

WMA Board and Energy Council (EC) Members

Don Biddle, **WMA President**
Dublin, WMA, EC
Jennifer West, **WMA 1st Vice President**
Emeryville, WMA, EC
Pauline Cutter, **WMA & EC 2nd Vice President**
San Leandro, WMA, EC
Lena Tam, **EC President**
Alameda, WMA, EC
Barbara Halliday, **EC 1st Vice President**
Hayward, WMA, EC
Keith Carson, Alameda County, WMA, EC
Gordon Wozniak, Berkeley, WMA, EC
Peter Maass, Albany, WMA, EC
Dave Sadoff, Castro Valley Sanitary District, WMA
Anu Natarajan, Fremont, WMA, EC
Laureen Turner, Livermore, WMA
Luis Freitas, Newark, WMA, EC
Dan Kalb, Oakland, WMA, EC
Laython Landis, Oro Loma Sanitary District, WMA
Garrett Keating, Piedmont, WMA, EC
Jerry Pentin, Pleasanton, WMA
Lorin Ellis, Union City, WMA, EC

AGENDA

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

Wednesday, December 18, 2013
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 (WMA & EC)

II. ROLL CALL (WMA & EC)

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

Page **IV. CONSENT CALENDAR (WMA & EC)**

- | | | |
|----|---|--------------------|
| 1 | 1. Approval of the Draft Joint Minutes of October 23, 2013 (WMA & EC-Separate Votes) (Gary Wolff) | Action |
| 5 | 2. Minutes of the October 27 & November 22, 2013 Technical Advisory Group (TAG) (EC only) | Information |
| 11 | 3. Grants Under \$50,000 (WMA only) | Information |
| 13 | 4. Mid-Year Budget Adjustments (WMA only) (Gary Wolff, Pat Cabrera & Gina Peters)
Adopt the FY 2013-2014 mid-year budget adjustments per the attached resolution.
Attachment: WMA Resolution | Action |
| 23 | 5. Mid-Year Budget Adjustments (EC only) Gary Wolff
Adopt the FY 2013-2014 mid-year budget adjustments per the attached resolution.
Attachment: EC Resolution | Action |

V. OPEN PUBLIC DISCUSSION (WMA & EC)

An opportunity is provided for any member of the public wishing to speak on any matter within the jurisdiction of the board or council, but not listed on the agenda. Total time limit of 30 minutes with each speaker limited to three minutes.

CLOSED SESSION (WMA only):

CONFERENCE WITH REAL PROPERTY NEGOTIATORS
(pursuant to Government Code Section 54956.8)

Property:

APN #: 99A-1780-1-4 & 99A-1790-3, 99A-1770-2-2, 99A-1770-2-1, 99A-1770-4, 99A-1810-1 & 99A-1770-2-3, 99A-1820-2.

Agency Negotiator: Gary Wolff, Agency Staff, Richard Taylor, Authority Counsel
Negotiating Parties: NEXtera Energy Resources
Under Negotiation: Price and terms of payment

CLOSED SESSION (WMA only):

CONFERENCE WITH LEGAL COUNSEL – SIGNIFICANT EXPOSURE
TO LITIGATION Significant Exposure to Litigation Pursuant to Subdivision (b) of
Government Code Section 54956.9

VI. REGULAR CALENDAR (WMA only)

- | | | |
|----|---|--------------------|
| 31 | 1. HHW Service and Funding (Gary Wolff)
We recommend that the WMA Board hold a public hearing, waive reading of the entire ordinance (Attachment A) and read it by title only, and schedule the ordinance for consideration of adoption on February 26, 2013, unless comments at the public hearing justify delaying the date for consideration of adoption. We also recommend that the Board adopt the fee procedures resolution, so that the procedure for the protest process is formal and transparent. Pursuant to the Health and Safety Code provisions applicable to the ordinance a 2/3 majority vote of the Board membership (i.e., 12 of the 17 members) is required to adopt the ordinance. Action is not required at this time on the Draft Fee Collection Report Resolution or Draft Property Owner Notification Letter. | Action |
| 47 | 2. 2014 Proposed Calendar of Meetings (Gary Wolff)
Adopt the meeting schedule for 2014. | Action |
| | 3. Interim appointment(s) to the Recycling Board for WMA appointee unable to attend future Board Meeting(s) (WMA only)
(P&O and Recycling Board meeting- January 9 at 3:00 p.m. Tour of Davis Street Transfer Station, 2615 Davis Street, San Leandro) and (February 13 at 7:00 p.m. - San Leandro Library, 300 Estudillo Ave., San Leandro) | Action |
| 49 | 4. Agenda Planning Request (Gary Wolff)
I recommend that the Board not agendize a discussion of the opt-out provision for the benchmark fee in isolation from an overall evaluation. Since such an overall evaluation has already been scheduled by the Board for Spring 2016, and that schedule was chosen to provide a solid evidentiary basis for any changes in the service or fee, I recommend against discussion of possible changes at this time. | Action |
| 51 | VII. COMMUNICATIONS/MEMBER COMMENTS (WMA & EC)
♦ Clippings Package Highlights (Gary Wolff) | Information |

VIII. ADJOURNMENT (WMA) ('GE)

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

Wednesday, October 23, 2013

3:00 p.m.

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

(The Boards will vote separately on the portion of the minutes that are relevant to each Board)

I. CALL TO ORDER

President Biddle (WMA) and 1st Vice President Natarajan (RB) called the meeting to order at 3:03 p.m.

II. ROLL CALL

WMA & EC

County of Alameda	Scott Haggerty (arrived 3:20 pm, left 4:45 pm)
City of Alameda	Lena Tam (arrived 3:05 p.m.)
City of Albany	Peter Maass
City of Berkeley	Gordon Wozniak
Castro Valley Sanitary District	Danny Akagi
City of Dublin	Don Biddle
City of Emeryville	Ruth Atkin (left 4:45 pm)
City of Hayward	Barbara Halliday
City of Fremont	Anu Natarajan via teleconference (left 4:20 pm)
City of Livermore	Laureen Turner
City of Newark	Luis Freitas (left 4:10 pm)
City of Oakland	Dan Kalb
City of Piedmont	Garrett Keating
Oro Loma Sanitary District	Laython Landis (left 4:15 pm)
City of San Leandro	Pauline Cutter
City of Union City	Lorrin Ellis

WMA & EC Absent:

City of Pleasanton	Jerry Pentin
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RB:

Recycling Programs	Chris Kirschenheuter
Environmental Organization	Daniel O'Donnell
Environmental Educator	David Ralston
Source Reduction Specialist	Steve Sherman
Recycling Materials Processing Industry	Minna Tao (arrived 3:05 p.m.)

RB Absent:

Solid Waste Industry	Rebecca Jewell
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Staff Participating:

Gary Wolff, Executive Director
Richard Taylor, Counsel, Authority Board
Arliss Dunn, Clerk of the Board

Others Participating:

Bill Pollock, HHW Program Manager

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III. ANNOUNCEMENTS BY THE PRESIDENTS

President Biddle introduced the new members of the Recycling Board: David Ralston, Steve Sherman, and Minna Tao in her absence. The new Board members provided a brief summary of their background.

IV. CONSENT CALENDAR

- | | |
|---|--------------------|
| 1. Approval of the Draft Minutes of July 24, 2013 (WMA & EC-Separate Votes)
(Gary Wolff) | Action |
| 2. Minutes of the August 23, 2013 Technical Advisory Group (TAG) (EC only) | Information |
| 4. Grants Under \$50,000 (Gary Wolff) | Information |

Mr. Wozniak made the motion to approve the Consent Calendar for the WMA Board. Ms. Turner seconded and the motion carried 13-0 (Haggerty, Pentin and Tam absent).

Mr. Ralston made the motion to approve the Consent Calendar for the P&O/RB Board. Ms. Turner seconded and the motion carried 10-0 (Jewell absent).

Ms. Cutter made the motion to approve the Consent Calendar for the Energy Council. Mr. Kalb seconded and the motion carried 15-0 (Haggerty absent).

V. OPEN PUBLIC DISCUSSION (WMA, P&O//RB & EC)

Steven Knight, Political Director, Save the Bay, presented a thank you card to the WMA Board on behalf of StopWaste' leadership in implementing the reusable bag ban. Mr. Wolff recognized Katy Garrison and Kathleen Strickley from Cal Recycle.

VI. REGULAR CALENDAR (WMA & RB only)

- | | |
|---|---------------|
| 1. Household Hazardous Waste (HHW) Services and Funding
(Gary Wolff) | Action |
|---|---------------|

Provide direction to staff to either: 1) continue with the approach and later dates in the schedule described above, or 2) modify the current approach and schedule.

Mr. Wolff and Mr. Pollack presented a powerpoint presentation and overview of the staff report. The presentation and the report is available here: www.stopwaste.org/docs/10-23-13-hhw-ppt.pdf

Ms. Tao asked if renters will have to pay the fee. Mr. Wolff stated no, the property owner is responsible for paying the fee. Ms. Turner inquired about the proposal to increase the hours at the facility. Mr. Wolff stated that some facility users (or callers asking about using the facility) have long requested that the facility increase its hours of operation. Ms. Turner commended staff on the community event held in Livermore. She stated that the event was well received in Livermore and the video on the website is well done. Ms. Atkin stated that she has concerns about increasing the fee without an open public process and simply mailing a postcard is insufficient notification. Ms. Atkin recommended placing ads in local newspapers, PSA's, etc. Mr. Wolff stated that prior to holding the public meetings extensive outreach was conducted through local jurisdiction's networks, realty associations, etc. informing the public of the fee proposal. Mr. Wolff added it is reasonable to conduct additional outreach and notification informing the public when the fee is up for consideration of adoption.

Mr. Wozniak stated that he supports the idea of a sunset of the fee and proposed a timeline of 10 years and is also pleased to see an increase in matter of hazardous materials to be recycled. Mr. Wozniak added there should be focus and information provided to the public on the percentage of hazardous materials not being recycled and the downside of not having these programs.

Mr. Haggerty asked if there was information provided on the agency budget with respect to the proposed fee. Mr. Wolff stated that the fee has little effect on the agency budget but rather affects the County Trust Fund and budget. The County is responsible for authorizing spending annually, subject to our oversight. More than 90% of the budget is allocated towards operating the County HHW program including the facility in Fremont. The new services would allocate about \$500,000 to StopWaste to conduct outreach, administrative costs, and especially the point of purchase program. StopWaste operates this program through an MOU with

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the County and another MOU with the City of Fremont. Mr. Haggerty stated that he concurs with Ms. Atkin that there needs to be more outreach to the public during the decision process.

Ms. Halliday inquired about attendance at the community meetings. Mr. Wolff stated there were 14 attendees in Livermore, but very little attendance in Castro Valley, Fremont, and Berkeley. Ms. Halliday stated that she concurs with Mr. Wozniak that a sunset clause should be included and she supports the 10 year term.

Mr. Ralston stated his support for the service and asked if the increase in drop-off services will have a substantial increase in participation in Oakland. Mr. Wolff stated that historically, by providing information on the existence and location of the facilities and reminders of the importance of proper disposal of the materials, the facilities see an increase in usage.

Ms. Turner asked for further exploration of pick-up services if they are cost neutral, and also to further explore income related exemptions. Mr. Maass stated that although geographic parity ensures that each area has an event, the less populated areas are accustomed to driving to facilities whereas more densely populated areas incur traffic issues that discourage them from driving to facilities. To this end, to get maximum participation the drop-off events should focus on more densely populated areas in his opinion.

Ms. Tam recommended scheduling the first reading at the December 18 WMA meeting and holding a public hearing and second reading of the fee ordinance at the February 26 WMA meeting. She further recommended providing presentation materials for use by member agency staff. Mr. Wolff stated that such materials can be prepared, and more presentations made if requested.

Mr. Sherman stated that he appreciates the WMA Boards commitment to Extended Producer Responsibility. He further stated that the fee could decline if programs increase and inquired how the Paint Care program will affect the projected cost. Mr. Wolff stated it is too early to project the PaintCare program's effect on cost, but that the fee action would require the fee to go down if PaintCare offsets more cost than estimated in the HFH report. Mr. Kalb inquired about the types of information the public is provided about the program and what other materials may be provided and through what channels. Mr. Wolff stated postcard reminders are provided and they have been very effective. Mr. Pollack stated the facility handles approximately 30,000 phone calls a year. Mr. Pollack added outreach is coordinated between the facility and the jurisdictions as to not overload the facility at one time. Mr. Kalb suggested robo calls during the fee consideration period and stated that he supports the increased outreach efforts and Ms. Tam's recommendation. Mr. Wolff said he would look into that possibility.

Ms. Atkin recommended coordinating with the Healthy Homes Department and ethnic media outlets to reach and inform the user of the products and not just the property owner. Mr. Pollock stated that he has been working with lead prevention for 15 years. Mr. Wolff added that the agency also works with the Countywide Stormwater Program on a point of purchase program to address pesticides and fertilizers. Additionally, Mr. Wolff recently conducted an interview with a Chinese Language news outlet about the community meetings and the proposed fee, and they ran a story in Chinese announcing the meetings. Mr. Taylor stated every residential property owner, including landlords, will be paying the HHW fee and how the landlord manages the fee with the tenant is a private matter.

Ms. Cutter suggested coordinating the drop-off events with scheduled city parking lot events. Mr. Wolff affirmed. Mr. Akagi stated his support for the program and inquired about the scheduling of the first event post adoption of the ordinance. Mr. Pollock stated sometime after January 2015, and stated he will ask member agencies to work with the facility to identify sites for hosting the drop-off events. Their help will be important to the effort. Mr. Keating stated that the city of Piedmont is supportive of the program as Piedmont is one of the largest users. Mr. Keating asked if the program fails to meet projections is there a mechanism for the Board to lower the fee. Mr. Wolff stated he believes that the fee ordinance can be written to allow sufficient flexibility to reduce the fee. Mr. O'Donnell asked under the current proposal would the range of materials remain the same or is there the potential to add a wider range of materials. Mr. Pollock stated the facility has added other materials such as sharps, fluorescent lamps, batteries, and other items as they are designated as hazardous waste.

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Board members had no objections to the proposed direction but directed staff to 1) between the first and second readings of the fee ordinance conduct thorough outreach including newspaper ads etc., 2) provide a script for member agency staff to be able to answer questions and inform their respective councils, 3) further explore utilizing robo calls, and 4) include a 'tear off form' in the mailing to enable protests.

There were no public comments on this item.

4. Interim appointment(s) to the Recycling Board for WMA appointee unable to attend future Board Meeting(s) Action

(P&O and Recycling Board meeting - November 14 at 7:00 p.m. – Fremont Recycling and Transfer Station - 41149 Boyce Road, Fremont)

Mr. Wolff asked if any member required an interim appointment for the December 12 meeting. There were no requests for interim appointments. The meeting will be held at 4:00 p.m. at StopWaste. Ms. Turner will teleconference for the November 14 meeting. Board members agreed by consensus to cancel the November 20 WMA meeting.

VII. COMMUNICATIONS/MEMBER COMMENTS (WMA, P&O/RB & EC) Information

Ms. Turner made a request to agendaize an action item to extend the opt-out period for the Benchmark Fee. Mr. Wolff stated that to avoid difficulties for the haulers and to inform the budgeting process next year with respect to the number of opt-outs, it is not recommended to extend the op-out period. A mock-up of the report will be provided to the committees in November. Board members decided to place an agenda planning item on the December WMA agenda to determine whether to discuss the opt-out period on a future agenda.

VIII. ADJOURNMENT (WMA, P&O/RB & EC)

The meeting adjourned at 4:55 p.m.

