEMENT AUTHORITY (WMA) BOARD
AND
THE ENERGY COUNCIL (EC)**

Wednesday, January 27, 2016

3:00 P.M.

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

I. CALL TO ORDER

First Vice President Kalb, WMA, called the meeting to order at 3:00 p.m.

II. ROLL CALL

WMA & EC

County of Alameda	Keith Carson, WMA, EC
City of Alameda	Jim Oddie, WMA, EC
City of Albany	Peter Maass, WMA, EC
City of Berkeley	Susan Wengraf, WMA, EC
Castro Valley Sanitary District	Dave Sadoff, WMA
City of Dublin	Don Biddle, WMA, EC
City of Emeryville	Dianne Martinez, WMA, EC
City of Fremont	Suzanne Lee Chan, WMA, EC
City of Hayward	Greg Jones, WMA, EC
City of Newark	Mike Hannon, WMA, EC
City of Oakland	Dan Kalb, WMA, EC
Oro Loma Sanitary District	Shelia Young, WMA
City of Piedmont	Tim Rood, WMA, EC
City of Pleasanton	Kathy Narum, WMA
City of San Leandro	Deborah Cox, WMA, EC

Absent:

City of Livermore	Laureen Turner, WMA
City of Union City	Lorin Ellis, WMA, EC

Staff Participating:

Wendy Sommer, Executive Director
Tom Padia, Deputy Executive Director
Cassie Bartholomew, Program Manager
Karen Kho, Senior Program Manager
Richard Taylor, Legal Counsel, Authority Board
Arliiss Dunn, Clerk of the Board

III. ANNOUNCEMENTS BY THE PRESIDENTS

Vice President Kalb announced that StopWaste received the 2015 Sustaining Partner Award from Build it Green (BIG) at their Big Bash in December. Vice President Kalb and President Pentin attended the event and accepted the award on behalf of StopWaste. StopWaste also received a Certificate of Recognition from the State Senate presented by Senator Mark Leno.

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V. CONSENT CALENDAR (WMA & EC)

1. **Approval of the Draft Joint Minutes of December 16, 2015 (WMA & EC-Separate Votes)** **Action**
2. **Reappointment to the Recycling Board – Board member Jerry Pentin (WMA only)** **Action**
3. **Minutes of the December 15, 2015 Technical Advisory Group (TAG) (EC only)** **Information**

Board member Biddle made the motion to approve the Consent Calendar for the WMA Board. Board member Wengraf seconded and the motion carried 16-0 (Carson, Ellis, and Turner absent).

Board member Wengraf made the motion to approve the Consent Calendar for the Energy Council. Board member Rood seconded and the motion carried 15-0 (Carson and Ellis absent).

V. OPEN PUBLIC DISCUSSION (WMA & EC)

There was none.

VI. REGULAR CALENDAR (WMA & EC)

1. **Rethink Disposable: Sacred Wheel – Local Case Study (WMA only) (Cassie Bartholomew)** **Information**

This item is for information only.

Clean Water Fund, a current StopWaste grantee and program partner, was awarded last week with the Governor's Environmental and Economic Leadership Award for the Rethink Disposable program. Cassie Bartholomew provided background on the Rethink Disposable program that provides food service establishments with tools and technical assistance to reduce the use of single use disposable foodware such as plastic forks, spoons, cups, etc. and in some cases works with businesses to transition to reusables. Ms. Bartholomew shared a video featuring the story of one of our 2014 StopWaste Business Efficiency Award recipients, Sacred Wheel, a cheese shop and cafe in Oakland. A link to the video is available here: [Sacred Wheel Video](#)

2. **Strategic Workplan 2020 – Midpoint Assessment (WMA only) Wendy Sommer** **Information**

This item is for information only.

Wendy Sommer provided an overview of the staff report and presented a PowerPoint presentation. The combined report is available here: [Strategic Plan Update-01-27-16](#)

Board member Sadoff inquired about the locations and proposed operational start dates for the proposed organics facilities. Mr. Padia stated there is no certainty for development of these facilities. Waste Management at the Altamont Landfill has been trying to locate a covered aerated static pile composting facility for plant debris and food waste for residential green cart material for some time. They received a conditional use permit a few years ago but the project has stalled at the air permit stage. In their contract with the City of Oakland, they have a commitment to make all reasonable efforts to get it online in the next year and they have indicated that they are making every effort to do so. A private landscaping company has approached us about a COIWMP commitment regarding a green waste only windrow compost facility combined with a wood waste chipping operation at the edge of Livermore. He is unsure of the current status.

Board member Kalb inquired about the agency's commitment and proposed actions with regard to the EBMUD facility. Ms. Sommer stated that we had set aside \$1 million in reserve to assist EBMUD with the organics facility but it appears that EBMUD is expanding and they do not require our assistance at this time. Staff is proposing that we reallocate the \$1 million back to the OPD reserve and repurpose it for other organics related diversion projects. Board member Kalb asked that we obtain EBMUD's intentions in writing or at a presentation at a WMA Board meeting. Mr. Padia stated the \$1 million commitment was made over

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five years ago when they were proposing to expand their digester capacity to accept commercial food scraps from Alameda County sources. They were never able to meet the conditions and commitments that were part of the \$1 million grant and in their most recent meeting with Gary Wolff indicated that they were moving ahead with the Oakland contract to build a pre-processing facility to be able to take commercial organics separate from their commitment with us. Mr. Padia added they will be required to appear before the WMA Board for the COIWMP amendment and conformance finding for any new processing facility at that location and they can indicate their intentions at that meeting.

Board member Hannon suggested that staff provide a breakdown of categories that comprise the total of good stuff, i.e. multi-family, single family, commercial, etc. Board member Chan stated that Fremont staff is waiting to see the staff recommendations for criteria with respect to the product decisions targets. Ms. Sommer stated that staff will present the criteria to the TAC in February.

Board members thanked Ms. Sommer for the presentation.

3. Climate Mitigation/Adaptation Support for Member Agencies (WMA & EC) Action **(Wendy Sommer & Karen Kho)**

Provide staff direction on whether to align the WMA Board and Energy Council's projects and priorities under a climate mitigation/adaptation framework in order to leverage current projects and future funding opportunities.

Karen Kho provided an overview of the staff report. The report is available here: [MA Climate-01-27-16](#)

Board member Biddle inquired about the staff time required for this alignment effort. Ms. Kho stated that staff is already working on these areas in their respective groups but have not worked comprehensively within the scope of climate mitigation and adaptation that local jurisdictions are interested in pursuing. Board member Carson suggested that staff provide to the Board an assessment of where there may be overlap or not. Ms. Sommer stated that currently there isn't overlap but an opportunity to package the different areas together under one umbrella and if the Board provides direction to proceed with this proposal staff can come back to the Board next month with a resolution authorizing the Executive Director to apply for joint funding as those funding opportunities become available. Ms. Sommer added that staff is aware of a significant funding opportunity available through FEMA. Board member Carson inquired if the funding opportunity is driving the proposal or the opportunity to better coordinate and collaborate. Ms. Sommer stated that it is a combination of member agencies asking for our assistance, the opportunity to collaborate internally as well as the funding opportunity.

Board member Wengraf inquired about the downside to the proposed alignment. Ms. Kho stated the downside is the possible perception of scope/mission creep. Board member Kalb inquired if there is the possibility of doing less if we adopt the alignment. Ms. Kho stated that it might slightly shift the types of programs that the Energy Council is doing and the types of funding that they are seeking. For example, the Energy Council adopted priorities for FY 13-15 that include municipal building operations but have not necessarily identified funding sources for those specific activities, so going forward we may decide to focus on supporting community resiliency through micro grid projects instead.

Board member Sadoff inquired if there will be any legal implications for non Energy Council/WMA members. Agency Counsel Taylor stated not for the non WMA/EC members. He added the reason for Board direction is the EC can pursue EC projects and the WMA can pursue WMA projects but staff requires authority from the Board to pursue joint projects and the grant applications would be structured to show what each Board and Council would be providing.