Energy Council
TECHNICAL ADVISORY GROUP (TAG)

Friday, October 27, 2013 – 10:00 am to 12:00 pm

MEETING SUMMARY

Attendance:

County of Alameda: Damien Gossett, Darryl Gray

City of Alameda: Maria Di Meglio

City of Albany: Claire Griffing (phone)

City of Berkeley: Billi Romain

City of Dublin: Kathy Southern

City of Fremont: Dan Schoenholz

City of Piedmont: Kevin Jackson

City of San Leandro: Sally Barros

StopWaste: Heather Larson, Karen Kho, Stephanie Stern, Wes Sullens, Lou Riordan,
Jeffrey Liang

Brief Updates (45 Min)

- Green Building RFQ
 - Received about 40 responses and are assessing if they meet the minimum qualifications. Once they are qualified, we are able to contract with them directly if future funding becomes available in that specific area. We may do an RFP for specific projects where we want competitive proposals or the funding source requires it
 - Not planning to conduct interviews unless it's a firm whose work we are not familiar with. Sally and Dan volunteered to participate in interviews if we have any.
 - We may invite some firms to come to TAG to present on interesting past projects, but that would not be part of the RFQ review process.
- Single Family:
 - Layering HEA on top of the BayREN outreach and passing on leads to the Home Upgrade Advisor
 - Jeffery summarized outreach events and the Dublin Energy Challenge
 - So far, we have 237 people registered in the HEA tool (send out geographic distribution of sign-ups)
 - Fremont Earth Day—potential for funding for local communities to promote during earth day events
- Codes and Standards:
 - Survey just wrapped up that went to building officials, they received about 140 responses; the goal is to gauge needs to training for code compliance
 - Initial feedback—people want local trainings on specific topics
 - Berkeley is planning a training- same one in morning and afternoon, Billi will send out information about this
 - BayREN is coordinating training calendar with CalBO and PG&E

- Dan: with new codes, some jurisdictions will be transitioning from relying on 3rd party rating (e.g. BIG), to having code officials enforcing CalGreen
- Trying to find how to retool the regional committee to integrate with other efforts and be as useful as possible
- Multifamily
 - 13,000 units have submitted interest forms, 5,000 units can receive rebates. Pretty good distribution among counties, types of projects
 - Technical consultants determining how to proceed, prioritizing applications, figuring out county distribution, referrals to other programs
 - EBEW workshops important to get started this year, so we can get projects in the pipeline and potentially secure additional funds
 - Approximately 50/50 split between low income/market rate projects
 - Targeting Q1 2014 for launch of Capital Advance Financing program to begin recruiting lenders.
- Local Ordinances
 - Handout provided on prior green building policies
 - San Francisco has completed cost-effectiveness analysis.

Leading by Example” Innovator Pilot Commercial Policies

- Stephanie gave a presentation on the status of Innovator Pilot commercial deliverables and policy options for consideration (See PPT on basecamp)
 - Goal is to improve existing building stock through market transformation
 - Access to FirstView is still available to look at municipal buildings
 - One deliverable was a model commercial policy (based on SF/NYC) and can still be adjusted if there is interest. However, Peter’s departure from Emeryville means that no Alameda County jurisdiction is actively considering adopting such a policy.
 - Boulder model is to provide money to buildings for improvements when they benchmark (they have a carbon tax for funding) – carrot rather than stick
 - Another option for commercial policy is to focus on municipal, taking a “lead by example” approach
 - Opportunity to build on existing policies – shift from design/construction to operations/behavior
- Discussion
 - Berkeley has a resolution prepared to propose to benchmark all municipal buildings in advance of private commercial requirement
 - General agreement that operations is the important next step in addressing commercial building efficiency
 - AB 1103 will go into effect in January, but challenge is to make benchmarking engaging and interesting
 - Case studies could be an important feature to show leadership and bring people on board – showing real \$ savings can help convince people
 - Benchmarking can be a great tool to prioritize and plan long term capital improvement schedule, even if you can’t get work done immediately
 - Basing a policy on a benchmark score can be misleading for some places (Piedmont, for example, with small, old buildings) – similar to diversion rates, it’s not always an apples to apples comparison

- GhG emissions from Municipal sector are so small, leading by example can be helpful, but the private sector is where the significant gains can actually happen, so focusing on those tools and strategies is important
- There needs to be a focus on how to transition whatever municipal work is done towards the private sector
- Economic development is an overriding concern in some jurisdictions, so any private sector policy has to address it.
- No other jurisdictions, besides Berkeley have an immediate interest in adopting a municipal policy.
- Green Property Management is another potential focus – StopWaste developed a green multifamily property management certification, and it might be a fit for commercial as well.
- Interest in working with the Green Business program and taking a more comprehensive approach than just energy.
- Training event is required as one of the deliverables
 - 2nd Friday in December, at StopWaste, in lieu of 4th Friday TAG meeting.
 - Best practices and case study sharing opportunity
 - Participation can be opened up beyond the TAG if there is interest
 - Focus will be on best practices for municipal building operations.
 - Potential topics include: Quest to provide municipal case studies from MIT, overview of StopWaste LEED-EBOM certification process, County GSA, Green Business Program

MEMBER COMMENTS

- Sally Barros gave a run-through of her BECC presentation on San Leandro’s DIY home upgrade program

NEXT TAG MEETING: Friday, November 22, 2013 from 10am-12pm

Energy Council
TECHNICAL ADVISORY GROUP (TAG)

Friday, November 22, 2013 – 10:00 am to 12:00 pm
StopWaste.Org Offices - 1537 Webster Street, Oakland, (510) 891-6500
Call-in participation number Dial: 510.891.6571 Password: 1537

MEETING NOTES

Attendance

County of Alameda: Damien Gossett, Darryl Grey (phone)
City of Alameda: Maria DiMeglio (phone)
City of Berkeley: Billi Romain
City of Dublin: Kathy Southern
City of Fremont: Dan Schoenholz, Rachel DiFranco
City of Hayward: Erik Pearson
City of Oakland: Scott Wentworth
City of Piedmont: Kevin Jackson
City of San Leandro: Sally Barros (phone)
StopWaste: Karen Kho, Stephanie Stern, Lou Riordan, Miya Kitahara, Jeffrey Liang
Guest speaker: Yvonne Tom, Alameda County Office of Education

Alameda County Office of Education

- Presentation on ACOE energy efficiency programs by Yvonne Tom (powerpoint slides posted to basecamp)
 - Look for operational savings for schools, not just a focus on upgrades.
 - Benchmarking ranking doesn't take into account "energy intensity" score
 - Planning to continue program beyond PG&E Innovator Pilot funding which expires Q1 2014
 - Most districts using bond money, or waiting on Prop 39 money, to do upgrades to buildings.
 - Looking for one, small school district to implement workforce development partnership – interested in city with existing industry in small manufacturing

Program Updates (30 Min)

- Single Family (Home Energy Analyzer and BayREN)
 - HEA – handout to show distribution of sign-ups.
 - Suggestion to talk to assessors office about insert in tax bills
 - Suggestion of San Lorenzo Village Homes Association/County Planning Dept (both have mailing lists)
 - BayREN Home Upgrade Advisor is very busy – working to qualify leads

- Specialty Contractor Trainings scheduled for Dec and Jan
- Multifamily
 - 400 properties submitted applications; 20,000 units in technical assistance
 - Upcoming December workshops in Alameda County and Contra Costa through EBEW outreach
 - Financing – looking to recruit lenders in January, will be able to explain basics at December workshops and then loop in financing after TA has taken place
 - Contractor training offered February 4th and 5th (not required for program)
- Codes and Standards (see handouts/attachments)
 - Repurposing regional forums to be more relevant and different from other offerings
 - 71 trainings to be held throughout region – need to decide where trainings will be held, what topics will be covered
 - TAG to check with building departments to inform what topics should be covered where and when – Lou to follow up after Thanksgiving
 - PG&E Codes and Standards people will come do an Energy Codes training (Berkeley doing two on Dec. 3rd as an introduction – will invite TAG)
 - On-site compliance assessment guide
 - Alameda County slated for 1st round of assessments (with SF and Contra Costa); Maximum of 5 jurisdictions can participate, based on consultant budget.
 - Stipends are available for participating jurisdictions in Alameda County

Climate Action Implementation Scope (see handout)

- Contract has been signed. Miya will be setting up 2 different time slots to talk to jurisdictions – one on energy issues with PG&E and another on non-energy or other issues not covered by this scope of work. Jurisdictions have the option to not have PG&E present at meeting.
- The objective of second set of interviews will be to identify other CAP implementation projects that we can pursue with other funding sources, such as BAAQMD.
- Timing – looking to set up interviews in December/January
- Jerry Lahr, ABAG, is soliciting input from jurisdictions involved in Energy Watch programs about whether there are gaps in municipal building services that BayREN could potentially fill.

CPUC Proceedings Update

- Proposed rulemaking to extend current bridge period by a year (until end of 2015) and then change to a rolling funding cycle.
- Question regarding coordination of planning between RENs and Energy Watch programs. For the 2013 portfolio a TAG subcommittee met and recommended programs for both EBEW and BayREN. Similar process could take place for 2015/6 portfolio and other funding sources.

NEXT TAG MEETING: Friday, December 12, 2013 from 10am-12pm
 Workshop: Best Practices for Building Operations

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December 6, 2013

TO: Authority & Recycling Board

FROM: Tom Padia, Recycling 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 15, 2013 through December 15, 2013

Project Name	Grant Recipient	Project Type/Description	Location	Verification	Grant Amount	Board
Bay-Friendly Grant – Parrot Village	Housing Authority of the City of Alameda	Renovation of 1.25 acre existing landscape at low income housing development for families. Project will earn high score of 90 or more points on Bay-Friendly Scorecard.	Alameda	Yes, Bay-Friendly Rater	\$23,050	WMA

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December 12, 2013

To: Authority Board

From: Gary Wolff, Executive Director

By: Pat Cabrera, Administrative Services Director
Gina Peters, Chief Finance Officer

Subject: Mid-Year Budget Adjustments

Background

Staff recommended mid- year budget adjustments at the Programs and Administration (P&A) Committee and the Recycling Board/ Planning and Organization (P&O) Committee meetings which were both held on December 12, 2013. The staff memo presented to the committees is at <http://www.stopwaste.org/docs/12-12-13-pa-midyear.pdf>. The Recycling Board adopted the part of the budget funded by the Recycling Board. Both Committees recommended that the Authority Board adopt the revisions funded by the Authority. The vote by the P&A Committee was 10-0 (Carson, Tam absent) and the vote by the P&O Committee and RB was 9-0 (Biddle, Tao absent).

Recommendation

Adopt the FY 2013-2014 mid-year budget adjustments per the attached resolution.
Attachment: WMA Resolution

ALAMEDA COUNTY WASTE MANAGEMENT AUTHORITY BOARD

RESOLUTION #WMA 2013-

MOVED:
SECONDED:

AT THE MEETING HELD DECEMBER 18, 2013

FISCAL YEAR 2013/14 MID-YEAR BUDGET ADJUSTMENT

WHEREAS, the Alameda County Waste Management Authority Board approved the Fiscal Year 2013/14 Budget by Resolution #WMA 2013-3, and

WHEREAS, staff has reviewed the budgetary activity from July 1, 2013 and made adjustments as appropriate, and

WHEREAS, these changes were reviewed and approved by the by the Agency's Programs and Administration Committee and the Planning and Organization Committee on December 12, 2013, and

WHEREAS, the Committees approved forwarding these changes to the Authority Board for adoption.

NOW THEREFORE, BE IT RESOLVED, that the Alameda County Waste Management Authority Board hereby:

1. Approves the adjusted budget as it pertains to Authority Board operations and as shown on attachments 2, 3, and 4.
2. Authorizes the execution of or augmentation to the following contracts:

Overhead (General, Accounting, MIS support, etc.)	
<u>8 Locks Consulting</u>	\$ 50,000
Household Hazardous Product Alternatives	
<u>Underground Advertising</u>	\$ 60,000
<u>Cox Media</u>	\$ 50,000
The Contest	
<u>Image X</u>	\$125,000
<u>US Postal Services</u>	\$110,000
<u>Titan</u>	\$ 55,000
<u>KTVU/Cox Media</u>	\$ 30,000
Mandatory Recycling Implementation	
<u>Image X</u>	\$ 35,000
<u>KTVU/Cox Media</u>	\$ 20,000

Household Hazardous Waste Facilities

<u>Image X</u>	\$ 36,000
<u>US Postal Services</u>	\$100,000
<u>Vendors: TBD and not to exceed</u>	\$ 64,000

General Agency Communications

<u>Waste Management</u>	\$ 50,000
<u>Republic Services</u>	\$ 30,000

ADOPTED BY THE FOLLOWING VOTE:

AYES:

NOES:

ABSTAIN:

ABSENT:

Gary Wolff, Executive Director

Attachment 2

WASTE MANAGEMENT AUTHORITY & SOURCE REDUCTION AND RECYCLING BOARD & ENERGY COUNCIL Projects by Funding Source- Midyear Budget FY 13/14

EXPENDITURES	Total Cost	-----Waste Management Authority-----				Energy Council Board	-----Recycling Board-----			
		Facility Fees	Mitigation Fees	Externally Funded	Benchmark Fees	Energy Council	RB Discretionary**	RB Grants to Non-Profit	RB Source Reduction	RB Market Development
1000 -PRODUCT DECISION:										
1020 Technical Assistance and Services	\$ 499,844	\$ 24,992					\$ 454,852	\$ 20,000		
1030 BayROC (Bay Area Regional Recycling Outreach Coalition)	26,571	26,571								
1031 BayROC External Contributions	100,000			\$ 100,000						
Sub-total	626,415	51,563	-	100,000	-		454,852	20,000	-	-
1100 Bay Friendly										
1110 Bay-Friendly Schoolyards	32,032	4,805	17,618				4,805		4,805	
1111 Bay-Friendly Schoolyards (Prop. 84 Funding)	76,121			76,121						
1140 Regionalizing BF	479,485	23,974	23,974				61,794	130,000	119,871	119,871
1150 BF Water Eff. Landscape Prop 84 WMA	23,696	2,370	2,370				3,554		15,402	
1151 BF Water Eff. Landscape Prop 84 DWR	159,961			159,961						
Sub-total	771,295	31,149	43,961	236,082	-		70,153	130,000	140,078	119,871
1200 Product Purchasing and Manufacturing										
1220 Waste Prevention: Institutional Food Service/Commercial Cafeterias	193,388		29,008				48,347		116,033	
1230 Waste Prevention; Reusable Transport Packaging	244,962	24,496					73,489		97,985	48,992
1231 Reusable Transport Packaging (EPA Funding)	228,395			228,395						
1240 Household Hazardous Product Alternatives	300,835									150,417
1250 Single Use Bag Ordinance Implementation	479,776		143,933				143,933		191,910	
1260 Recycled Content: Compost and Mulch	706,774		212,032				120,152		231,732	142,858
1270 Recycled Content: Building Materials	452,424		90,485	22,621			130,970	70,000		138,348
1280 Hard to Recycle: Institutional and Commercial Food Service Ware & Packaging	150,952		22,643	63,024			22,643	20,000	22,643	
1290 Hard to Recycle: Packaging Life Cycle Analysis and Recyclability Labeling	203,110		30,467	111,711			30,467		30,467	
Sub-total	2,960,616	674,473	226,364	228,395	-		570,000	90,000	690,769	480,616
1300 Green Building										
1344 PG&E Innovator Pilot	332,066			332,066						
1347 BayREN (Bay Regional Energy Network)	6,983,318					\$ 6,983,318				
1348 PG&E Energy Programs	412,874					412,874				
Sub-total	7,728,258	-	-	332,066	-	7,396,192	-	-	-	-
Total Product Decisions	12,086,584	757,184	270,325	896,543	-	7,396,192	1,095,005	240,000	830,848	600,487

WASTE MANAGEMENT AUTHORITY & SOURCE REDUCTION AND RECYCLING BOARD & ENERGY COUNCIL
Projects by Funding Source- Midyear Budget FY 13/14

	Total Cost	-----Waste Management Authority-----				Energy	-----Recycling Board-----			
		Facility Fees	Mitigation Fees	Externally Funded	Benchmark Fees	Council Board Energy Council	RB Discretionary**	RB Grants to Non-Profit	RB Source Reduction	RB Market Development
2000-DISCARD MANAGEMENT										
2020 Schools Transfer Station Tours	583,393	58,339	525,054							
2040 Competitive Grants	386,565							386,565		
2050 The Contest (will include Student Action Project and SLWRP deliverables; metrics and communication costs for residential Benchmark Fee)	1,787,034	17,938	1,608,331		160,765					
2061 Commission Green Star Schools Activities	7,884			7,884						
2080 Benchmark Data and Analysis Project	434,031				434,031					
2090 Mandatory Recycling Implementation	1,788,083	1,788,083								
Sub-total	4,986,990	1,864,361	2,133,384	7,884	594,796		-	386,565	-	-
2100 Processing Facilities										
2110 Construction & Demolition Debris Recycling	118,986		5,949							113,037
2120 Materials Recovery Facility Operations & Monitoring	493,822		493,822							
Sub-total	612,808	-	499,771	-	-		-	-	-	113,037
2300 Hazardous Waste										
2310 Hazardous Waste	16,981	16,981								
2311 Used Oil Recycling Grant	125,000			125,000						
2312 Household Hazardous Waste Facilities	338,399			338,399						
Sub-total	480,380	16,981	-	463,399	-		-	-	-	-
2400 C/I/I Collections (Commercial /Industrial/Institutional)										
2420 Business Assistance (will include Schools Infrastructure; metrics and communications costs for Commercial Benchmark Fee)	519,926	207,970			45,392		110,586		155,978	
Sub-total	519,926	207,970	-	-	45,392		110,586	-	155,978	-
Total Discard Management	6,600,104	2,089,312	2,633,156	471,283	640,188		110,586	386,565	155,978	113,037

WASTE MANAGEMENT AUTHORITY & SOURCE REDUCTION AND RECYCLING BOARD & ENERGY COUNCIL
Projects by Funding Source- Midyear Budget FY 13/14

	Total Cost	-----Waste Management Authority-----				Energy	-----Recycling Board-----			
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3000-COMMUNICATION, ADMINISTRATION, PLANNING										
3020 Misc Small Grants Administration	300,000			300,000						
Sub-total	300,000	-	-	300,000	-		-	-	-	-
3200 Other General Activities										
3210 Property Management	148,858		148,858							
3220 Disposal Reporting	167,757	51,656			116,101					
3230 TAC - now includes 3470 (Franchise Assistance Agency Planning Data as deliverable)	48,552	48,552								
3240 Fee Enforcement	409,541	409,541								
Sub-total	774,708	509,749	148,858	-	116,101		-	-	-	-
3400 Planning										
3410 General Planning	48,942	24,471	24,471							
3430 ColWMP Amendments Application	9,257	9,257								
3460 Five Year Audit (no hard cost budget next year)	9,215							9,215		
3490 Diversion Facility Planning (at least one more year)	114,730	114,730								
Sub-total	182,144	148,458	24,471	-	-		-	9,215	-	-
3500 Agency Communications										
3510 General Agency Communication (Includes RIS and website maintenance activities)	782,580	782,580								
3520 4Rs Education	122,604	71,110	51,494							
3530 Legislation	137,475	137,475								
Sub-total	1,042,659	991,165	51,494	-			-	-	-	-
Total Communication, Administration, Planning	2,299,511	1,649,372	224,823	300,000	116,101		-	9,215	-	-
Total Project Expenditures	20,986,199	4,495,869	3,128,303	1,667,826	756,289	7,396,192	1,205,590	635,780	986,826	713,524

WASTE MANAGEMENT AUTHORITY & SOURCE REDUCTION AND RECYCLING BOARD & ENERGY COUNCIL
Projects by Funding Source- Midyear Budget FY 13/14

	Total Cost	-----Waste Management Authority-----				Energy	-----Recycling Board-----			
		Facility Fees	Mitigation Fees	Externally Funded	Benchmark Fees	Council Board Energy Council	RB Discretionary**	RB Grants to Non-Profit	RB Source Reduction	RB Market Development
REVENUES										
Benchmark Fees	656,250				656,250					
Energy Council	7,396,192					7,396,192				
Tonnage revenues	10,222,877	4,284,515	2,367,538				1,190,276	793,516	793,516	793,516
Interest	70,500	7,500	51,000				12,000			
Externally funded revenues	1,667,826			1,667,826						
Property and Other revenues	530,092		530,092							
Total revenues	20,543,737	4,292,015	2,948,630	1,667,826	656,250	7,396,192	1,202,276	793,516	793,516	793,516
TRANSFERS TO/FROM RESERVES										
From RB Administration to RB Discretionary	-									
From Reserves to fund MRF Operations Monitoring	493,822		493,822							
Return Unused FY 2013 MRF allocation to MRF Reserve	(288,148)		(288,148)							
From Reserve to fund Single Use Bag Ordinance Implementation	108,660	108,660								
From Reserve to fund Regionalizing Bay Friendly	200,000	200,000								
From Reserve to fund Mandatory Recycling Implementation ****	150,000	150,000								
Total Net Transfers	664,334	458,660	205,674	-	-	-	-	-	-	-
FUND BALANCE										
Beginning fund balance 7/1/13	4,763,198	1,455,567	618,784	-	-	-	867,547	1,108,618	495,642	217,040
Closed contracts	46,173	20,906	3,690				1,840	17,590	875	1,272
Adjusted Beginning Fund Balance 7/1/14	4,809,371	1,476,473	622,474	-	-	-	869,387	1,126,208	496,517	218,312
AVAILABLE FUNDING	26,017,442	6,227,148	3,776,778	1,667,826	656,250	7,396,192	2,071,663	1,919,724	1,290,033	1,011,828
Less: Project Expenditures	(20,986,199)	(4,495,869)	(3,128,303)	(1,667,826)	(756,289)	(7,396,192)	(1,205,590)	(635,780)	(986,826)	(713,524)
From Facilities Fees to fund Benchmark related costs**		(100,039)			100,039					
ENDING FUND BALANCE	\$ 5,031,243	\$ 1,631,240	\$ 648,475	0	0	\$ -	\$ 866,073	\$ 1,283,944	\$ 303,207	\$ 298,304

OTHER PROJECTS:

Revolving Loan (RLF): (Project 2030)	
Beginning fund balance	\$ 1,748,844
Revenues	24,000
Loan Repayment	378,000
Project cost (loans and expenses)	(914,460)
Ending fund balance	\$ 1,236,384
RB Municipalities (Measure D 50%) (Project 2220)	
Beginning fund balance	\$ 4,158
Revenues	3,969,085
Project cost	(3,973,243)
Ending fund balance	\$ -
Public Agency Environ. Pref. Purch. Measure D 5% (proj. 1210)	
Beginning fund balance	\$ 191,642
Revenues	396,805
Project cost	(598,696)
Closed contracts	10,249
Ending fund balance	\$ -
Total project cost including other projects	\$ 26,472,598
Total revenues including other projects	\$ 25,311,627

NOTE

Facility Fees=Authority user fee of \$4.34 per ton.
Mitigation Fees= Import Mitigation Fee of \$4.53 per ton collected on all other wastes landfilled in Alameda County that originate out-of-county except San Francisco waste fee is currently \$6.00 per ton.
RB Discretionary=Recycling Board Discretionary Fund - 15% of Measure D fees, of which 3% may be used to cover expenses necessary to administer the recycling fund.
RB Grants to Non-Profit = Recycling Board Grants to Non-Profit Fund - 10% of Measure D fees.
RB Source Reduction= Recycling Board Source Reduction Fund - 10% of Measure D fees.
RB Market Development = Recycling Board Market Development Fund - 10% of Measure D fees.
RB Recycled Prod. Pref. = Recycling Board Recycled Product Price Preference Fund - 5% of Measure D fees.
RB Municipalities = Recycling Board Municipalities Fund - 50% of Measure D fees.
RLF = Revolving Loan Fund

**dollars of estimated benchmark related costs are budgeted from the facility fee revenue source rather than benchmark fee revenue source, but will be charged to the benchmark fee revenue source if its' revenues are higher than estimated.

****This action was approved at the July 24, 2013 WMA board meeting.

Attachment 3

**WASTE MANAGEMENT AUTHORITY
FUND BALANCES AVAILABLE
FISCAL YEAR 2013/2014 MID-YEAR BUDGET**

<i>FUND NAME</i>			<i>BEG. FUND BALANCE JULY 1, 2013</i>	<i>ADJUST- MENTS</i>	<i>BEG. FUND BALANCE JULY 1, 2013</i>	<i>PROJECTED REVENUE</i>	<i>PROJECTED APPROPRIA- TIONS</i>	<i>TRANSFERS</i>	<i>FUND BALANCE JUNE 30, 2014</i>					
WMA														
Facility Operators Fee	\$	1,455,567	\$	20,906	\$	1,476,473	\$	4,292,015	\$	(4,495,869)	\$	458,660	\$	1,631,240
** Transfer from Facilities fees to fund Benchmark related costs													(100,039)	
Bench Mark Fees						656,250	(756,289)	100,039 **						0
Externally Funded						1,667,826	(1,667,826)							0
Mitigation		618,784		3,689	\$	622,473	2,948,631	(3,128,302)	(288,148) (a)					648,476
Transfer from MRF-Davis St. reserve									493,822					
Authority Total														
	\$	2,074,351	\$	24,595	\$	2,098,946	\$	9,564,722	\$	(10,048,286)	\$	664,334	\$	2,279,716

**** Transfer from Facilities fees to fund Benchmark related costs, but will be charged to the benchmark fee revenue source if its' revenues are higher than estimated.

(a) Transfer to MRF reserve-unused FY 12/13 allocation.

**WASTE MANAGEMENT AUTHORITY
SCHEDULE OF RESERVES
FISCAL YEAR 2013/2014 MID-YEAR BUDGET**

DESCRIPTION

WMA

	BALANCE JULY 1, 2013	TRANSFERS IN	TRANSFERS OUT	BALANCE JUNE 30, 2014
DESIGNATED RESERVES				
ORGANICS PROCESSING DEVELOPMENT	5,779,074		\$ (150,000)	5,629,074
EAST BAY MUD COMMERCIAL FOOD WASTE DIGESTER PROJECT	1,000,000			1,000,000
DIVERSION PROJECT: PRODUCT DECISIONS	514,517		(308,660)	205,857
FISCAL RESERVE	2,105,019			2,105,019
<i>Sub-total</i>	<u>9,398,610</u>	<u>-</u>	<u>(458,660)</u>	<u>8,939,950</u>
CONTRACTUALLY COMMITTED RESERVES				
DIVERSION PROJECT: MRF CAPACITY EXPANSION-DAVIS STREET	796,522	288,148	(493,822)	590,848
WMA TRANSPORTATION IMPROVEMENT PROGRAM (TIP)	3,441,987			3,441,987
<i>Sub-total</i>	<u>4,238,509</u>	<u>288,148</u>	<u>(493,822)</u>	<u>4,032,835</u>
Total	<u>\$ 13,637,119</u>	<u>\$ 288,148</u>	<u>\$ (952,482)</u>	<u>\$ 12,972,785</u>

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December 12, 2013

To: Energy Council

From: Gary Wolff, Executive Director

By: Pat Cabrera, Administrative Services Director
Gina Peters, Chief Finance Officer

Subject: Mid-Year Budget Adjustments

Background

On June 26, 2013, the Energy Council (EC) adopted a two year budget totaling \$7,070,250. The EC also adopted an amendment on September 18, 2013 for an additional \$275,000 for a revised total budget of \$7,354,250. As outlined in the June 26, 2013 memo, there is flexibility in the BayREN contract (which allows for operational and administrative changes), which has been incorporated into the proposed mid-year budget. The proposed budget for the EC is now \$7,396,192 with corresponding “revenues”, resulting in no net change to the fund balance.

As part of the overall Agency review of budgetary activity from July 1, 2013, staff also proposed changes to both the WMA and RB adopted budgets. The staff memo presented to both the Program and Administration (P&A) Committee and the Recycling Board/Planning and Organization (P&O) Committee is at <http://www.stopwaste.org/docs/12-12-13-pa-midyear.pdf>.

The Recycling Board adopted the part of the budget funded by the Recycling Board. Both Committees recommended that the Authority Board adopt the revisions funded by the Authority. The vote by the P&A Committee was 10–0 (Carson, Tam absent) and the vote by the P&O Committee and RB was 9-0 (Biddle, Tao absent).

Recommendation

Adopt the FY 2013-2014 mid-year budget adjustments per the attached resolution.
Attachment: EC Resolution

ENERGY COUNCIL

RESOLUTION #EC2013-

**MOVED:
SECONDED:**

AT THE MEETING HELD DECEMBER 18, 2013

FISCAL YEAR 2013/14 MID-YEAR BUDGET ADJUSTMENT

WHEREAS, the Energy Council approved the Fiscal Year 2013-15 Budget by Resolution #EC 2013-01, and

WHEREAS, staff has reviewed the budgetary activity from July 1, 2013 and made adjustments as appropriate, and

WHEREAS, staff has also incorporated previously approved Council action as part of the mid-year budget adjustment, and

WHEREAS, these changes were presented to the Energy Council for review and approval.

NOW THEREFORE, BE IT RESOLVED, that the Energy Council hereby approves the budget adjustments as they pertain to Energy Council operations and as shown on attachments 2, and 3.

ADOPTED BY THE FOLLOWING VOTE:

AYES:

NOES:

ABSTAIN:

ABSENT:

Gary Wolff, Executive Director

Attachment 2

WASTE MANAGEMENT AUTHORITY & SOURCE REDUCTION AND RECYCLING BOARD & ENERGY COUNCIL Projects by Funding Source- Midyear Budget FY 13/14

EXPENDITURES	Total Cost	-----Waste Management Authority-----				Energy Council Board	-----Recycling Board-----			
		Facility Fees	Mitigation Fees	Externally Funded	Benchmark Fees	Energy Council	RB Discretionary**	RB Grants to Non-Profit	RB Source Reduction	RB Market Development
1000 -PRODUCT DECISION:										
1020 Technical Assistance and Services	\$ 499,844	\$ 24,992					\$ 454,852	\$ 20,000		
1030 BayROC (Bay Area Regional Recycling Outreach Coalition)	26,571	26,571								
1031 BayROC External Contributions	100,000			\$ 100,000						
Sub-total	626,415	51,563	-	100,000	-		454,852	20,000	-	-
1100 Bay Friendly										
1110 Bay-Friendly Schoolyards	32,032	4,805	17,618				4,805		4,805	
1111 Bay-Friendly Schoolyards (Prop. 84 Funding)	76,121			76,121						
1140 Regionalizing BF	479,485	23,974	23,974				61,794	130,000	119,871	119,871
1150 BF Water Eff. Landscape Prop 84 WMA	23,696	2,370	2,370				3,554		15,402	
1151 BF Water Eff. Landscape Prop 84 DWR	159,961			159,961						
Sub-total	771,295	31,149	43,961	236,082	-		70,153	130,000	140,078	119,871
1200 Product Purchasing and Manufacturing										
1220 Waste Prevention: Institutional Food Service/Commercial Cafeterias	193,388		29,008				48,347		116,033	
1230 Waste Prevention; Reusable Transport Packaging	244,962	24,496					73,489		97,985	48,992
1231 Reusable Transport Packaging (EPA Funding)	228,395			228,395						
1240 Household Hazardous Product Alternatives	300,835									150,417
1250 Single Use Bag Ordinance Implementation	479,776						143,933		191,910	
1260 Recycled Content: Compost and Mulch	706,774						120,152		231,732	142,858
1270 Recycled Content: Building Materials	452,424	90,485	22,621				130,970	70,000		138,348
1280 Hard to Recycle: Institutional and Commercial Food Service Ware & Packaging	150,952	22,643	63,024				22,643	20,000	22,643	
1290 Hard to Recycle: Packaging Life Cycle Analysis and Recyclability Labeling	203,110	30,467	111,711				30,467		30,467	
Sub-total	2,960,616	674,473	226,364	228,395	-		570,000	90,000	690,769	480,616
1300 Green Building										
1344 PG&E Innovator Pilot	332,066			332,066						
1347 BayREN (Bay Regional Energy Network)	6,983,318					\$ 6,983,318				
1348 PG&E Energy Programs	412,874					412,874				
Sub-total	7,728,258	-	-	332,066	-	7,396,192	-	-	-	-
Total Product Decisions	12,086,584	757,184	270,325	896,543	-	7,396,192	1,095,005	240,000	830,848	600,487

WASTE MANAGEMENT AUTHORITY & SOURCE REDUCTION AND RECYCLING BOARD & ENERGY COUNCIL
Projects by Funding Source- Midyear Budget FY 13/14