Board member Jones stated that the Energy Council was formed to leverage resources and it makes sense to align, however we must consider the possible complications. Board member Rood stated his support for alignment as the City of Piedmont is getting support through the Energy Council for using ICLEI's ClearPath and for a Civic Sparkintern. He added keeping compostables out of the garbage is a solid waste issue on the

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WMA side but it also contributes to our climate action goals and allows for synergy between the WMA & EC. Board member Chan stated that the alignment of the WMA and EC for projects improves the ability to obtain grants and subsequently assist the member agencies.

Board members provided direction to staff to come back to the Board with information on possible complications of aligning the WMA & EC for projects, and what are the Energy Council projects that will not be done (Board members Ellis and Turner were absent).

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| 4. 2016 BayREN Contract (EC only) (Wendy Sommer & Karen Kho) | Action |
| Adopt the Resolution attached authorizing the Executive Director to enter into a 2016 contract for Bay Area Regional Energy Network (BayRen) and other related actions. | |

Karen Kho provided a summary of the staff report and presented an update on BayREN's accomplishments and a proposed scope of work for 2016. The combined presentation and staff report is available here: [BayREN Update-01-27-16](#)

Board member Chan stated that ABAG in conjunction with BayREN is going through their PACE marketplace program and Fremont is awaiting the outcome of that discussion and inquired about the number of cities that have an ordinance that supports one or more of their programs. Board member Kalb stated the City of Oakland has five.

Board member Wengraf made the motion to adopt the resolution authorizing the Executive Director to enter into a 2016 contract for Bay Area Regional Network (BayREN) related actions. Board member Rood seconded and the motion carried 17-0 (Ellis absent).

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| 5. Interim appointment(s) to the Recycling Board for WMA appointee unable to attend future Board Meeting(s) (WMA only) (Wendy Sommer) | Action |
| (P&O/RB meeting, February 11 th at 4:00 pm – StopWaste Offices, 1537 Webster Street, Oakland, CA) | |

Board members Pentin and Jones required an interim appointment. Board member Biddle and Young agreed to serve respectively. Board member Sadoff made the motion to approve the interim appointments. Board member Oddie seconded and the motion carried 18-0 (Ellis and Turner absent).

VII. COMMUNICATION/MEMBER COMMENTS (WMA & EC)	Information
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Board member Chan announced that she and Vice Chair Kalb will not be able to attend the April 22nd and June 22nd WMA meetings due to their attendance at the League of Cities. Ms. Sommer stated that the main item on the agenda will be the budget presentation, not the budget adoption. Ms. Sommer reminded the Board that the February meeting will be on the 3rd Wednesday, February 17th. Board member Sadoff stated that the most recent Benchmark report indicated that the goals stated are 5% recyclables and 5% compostables and inquired if the percentages are cumulative. Mr. Padia stated yes.

Arliss Dunn announced that the agency is transitioning to a new Contact Resource Management System (CRM) to distribute the Board packets and out of an abundance of caution 2 copies of the packet were sent to Board members using both the old and new systems. Please inform staff if the packet sent via CRM was perceived as spam by their email systems. Ms. Sommer added hard copies of the packet are optional and please inform staff if Board members prefer to receive the packet electronically only. Closed session items will continue to be provided via hard copy.

VIII. ADJOURNMENT (WMA & EC)

The meeting adjourned at 4:10 p.m.

DATE: February 17, 2016

TO: Waste Management Authority Board
Energy Council

FROM: Wendy Sommer, Executive Director

BY: Pat Cabrera, Administrative Services Director
Gina Peters, Chief Financial Officer

SUBJECT: Annual Audit for Fiscal Year 2014/15

SUMMARY

On February 11, 2016, the Programs and Administration (P&A) Committee and the Planning and Organization (P&O) Committee/Recycling Board heard a presentation of the Fiscal Year (FY) 2014/15 Annual Audit. There were no audit exceptions or material deficiency findings. Additionally, there were no recommendations for improvements in internal controls. The report submitted to the P&A and the P&O/RB can be found at: [Audit Report-02-11-16](#)

COMMITTEE ACTION

The P&A Committee and the P&O Committee reviewed and recommended by the respective votes of 10-0 (Carson and Turner absent) and 10-0 (Peltz absent) to forward the audit report to the Waste Management Authority for review, acceptance and filing. The Recycling Board by a vote of 10-0 (Peltz absent) reviewed and accepted for filing the FY 2014/15 audit.

RECOMMENDATION

Staff recommends that the WMA Board and the Energy Council review, accept and file the FY 2014/15 audit report.

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DATE: February 17, 2016

TO: Authority Board

FROM: Wendy Sommer, Executive Director

BY: Justin Lehrer, Senior Program Manager

SUBJECT: Assessment Criteria for Product Decisions Activities

SUMMARY

As part of the mid-term review of the 2020 strategic plan progress, staff has developed proposed criteria for evaluating the efficacy of current or future Agency projects. The criteria will be used to make adjustments to the Product Decision (PD) Targets identified in the Strategic Workplan. For more information, refer to the [February 11, 2016 P&A Committee Memo](#).

COMMITTEE ACTION

On February 11th, the Programs and Administration (P&A) and Planning and Organization (P&O) Committees reviewed the proposed criteria (Attachment A) and provided input. Ideas included clarifying the qualitative intention of the criteria (rather than employing a scoring formula), applying the criteria to both current and future projects, and considering equity across the communities impacted by our work. Board Members also expressed interest in seeing examples of how the criteria are applied to Agency projects when we present recommended adjustments to PD projects in March. The P&A Committee by a vote of 10-0 (Carson and Turner absent), and the P&O Committee by a vote of 10-0 (Peltz absent) recommended that the WMA Board approve the proposed criteria for evaluating targets and programs.

RECOMMENDATION

Staff recommends that the WMA Board review and approve the proposed criteria for evaluating targets and programs and direct staff to use the adopted criteria to inform adjustments to the Product Decision Targets, propose organics projects, and develop future programs.



PROJECT ASSESSMENT

Project/Concept Name (incl. Project #): _____

Priority Area:

☐ Organics ☐ Packaging ☐ Built Environment (Green Building, Landscape, Energy, C&D)

Impact Area: ☐ Landfill Conservation (Prevention or Diversion) ☐ Energy Conservation
☐ Hazardous Waste ☐ Climate Mitigation/Adaptation ☐ Recycled Content /
Market Dev ☐ Other (Soil, Water, etc.)

Place in Hierarchy: ☐ Reduce ☐ Reuse ☐ Recycle ☐ Rot

Criteria	Response <i>Yes, No, Maybe</i>	Assessment/Comments
Influence/Geographic Scale Are we positioned to effectively influence the target audience? Can the project be achieved within Alameda County or is broader geographic reach needed (i.e. would this be better pursued via partnerships or a regional, state or federal initiative)?		
Technical Feasibility Aside from cost or other factors, can it be done? Is the technology available and the pieces in place to make it work? (e.g., if goal is recyclable/compostable food service ware, are these products acceptable and processable in local facilities?)		
Timeliness & Leverage Is the project timely given the current societal and political environment and/or internal considerations? Are stars aligned, are there funding or other opportunities to leverage?		
Member Agency, Partner & Funder Alignment Does the project align with or support goals/initiatives of our Member Agencies and other potential partners (e.g., water agencies)? Is there opportunity to		

collaborate? Is it equitable?		
Innovation & Leadership Is the Agency in a unique position to influence policy, markets, or behavior with this project? Is the project innovative; does it experiment with a new concept/idea? Seed for future funding?		
Measurability Practically speaking, can progress be measured? Note the metric/method.		
Budget Is current project budget sufficient, or is adequate funding readily available? Is there a plan for funding? Ask the same questions of staffing.		
Environmental Impact & Cost Effectiveness Consider the overall magnitude of impact of the project, along with costs to determine the overall "bang for your buck." When feasible, use metrics such as cost per ton (or other).		
Community/Social Impact Consider social and economic impacts on the community. Job creation, other community benefits? What does the community think of the effort? Is public stakeholder effort needed?		
Questions:		
Recommendation:		

ATTACHMENT B

The following product decisions targets were approved by the Boards at the end of 2011:

1. Waste Prevention:

A. Institutional Food Service/Commercial Cafeterias

Institutional kitchens and high volume food service operators located in Alameda County that participate in technical assistance or other support services from the Authority, reduce food and other inputs by an average of 25% or more from an established baseline.

B. Reusable Transport Packaging

90% of businesses in Alameda County with appropriate shipping and receiving circumstances are utilizing reusable transport packaging when economically advantageous.

2. Household Hazardous Waste:

A. HHW Alternatives

90% of stores that sell products destined for HHW facilities will stock and promote non-toxic/less-toxic HHW alternative products.

3. Recycled Content:

A. Bulk Compost

90% of permitted landscape projects in Alameda County use locally produced or sourced compost.

B. Bulk Mulch

90% permitted landscape projects in Alameda County use local, recycled mulch.

C. Building Materials

90% of building material supply centers will stock and promote recycled content building materials that support local green jobs.

4. Hard To Recycle:

A. Institutional and Commercial Food Service Ware & Packaging

90% of customers (institutional and commercial) with separate organics collection purchase and use readily recyclable/reusable/compostable food service ware and packaging.

B. Packaging Life Cycle Analysis and Recyclability Labeling

90% of Alameda County brand owner/manufacturers will incorporate life-cycle metrics consistent with the Global Protocol on Packaging Sustainability into their packaging design process to reduce the environmental impact of their packaging, utilize accurate recyclability labeling which is compliant with the Federal Trade Commission's (FTC) Green Guides, and where possible, use the Sustainable Packaging Coalition's (SPC) How2Recycle label.

C. Single Use Plastic Bags

Single use plastic bags are strongly discouraged from distribution in retail stores.



DATE: February 12, 2016

TO: Waste Management Authority Board

FROM: Wendy Sommer, Executive Director

BY: Debra Kaufman, Senior Program Manager

SUBJECT: Organics Processing Development Reserve Usage & Criteria

SUMMARY

At the February 11 P&A meeting, staff reviewed the history of the Organics Processing Development (OPD) reserve fund and recommended the use of part of the fund for organics diversion projects that go beyond in county processing capacity. The P&A memo can be found at: [OPD Reserves Memo-02-11-16](#).

DISCUSSION

The Organics Processing Development (OPD) reserve fund was created in 1998 for the development of in-county organics processing capacity or facilities. Over time, there has been a lack of viable facilities for the Agency to fund. Variables other than funding have proven to be more critical factors in the development of in-county facilities, such as siting, permitting and franchise agreements.

Based on this, and the fact that two in county facilities are currently undergoing the permitting process, staff recommends that at least part of the OPD reserve be used to fund projects that further the Agency's goals to divert organics beyond the development of in-county processing facilities. It is recommended that staff use the proposed product decisions criteria to evaluate possible projects for organics diversion using OPD reserve funds, including efforts to increase the quantity and quality of participation in existing residential and commercial organics collection programs, efforts to increase edible food donation and reduce edible food waste, and helping member agencies meet planning capacity requirements of AB 876. Projects will be proposed as part of FY15/16 budget development.

COMMITTEE ACTION AND RECOMMENDATION

The P&A Committee by a vote of 10-0 (Carson and Turner absent) recommended that the WMA Board affirm that the \$1 million EBMUD reserve is no longer reserved for EBMUD, and direct staff to incorporate the fund within the OPD reserve, and to budget some part of those funds for organics diversion projects that go beyond in-county processing capacity using the proposed product decisions criteria.

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Date: February 10, 2016

TO: Authority & Recycling Boards

FROM: Wendy Sommer, Executive Director

SUBJECT: Informational Report on Grants Issued Under ED Signature Authority

The purchasing and grant policies were amended to simplify paperwork 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 informs Board members of the small grants issued at the next regularly scheduled Board meeting.

Grants – December 2015 – February 2016

PROJECT NAME	GRANT RECIPIENT	PROJECT TYPE/DESCRIPTION	LOCATION	VERIFICATION	GRANT AMOUNT	BOARD
Community Outreach Grant	Tabernacle Church	Non-profit grant funds to promote food scrap recycling to difficult to reach audiences. Grantees to utilize Agency outreach materials to reach their communities using their networks and social media.	Oakland	Submitted Outreach activities, final reports.	\$5,000	RB
Community Outreach Grant	Berkeley Food Pantry	Non-profit grant funds to promote food scrap recycling to difficult to reach audiences. Grantees to utilize Agency outreach materials to reach their communities using their networks and social media.	Berkeley	Submitted Outreach activities, final reports.	\$5,000	RB
Community Outreach Grant	Mujeres de Unidas	Non-profit grant funds to promote food scrap recycling to difficult to reach audiences. Grantees to utilize Agency outreach materials to reach their communities using their networks and social media.	Livermore, Oakland, Hayward	Submitted Outreach activities, final reports.	\$5,000	RB

PROJECT NAME	GRANT RECIPIENT	PROJECT TYPE/DESCRIPTION	LOCATION	VERIFICATION	GRANT AMOUNT	BOARD
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Community Outreach Grant	Building Opportunities for Self Sufficiency (BOSS)	Non-profit grant funds to promote food scrap recycling to difficult to reach audiences. Grantees to utilize Agency outreach materials to reach their communities using their networks and social media.	Hayward, Berkeley, Oakland	Submitted Outreach activities, final reports.	\$5,000	RB
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Energy Council TECHNICAL ADVISORY GROUP (TAG)

Tuesday, January 19, 2016 – 1:00 pm to 3:00 pm

Attendance:

County of Alameda: Damien Gosset (phone)

City of Alameda: Maria DiMeglio (phone)

City of Albany: Claire Griffing

City of Berkeley: Billi Romain, Catie Campbell-Orrock (Civic Spark)

City of Dublin: Kathy Southern

City of Emeryville: Nancy Humphrey, Hoi Fei Mok (Civic Spark)

City of Fremont: Rachel DiFranco, Dan Schoenholz

City of Hayward: Mary Thomas, Gilee Corral (Civic Spark)

City of Oakland: Shayna Hirshfield – Gold, Ben Silverman (Civic Spark)

City of Piedmont: Emily Alvarez, Matt Anderson (Civic Spark)

City of San Leandro: Sally Barros (phone)

StopWaste: Heather Larson, Lisa Pontecorvo, Candis Mary-Dauphin, Miya Kitahara, Debra Kauffman

Guest: Clifford Wang (ABAG Civic Spark Member), Kif Scheuer (LGC), Dana Brechwald (ABAG) JR

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Meeting Notes

Board Updates

- New BayREN Contract will go to board at next meeting.
- Board will be provided with an update on climate mitigation and adaptation work and areas of coordination with WMA issues.

CCA Updates

- Ambitious timeline
 - Results of technical study are expected by Q 3 this year
 - Starting to visit city councils now regarding joining JPA.
 - Anticipating starting service in 2017.

Program Updates

- Multifamily & Single Family programs status (see hand-out)
 - Multifamily
 - 2016 pipeline solid from fall 2015 outreach
 - Planning 1 workshop in Alameda County this spring.
 - Single Family
 - New program outreach collateral being developed.
 - Program collateral will include information on innovative financing options.
- Codes & Standards
 - Upcoming training topics released (see hand-out). Upcoming forum info is to come.

- ABAG is still working to hire a program manager. Trainings and forums administration is being carried out with BayREN support.
- Financing
 - BAMCAP
 - 3 projects in the pipeline
 - PACE
 - California First not opting in because they are already serving almost every jurisdiction
 - Jurisdictions interested to encourage California First to join
 - PACE providers were due to provide feedback on collaborative services agreement on 1/11
 - PAYS
 - Hayward – making progress with outreach, filling pipeline.
 - PAYS legislation language in the process of refinement by Sen. MacGuire, and has a new official name - Water Bill Savings Act

Residential Policy Tools and Home Energy Score

- Presentation given by Lisa Pontecorvo, StopWaste
 - Residential Energy Assessment and Disclosure -- increases market transparency – moves the market
 - Home Energy Score – DOE scale for rating homes. Homeowner is given a score and report that includes recommendations
 - Customized recommendations to meet Bay Area needs
 - ~75 homes completed through Berkeley BESO up to now, out of the almost 300 homes that have been affected
 - Berkeley is attaching energy scores to parcel data
 - BayREN is considering standardized protocols for scaling up, while also including flexibility for customization
 - Looking at ways to expand model regionally – looking for feedback. Considering forming a subcommittee of jurisdictions serious about moving forward – invitation will be expanded to other cities in the Bay Area.
 - There are rebates available for contractors in jurisdictions that are not moving forward
 - Cities interested in residential ordinances include:
 - Piedmont, Albany, Hayward
 - Albany is going back to Council with several policy options