	Total Cost	-----Waste Management Authority-----				Energy Council Board	-----Recycling Board-----			
		Facility Fees	Mitigation Fees	Externally Funded	Benchmark Fees	Energy Council	RB Discretionary**	RB Grants to Non-Profit	RB Source Reduction	RB Market Development
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2040 Competitive Grants	386,565							386,565		
2050 The Contest (will include Student Action Project and SLWRP deliverables; metrics and communication costs for residential Benchmark Fee)	1,787,034	17,938	1,608,331		160,765					
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2080 Benchmark Data and Analysis Project	434,031				434,031					
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Sub-total	4,986,990	1,864,361	2,133,384	7,884	594,796		-	386,565	-	-
2100 Processing Facilities										
2110 Construction & Demolition Debris Recycling	118,986		5,949							113,037
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Sub-total	519,926	207,970	-	-	45,392		110,586	-	155,978	-
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WASTE MANAGEMENT AUTHORITY & SOURCE REDUCTION AND RECYCLING BOARD & ENERGY COUNCIL
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3020 Misc Small Grants Administration	300,000			300,000						
Sub-total	300,000	-	-	300,000	-		-	-	-	-
3200 Other General Activities										
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3230 TAC - now includes 3470 (Franchise Assistance Agency Planning Data as deliverable)	48,552	48,552								
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Sub-total	774,708	509,749	148,858	-	116,101		-	-	-	-
3400 Planning										
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Sub-total	1,042,659	991,165	51,494	-			-	-	-	-
Total Communication, Administration, Planning	2,299,511	1,649,372	224,823	300,000	116,101		-	9,215	-	-
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WASTE MANAGEMENT AUTHORITY & SOURCE REDUCTION AND RECYCLING BOARD & ENERGY COUNCIL
Projects by Funding Source- Midyear Budget FY 13/14

	Total Cost	-----Waste Management Authority-----				Energy	-----Recycling Board-----			
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Interest	70,500	7,500	51,000				12,000			
Externally funded revenues	1,667,826			1,667,826						
Property and Other revenues	530,092		530,092							
Total revenues	20,543,737	4,292,015	2,948,630	1,667,826	656,250	7,396,192	1,202,276	793,516	793,516	793,516
TRANSFERS TO/FROM RESERVES										
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From Reserves to fund MRF Operations Monitoring	493,822		493,822							
Return Unused FY 2013 MRF allocation to MRF Reserve	(288,148)		(288,148)							
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Total Net Transfers	664,334	458,660	205,674	-	-	-	-	-	-	-
FUND BALANCE										
Beginning fund balance 7/1/13	4,763,198	1,455,567	618,784	-	-	-	867,547	1,108,618	495,642	217,040
Closed contracts	46,173	20,906	3,690				1,840	17,590	875	1,272
Adjusted Beginning Fund Balance 7/1/14	4,809,371	1,476,473	622,474	-	-	-	869,387	1,126,208	496,517	218,312
AVAILABLE FUNDING	26,017,442	6,227,148	3,776,778	1,667,826	656,250	7,396,192	2,071,663	1,919,724	1,290,033	1,011,828
Less: Project Expenditures	(20,986,199)	(4,495,869)	(3,128,303)	(1,667,826)	(756,289)	(7,396,192)	(1,205,590)	(635,780)	(986,826)	(713,524)
From Facilities Fees to fund Benchmark related costs**		(100,039)			100,039					
ENDING FUND BALANCE	\$ 5,031,243	\$ 1,631,240	\$ 648,475	0	0	\$ -	\$ 866,073	\$ 1,283,944	\$ 303,207	\$ 298,304

OTHER PROJECTS:

Revolving Loan (RLF): (Project 2030)	
Beginning fund balance	\$ 1,748,844
Revenues	24,000
Loan Repayment	378,000
Project cost (loans and expenses)	(914,460)
Ending fund balance	\$ 1,236,384

RB Municipalities (Measure D 50%) (Project 2220)	
Beginning fund balance	\$ 4,158
Revenues	3,969,085
Project cost	(3,973,243)
Ending fund balance	\$ -

Public Agency Environ. Pref. Purch. Measure D 5% (proj. 1210)	
Beginning fund balance	\$ 191,642
Revenues	396,805
Project cost	(598,696)
Closed contracts	10,249
Ending fund balance	\$ -

Total project cost including other projects **\$ 26,472,598**

Total revenues including other projects **\$ 25,311,627**

NOTE

Facility Fees=Authority user fee of \$4.34 per ton.
Mitigation Fees= Import Mitigation Fee of \$4.53 per ton collected on all other wastes landfilled in Alameda County that originate out-of-county except San Francisco waste fee is currently \$6.00 per ton.
RB Discretionary=Recycling Board Discretionary Fund - 15% of Measure D fees, of which 3% may be used to cover expenses necessary to administer the recycling fund.
RB Grants to Non-Profit = Recycling Board Grants to Non-Profit Fund - 10% of Measure D fees.
RB Source Reduction= Recycling Board Source Reduction Fund - 10% of Measure D fees.
RB Market Development = Recycling Board Market Development Fund - 10% of Measure D fees.
RB Recycled Prod. Pref. = Recycling Board Recycled Product Price Preference Fund - 5% of Measure D fees.
RB Municipalities = Recycling Board Municipalities Fund - 50% of Measure D fees.
RLF = Revolving Loan Fund

**dollars of estimated benchmark related costs are budgeted from the facility fee revenue source rather than benchmark fee revenue source, but will be charged to the benchmark fee revenue source if its' revenues are higher than estimated.

****This action was approved at the July 24, 2013 WMA board meeting.

Attachment 3

**ENERGY COUNCIL
FUND BALANCES AVAILABLE
FISCAL YEAR 2013/2014 MID-YEAR BUDGET**

<i>FUND NAME</i>			<i>BEG. FUND BALANCE JULY 1, 2013</i>	<i>ADJUST- MENTS</i>	<i>BEG. FUND BALANCE JULY 1, 2013</i>	<i>PROJECTED REVENUE</i>	<i>PROJECTED APPROPRIA- TIONS</i>	<i>TRANSFERS</i>	<i>FUND BALANCE JUNE 30, 2014</i>
WMA									
Energy Council						7,396,192	(7,396,192)		0
Energy Council Total			0	0	0	\$ 7,396,192	\$ (7,396,192)	0	0

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DATE: December 11, 2013
TO: Waste Management Authority (WMA) Board
FROM: Gary Wolff, Executive Director
SUBJECT: Household Hazardous Waste (HHW) Services and Funding

BACKGROUND:

This topic has been previously discussed with the committees and boards numerous times, including the May and July WMA meetings, the October combined meeting of the WMA and Recycling Boards, and the April and June committee meetings. We also held community meetings on the 'proposal' approved by the Board for public discussion at the July WMA meeting, in Livermore, Castro Valley, Berkeley, and Fremont in early October, and made short presentations before the San Leandro and Alameda City Councils in mid-November (at their request). All of these meetings were noticed in newspapers or advertised in other ways (e.g., emails were sent to all Livermore residential customers by Livermore staff announcing the community meeting in Livermore). And we've also reached out by phone to residential rental property owners associations in Alameda County specifically, given that their members might view HHW services or fees differently than home owners.

We created an email address for comments in the event a person couldn't attend a community meeting (hhwproject@stopwaste.org) and videotaped the first community meeting presentation and posted it to the HHW program website on October 11th (http://www.youtube.com/watch?feature=player_embedded&v=ZOIwfCEVzvY). A summary of comments and key issues was provided to the Boards in October (<http://www.stopwaste.org/docs/10-23-13-hhw.pdf>).

Through this process, there seems to have been convergence toward the HHW service and funding proposal described in the report by HFH Consultants that independently examined and verified the cost estimates for the 'proposed' and 'austerity' options (<http://www.stopwaste.org/docs/hhw-memo-options.pdf>). We were directed by the WMA Board at its October meeting to prepare a fee ordinance for first reading, and other supporting documents, for the December meeting of the WMA, and to plan for a second reading at the February 26th meeting of the WMA. These documents implement the service and fee proposal. If we continue on the current schedule, we will mail a notification of the proposed fee to all residential property owners in Alameda County in early January, so that they will have a chance to object to the fee prior to or at the February 26th meeting.

DISCUSSION

The draft fee ordinance (Attachment A) would impose a fee of \$9.55 per household per year collected through the property tax roll in most cases. It may be necessary to collect the fee directly in a few instances, and the ordinance empowers the Executive Director to do that. Because implementation of HHW services is through other entities (e.g., the County of Alameda and the City of Fremont), the ordinance specifies that contracts or memorandum of understanding must be brought before the Board for approval before the fee can be collected. We intend to provide draft amended MOUs with the County and the City of Fremont when the ordinance is brought before the Board for consideration of adoption. If possible, we will have them ready for Board approval at that time, but if that is not possible, they will be

brought to the Board for approval before the fee is placed on the property tax roll. The ordinance also requires that any contract or MOU for HHW services prohibit the service provider from charging for the services paid for by this fee. This ensures that both individual Alameda County residents and residential rental property owners in Alameda County that are also small quantity generators of hazardous waste will not be charged other than the fee. The services to be provided are described in the report from HFH Consultants listed above.

The draft fee protest procedures resolution (Attachment B) describes the procedures to be followed to ensure any protests against the fee are handled in a formal and transparent manner and in accordance with the Health and Safety Code provisions authorizing the fee to be collected on the tax roll. Staff proposes that the procedures include counting and other decisions related to counting be decided by an independent party appointed by the Executive Director. We have begun to explore suitable persons for that role, and will provide more information before the ordinance is adopted.

The draft fee collection report resolution (Attachment C) ensures that the parties subject to the fee are accurately identified. State law requires that the Board act each year (by majority vote, after public notice and an opportunity to comment) to approve the accuracy of the list of parties from whom the fee will be collected through the tax roll. The fee collection report resolution does not need to be adopted until after the ordinance is adopted.

A draft property owner notification letter is provided in Attachment D. It (after editing if necessary) will be mailed to all residential property owners in Alameda County at least 45 days prior to the date the Board considers the ordinance in Attachment A for adoption (currently scheduled for February 26th). Note that although the letter will be mailed in an envelope, it will be printed on card stock thick enough to allow recipients to tear off and mail back a pre-addressed protest located at the bottom of the letter.

Finally, as directed by the Board in October, we will inform the public that the Board is considering adopting this fee through a variety of venues, including but not limited to newspaper advertisements. We investigated "robo-calls" as suggested by some at the October meeting, but the tax roll does not include telephone numbers (only mailing addresses) for parcel owners.

RECOMMENDATION:

We recommend that the WMA Board hold a public hearing, waive reading of the entire ordinance (Attachment A) and read it by title only, and schedule the ordinance for consideration of adoption on February 26, 2013, unless comments at the public hearing justify delaying the date for consideration of adoption. We also recommend that the Board adopt the fee procedures resolution, so that the procedure for the protest process is formal and transparent. Pursuant to the Health and Safety Code provisions applicable to the ordinance a 2/3 majority vote of the Board membership (i.e., 12 of the 17 members) is required to adopt the ordinance. Action is not required at this time on the Draft Fee Collection Report Resolution or Draft Property Owner Notification Letter.

- Attachment A: Draft Fee Ordinance
- Attachment B: Draft Fee Protest Procedures Resolution
- Attachment C: Draft Fee Collection Report Resolution
- Attachment D: Draft Property Owner Notification Letter

551271.2

ORDINANCE 2014-01

**AN ORDINANCE ESTABLISHING A HOUSEHOLD HAZARDOUS WASTE
COLLECTION AND DISPOSAL FEE**

The Board of the Alameda County Waste Management Authority hereby ordains as follows:

Section 1. Findings

The Authority finds that:

(a) State law precludes disposal of household hazardous waste in municipal landfills such as those serving Alameda County residents and the Alameda County Integrated Waste Management Plan calls for removing hazardous wastes from the solid waste stream for proper separate management through separate collection and other programs.

(b) Waste characterization studies for Alameda County, San Francisco County, and the State of California overall, find that residential hazardous waste is about the same percentage of residential refuse regardless of whether the dwelling unit is in a single family or multi-family residential building. Furthermore, vacant residential properties also require hazardous waste collection and disposal in connection with property improvements, maintenance, or landscaping.

(c) The Alameda County Environmental Health Department, with policy direction and funding provided by the Waste Management Authority, operates three permanent Household Hazardous Waste (HHW) collection facilities located in the northern, southern, and eastern sections of the County and BLT Recycling, under contract with the City of Fremont, operates a fourth HHW collection facility at the Fremont Transfer Station, partially funded by the Authority. These facilities are operated under two memoranda of understanding (MOUs) between the Authority and the County of Alameda and the Authority and the City of Fremont. These MOUs will be revised to implement this ordinance.

(d) These Household Hazardous Waste collection facilities benefit and serve Alameda County Households by collecting and disposing of HHW generated by Households in Alameda County in compliance with the law. This program may be used only by Alameda County Households. The Household Hazardous Waste Collection and Disposal Fee funds this program and may not be used for any other purpose. The program was evaluated in a October 4, 2013 memorandum from HF&H Consultants, LLC to the Alameda County Waste Management Authority which determined that the funds generated by the fee do not exceed the costs of the program.

(e) The costs of operating the HHW collection and disposal program for Alameda County Households are offset in part by funds received or cost reductions associated with product stewardship programs implemented in accordance with State law (such as the PaintCare Product Stewardship Program established at Public Resources Code sections 48700 et seq. which reduces costs associated with collection and disposal of architectural paints and provides funds for processing those materials). These programs are expected to expand in the future and the amount of the fee will be reduced commensurate with the cost offsets or funding associated with these programs. In anticipation of full cost offset and funding from these programs in the future the fee sunsets in 2024.

(f) The Authority has the power to enact this Ordinance pursuant to the Joint Exercise of Powers Agreement for Waste Management.

(g) This Ordinance was introduced on December 18, 2013 at which time the Board set a public hearing for consideration of the Ordinance on February 26, 2014 and directed the Executive Director to prepare a report containing a description of each parcel of real property with one or more Households, the number of Households on each parcel, and the amount of the charge for each parcel computed in conformity with this Ordinance. The Board directed the Executive Director to publish and cause a notice in writing of the filing of said report and the proposal to collect the annual charge on the tax roll together with the time and place of hearing thereon, to be mailed to each person to whom any parcel or parcels of real property described in said report is listed as owner in the last equalized assessment roll available on the date said report is prepared (a "Record Owner"), at the address shown on said assessment roll or as known to the Executive Director. Notice of the hearing was published in a newspaper of general circulation in Alameda County and in accordance with section 6066 of the Government Code.

(h) At the hearing held February 26, 2014 the Board heard and considered all objections or protests to the report and this Ordinance. Protests were received from the Record Owners of (1) less than a majority of the separate parcels of property described in the report and (2) less than a majority of the Households on property described in the report. Following the hearing the Board approved the ordinance by a two-thirds majority or greater of the Board membership.

(i) Enactment of this Ordinance is not a "project" subject to the requirements of the California Environmental Quality Act, California Code of Regulations, title 21, section 15378(b)(4); further, even if it were a "project," it would be categorically exempt from the California Environmental Quality Act pursuant to California Code of Regulations, title 21, section 15308.

Section 2. Definitions

(a) “Alameda County” or “County” means all of the territory located within the incorporated and unincorporated areas of Alameda County.

(b) “Authority” means the Alameda County Waste Management Authority created by the Joint Exercise of Powers Agreement for Waste Management.

(c) “Board” means the governing body of the Authority made up of elected representatives of the member agencies pursuant to the Joint Exercise of Powers Agreement for Waste Management.

(d) “Executive Director” means the individual appointed by the Board to act as head of staff and perform those duties specified by the Board.

(e) “Fee” means the fee described in section 3 of this ordinance.

(f) “Fee Collection Report” means the annual report containing a description of each parcel of real property with one or more Households served by the Household Hazardous Waste Collection and Disposal Program, the number of Households on each parcel described, the amount of the charge for each parcel for the year, computed in conformity with this Ordinance, and whether the Fee is to be collected on the tax roll or by other means.

(g) “Household” means a residential dwelling unit (e.g., a single family home, apartment unit or condominium unit in a multi-unit building, etc.). Nothing in this Ordinance is intended to prevent an arrangement, or the continuance of an existing arrangement under which payment for refuse disposal service is made by residents of a household who are not the owner or owners thereof. However, any such arrangement will not affect the owner’s obligation should such payments not be made.

(h) “Household Hazardous Waste Collection and Disposal Program” means the Proposed System Expansion Option described in the October 4, 2013 memorandum from HF&H Consultants, LLC to the Alameda County Waste Management Authority.

(i) “Other Revenue” means the sum of (1) revenue received from the household hazardous waste fee of \$2.15 per ton pursuant to Authority Resolutions 140 and 2000-03 and (2) Product Stewardship Offsets.

(j) “Product Stewardship Offset” means funds received by the Household Hazardous Waste Collection and Disposal Program or operational cost reductions at the program attributable to household hazardous waste product stewardship programs implemented in accordance with federal, state, or local laws.