California Resiliency Legislation

- Presentation given by Kif Scheuer, LGC
- Evolution of climate adaptation goals – Safeguarding California
 - Governor Brown directed agencies to come up with a resiliency plan – should be finalized within a few months
 - 10th chapter looks at local and regional responsibilities
 - Resiliency might be integrated into buildings and codes

- Timeline is specified for regular updates – July first 2017 and every 3 years thereafter
- Considerations at the local agency level include:
 - SGC has a role to inform local agencies and provide grants – these grants may start incorporating resiliency requirements
 - Technical Advisory Council will include at least one local representative
 - SGC will establish roles and resources for resiliency and interfacing at local level
 - SB 379 – by 2022 or if GP is updated, GP must include adaptation as a safety element
 - ABAG has offering FEMA Hazard Mitigation Plan assistance
 - Many plans expire this year, ABAG is providing tools – workshops, templates, materials and a recommended process that incorporate climate change assessment and adaptation
 - ABAG can also provide individualized technical assistance
 - FEMA stakeholder work must be done at a local level, several additional local level requirements
 - Strategies can be coordinated regionally
 - ICLEI – open to providing technical expertise for climate adaptation planning – even for those not signed on to the Compact of Mayors
 - Compact of Mayors cities include: Emeryville, Berkeley, Oakland, Piedmont (approved by Council in Jan), Fremont, Hayward soon.
- Future meeting topics
 - Consumption Based Inventory session with Chris Jones

NEXT TAG MEETING: Tuesday, February 16 2016 from 1pm-3pm

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DATE: February 17, 2016

TO: Waste Management Authority Board

FROM: Wendy Sommer, Executive Director

BY: Pat Cabrera, Administrative Services Director
Mark Spencer, Senior Program Manager

SUBJECT: Updated Multi Year Fiscal Forecasts

SUMMARY

To prepare for the development of the upcoming FY16/17 budget, staff reviewed the long term fiscal forecasts and the current statistical model used for projecting tonnage-based revenue. Both the forecasts and revenue projection model are inaccurate and outdated. At the WMA meeting, staff will present updated information on these two items.

DISCUSSION

As fiscal forecasts are directly linked to the revenue projection model, staff will discuss both items in one report beginning with the methodology used to project tonnage-based revenues.

Revenues

During the FY09/10 budget development process an in-depth statistical analysis was conducted to help determine tonnage related revenue. We determined that national unemployment and variables accounting for monthly variation created the strongest explanations for variations of tonnages disposed from Alameda County jurisdictions. The San Francisco model developed in this process utilized unemployment and a time function. Although statistically significant, the model projections still required manual reductions to better account for the impacts of our and member agency waste reduction efforts. While the model was impressively accurate when we began using it, the correlation between unemployment and tonnages has weakened in recent years. We were able to improve the fit of the model to historical data two years ago by adding a statistically significant 'dummy variable' to account for the impact of waste reduction policies instead of using a manual adjustment as in previous years. However, the fit of the model to recent data has continued to decline to the point where predicted outcomes are sufficiently inaccurate so as to be no longer useful.

This issue was discussed as part of the mid-year budget report, specifically whether it should be used in developing the FY16/17 budget or whether some other type of estimator should be used instead. Staff will present historical tonnage trends and discuss our ability to project future tonnages given past trends.

Given the present situation staff recommend that the agency discontinue use of the current statistical model and for the coming 2016-2017 fiscal year base future projections on the long-term 3% decline in tonnages that can be seen when one examines tonnages going back to 1999. This 3% reduction factor was utilized prior to the development of the current model. Staff will monitor disposal trends carefully and will apprise the Board of any issues or proposed changes to projections during budget development, at mid-year or sooner if necessary. Given that we also have a fiscal reserve of \$2.1M (that we have never had to use for revenue shortfalls) we feel there is also sufficient cushion should revenues fall significantly below projections.

Multi Year Fiscal Forecasts

At the November 18, 2015 Authority Board meeting, two fiscal forecasts (Attachment 1) were presented which showed deficit fund balances in FY 19/20 of \$2.8M and \$4.0M respectively depending on the level of core spending. However these forecasts were predicated on the Authority meeting its “less than ten percent good stuff in garbage” goal which as discussed last month, does not appear attainable by FY19/20. Using the proposed projection model and based on the same expenditure scenarios (Attachment 2) there would be available fund balances at the end of FY19/20. Furthermore, in this and the following scenarios the fund balance in FY15/16 has been lowered by \$500K (compared to Attachment 1) to coincide with the mid-year budget.

The following forecasts (Attachment 3) are also based on the revised revenue projections and include the Agency’s reserves. Scenario 3 show core expenditures remaining constant at \$11.4M and Scenario 4 show core expenditures declining slightly starting in FY 18/19 as a result of projects either contracting or ending or through vacancies that are either not filled or filled at a lower cost (e.g., due to pension reform). In either scenario there is a positive fund balance of \$4.1M and \$5.3M, respectively. In addition, as shown we project at least \$11.6M of reserves available in FY19/20. The fund balance and reserves combined comprise well over one year’s core budget.

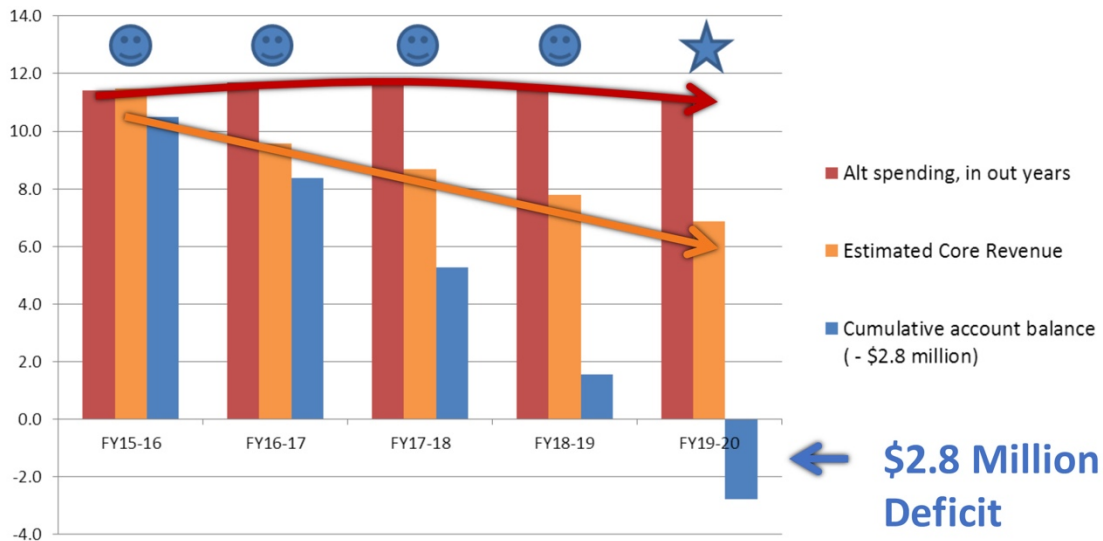
These scenarios are for illustrative purposes and are not part of a proposed budget plan. Solid fiscal management practices align ongoing expenditures with ongoing revenue which should be the Agency’s long term objective. However, with the loss of San Francisco mitigation revenue we anticipate using fund balance and as appropriate reserves if needed to assist us in attaining our diversion goal, and then working systematically towards matching expenditures with revenues. Based on these projections which we will update at least annually, we don’t anticipate the need for a fee increase in the near future. Through very prudent spending these past years we have accumulated a large fund balance in addition to our reserves which will provide a solid funding contingency as we work towards achieving our goals.

RECOMMENDATION

This item is for information only.