(k) “Small Quantity Generator” has the same meaning as Conditionally Exempt Small Quantity Generator as defined in California Health and Safety Code Section 25218.1 as it now exists or may be amended from time to time hereafter.

Section 3. Household Hazardous Waste Collection and Disposal Fee

(a) An annual household hazardous waste collection and disposal fee of \$9.55 or such lesser amount established by the standards below shall be paid by each Household in Alameda County beginning July 1 2014 and ending June 30, 2024 in the manner set forth in this ordinance.

(b) No later than December 31 of 2015 and each year thereafter the Executive Director shall prepare a report identifying the amount of Other Revenue received by the Household Hazardous Waste Collection and Disposal Program in the prior fiscal year. If the report of Other Revenue exceeds the projected amount specified in subsection (c), the fee shall be reduced for the following fiscal year by an amount equal to the excess revenue divided by the number of Households subject to the fee in the prior fiscal year. If revenues equal or fall below that specified in subsection (c) there shall be no increase in the fee.

(c) The fee is based on the following projected Other Revenue:

Fiscal Year	Projected Product Stewardship Offset	Projected Tip Fee	Total
2014-2015	\$263,225	\$1,849,000	\$2,112,225
2015-2016	\$263,225	\$1,713,550	\$1,976,775
2016-2017	\$263,225	\$1,578,100	\$1,841,325
2017-2018	\$263,225	\$1,442,650	\$1,705,875
2018-2019	\$263,225	\$1,307,200	\$1,570,425
2019-2020	\$263,225	\$1,171,750	\$1,434,975
2020-2021	\$263,225	\$1,171,750	\$1,434,975
2021-2022	\$263,225	\$1,171,750	\$1,434,975
2022-2023	\$263,225	\$1,171,750	\$1,434,975
2023-2024	\$263,225	\$1,171,750	\$1,434,975

(d) The fee shall be used exclusively for the Household Hazardous Waste Collection and Disposal Program.

(e) As a condition of receiving payments funded by the Fee, a collection and disposal service provider (e.g., at present, the County of Alameda and the City of Fremont) must agree that no charge will be imposed on (1) residents of Alameda County Households for services included in the Household Hazardous Waste Collection and

Disposal Program or (2) Small Quantity Generators who are owners of residential rental property in Alameda County for disposal of household hazardous wastes from Households in Alameda County. Any such agreement shall be in the form of a contract or memorandum of understanding (MOU) approved by the Board. The Executive Director shall not cause the fee to be collected as described in Section 4 of this ordinance until revised MOUs with the County of Alameda and the City of Fremont have taken effect.

Section 4. Administration

(a) Each year the Executive Director shall cause a Fee Collection Report to be prepared in accordance with this Ordinance and applicable law.

(b) The Fee Collection Report shall be reviewed by the Board to ascertain the accuracy of the information contained therein. A notice of the report's availability and a time and place of a public hearing on the report and the collection of such charges on the tax roll shall be published as set out in Government Code Section 6066 in a newspaper of general circulation printed and published within the County. At the conclusion of the hearing, the Board shall make its determination upon each charge and its collection on the tax roll or by other means. The determination of the Board shall be final. Upon such final determination, on or before August 10 of each year, the Executive Director shall endorse the report with a statement that it has been finally adopted by the Board, and shall file the signed report with the County Auditor. Authority staff are hereby authorized to undertake all administrative tasks to implement collection of the Fee, including, but not limited to an agreement with Alameda County for collection, which may provide payment to Alameda County of its reasonable costs of collection.

(c) The Fee for the period of July 1st, to and including June 30th of each fiscal year shall be entered as a charge on the tax roll against the parcels identified in the Fee Collection Report as paying through the tax roll. The Fee shall be collected at the same time and in the same manner as ad valorem taxes and other charges as are otherwise collectible by the county and shall be subject to the same penalties and the same procedures and sale in the case of delinquencies as proved for such taxes. All laws applicable to the levying, collection and enforcement of ad valorem taxes shall be applicable to such charges as provided herein. The Executive Director and the County of Alameda are authorized to undertake all appropriate actions necessary to collect the Fee. Fees paid with the tax bill shall be deemed to have been paid by those Households located on that property/parcel.

(d) The annual Fee for any Household located on property which is not designated for collection on the tax roll in the Fee Collection Report shall be collected by the Executive Director and shall be due and payable at least once per year on a schedule to be determined by the Executive Director.

Section 5. Enforcement

(a) Any charges which remain unpaid may be collected by the Authority in accordance with Ordinance 2013-01 and the Executive Director may direct collection and disposal service providers to deny access to services included in the Household Hazardous Waste Collection and Disposal Program for Households with unpaid charges.

Section 6. Severability. If any provision of this Ordinance or its application to any situation is held to be invalid, the invalidity shall not affect other provisions or applications of this Ordinance which can be given effect without the invalid provision or application, and to this end the provisions of this Ordinance are declared to be severable.

Section 7. Notice. This Ordinance shall be posted at the Authority Office after its second reading by the Board for at least thirty (30) days and shall become effective thirty (30) days after the second reading.

Passed and adopted this ___ day of _____, 2014, by the following vote:

AYES:

NOES:

ABSTAINING:

ABSENT:

I certify that under the penalty of perjury that the foregoing is a full, true and correct copy of the ORDINANCE NO. 2014-01.

GARY WOLFF
EXECUTIVE DIRECTOR

521923.5

ALAMEDA COUNTY WASTE MANAGEMENT AUTHORITY

RESOLUTION #WMA 2014 – []

MOVED:

SECONDED:

AT THE MEETING HELD DECEMBER 18, 2013

**SETTING A HEARING DATE AND PROCEDURES FOR
NOTICE AND PROTEST OF THE PROPOSED
HOUSEHOLD HAZARDOUS WASTE COLLECTION AND DISPOSAL FEE
EFFECTIVE JULY 1, 2014**

WHEREAS, the Alameda County Waste Management Authority is considering adoption of Ordinance 2014-01 establishing a Household Hazardous Waste Collection and Disposal Fee; and

WHEREAS, the Alameda County Waste Management Authority wishes to ensure broad public awareness of the proposal and solicit public participation in the process from persons subject to the fee and other members of the public in accordance with sound public policy and all applicable laws.

NOW THEREFORE BE IT RESOLVED THAT:

1. A public hearing on proposed Ordinance 2014-01 establishing a Household Hazardous Waste Collection and Disposal Fee shall be held February 26, 2014 at 3:00 p.m. at 1537 Webster Street, in Oakland, California.
2. Notice of the public hearing shall be published in a newspaper of general circulation in Alameda County at least once a week for two successive weeks prior to the date of the hearing.
3. The Executive Director shall cause to be prepared and filed with the office of the Executive Director a report containing a description of each parcel of real property with one or more households served by the Household Hazardous Waste Collection and Disposal Program described in the proposed ordinance, the number of households on each parcel, and the amount of the charge for each parcel computed in conformity with the proposed ordinance.
4. At least 45 days prior to the public hearing the Executive Director shall cause a notice in writing of (i) the proposed ordinance, (ii) the filing of the above-described report, and (iii) the time and place of hearing thereon, to be mailed to each person to whom any parcel or parcels of real property described in the report is listed in the last equalized assessment roll available on the date the report was prepared (a "Record Owner"), at the address shown on said assessment roll or as known to the Executive Director. If the assessment roll indicates more than one owner, each owner shall receive notice. Only Record Owners shall receive notice. Failure of any person to receive notice shall not invalidate the proceedings.

5. The mailed notice described above shall inform the recipient of their ability to file a written protest concerning the proposed ordinance. The following guidelines shall apply to written protests:
- a. Any Record Owner of a parcel to which the fee would apply may submit a written protest.
 - a. The Board shall consider all protests submitted in accordance with the requirements of this section. Any Record Owners whose names and addresses appear on the last equalized secured property tax assessment roll may submit a protest against the proposed fee either at the noticed public hearing or, prior to the public hearing, by mail to the Executive Director, 1537 Webster Street, Oakland, CA, 94612, and received by no later than 12:00 p.m. on the date of the public hearing. Mailed protests received after that time will not be considered regardless of the date of mailing.
 - b. The protest must be in writing. Protests submitted by e-mail or facsimile, as well as verbal protests, will not be considered by the Board of Directors to determine whether a majority of the owners of the identified parcels or households subject to the fee have submitted protests. All members of the public are entitled to make comments at the public hearing whether or not they choose to submit a written protest or own property that would be subject to the proposed ordinance.
 - c. All written protests must be submitted before the conclusion of the noticed public hearing. The Executive Director shall not accept or consider any protest that is received after the conclusion of the public hearing.
 - d. Written protests must identify the affected property (by assessor's parcel number), the number of residential units on the parcel, and must include the original signature of the person submitting the protest. The person signing the protest shall identify him or herself as an owner of the parcel as shown on the last equalized secured property tax assessment roll.
 - e. One written protest per parcel, submitted by the owner of the parcel whose name appears on the last equalized property tax assessment roll, shall be counted. If one of the owners of a parcel that is owned by more than one person or entity submits a written protest, that protest shall be included in the calculation of whether there is a majority protest against the fee or charge. Under all circumstances, only one protest per parcel shall be counted.
 - f. Any person who submits a written protest may withdraw it by submitting a written request that the protest be withdrawn in person at the public hearing or by letter addressed to the Executive Director at 1537 Webster Street, Oakland, CA, 94612 and received by no later than 12:00 p.m. on the date of the public hearing. Mailed protest withdrawal requests received after that time will not be considered regardless of the date of mailing. The written withdrawal of a protest shall identify the parcel and the name of the owner whose name appears on the last

equalized secured property tax assessment roll and include a request that the protest be withdrawn. The withdrawal of a protest shall only be valid if it is submitted by the same person who submitted the protest and includes an original signature of the person submitting the withdrawal request. A person who withdraws a protest in person at the public hearing shall provide evidence that s/he is the person listed on the last equalized secured property tax assessment roll for the affected property.

- g. Written protests shall be placed in a sealed container immediately upon receipt and remain in that container until tabulated. From and after the start of the public hearing, the written protests shall constitute “public records” as defined in Government Code § 6254. The Executive Director shall establish appropriate safeguards to ensure that sealed protests are not opened prior to tabulation.

6. Tabulating Protests. The following guidelines shall apply to tabulating written protests and determining whether a written protest against the proposed fee has been received:

- a. An impartial person designated by the Executive Director who does not have a vested interest in the outcome of the proposed fee shall tabulate the written protests submitted, and not withdrawn, in opposition to the proposed ordinance (the “Tabulator”). The Tabulator shall determine the validity of all protests. The Tabulator shall not accept as valid any protest if the Tabulator determines that any of the following conditions apply:
 - i. The protest does not identify a parcel that would be subject to the fee;
 - ii. The protest does not bear an original signature of the person submitting the protest;
 - iii. The protest does not state its opposition to the proposed fee;
 - iv. The protest was not received by the Executive Director before the close of the public hearing;
 - v. The protest appears to be tampered with or otherwise invalid based upon its appearance or method of delivery or other circumstances; and/or
 - vi. A request to withdraw the protest is received prior to the close of the public hearing.
- b. The Tabulator’s decision regarding the validity of a protest shall constitute a final action of the Authority and shall not be subject to appeal to the Board or to any other committee or employee of the Authority.
- c. The Tabulator shall begin tabulating written protests not sooner than February 24, 2014 and shall not disclose any interim or final results of the tabulation until the start of the public hearing. If, at the conclusion of the public hearing, cursory review of the protests received demonstrates that the number received is

manifestly less than one-half of the parcels served by the Household Hazardous Waste Collection and Disposal Program, then the Tabulator may advise the Board of the absence of a majority protest without tabulating the protests.

7. If written protests against the proposed ordinance are presented by either (i) a majority of the owners of the identified parcels subject to the ordinance or (ii) the owners of a majority of the residential units subject to the ordinance, the Board shall not adopt the ordinance.

Passed and adopted this 18th day of December, 2013, by the following vote:

AYES:

NOES:

ABSTAINING:

ABSENT:

I certify that under the penalty of perjury that the foregoing is a full, true and correct copy of Resolution No. 2014-__.

GARY WOLFF
EXECUTIVE DIRECTOR

548110.4

ALAMEDA COUNTY WASTE MANAGEMENT AUTHORITY

RESOLUTION #WMA 2014 – [__]

MOVED:

SECONDED:

AT THE MEETING HELD FEBRUARY 26, 2014

**ADOPTING THE ANNUAL FEE COLLECTION REPORT FOR THE
HOUSEHOLD HAZARDOUS WASTE COLLECTION AND DISPOSAL FEE**

WHEREAS, on February 26, 2014 the Alameda County Waste Management Authority adopted Ordinance 2014-01 establishing a Household Hazardous Waste Collection and Disposal Service Fee following written notice to all affected property owners on January __, 2014 and an opportunity to protest in accordance with applicable law; and

WHEREAS, all capitalized terms in this resolution shall have the meaning set forth in Ordinance 2014-01; and

WHEREAS, Ordinance 2014-01 calls for the Authority Board to annually consider a Fee Collection Report describing each parcel of real property with one or more households served by the Household Hazardous Waste Collection and Disposal Program and the amount of the charge for each parcel for the year, computed in conformity with the ordinance; and

WHEREAS, the Fee Collection Report for 2014-2015 has been prepared and presented to the Board; and

WHEREAS, following notice duly given in accordance with law the Board on February 26, 2014 held a full and fair public hearing regarding the Fee Collection Report for 2014-2015. All interested persons were afforded the opportunity to hear and be heard. The Board considered all oral and written statements made or filed by any interested person.

NOW THEREFORE BE IT RESOLVED THAT:

The Board does hereby approve Fee Collection Report for 2014-15 without change.

Passed and adopted this __ day of _____, 2014, by the following vote:

AYES:

NOES:

ABSTAINING:

ABSENT:

I certify that under the penalty of perjury that the foregoing is a full, true and correct copy of Resolution No. 2014-__.

GARY WOLFF
EXECUTIVE DIRECTOR

546640.5



ALAMEDA COUNTY WASTE MANAGEMENT AUTHORITY

Member Agencies

- Alameda County
- Alameda
- Albany
- Berkeley
- Dublin
- Emeryville
- Fremont
- Hayward
- Livermore
- Newark
- Oakland
- Piedmont
- Pleasanton
- San Leandro
- Union City
- Castro Valley
Sanitary District
- Oro Loma
Sanitary District

Dear Residential Property Owner:

This letter is to inform you that the Alameda County Waste Management Authority will consider adopting a fee of \$9.55 per year per residential unit, collected through the property tax roll, at its meeting on February 26, 2014. The meeting will start at 3 p.m. at 1537 Webster Street, Oakland CA 94612.

Revenue from the fee will be used to support the countywide household hazardous waste program, which provides safe, legal, environmentally sound collection and disposal services for residential household hazardous waste such as paint, solvents, and pesticides. The fee will support expanded services to all residents of Alameda County. Without these services, most household hazardous waste will be illegally and improperly disposed of (e.g., abandoned on streets, poured down drains, placed in garbage or recycling carts). Improper disposal is often dangerous, litters our streets and sidewalks, and can detract from residential property values.]

More information about the current program can be found at <http://www.Household-Hazwaste.org>. An independent review of the fee proposal, and the services it will pay for, is available at: _____. A video presentation of the fee proposal is available at: _____.

The fee has been structured to go down if program revenues or cost offsets from other sources are greater than projected. The fee does NOT automatically go up with inflation or for any other reason, and will end ("sunset") on June 30, 2024. The draft fee ordinance to be considered for adoption on February 26, 2014 is available at: _____. Additional information on the hearing and protest process is available at: _____. Your property is included on the report listing the properties that would be subject to the fee. The report and copies of all the materials referenced in this letter are available at the Authority offices at 1537 Webster Street, in Oakland.

You may object to the adoption of this fee by signing and mailing back the card below. It must be received no later than 12:00 p.m. February 26th unless delivered in person at the hearing. You may also attend the meeting on the 26th in person and express your opinion in favor or against the fee.

Parcel Number: _____ [address in an envelope window]

Number of Residential Units on Record: _____

(Each unit counts as one 'objection'; please change
the number of units if incorrect)

Name
Street Address

Please do not adopt this fee:

City, State, Zipcode

Signature: _____

By my signature above I certify that I am an owner of the parcel listed above and that the number of residential units listed for that parcel is correct.



ALAMEDA COUNTY WASTE MANAGEMENT AUTHORITY

[Back Side of Mailer will include the following message in English and other languages "This notice contains important information about a possible fee of \$9.55 per year per residential unit collected through the property tax roll. If English is not your primary language, please have someone translate it for you."]