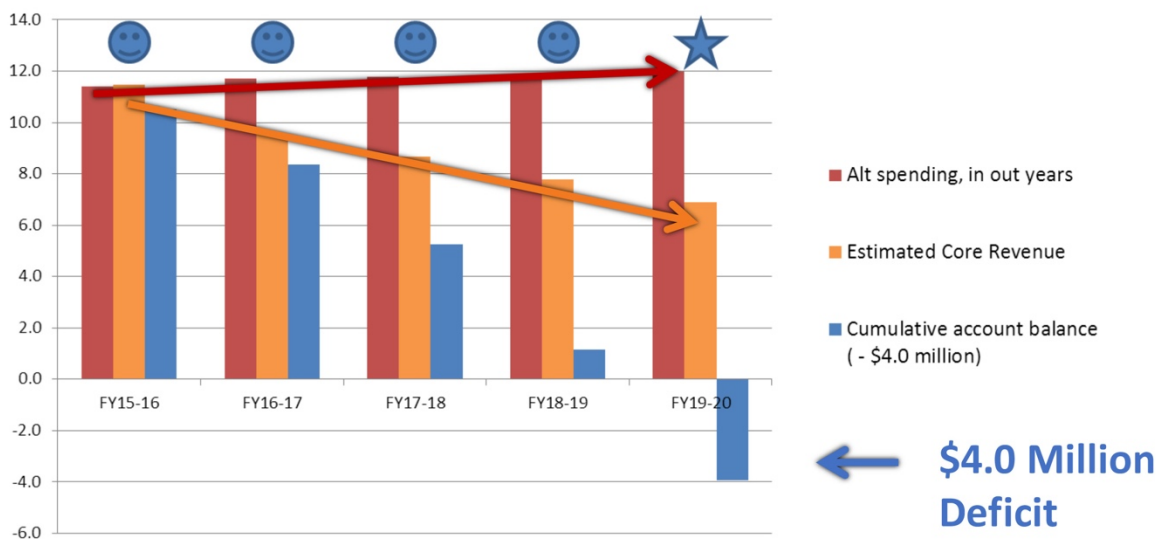
Previous Forecast: Scenario 1

- Expenditures peaking in FY17-18
- Revenue dropping according to original projection



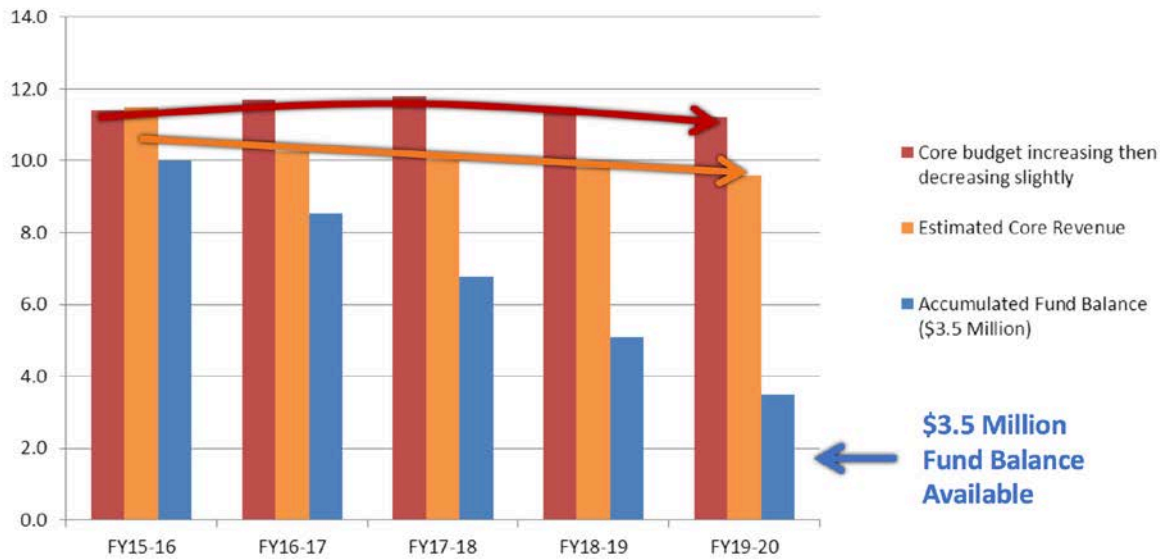
Previous Forecast: Scenario 2

- Expenditures continue to rise
- Revenue dropping according to original projection



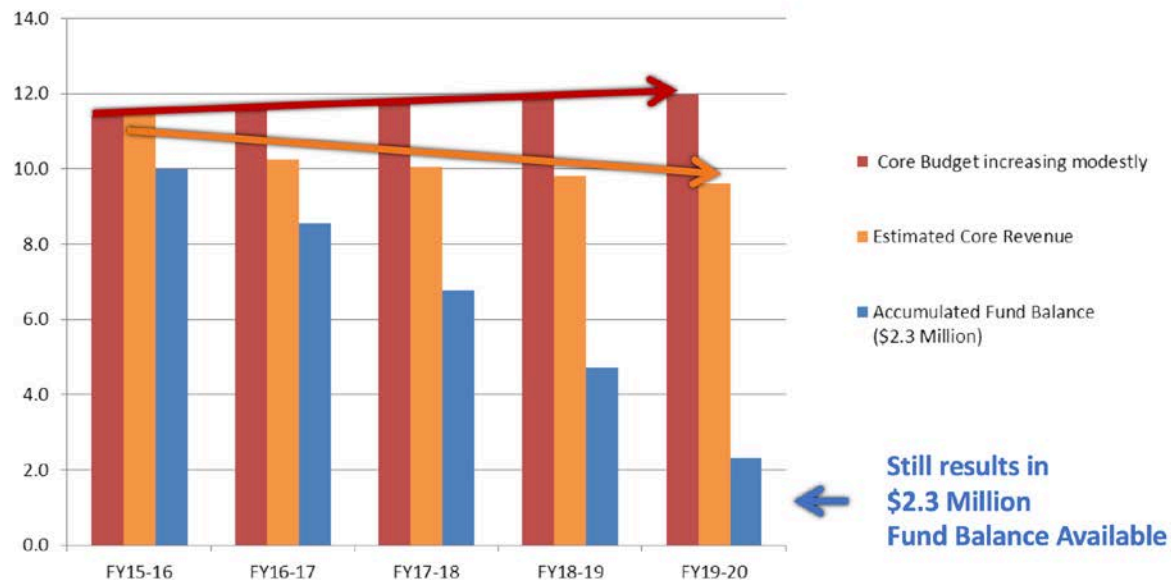
Revised Forecast: Scenario 1

- Expenditures peaking in FY17-18
- Revenues adjusted for new waste projection



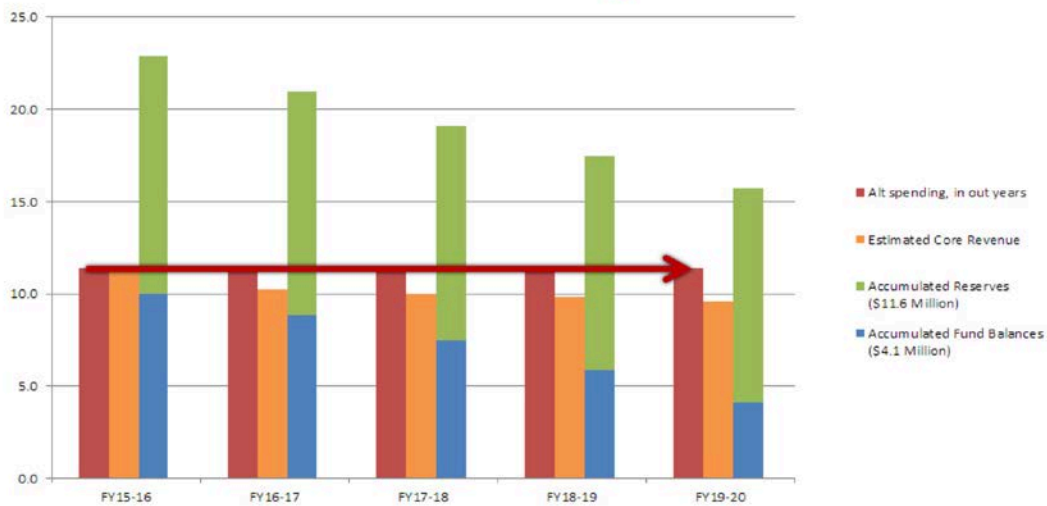
Revised Forecast: Scenario 2

- Expenditures continue to rise
- Revenues adjusted for new waste projection



New Forecast: Scenario 3

- **Expenditures stable**
- **Revenues adjusted for new waste projection**
- **Accumulated Reserves shown along with Fund Balance**



\$4.1 Million Accumulated Fund Balance + \$11.6 Million Accumulated Reserves.