Place Proper
Postage Here

Alameda County Waste Management Authority
1537 Webster Street
Oakland, CA 94612



December 2, 2013

TO: Waste Management Authority and the Energy Council

FROM: Gary Wolff, Executive Director

SUBJECT: 2014 Meeting and Holiday Schedule

REGULAR BOARD MEETING SCHEDULE

The regular meeting schedule for the Authority Board and the Energy Council is the fourth Wednesday of each month at 3:00 p.m., except where noted differently (*). Meetings are held at 1537 Webster St., Oakland, CA.

If you concur, the 2014 meeting dates for the Authority Board will be as follows:

<u>DATE</u>	<u>TIME</u>	<u>LOCATION</u>
January 22	3:00 P.M.	1537 Webster Street
February 26	3:00 p.m.	1537 Webster Street
March 26	3:00 p.m.	1537 Webster Street
April 23 *Joint Meeting WMA/EC/RB	3:00 p.m.	1537 Webster Street
May 28	3:00 p.m.	1537 Webster Street
June 25	3:00 p.m.	1537 Webster Street
July 23	3:00 p.m.	1537 Webster Street
August 27 - Cancelled	AUGUST RECESS	
September 24 *Joint Meeting WMA/EC/RB	3:00 p.m.	1537 Webster Street
October 22	3:00 p.m.	1537 Webster Street
November 19 (<i>*3rd Wednesday</i>)	3:00 p.m.	1537 Webster Street
December 17 (<i>*3rd Wednesday</i>)	3:00 p.m.	1537 Webster Street

RECOMMENDATION:

Adopt the meeting schedule for 2014.

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DATE: December 11, 2013
TO: Waste Management Authority (WMA) Board
FROM: Gary Wolff, Executive Director
SUBJECT: Agenda Planning Request

BACKGROUND:

At the October WMA meeting, Board Member Turner requested that the Board agendaize a discussion of the 60 day opt-out period associated with the benchmark fee. Board members had diverse opinions on the topic, and I expressed my opinion that revisiting the benchmark service fee at this time is a distraction from other critically important work. Since the October agenda did not include agenda planning as an action item, the Board directed me to place this request as an agenda planning action item on the December agenda. If the request is granted, the item will be placed on the January WMA agenda.

DISCUSSION

The Dublin City Manager previously asked that the 60 day opt-out period be changed. In response, because there are some complex and strategic programmatic and long-term financial planning issues intertwined with this request, the Board committed to review the entire benchmark service and fee during the 2016 budget process. Based on that review, including two full years of data-gathering experience and community response to the benchmark reports, the service and fee may be revised, reduced, or discontinued.

There is no benefit to the public of attempting to review any aspect of the service or fee structure, or the entire service and fee structure, without any experience with the service and the public response to it. There are some strong and opposing opinions on this topic. I do not see how they can be resolved productively with the information available now, or that will be available in anything less than two years.

RECOMMENDATION:

I recommend that the Board not agendaize a discussion of the opt-out provision for the benchmark fee in isolation from an overall evaluation. Since such an overall evaluation has already been scheduled by the Board for Spring 2016, and that schedule was chosen to provide a solid evidentiary basis for any changes in the service or fee, I recommend against discussion of possible changes at this time.

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DATE: December 11, 2013
TO: Waste Management Authority (WMA) Board
FROM: Gary Wolff, Executive Director
SUBJECT: Clippings Package Highlights

BACKGROUND:

We provide a clippings package to board members every month, but have not discussed them. I thought there were a few highlights worth emphasizing in this month's package.

DISCUSSION

The "Ministry of Nudges" article from the New York Times shows that the insights of behavioral economics and science are being implemented in public policy in some very significant ways. As you know, our approach to increasing recycling is based on the findings of behavioral science. It is gratifying to see that we are not alone -- there are some large scale and growing applications by government described in the article. I found it especially interesting that Conservative Party British Prime Minister Cameron is quoted as strongly supporting this approach to public policy, on the grounds that "we can achieve a real increase in well-being, in happiness, in a stronger society, without necessarily having to spend a whole lot of money."

I included an entire academic journal article in the clippings package this month ("The effect of product size and form distortion on consumer recycling behavior") because its primary finding is very surprising and important. The researchers found through a series of experiments that consumers perceive used items as much less useful when they are distorted from their original form. For example, a dented aluminum beverage container or a piece of writing paper that has been cut into, say, eight smaller pieces, is perceived as less useful and therefore less important to recycle than an undented can or a whole piece of paper. The behavioral consequence of this perception is that the dented cans and smaller pieces of paper are recycled about only half as often. This finding will be essential for us as we move toward our year 2020 goal of 'less than 10% good stuff in the garbage.' We will need to change this perception through careful messaging. One recent example along these lines is the Keep America Beautiful (KAB) national recycling campaign. Its approach; discarded materials linked to new, useful products. For example, one ad shows an aluminum can next to a bicycle saying "I want to be a bike; Recycle me."

Finally, the San Jose Mercury News article about the new "Zero Waste Energy Digester" in San Jose is worth our attention. They began loading organic materials (food scraps and green waste) into the largest commercial 'dry digester' in the United State just a week or two ago. This facility grew from the overall San Jose Green Vision, and demonstrates the community's willingness to make large capital investments in waste reduction. They are also soliciting flow commitments of organic materials from outside San Jose. Although the pricing proposals we have heard are not inexpensive, this facility expands options for organics diversion in at least the southern part of our County.

RECOMMENDATION:

None. This report is for information only.

The New York Times

December 7, 2013

Britain's Ministry of Nudges

By **KATRIN BENNHOLD**

Alex Gyani had an idea, but even he considered it a little far-fetched.

A 24-year-old psychologist working for the British government, Mr. Gyani was supposed to come up with new ways to help people find work. He was intrigued by an obscure [1994 study](#) that tracked a group of unemployed engineers in Texas. One group of engineers, who wrote about how it felt to lose their jobs, were twice as likely to find work as the ones who didn't. Mr. Gyani took the study to a job center in Essex, northeast of London, where he was assigned for several months. Sure, it seemed crazy, but would it hurt to give it a shot? Hayley Carney, one of the center's managers, was willing to try.

Ms. Carney walked up to a man slumped in a plastic chair in the waiting area as Mr. Gyani watched from across the room. The man — 28, recently separated and unemployed for most of his adult life — was “our most difficult case,” Ms. Carney said later.

“How would you like to write about your feelings” about being out of a job? she asked the man. Write for 20 minutes. Once a week. Whatever pops into your head.

An awkward silence followed. Maybe this was a bad idea, Mr. Gyani remembers thinking.

But then the man shrugged. Why not? And so, every week, after seeing a job adviser, he would stay and write. He wrote about applying for dozens of jobs and rarely hearing back, about not having anything to get up for in the morning, about his wife who had left him. He would reread what he had written the week before, and then write again.

Over several weeks, his words became less jumbled. He started to gain confidence, and his job adviser noticed the change. Before the month was out, he got a full-time job in construction — his first.

An Idea Born in America

Did the writing exercise help the man find a job? Even now it's hard for Mr. Gyani to say for sure. But it was the start of a successful research trial at the Essex job center — one that is part of a much larger social experiment underway in [Britain](#). A small band of psychologists and economists is quietly working to transform the nation's policy making. Inspired by

behavioral science, the group fans out across the country to job centers, schools and local government offices and tweaks bureaucratic processes to better suit human nature. The goal is to see if small interventions that don't cost much can change behavior in large ways that serve both individuals and society.

It is an American idea, refined in American universities and popularized in 2008 with the best seller “[Nudge](#),” by Richard H. Thaler and Cass R. Sunstein. Professor Thaler, a contributor to the Economic View column in Sunday Business, is an economist at the University of Chicago, and Mr. Sunstein was a senior regulatory official in the Obama administration, where he applied behavioral findings to a range of regulatory policies, but didn't have the mandate or resources to run experiments.

But it is in Britain that such experiments have taken root. Prime Minister [David Cameron](#) has embraced the idea of testing the power of behavioral change to devise effective policies, seeing it not just as a way to help people make better decisions, but also to help government do more for less.

In 2010, Mr. Cameron set up the [Behavioral Insights Team](#) — or nudge unit, as it's often called. Three years later, the team has doubled in size and is about to announce a joint venture with an external partner to expand the program.

The unit has been nudging people to pay taxes on time, insulate their attics, sign up for organ donation, stop smoking during pregnancy and give to charity — and has saved taxpayers tens of millions of pounds in the process, said David Halpern, its director. Every civil servant in Britain is now being trained in behavioral science. The nudge unit has a waiting list of government departments eager to work with it, and other countries, from Denmark to Australia, have expressed interest.

In fact, five years after it arrived in Washington, nudging appears to be entering the next stage, with a new team in the White House planning to run policy trials inspired in part by Britain's program. “First the idea traveled to Britain and now the lessons are traveling back,” said Professor Thaler, who is an official but unpaid adviser to the nudge unit. “Britain is the first country that has mainstreamed this on a national level.”

Success With Scofflaws

At the core of nudging is the belief that people do not always act in their own self-interest. We can be undone by anxiety and swayed by our desire to fit in. We have biases and habits, and we can be lazy: Faced with a choice, we are more likely than not to go with a default option, be that a mobile ringtone or a pension plan.

Manipulating behavior is old hat in the private sector, where advertisers and companies have been nudging consumers for decades. Just think of strategically placed chocolate bars at the checkout counter. But in public policy, nudge proponents study human behavior to try to figure out why people sometimes make choices that they themselves would consider poor. Then they test small changes in how those choices are presented, to see whether people can be steered toward better decisions — like putting apples, not chocolate bars, at eye level in school cafeterias. It is tricky to run perfectly controlled experiments in real-life situations, but proving the worth of nudges is a central principle of the program, Mr. Halpern said.

One of the biggest successes of the nudge unit involves tax payment. Inspired in part by a field experiment in Minnesota, Mr. Halpern's team has helped test different reminder letters on hundreds of thousands of people who haven't paid their tax bills. One nudge was a sentence telling recipients that a majority of people in their community had already paid their taxes. Another said that most people who owe a similar amount of tax had paid.

Both messages bolstered tax collection, and combining them had an even stronger effect. Over the last financial year, the letters brought forward £210 million of revenue, Britain's revenue and customs department says — money that otherwise would have had to be chased in costly court procedures and failed to earn interest for the government.

"I think we'll look back on this in a decade or two and say, 'You mean we didn't used to do this?'" said Mr. Halpern, a former professor of social psychology at Cambridge University. He refers to the nudge unit as a "guerrilla operation" working from the inside to make government more efficient. "Imagine if we could just improve what we do by 5, 10, 15 percent every year," he said. "I mean, that sort of fixes our problem regarding budgets and austerity."

Creating Commitment

One morning in late May 2008, 10 copies of a little red book arrived for Rohan Silva in Norman Shaw South, the Westminster wing where the leader of the political opposition — at the time, the Conservatives — is traditionally housed.

The book was "Nudge," and Mr. Silva, then 27 and David Cameron's youngest adviser, piled them up on his desk. He had read the book as soon as it came out, a few weeks before. In fact, he had read deeply on behavioral economics and social psychology and met many of the American academics who specialized in the field. He was eager to spread the message in his country. "We used to joke about Ro being on commission for Thaler and Sunstein," said Steve Hilton, Mr. Cameron's former director of strategy and now a [visiting scholar](#) at Stanford.

Mr. Silva sat in a busy open-plan space. There was a lot of traffic, and the books went quickly. One day, Mr. Cameron picked up a copy.

“So this is the book you’ve all been talking about,” he said.

“Yeah,” Mr. Silva said. “You should read it.”

A week later, Mr. Cameron was quoting whole passages, and he, too, wanted to meet Mr. Thaler. “The really radical thing that Richard opened up to us is his concept of choice architecture,” Mr. Silva said in a recent interview. (He left Downing Street in July to start his own technology business.) “Governments have a set of nudges in everything they do, even if they don’t do anything. You can either be deliberate about it or not.”

In February 2010, three months before he became prime minister, Mr. Cameron [gave a talk](#) at a TED conference laying out his vision for a “new age of government.”

“If you combine this very simple, very conservative thought — go with the grain of human nature — with all the advances in behavioral economics,” he said, “I think we can achieve a real increase in well-being, in happiness, in a stronger society without necessarily having to spend a whole lot more money.”

Within weeks of Mr. Cameron’s taking office in May that year, the nudge unit was born. The team, which now counts 16 members, has run more than 50 experiments, often in fields that members know little about to start with.

Mr. Gyani, the psychologist, had never been inside a job center. He didn’t know that job seekers had to fill out as many as nine forms upon arrival at the center and then wait weeks to see an adviser while the forms were being processed. Until he met a man who had written 600 applications and received only four responses, he hadn’t fully grasped the demoralizing effect of a difficult job market.

But as a behavioral psychologist and researcher, he was familiar with academic literature that might apply to real-world problems. In addition to the research on expressive writing by unemployed engineers, he had read about the concept of commitment. He had seen the startling results of voter mobilization campaigns in the United States in which voters were not asked just “Are you going to vote?” but also: “What route are you taking to the polling station? At what time are you planning to go? What bus will get you there?”

Simply asking people to make a detailed plan — in essence, a commitment — in a get-out-the-vote script more than doubles the script’s impact, said [Todd Rogers](#), assistant professor of public policy at the Kennedy School of Government at Harvard, who conducted an

experiment with hundreds of thousands of participants in the run-up to the 2008 United States presidential election. Plan-making helps people make time for concrete actions, Mr. Rogers said, and helps people overcome specific, expected obstacles.

Mr. Gyani decided to apply these ideas to the job centers. He helped design an initial trial in which 2,000 people looking for jobs were randomly split into two groups: The first group continued to fill out many forms and wait for a visit with an adviser. Those in the second group filled out only two forms and saw a job adviser immediately. If those in the second group hadn't found work within eight weeks, they were also offered the expressive-writing exercise and a test to identify their strengths. Throughout, advisers in the nudged group not only reminded people to go to a job interview or update their résumé, but also asked them how they planned to get to the interview and at what time of day they would write their résumé. They wrote down the plan in front of their adviser.

"The idea," Mr. Gyani said, "was to create commitment."

Preliminary results of the trial surprised even Mr. Gyani. Of the 1,000 unemployed workers who had been nudged, 60 percent were back in a job within 13 weeks, compared with 51 percent of those who weren't nudged.

"I thought, wow, even if this drops by half when we scale it up, it's massive," Mr. Gyani said. "This could mean tens of thousands of people leaving unemployment."

The package has been introduced across the county of Essex in a trial involving some 20,000 job seekers. It is now being rolled out nationally, and the nudge unit will now study which of the measures drove the results: Was it the expressive writing? Getting a job adviser right away? The plan-making? Some combination? "The interventions that work seem obvious with hindsight," said Owain Service, the unit's deputy. "But we usually test several variants that don't work and they would have seemed just as obvious."

One example of that phenomenon involved getting people to insulate their attics. Successive governments had tried, offering generous subsidies. But only a tiny number of people put their hands up. Economists were baffled.

In 2011, the nudge unit started brainstorming. At the time, Groupon was all the rage, and one idea that the team liked was offering group discounts for neighbors who jointly committed to put in insulation. The more people someone recruited, the bigger the discount.

“It seemed a perfect way to mobilize green-minded citizens,” said Samuel Nguyen, an economist involved in the effort. And it seemed in line with the behavioral insight that people respond to peer pressure. The trial, however, produced no effect.

The group went back to the drawing board. Mr. Halpern remembered the chief executive of an energy company telling him over dinner that people resisted insulation because it meant cleaning up accumulated piles of junk in their attics. A couple of weeks later, Mr. Nguyen came into the office with a photograph of his mother's cluttered attic. “This time we were onto something,” Mr. Halpern recalled.

When the nudge unit offered loft-clearing services with the help of B&Q, a home-improvement store, the share of households that agreed to insulate jumped.

“The presumption in the energy department had been that you just have to make the subsidy bigger,” Mr. Halpern said. “Actually, you didn't. When you helped people clear their loft — even though they had to pay for the service — there was a 4.8-fold increase in uptake.”

Libertarian Paternalism

Britain's nudge unit has largely avoided American-style ideological polarization, but it has its critics.

Some are uncomfortable with a government fiddling with people's choices, however subtly. A small libertarian magazine, *Spiked*, has declared a “war on nudge” and cites critics like [Mark D. White](#), a philosopher at the City University of New York, who argues that nudging “is very much coercive, and in some ways more insidious than ‘old school’ paternalistic policies such as prohibiting or taxing behavior.”

Others fear that the approach could become a euphemism for shrinking government services. They accuse Mr. Cameron of testing the concept selectively; they say he has cut deeply into welfare programs without putting those cuts to a rigorous test. The most nuanced critique comes from those who question the ethics of behavioral experimentation on unwitting, and sometimes vulnerable, citizens.

The work in job centers caused some controversy this year when a job seeker reportedly complained of feeling coerced to take a “strength identification test.” The test was borrowed from [Martin Seligman](#), the University of Pennsylvania psychologist, and taking it was meant to bolster confidence. It had been added to the mix of behavioral measures tested in Essex.

[Gerry Stoker](#), professor of politics and governance at the University of Southampton, is among those concerned that job seekers might fear losing their benefits even if they are told

that the exercises are voluntary. “The exercise itself is worthy and the testing is eminently sensible,” Professor Stoker said. “But you need debriefs with participants.”

Despite such squabbles, the question in Britain no longer seems to be whether, but how, to nudge. In their book, Professor Thaler and Mr. Sunstein defined their approach as steering people toward decisions deemed superior by the government but leaving them free to choose. “Libertarian paternalism,” they called it, and while that term is not used much in Britain, there is broad agreement on the subject among the left and the right.

Mr. Halpern used to be policy chief for Tony Blair, the former Labour prime minister, and later wrote a report on behavioral policy-making commissioned by Mr. Blair's Labour Party successor, Gordon Brown. In one small way, the 2010 election campaign was also a race to decide which party would carry out an idea that had been percolating in the intellectual ranks of both for some years.

Wider Horizons

One of Mr. Thaler's favorite nudges is something that Schiphol Airport near Amsterdam adopted in public bathrooms: a small sticker of a fly in the center of a urinal has been shown to improve aim. It saves the airport cleaning costs.

During a recent visit to Downing Street, Mr. Thaler ran into Mr. Cameron in the men's room. There were no fly stickers.

“What's the deal?” he joked.

Uptake of nudging can be slow. In the United States, President Obama appointed Mr. Sunstein as head of the [Office of Information and Regulatory Affairs](#) in 2008. Mr. Sunstein's job was to oversee new regulations, make older ones smarter and scrap those that didn't work well. Among the successes, as outlined in his latest book, “[Simpler](#),” were simplified [mortgages](#), fuel-economy labels for cars and calorie counts on menus in chain restaurants.

Now experiments seem ready to become part of American policy-making as well. Maya Shankar, a senior policy adviser at the White House [Office of Science and Technology Policy](#), has been building a new social and behavioral science team inspired in part, she said, by the savings achieved in Britain. Her team wants to use such “evidence-based policy-making,” she said, so that “government services are efficient, effective, and serve the needs of the American people.”

Convinced that there is a wider market for such programs, Mr. Cameron is spinning off the nudge unit into an entity free to advise companies and other governments on social projects.

Its main clients will remain the Cabinet Office, which has offered a five-year contract, and other British government departments. A nonprofit research institution is favored to become the team's partner.

Nudging will never replace traditional public policy, said Mr. Halpern, the nudge unit's director. Paraphrasing Oliver Letwin, a cabinet minister, he said: "No one is proposing removing the law against murder and replacing it with a nudge."

But behavioral insights can improve many policies he said. "It's when this is generalized that we could be talking about billions," he said.

All because most of us want to fit in?

"Look," he said. "Human beings are social animals."



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The Effect of Product Size and Form Distortion on Consumer Recycling Behavior

Author(s): Remi Trudel and Jennifer J. Argo

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<http://www.jstor.org>

The Effect of Product Size and Form Distortion on Consumer Recycling Behavior

REMI TRUDEL
JENNIFER J. ARGO

The present research examines conditions under which consumers dispose of recyclable products in the garbage. Results from a field study and four laboratory studies demonstrate that a consumer's decision to recycle a product or throw it in the trash can be determined by the extent to which the product has been distorted during the consumption process. Specifically, if the consumption process distorts a product sufficiently from its original form (i.e., changes in size or form), consumers perceive it as less useful and in turn are more likely to throw it in the garbage (as opposed to recycle it). These findings point to important outcomes of the consumption process that have largely been ignored and provide initial insight into the psychological processes influencing recycling behavior.

Two billion tons of trash is thrown away each year, with the United States throwing away more trash than any other country (Wilcox 2008). Given the significant amount of waste that is being generated, it is not surprising that efforts have been made to reduce the need for landfilling and incineration by encouraging consumers to recycle. For instance, the US Environmental Protection Agency (EPA) has recently highlighted on its website the importance of recycling by citing it as an actionable means of protecting our environment. The agency additionally concludes that recycling is essential not only in efforts to benefit the environment but also to provide economic savings (EPA 2009).

The list of common waste and materials that are recyclable is both lengthy and diverse and includes things like paper, plastics, aluminum, steel, glass, tires, oil, electronics, textiles, batteries, and food and yard waste. Indeed, according to the EPA, paper alone accounts for 30% of all common waste materials (http://epa.gov/recycle/how_recycle.html).

Remi Trudel is assistant professor of marketing at the School of Management, Boston University, 595 Commonwealth Avenue, Boston, MA 02215. E-mail: rtrudel@bu.edu. Jennifer J. Argo is Cormie Professor of Marketing at the School of Business, University of Alberta, Edmonton, Alberta T6G 2R6. E-mail: jennifer.argo@ualberta.ca. Address all correspondence to Remi Trudel. The authors thank Barbara Bickart and Miranda Goode for their help at different stages of this project and Rhiannon MacDonnell for her feedback on an earlier draft of the manuscript.

Laura Peracchio served as editor and Lauren Block served as associate editor for this article.

Electronically published July 11, 2013

Given the substantive effect recycling may have on our environment, a better understanding of the consumer behavior behind recycling is a critical endeavor. Consumer researchers have begun to focus on factors that influence recycling behaviors (e.g., McCarty and Shrum 2001; Oskamp et al. 1991; Schultz and Oskamp 1996; White, MacDonnell, and Dahl 2011). For example, Lord (1994) finds that negatively framed messages provided from an acquaintance positively influence recycling behaviors. As another example, White et al. (2011) demonstrate that the presence of a match between a loss (gain) message frame and a concrete (abstract) mind-set leads to positive recycling outcomes. However, to date this research has studied the implications of consumer-related characteristics (e.g., attitudes and personality) and promotion-related variables (e.g., message framing) on recycling tendencies (the exception being the few studies on goals and theory of reasoned action; Bagozzi and Dabholkar 1994; Shultz and Oskamp 1996) without considering the role of the product's attributes themselves.

Products vary in terms of the attributes that they possess. Research has shown that these attributes are used by consumers in the categorization of a product (Barsalou 1985; Cohen and Basu 1987; Loken and Ward 1990; Rosch and Mervis 1975) and to determine consumption choices (e.g., Alpert 1971; Nowlis and Simonson 1996; Ratchford 1975). During the consumption process, products often go through a number of physical changes that alter (i.e., distort) its characteristics. For instance, paper gets torn and aluminum cans get dented, changes that distort their size and form. In the present research we seek to provide initial insight into

000

how and why distorting a product's size and form has implications for the likelihood that the product will be recycled.

Across five studies, we propose that changes in a product's size or form during the consumption process will influence disposal decisions. In particular, we demonstrate that when products are functionally distorted (in size or form), they become less useful, are perceived to be more like garbage, and are less likely to be recycled. We believe that the present research has substantive importance due to the widespread environmental concerns that face society today. Recycling reduces the need for landfilling and incineration, prevents pollution by decreasing emissions caused by manufacturing, saves energy, and conserves natural resources; thus, identifying consumer behavior driving recycling behaviors is paramount for the continuation of a healthy planet. Next we review relevant research in developing a process-based account for the role of product distortion on recycling behavior. We then report the results of one field and four laboratory studies that provide support for our conceptualized process of recycling behavior.

CONCEPTUAL DEVELOPMENT

To make sense of the numerous products that exist in the marketplace consumers assign products to different classes or categories (Loken and Ward 1990). To categorize a product means to evaluate it not only in terms of its similarity to other products in the same category but also in terms of its perceived dissimilarity to products not in the category. A central theme in the early categorization research is that categories are assumed to have a graded structure (Barsalou 1982, 1983, 1985) such that consumers categorize a product based on how representative or typical it is of a category. Graded structure is thus a continuum of category representativeness with most typical category members at one end and least typical category members at the other. In the product-design literature, the placement of a product along a category's graded structure is often an intentional and strategic outcome of the design process (Veryzer and Hutchinson 1998). Indeed, the product design and aesthetics literature uses the term *prototypical distortion* to describe a strategic design principle whereby designs that currently exist in the marketplace are systematically altered to create distance between existing prototypical products and the newly designed product (e.g., Cruesen and Schoormans 2005; Hutchinson and Alba 1991; Veryzer 2005; Veryzer and Hutchinson 1998; Wagner 1999). Normally this is achieved by making physical changes to an existing product prototype with the objective of making the newly designed product appear more novel and aesthetically pleasing (Cruesen and Schoormans 2005; Meyers-Levy and Tybout 1989; Noseworthy and Trudel 2011). Thus, the degree of distortion is a function of the amount of physical dissimilarity between the original product or prototype and the "new" product.

While research on categorization assumes that a product does not change its category once it has been produced (Malt, Ross, and Murphy 1995; Moreau, Markman, and Lehmann 2001), in reality products often go through a number

of physical changes during and after consumption that "distort" the product. For example, the size of a piece of paper can be distorted if it is cut or torn into smaller pieces, while the form of an aluminum can become distorted if it is dented. In the present research, we argue that such changes to a product's size or form during the consumption process will change how consumers categorize a product at disposal. In particular, when such a distortion transpires, the product will move further down the graded structure continuum away from a typical or standard member of the category. The newly distorted product is then assigned to the disposal category with similar prototype attributes (Smith and Minda 1998).

According to the Merriam-Webster dictionary, *garbage* is defined as discarded or useless material, whereas a *recyclable* is a product that has future use. Thus, products that are perceived to be useful should be more typical of a recyclable, whereas products that are useless should be more typical of garbage. We suggest that when product distortion alters a product's size or form, because it moves down the graded structure continuum away from other prototypical members of the category, it is perceived as less useful and as a result more likely to be trashed. For example, based on consumers' experiences, a full, blank 8.5 × 11 inch sheet of paper represents the most likely features (size and form) for the paper category. Consequently, a full 8.5 × 11 inch sheet of paper should be perceived as highly useful as it is prototypical for the paper category. Indeed, people can easily think of themselves using the paper in their printers or as something on which to sketch or take notes. Given that the paper is highly useful, based on our conceptualization that recyclables have future use, it is likely to be recycled (instead of tossed in the garbage) at disposal. However, if, for instance, a consumer distorts the paper by cutting it into smaller pieces during consumption, its perceived usefulness will decrease substantially as the paper becomes less representative in size and form of the paper category's prototypical members. Because garbage is typically useless, the distorted paper consisting of smaller, less useful parts is more likely to be categorized as garbage and thrown in the trash.

In sum, in the present research we examine how the distortion of product attributes during consumption influences the likelihood the product will be recycled as compared to thrown in the garbage. If a product is distorted during consumption, distance is created between the original product and the newly distorted product. This movement of a product away from the prototypical standard for the category will decrease the product's usefulness and increase the likelihood it will be trashed. We believe that this is because usefulness is a category defining characteristic for the recycle category. Products that are perceived to be useful (useless) are more likely to be recycled (trashed). We test our prediction across five studies that manipulate two product attributes: size and form. Specifically, we expect that if the consumption process leads to an end product that is too small or in a product that is unwhole, damaged, or broken, it will no longer be per-

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ceived as typical to its category. Consequently, the end product's perceived usefulness will decrease and the product will be assigned to the garbage category and subsequently trashed (as opposed to recycled).

STUDY 1

Using field observation, the purpose of this study is to provide initial insight into whether product distortion influences recycling behaviors. As an exploratory study, we examine the relationship between paper size and recycling behaviors (i.e., are small or large pieces of paper recycled more frequently?).

Procedure

Twenty-two faculty assistant offices at Western University were selected, each of which had both individual recycling and garbage bins. The sample consisted of all of the faculty assistant offices at the business school. To the best of our knowledge, the office environment did not provide guidelines on what is and is not recyclable. After hours, one of the authors and a research assistant searched through the recycling and garbage bins in each of the offices and coded the number and sizes of discarded paper in each bin. Since each bin is emptied daily by the custodial staff, the quantities represent a single day's recycling behavior. We did not code the paper according to their original size but rather relative to a standard sized sheet of paper (i.e., 8.5×11 inches). We literally used a half-sheet of paper as a guide to coding and used it to match the paper to the appropriate size category. Paper configuration was coded as either less than half standard sized sheet (small) or greater than or equal to half-sheet (large). All types of paper were included but the vast majority of the paper included in this study was standard sized printer type paper. Multiple papers stapled together were coded as a single sheet of paper.

Results and Discussion

Table 1 presents summary information regarding the number of sheets of paper recycled and trashed as a function of paper size across the 22 faculty assistant offices. Overall, we did not observe any differences in size and paper thrown in the garbage across all 22 faculty assistant offices. On average we found that faculty assistants trashed on average 1.27 sheets of paper that were greater than half a standard sized sheet (large) of paper in comparison to 1.95 sheets of paper that were less than half a standard sized sheet (small) of paper (paired samples test: $t(21) = -1.04$, $p = .31$). We did observe a significant difference in paper size and recycling. Faculty assistants recycled large pieces of paper ($M = 5.27$) more than small pieces of paper ($M = 1.18$; $t(21) = 3.68$, $p = .001$).

Twenty (of the 22) faculty assistant offices were observed to have disposed of large paper and 15 offices had disposed of small paper in the garbage or recycle bins. Thirteen offices had disposed of paper that was both large and small. To get

TABLE 1
RECYCLING BEHAVIOR BY PAPER SIZE (STUDY 1)

Paper size	Recycled	Trashed	Ratio
Greater than half:			
Mean	5.27 (4.88)	1.27 (1.75)	.52 (.64)
Minimum	0	0	-1.0
Maximum	17	7	1.0
Less than half:			
Mean	1.18 (2.52)	1.95 (2.28)	-.58 (.66)
Minimum	0	0	-1.0
Maximum	8	8	.78

NOTE.—Standard deviations in parentheses.

a better understanding of the decision to recycle versus discard paper according to its size, we examined the subsample of faculty assistant offices in which they had disposed of both large and small pieces of paper ($N = 13$). The key dependent measure was the ratio of the number of pieces of paper in the recycle bin relative to the number of pieces of paper in the garbage. Two ratio measures were calculated in order to make direct comparisons: one for paper that was small, and one for paper that was large. The ratios were calculated by subtracting the number of pieces of paper in the garbage from the number of pieces of paper recycled and then dividing by the total number of pieces of paper overall. The resulting ratio is such that a positive (negative) number indicates a greater proportion of paper recycled (tossed in the garbage). Of those faculty assistants offices with both sizes of paper, a paired samples t -test revealed that paper was more likely to be recycled when it was large ($M = .56$) as compared with small ($M = -.51$; $t(12) = 5.37$, $p < .001$). We also conducted one-sample t -tests on the recycle ratio measure for paper that was small in size and for paper that was large. The t -tests revealed that small paper was significantly more likely to be thrown in the garbage ($M = -.58$; $t(14) = -3.39$, $p < .01$), whereas large paper was significantly more likely to be recycled ($M = .52$; $t(19) = 3.64$, $p < .01$).

Based on the findings of the field study it appears that consumers' recycling decisions are related to product distortion and specifically to changes in product size. In particular, consumers appear more willing to recycle (discard) paper when it is large (small), providing preliminary evidence that attributes of the product may affect the decision to recycling.

While providing initial support for our theory, this study was largely exploratory and has limitations. First, it is unclear in the present study whether the paper was torn into smaller pieces during consumption or whether the consumer broke down (e.g., tore up) the paper as part of the recycling (or discarding) act. Second, while we were conservative in our coding of large sheets of paper (sheets stapled together were coded as one sheet), it is possible that we may have double counted some smaller sheets. For instance, if someone tore a piece of paper prior to trashing (or recycling) it,

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we counted each individual piece of paper even though the decision to trash/recycle the paper was made only once. This is a limitation given that this measurement error may have been more frequent in the *trash* condition (15 offices had small paper in trash bins, compared with eight offices that had small paper in recycling bins). In the studies that follow we address these limitations and provide further support for the role of size distortion in disposal behaviors. To explicate this from the process, the remaining studies are conducted in a controlled laboratory environment to shed more light on the sheets of paper of product distortion on recycling decisions.