New Forecast: Scenario 4

- **Expenditures drop in FY18-19**
- **Revenues adjusted for new waste projection**
- **Accumulated Reserves shown along with Fund Balance**



\$5.3 Million Accumulated Fund Balance + \$11.6 Million Accumulated Reserves.

Attachment 4

**WASTE MANAGEMENT AUTHORITY
SCHEDULE OF RESERVES
FISCAL YEAR 2015-2016 MIDYEAR BUDGET**

DESCRIPTION

WMA

	BALANCE JULY 1, 2015	TRANSFERS IN	TRANSFERS OUT	BALANCE JUNE 30, 2016
DESIGNATED RESERVES				
ORGANICS PROCESSING DEVELOPMENT	\$ 6,580,226	1,000,000	\$ (472,690)	\$ 7,107,536
EAST BAY MUD COMMERCIAL FOOD WASTE DIGESTER PROJECT	1,000,000		(1,000,000)	-
DIVERSION PROJECT: PRODUCT DECISIONS	137,370		(114,514)	22,856
PENSION LIABILITY RESERVE		700,000	(600,000) (a)	100,000
FISCAL RESERVE	2,105,019		(700,000)	1,405,019
<i>Sub-total</i>	<u>9,822,615</u>	<u>1,700,000</u>	<u>(2,887,204)</u>	<u>8,635,411</u>
CONTRACTUALLY COMMITTED RESERVES				
DIVERSION PROJECT: MRF CAPACITY EXPANSION-DAVIS STREET	439,661	229,724	(575,984)	93,401
WMAC TRANSPORTATION IMPROVEMENT PROGRAM (TIP)	3,441,987			3,441,987
<i>Sub-total</i>	<u>3,881,648</u>	<u>229,724</u>	<u>(575,984)</u>	<u>3,535,388</u>
Total	<u>\$ 13,704,263</u>	<u>\$ 1,929,724</u>	<u>\$ (3,463,188)</u>	<u>\$ 12,170,799</u>

(a) To pay down Gasb 68 pension liability.

**ALAMEDA COUNTY SOURCE REDUCTION AND RECYCLING BOARD
SCHEDULE OF RESERVES
FISCAL YEAR 2015-2016 MIDYEAR BUDGET**

RB

DESCRIPTION

	BALANCE JULY 1, 2015	TRANSFERS IN	TRANSFERS OUT	BALANCE JUNE 30, 2016
FISCAL RESERVE	\$ 694,981			\$ 694,981
Total	<u>\$ 694,981</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 694,981</u>

DATE: February 17, 2016

TO: Waste Management Authority Board

FROM: Wendy Sommer, Executive Director

BY: Pat Cabrera, Administrative Services Director

SUBJECT: Unfunded Liability

SUMMARY

In November 2015, the Board directed staff to schedule a discussion on a pension funding target given the uncertainty of the CalPERS assumptions and how that uncertainty could impact funding status. At the February WMA meeting, staff will discuss unfunded liability and recommend a 90% funding target.

DISCUSSION

At the November 18, 2015 WMA Board Meeting, then Executive Director Gary Wolff presented information on the Agency's unfunded pension liability along with options for addressing it. That staff report can be found at [Pension Payoff-11-18-15](#). The Board approved a payment of \$600,000 towards the unfunded liability. The Board also directed staff to bring before the Board a discussion of a pension funding target (i.e., some percentage of total pension liability,) acknowledging that the actual funded percentage will fluctuate around the target due to changes in market value. In addition to the \$600,000 payment the Agency has been proactive in addressing unfunded liabilities both with respect to pension and post-retirement health benefits (referred to as OPEB) as outlined below.

Pension Side Fund

In 2003 the WMA was required to join a risk pool for retirement. A side fund was created to account for the difference between the funded status of the pool and the funded status of the Agency's plan. In June 2011 the WMA approved paying off the side fund of approximately \$1.0M and in doing so saved approximately \$134,000 annually. The side fund was the only unfunded liability that pooled plans were allowed to pay until recently.

Other Post Employment Benefits (OPEB)

The WMA established a trust fund (California Employees' Retiree Benefit Trust (CERBT)) in 2008 to address the funding requirements associated with employee post-retirement health benefits. The WMA also approved vesting requirements for employees hired after 2007 regarding these benefits in order to reduce future costs. In March 2012, the WMA approved paying the trust's unfunded liability of approximately

\$2.2M and receives an annual reimbursement from the trust (approximately \$130K in FY14/15) for those already retired as their premiums are included in the Agency's monthly health bill.

With respect to the WMA's current unfunded liability, the GASB 68 accounting valuation report findings (that were presented in November) stated that the WMA's unfunded liability was approximately \$3.5M. That information was based on data carried over from June 2013. The most current annual valuation report from June 2014 showed the Agency's unfunded liability to be approximately \$4M. The lump sum payment made by Agency in January 2016 revised the unfunded liability to approximately \$3.5M and the CalPERS actuary estimated the Agency's funded status to now be approximately 83%. This payment also reduced the Agency's annual contribution to CalPERS in fiscal year 16/17 by \$45K and reduced the rate (which includes the normal cost and the UL converted to an annual percentage) from 15.6% to 14.4%.

The Board asked to discuss pension funding target given the uncertainty of the CalPERS assumptions and how that uncertainty could impact funding status. Specifically, whether paying off the unfunded liability in whole was prudent since it could either result in overfunding or if certain assumptions were not realized result in underfunding again. The CalPERS actuary estimated that it would cost the Agency approximately \$1.6M to achieve a 90% funded status and it would cost approximately \$2.7M and to achieve a 95% funded status. These figures could change based on the market value of the Agency's plan. Achieving and maintaining a 90% funded goal would be prudent from a financial standpoint while minimizing the risk of overfunding the plan. Additionally, we estimate that the Agency's annual contributions to CalPERS would be reduced by over \$200,000 which will help to maintain core expenditures.

As such, staff is recommending setting a 90% funding goal which could be paid in a lump sum assuming the WMA receives the conservation easement payment from NextEra. This payment is estimated to total \$1.9M. Given the timing of the NextEra payment, this transaction would be incorporated into the FY16/17 mid-year budget. Should the cost to achieve this goal at the time exceed the NextEra payment or should the NextEra agreement not be executed, staff recommends bringing this item back to the Board with options on how to pay the unfunded liability or any outstanding balance necessary to achieve the 90% goal. Should the NextEra payment exceed the cost of paying the UL, staff recommends that the remaining proceeds go to the Pension Reserve Fund to be used in the future (should the UL fall below the 90% funded status goal).

For comparison purposes only one member agency currently has a funded status in the 90% range for its miscellaneous "first tier" employees. The funded status for member agencies first tier miscellaneous plans range based on the last valuation report from 69.2% to 90.2% with most of the agencies falling in the low to high 70% range.

RECOMMENDATION

Staff recommends that the WMA Board adopt a pension funded status goal of 90% which is estimated to cost approximately \$1.6M. Assuming the agreement with NextEra for the conservation easement is finalized, staff recommends that the WMA approve using those proceeds to make a lump sum payment to CalPERS to pay the unfunded liability (UL) sufficient to achieve the 90% funded status level.



DATE: February 17, 2016

TO: Waste Management Authority Board and Energy Council

FROM: Wendy Sommer, Executive Director

BY: Karen Kho, Senior Program Manager

SUBJECT: External Funding Priorities

SUMMARY

At the January Board meeting, staff sought input from the Board on a possible strategy of pursuing greater alignment between Energy Council priorities for grant seeking with other Agency priorities under a climate mitigation/adaption framework. On February 17, 2016, staff will report on its plans for follow-up and consultations with the Technical Advisory Group on this topic.

DISCUSSION

At its January meeting the Board expressed interest in exploring grant funding opportunities in the climate mitigation/adaptation arena that would advance the goals of both the Energy Council and the Waste Management Authority. The Board also directed staff to investigate possible complications of coordinating grant seeking activities under such a framework and how pursuing this direction could affect other Agency programs and priorities.

The primary potential complication is that core-funded WMA projects would be inadequately staffed if the Agency pursues additional external funding opportunities. (This is not a problem specific to coordinating grant seeking under a climate mitigation/adaptation framework, but it could be triggered by *any* grant seeking activity.) If external grants do not cover the additional labor costs of grant management, then existing staff may become overburdened. This could result in some Agency activities being deprioritized in order to meet external funding deliverables. Staff will explore strategies to ensure that core WMA deliverables are not compromised.

No specific priorities are being recommended or specific grants pursued at this time. Staff will coordinate internally and work with the Energy Council Technical Advisory Group to bring forward a revised set of Energy Council priority areas for Board consideration in March. Some of the issues to be explored in working with the TAG are:

- How a climate mitigation/adaptation framework might shift the focus of Energy Council grant seeking. Staff does not anticipate dropping any program areas that are currently under contract through BayREN or the Local Government Partnership. However, this framework could affect new program areas. We will discuss with the TAG the effect that addressing energy resiliency would have on Energy Council activities, including developing partnerships, pilot projects and proposals.
- The extent to which a climate mitigation/adaptation framework would significantly help align and prioritize Energy Council and WMA activities related to external grant seeking in a way that could lead to increased program efficiencies and benefit member agencies.
- Revisiting the Energy Council priority areas for 2013-15. In July 2013 the Energy Council adopted initial priority areas to guide staff in program development and grant seeking activities. Staff will recommend revisions for 2016-18 based on the discussion of the issues listed above.

RECOMMENDATION

This item is for information only.

March 2016 Meetings Schedule

Alameda County Waste Management Authority, The Energy Council, & Source Reduction and Recycling Board

(Meetings are held at StopWaste Offices unless otherwise noted)

SUN	MON	TUES	WED	THURS	FRI	SAT
		1	2	3	4	5
6	7	8	9	10 9:00 AM Programs & Administration Committee Key Items: 1. Targets Adjustments 2. Inspector Assessment 3. Reusable Bags Expansion <hr/> 4:00 PM Planning & Organization Committee /Recycling Board Key Items: 1. Targets Adjustments 2. Pleasanton Adequate Recycling	11	12
13	14	15	16	17	18	19
20	21	22	23 3:00 PM Waste Management Authority & Energy Council Key Items: 1. Recommendations for Targets Adjustments 2. Reusable Bags Expansion 3. E-Council Priority Areas	24	25	26
27	28	29	30	31		

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NEWS

Solar is in, biomass energy is out -- and farmers are struggling to dispose of woody waste

By Geoffrey Mohan

Los Angeles Times

UPDATED: 01/15/2016 06:15:17 AM PST

FRESNO -- It should have been a good year for turning wood and waste into electrons.

A record-setting drought forced California growers to bulldoze thousands of acres of trees, and hardly anyone in the state's Central Valley has permission to light bonfires anymore.

But more than trees have withered in California's sun. The state's biomass energy plants are folding in rapid succession, unable to compete with heavily subsidized solar farms, many of which have sprouted up amid the fields and orchards of the valley.

Paul Parreira is painfully aware of the irony. The third-generation grower and almond processor is running out of dirt roads where he can spread ground-up almond shells, even as he expands a one-megawatt solar array on six acres of his family's property.

The waste-to-energy facilities where Parreira used to send about 50,000 tons of shells per year are vanishing. Six have closed in just two years, the latest in Delano, which shut down last month, after San Diego Gas & Electric ended its power purchase agreement. Twenty-five people were laid off, and 19 will remain to complete closure of the plant, said Dennis Serpa, fuels manager of the 50-megawatt plant, owned and operated by Covanta.

The Rio Bravo biomass facility south of Fresno is taking some of the fuel that would have gone to Delano. But short of a miracle, the 25-megawatt plant run by IHI Power Services will burn its last wood chips in July, when its power purchase agreement with Pacific Gas & Electric expires.

The Sacramento Municipal Utility District, meanwhile, is locked in a dispute with the 18-megawatt Buena Vista biomass facility in Lone, and has threatened to terminate its contract, according to district spokesman Christopher Capra.

The closures have forced the San Joaquin Valley Air Pollution Control District to consider allowing more agricultural waste to be burned in open piles, which produces particulate matter and ozone-forming compounds associated with cardiovascular illnesses.

Air quality already is notoriously bad throughout the district -- four of the five dirtiest metropolitan areas, based on ozone and particulate measures, are in the valley, according to the American Lung Association. Based only on measures of particulate matter, the Fresno-Madera area was the worst in the nation, followed by Bakersfield, Visalia-Porterville-Hanford, and Modesto-Merced.

A policy change on open burning would require extensive public hearings. But the district may have little choice.

"Do not underestimate the fact that state law requires that if farmers do not have an economically feasible alternative, the district is prohibited from banning the open burning of those materials," Executive Director Seyed Sadredin cautioned the district's governing board at its November monthly meeting. "We have 11 farmers right now that are risking the loss of hundreds of thousands of dollars if they do not find a way to dispose of that material."

No one expects a wholesale return to bonfires wafting smoke across the Central Valley. But without the revenue from selling farm waste to the biomass plants, the costs of clearing agricultural debris are expected to skyrocket.

"It's going to triple the cost to farmers," said Frank Sanchez, who owns a tree-grinding service that is one of the top customers at Rio Bravo. "They're going to be paying about \$1,000 to \$1,200 an acre just to do the same work that you were doing before for about \$300 an acre."

Sanchez pared his profit margin to zero in October, hoping to keep his clients until the market improves. If it doesn't, he'll lay off as many as 30 workers from his Wasco-based company.

Tejon Ranch, one of his clients, knocked down 160 acres of almond trees in 2015. But the debris will stay on the farm. "For 160 acres, you're looking at 200 or so truckloads," said Trey Irwin, vice president of agriculture for Tejon, a conservancy that has a strict no-burn policy. "It's pretty hard to find a home for 200 truckloads."

Some growers have begun experimenting with a more advanced farm-scale technology, but it could be a decade or more before those can be scaled up, industry experts say.

"The new technology is just not developed yet to the scale that we are," said Rick Spurlock, general manager of the Rio Bravo Fresno plant. "We are a utility-scaled plant. We're handling 200,000 tons of fuel. It would take 25 of those facilities to equal one of these facilities."

"But problem is, that future is 10 to 15 years away and the problem we have is today." The experimental plants burn about 100 pounds of hulls per hour, while the largest biomass plants can handle a ton per hour.

Meanwhile, the incentives to switch to solar are strong. Parreira broke ground on his one-megawatt plant five years ago, when he could get a subsidized rate of 15 cents a kilowatt-hour.

"I'm here to tell you, there was a whole bunch of welfare that went along with that deal," Parreira said. But, he added, "You can certainly argue that biomass had its day in the sun, 20 years ago, when it had its subsidies."

Biomass-to-electricity plants -- essentially hyper-efficient wood furnaces linked to steam turbines -- owe their existence to federal alternative-energy mandates enacted on the heels of the 1970s energy crisis. In the 1980s, more than 60 biomass plants in California turned 10 million tons of woody waste into about 2 percent of the state's electricity, according to the National Renewable Energy Laboratory. By the turn of the century, the industry already had contracted by more than a third, amid deregulation of California's grid, according to the lab.

By 2011, California's biomass industry faced a cliff. Its long-term contracts and a key subsidy paid by ratepayers were about to expire. New purchase agreements would be tied more closely to the cost of natural gas, and those prices were plummeting.

PG&E renegotiated purchase agreements with Rio Bravo and another facility in Mendota, along with three others in Northern California. The utility agreed to pay a higher rate in exchange for an earlier exit from contracts. San Diego Gas & Electric got the same deal from Delano.

Now down to 25 plants with a capacity of 611 megawatts, the biomass industry is taking its case to Sacramento, bolstered by Gov. Jerry Brown's latest drought-related emergency proclamation. It touts biomass energy generation as a solution to culling dead trees that pose a wildfire threat in the Sierra Nevada. The San Joaquin Valley facilities are a short distance from the most browned swaths, advocates note. They are hoping for some direct funding or a way to pass costs to utilities, and ultimately to consumers.

Advocates for biomass say utilities and their regulators should factor other benefits of biomass into the rates -- the plants prevent pollution from open burning and help municipalities comply with state rules to reduce landfilling.

"With wind and solar, you just get electrons," said Julee Malinowski-Ball, executive director of the California Biomass Energy Alliance, an industry advocacy group. "With biomass you get all this added benefit."

Utilities aren't buying it.

"We have not made a conscious decision to back away from biomass contracts," said Stephanie Donovan, spokeswoman for San Diego Gas & Electric Co. "We have had a philosophy of being technology agnostic. What we really are looking for is the least-cost, best-fit resource."

PG&E said its renegotiations with biomass providers were not motivated by a desire to terminate contracts early. The utility "buys more bioenergy than any other energy purchaser in California, with biomass accounting for 17 percent of our renewable portfolio currently," said spokesman Denny Boyles.

To protect ratepayers, biomass "must be competitive with alternative renewable resources," Boyles said. "Our contract terms are reviewed and approved by the CPUC to ensure that they balance the interests of obtaining more biomass generation at reasonable prices and under reasonable terms."

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Yes, you recycle. But until you start reducing, you're still killing the planet

The blue bin may be preferable to the trash can, but recycling still has a waste footprint - and it requires someone on the other side of the equation to use what you toss. A better goal is simply to have less stuff

Madeleine Somerville

Tuesday 19 January 2016 12.09 EST

I talk a lot about reduction. Reducing the number of toys you have, the quantity of cleaning supplies you buy, even the amount of meat you eat. My constant focus on reduction over recycling, upcycling or disposing of waste responsibly is a deliberate one. Put simply, recycling isn't enough.

Recycling is *good*, and I'm not here to contradict that. When the options are to either toss a plastic bottle into the recycling bin or into the trash can, you'll see me shaking my pom-poms for the blue bin. But I'm afraid the black-and-white thinking ends there. Recycling is a complicated business, and not always a pleasant one to boot.

First of all, recycling doesn't wipe the slate clean. It requires an enormous expenditure of energy and resources, including the monitoring of collection sites, the transportation of recyclables, and the recycling manufacturing process itself.

Plastic, my nemesis, is especially problematic in that it can rarely be used for primary reprocessing - the process of breaking down a product and manufacturing it back into that same product. Plastic's sensitivity to heat and light mean that its long, flexible molecules (the same ones that give it its unique malleability) degrade and break down when exposed to repeated thermal and mechanical processing. In plain terms, plastic has a sort of "heat history", degrading more and more each time it's processed. This process is irreversible.

For this reason, plastic is typically used for secondary reprocessing, which takes recovered plastic and uses it to create items which are not typically recyclable themselves: bumper stickers, textiles, and plastic lumber.

These uses are certainly preferable to its not being reused at all, but it's important to understand that recycling a plastic bottle doesn't mean closing the loop. That bottle will not embark on some celestial journey, reincarnated a thousand times. Recycling absolutely has a waste footprint, and it's not an insignificant one.

Furthermore, recycling only works when there's someone on the other side of the equation, someone who wants to buy the recycled material. And although some organizations operate with earth-friendly practices, many do not.

With falling commodity prices, recycled glass, aluminum, plastic and cardboard are being sold for less and less while the cost to the processor to process these materials stays the same. It's come to the point where many cities are operating recycling programs at a significant and consistent cash loss - admirable, perhaps, but not sustainable.

So why is there always that undercurrent of resistance when we talk about consuming less? Certainly some of it is simple habit: it's not yet common practice for many of us to carry a reusable water bottle instead of buying one. We're more used to buying new rather than sourcing secondhand. We lack the time to take a few extra minutes to placate a crying toddler instead of simply handing them the toy they're screaming for.

But I have a hunch that, as with recycling, the story is a bit more complicated. Viktor Frankl, in his book *Man's Search for Meaning*, wrote the following about what a person goes through when possessed by a feeling he refers to as an existential vacuum: "No instinct tells him what he has to do and no tradition tells him what he ought to do; sometimes he does not even know what he wishes to do. There are various guises under which the existential vacuum appears. Sometimes the frustrated will to meaning is vicariously compensated for by a will to power ... the will to money ... [or] the will to pleasure."

With apologies to Frankl, I'd like to add another to the list. I think, faced by this sort of nameless listlessness, many of us fill the void by shopping.

Treat yo self.

Have it your way.

You're worth it.

Unless we address the underlying reasons we buy so much, we will never truly feel that we have enough. Unless we understand *why* stuff keeps coming through the door, it matters less and less how we organize it, curate it, or dispose of it when we're done.

We're not buying things because we have money to burn - this generation is crushed under its debt. We aren't doing it because we've got space to fill - our houses are packed to overflowing. And finally, we're certainly not doing it because it makes us happy. Studies repeatedly hammer home one simple truth: it's the experiences and the people in our lives that bring the most happiness.

Not the stuff. Never the stuff. That's the real secret.

More features

Topics

Recycling Ethical and green living

ENVIRONMENT | NEWS RELEASES | RESEARCH | SCIENCE

February 2, 2016

Risk of lead poisoning from urban gardening is low, new study finds

Michelle Ma

News and Information

Using compost is the single best thing you can do to protect your family from any danger associated with lead in urban soils. Good compost will also guarantee that you will have plenty of vegetables to harvest.

That's the main finding of a paper appearing this month in the *Journal of Environmental Quality*. The University of Washington-led study looked at potential risks associated with growing vegetables in urban gardens and determined that the benefits of locally produced vegetables in cities outweigh any risks from gardening in contaminated soils.

"People are terrified of soils in urban areas. They always think it's a mystery brew of toxins in the soil, but in vast majority of cases, the contamination is lead," said lead author Sally Brown, a UW research associate professor of environmental and forest sciences.

"We've shown that lead is harmful by eating the dirt, not from eating the lettuce grown in the dirt."

Previous studies have found that lead contamination and elevated levels in the bloodstream are more common in



Kids get creative with kale in an urban garden in Tacoma, Washington. **Kristen McIvor**

people who live in urban areas than in rural or suburban neighborhoods. Lead can be absorbed directly from breathing in or inadvertently consuming contaminated soil or dust. Alternatively, in the ongoing crisis in Flint, Michigan, residents ingested lead through their water.

The soil around older homes and under roof drip lines is most likely to have higher concentrations of lead from paint and other building materials used on older structures. These areas unfortunately often double as playgrounds, backyards and vegetable gardens in cities across the country.

A common assumption is that soil contaminated with lead is unsafe for gardening, Brown said. But with the exception of some root vegetables — carrots, turnips, radishes and beets — plants actually take up very little lead in their stems and leaves, and are safe to eat, the researchers found. It's important to carefully wash the excess dirt from leafy vegetables and also wash your hands before eating.



Urban gardening in Seattle's Beacon Hill neighborhood. **Sally Brown**

Additionally, adding compost or other regulated soil amendments like biosolids will dilute any lead in the soil and may also make whatever lead that is present less likely to do harm. These products also help nourish the soil and improve the growing conditions for plants.

With carrots and these other root vegetables, there doesn't appear to be a proportional relationship between the amount of lead in the soil and how much gets taken up by the vegetable, but that doesn't mean you should avoid carrots. Lead is most hazardous when it enters an empty stomach, so the effects are minimal

when eating these root vegetables because food is already in the stomach, Brown said.

"If you have a kid eating a carrot, that is a better-nourished kid," she said. "Urban agriculture is just such a wonderful thing, and you shouldn't let the fear of the soil put the kibosh on it."

The researchers also recommend putting a layer of compost on top of lead-contaminated soil, which significantly dilutes the lead concentration, according to several previous studies. In some instances, compost will actually render the lead insoluble, meaning it's unlikely to be absorbed into the bloodstream if eaten.

Building a raised bed and using tested soil and compost from an outside source is another good option for urban gardening, the researchers said. As cities continue to grow and more of the U.S. population than ever before is considered food insecure (as many as 93 million people), urban gardening is a viable option to address that growing need.



Raised garden beds in Tacoma, Washington. **Kristen Mclvor**

Other co-authors are Rufus Chaney of the U.S. Department of Agriculture and Ganga Hettiarachchi of Kansas State University.

The study was funded by the U.S. Environmental Protection Agency.

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