In study 2 we seek to address the limitations mentioned above and to replicate the basic effect that people will be more likely to recycle (discard) large (small) pieces of paper using a controlled laboratory experiment. In addition, study 2 seeks to determine whether recycling decisions are simply based on the predicted impact that not recycling will have on the environment; it is possible that people perceive the small pieces of paper to have less of an impact on the environment than larger pieces. If this is the case then doubling the quantity of small pieces of paper (as compared to the amount in the large piece of paper) should reverse the effect (i.e., people should be more likely to recycle the small paper). If however, the explanation is as we earlier discussed (i.e., the product is less standard of the category and hence less useful) then the actual amount of the product is irrelevant in a disposal decision and even a large quantity of small pieces of paper should still be thrown in the garbage.

STUDY 2

Procedure

One hundred fifty undergraduates at Western University received partial course credit in exchange for their participation. Participants entered the lab and were randomly assigned to one condition in a single factorial between-subjects design with three conditions: a *no size distortion* condition, a *size distortion with equal quantity* condition (equal amount of paper to the no distortion condition), and a *size distortion with greater quantity* condition (twice the amount of paper as in the *no distortion* condition). Participants were seated at computer terminals with dividers between terminals. To limit social influence at the point of recycling/trash decision, participants were run in groups of 5–10 people with staggered start times to ensure that they finished at different times. Each group was given the same condition to keep the cover story consistent.

In all three conditions, participants were given a pair of scissors and an 8.5 × 11 inch sheet of paper. The paper contained a description of the scissors and a unique identifier used to match participants with the paper. Participants were not aware of the identifier. Participants were told to read the description and examine the scissors which they would later be asked to evaluate. Participants in the size distortion with equal quantity condition were then asked to try out the scissors by cutting along a series of dotted lines that ap-

peared on the back of the description page. Once they had completed the cutting task they were left with eight small equal sized pieces of paper. Participants in the size distortion with greater quantity condition were also asked to try out the scissors and in addition to cutting along dotted lines that were on the back of the description page they were also given a second 8.5 × 11 inch sheet of paper with the same dotted lines that they were asked to cut. After completing the task participants in this condition were left with 16 small equal sized pieces of paper. Participants in the no distortion condition were told to evaluate the scissors without cutting the 8.5 × 11 inch product description sheet and were therefore left with a whole sheet of paper. It is important to note that participants who cut the paper into eight smaller pieces of paper finished with the same paper quantity as those who did not cut the paper at all (i.e., the no distortion condition), while those who cut the two sheets of paper into 16 small pieces of paper finished the task with twice the quantity of paper as those in the other two conditions.

Consistent with the cover story all participants then completed a short survey in which they were asked to evaluate the scissors on a 7-point single item scale. Only the survey was collected by the research assistant (i.e., participants were left with their eight equally sized small pieces, 16 equally sized small pieces, or the original full sheet of paper). After finishing the study, the research assistant thanked the participants for their time and asked them to “dispose of all their paper on the way out” at the end of the research session. Participants completed a series of unrelated studies following this initial study. For this and all the laboratory studies that follow, our distortion manipulation was always part of the first study in a queue of unrelated studies and actual recycle behavior was observed as participants left.

Next to the exit were two identical bins, a trash bin and a recycling bin. To control for any demand effects as a result of visual cues, both bins had flip lids so participants could not see inside. The layout of the room was such that participants still completing the studies could not easily see people entering or leaving the lab. The majority of participants had either their backs to the exit or were not in a position where they could see in to which bin participants disposed of their paper. After participants exited the laboratory they were approached by a second research assistant and asked to complete a short follow-up survey. The follow-up questionnaire was designed to shed light on the process behind the disposal decision. Specifically, participants were asked to think back to the paper they disposed of on the way out of the laboratory and to assess on 7-point scales the extent to which “the paper was like garbage” (1 = not at all, 7 = very much), “the paper contributes to the amount of waste generated in society” (1 = not at all, 7 = very much), “it was worth recycling the paper” (1 = not at all, 7 = very much), “how much effort would you have to exert to recycle the piece of paper” (1 = not at all, 7 = very much), and “the impact disposing the paper in the garbage would have on the environment” (1 = minimal, 7 = substantial).

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Results and Discussion

The recycle and perception data across experimental conditions appear in table 2. We look at each individually below.

Recycle Data. The recycle data were analyzed using a logistic regression model with recycling behavior as the dependent variable (coded 1 = recycled, 0 = thrown away) and two size distortion dummy variables (equal quantity and greater quantity) created to represent the three conditions as independent variables. The no distortion condition (i.e., full 8.5 × 11 inch sheet of paper) was used as the baseline for comparison. Regression results revealed that dummy variables were significant with negative beta coefficients indicating that the percentage of participants recycling the paper decreased when it was distorted regardless of quantity (equal quantity [i.e., eight sheet] dummy variable: $\beta = -1.76, \chi^2 = 14.26, p < .001$; greater quantity [i.e., 16 sheet] dummy variable: $\beta = -1.68, \chi^2 = 13.014, p < .001$). As shown in table 2, participants in the two size distortion conditions showed a lower level of recycling than those in the no distortion condition; 82% of participants recycled the paper in the no distortion condition in comparison to 44% (equal quantity) and 46% (greater quantity) of participants who recycled the paper in the distortion conditions.

Categorization. The follow-up questionnaire data were analyzed using a one-way analysis of variance (ANOVA) to reveal a significant difference in categorization as measured by likeness to garbage ($F(2, 147) = 43.75, p < .001$). Post hoc Bonferroni tests revealed that when the paper was not distorted it was significantly less like garbage ($M = 2.12$) than either of the two size distortion conditions (equal quantity: $M = 4.94; p < .001$; greater quantity: $M = 4.32; p < .001$).

Alternative Explanations. It is possible that participants' decision to recycle/trash the paper arose because they did not think it was worth the effort to dispose of small pieces

of paper in the recycle bin. In addition, participants may have incorrectly believed that the impact on the environment was smaller when they had small pieces of paper. A series of ANOVAs revealed that there were no differences between experimental conditions on (1) how much the paper contributed to the amount of waste generated in society ($F(2, 147) = 1.88, p = .16$), (2) the impact of not recycling on the environment ($F(2, 147) = 2.00, p = .14$), (3) whether it was worth recycling the paper ($F(2, 147) = .21, p = .81$), or (4) the amount of effort required to recycle the paper ($F(2, 147) = 1.79, p = .17$).

Intuitively, one might have expected that different representations of the same recyclable product would yield similar behaviors. That is, the decision to recycle is independent of a product's size assuming that the quantity (e.g., total area, volume, weight, and amount) of the product is held constant. Stated differently, consumers should be equally likely to recycle a piece of paper regardless of whether it is an intact full sheet (e.g., 8.5 × 11) or whether that same piece of paper is divided into eight smaller pieces as the total amount of the paper and its impact on the environment is the same in both cases. However, the results from study 2 show that recycling behaviors decrease with size distortion and that size distortion affects disposal behaviors irrespective of the overall amount of material. This finding, along with the results of the follow-up survey, dispute the possibility that participants' decisions to discard the small papers were influenced by the fact that they incorrectly believed the small paper would have less of an impact on the environment.

One question that remains unanswered is whether it was the final size of the distorted paper or the act of distorting (cutting) the product that made it more typical of garbage. Study 3 builds on this study and provides additional support that it is not simply the act of distorting the product that makes it more like garbage, rather the extent to which the final size is still considered "standard," from a prototypical

TABLE 2

RECYCLING BEHAVIOR AND PERCEPTIONS OF GARBAGE BY PRODUCT DISTORTION CONDITION (STUDY 2)

Product distortion condition	No distortion (full 8.5 × 11 inch sheet of paper)	Distortion equal quan- tity (full sheet cut into 8 pieces)	Distortion greater quantity (full sheet cut into 16 pieces)
Recycling behavior:			
Percentage of people who recycled	82	44**	46**
Perceptions scale:			
Like garbage	2.12 (1.53)	4.94 (1.71)**	4.32 (1.50)**
Contributes to waste	3.82 (1.32)	3.28 (1.88)	3.24 (1.75)
Worth to recycle	5.52 (1.50)	5.32 (1.57)	5.46 (1.66)
Effort to recycle	2.30 (1.47)	2.74 (1.40)	2.82 (1.56)
Impact on environment	3.56 (1.43)	3.00 (1.77)	2.98 (1.76)

NOTE.—Standard deviations in parentheses. Statistical tests were conducted with the full sheet condition as the comparison condition. ** $p < .001$.

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member perspective, and the product maintains its usefulness.

STUDY 3

Procedure

One hundred eighty-three undergraduate participants at Boston University were randomly assigned to one condition in a 2 (initial paper size: half-sheet vs. extra-large) \times 2 (size distortion: distorted vs. maintained) between-subjects design. Participants received partial course credit for their participation.

The same procedure was used as described in study 2 with a few exceptions. First, to manipulate initial paper size in the *extra-large* condition participants were provided with a tabloid size of paper which measured 17 \times 11 inches, while in the *half-sheet* condition participants were provided with a standard half-sheet that measured 8.5 \times 5.5 inches. Second, to manipulate size distortion, in the distorted condition participants cut the paper into four equal sized portions. Specifically, in one of the distorted conditions, participants cut the tabloid sized paper into four, leaving them with four half-sheets (four pieces measuring 8.5 \times 5.5 inches). In the other distorted condition, participants cut a half-sheet into four small sheets (four pieces measuring approximately 4.25 \times 2.75 inches, the same size as in study 2). In the *maintained* conditions, participants did not cut the paper. As per study 2, the focal dependent variable was the percentage of participants who disposed of their paper in the recycling bin as compared to the garbage can. Again participants completed the follow-up questionnaire after leaving the lab (1 = not at all, 5 = very much).

Results and Discussion

Twenty-three participants were omitted because they left with paper in hand and did not dispose of it on the way out, leaving 160 usable observations.

Recycle Data. The recycle data were analyzed using a logistic regression model with recycling behavior as the dependent variable (coded 1 = recycled, 0 = thrown away), a categorical variable for initial paper size (coded 1 = XL size, 0 = half size), a categorical variable for size distortion (coded 1 = maintained, 0 = distorted), and their interaction. Logistic regression revealed a significant main effect of initial paper size ($\beta = 1.65$, $\chi^2 = 10.73$, $p = .001$), indicating that as the initial paper size increases so does recycling behavior. The data also revealed a significant main effect of size distortion ($\beta = 1.82$, $\chi^2 = 12.19$, $p < .001$) showing that the paper is recycled more when paper size is maintained (vs. distorted). Importantly, the interaction between initial paper size and size distortion on recycling behavior was significant ($\beta = -1.72$, $\chi^2 = 5.07$, $p < .05$). A planned comparison showed that the percentage of participants recycling the paper was significantly lower for the half-sheet/size distorted cell (41.86%) as compared to the other three

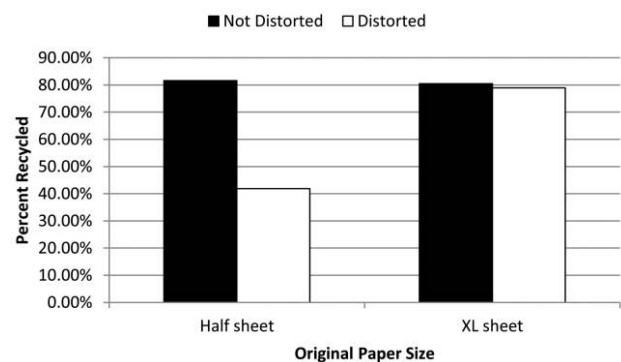
cells (the average recycle share was 80.34%; $\beta = .43$, $\chi^2 = 20.14$, $p < .001$; see fig. 1). Participants' recycling frequency in the other three cells did not differ from each other (all $p = \text{NS}$). Importantly, we also observed significant differences in recycling behavior between the size distortion conditions. Participants who cut the half-sheet into four small sheets recycled less (41.86%) than participants who cut the extra-large sheet into four half-sheets (78.95%; $\beta = .92$, $\chi^2 = 11.91$, $p = .001$).

Categorization. A 2 (initial paper size) \times 2 (size distortion) ANOVA on the extent to which "the paper was like garbage" revealed main effects for initial paper size ($M_{\text{xlg}} = 1.67$ vs. $M_{\text{half}} = 2.28$; $F(1, 156) = 11.50$, $p = .001$) and product distortion ($M_{\text{mtd}} = 2.40$ vs. $M_{\text{dist}} = 1.55$; $F(1, 156) = 22.07$, $p < .001$) as well as a significant initial paper size by size distortion interaction ($F(1, 156) = 7.52$, $p < .01$). Planned contrasts of the distorted conditions revealed that the paper was more typical of garbage in the half-sized sheet ($M = 2.95$) as compared to the extra-large sheet ($M = 1.84$; $F(1, 156) = 19.03$, $p < .001$) condition following size distortion. Follow-up tests further revealed that the distorted, half-sized sheet was more typical of garbage ($M = 2.95$) as compared to the size maintained half-sized sheet ($M = 1.61$; $F(1, 156) = 28.00$, $p < .001$). Importantly, participants' categorization did not differ when it was the extra-large sheet as a function of size distortion ($M_{\text{dist}} = 1.84$ vs. $M_{\text{mtd}} = 1.49$; $F(1, 156) = 1.89$, $p = .17$). Our results show that distorting the product (i.e., cutting the paper into four) only results in the paper being perceived as garbage when the final pieces are sufficiently small in size to move the product away from the prototypical member category.

In this study we observed that when product distortion leads to an end product that is sufficiently small, it is more likely to be trashed. In study 4, our objective is to show a practical manipulation that increases recycling of small pieces of paper and to provide direct evidence for the underlying role of usefulness.

FIGURE 1

PERCENTAGE OF PAPER RECYCLED AS A FUNCTION OF INITIAL PAPER SIZE AND PRODUCT DISTORTION (STUDY 3)



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STUDY 4

Procedure

Seventy-eight undergraduates at Boston University received partial course credit in exchange for their participation. Upon entering the lab, participants were instructed to cut a full 8.5 × 11 inch sheet of paper into eight smaller pieces as part of one of the experiments that they would be participating in that day. Participants were then randomly assigned to one of two experimental conditions: usefulness is salient versus control. In the *usefulness is salient* condition participants listed five uses for the cut pieces of paper. If usefulness is indeed an underlying process then enhancing the perceived usefulness of a small product should increase the likelihood it will be recycled. In the *control* condition participants listed their five favorite TV shows. Participants then proceeded to two unrelated studies and were told that they could leave after completing all the studies and to “dispose of all their paper on the way out.”

Results and Discussion

Three participants were omitted because they left with paper in hand and did not dispose of it on the way out, leaving 75 usable observations. Some of the uses that participants listed included: make lists, take notes, doodle, calculate, make paper airplanes, and origami.

Recycle Data. The recycle data were analyzed using a logistic regression model with recycling behavior as the dependent variable (coded 1 = recycled, 0 = thrown away) and a single categorical variable for usefulness condition (coded 1 = salient, 0 = control). The logistic regression revealed a significant effect of usefulness condition showing that participants were significantly more likely to recycle the small piece of paper after listing uses for the paper (67.57%; usefulness salient) as compared to in the control condition when listing their favorite TV shows (36.84%; $\beta = 1.27$, $\chi^2 = 6.85$, $p = .009$).

The results of study 4 provide evidence that usefulness underlies the impact of the product distortion on recycling behaviors. It achieves this by increasing the usefulness of a distorted product and demonstrating an increase in recycling behaviors. In particular, by using a practical manipulation that is adaptable to real life settings, albeit somewhat heavy-handed, we find that instructing participants to think of and list potential uses of a small piece of paper increases the likelihood they will recycle the paper. While using a word search or scrambled sentence task may be a cleaner prime of usefulness for a lab study, we feel that making people think about the usefulness of paper is more adaptable to real life recycling behavior.

In our final study we examine the role of size, in a naturally occurring smaller product. Studies 5a and 5b additionally explore the role of form distortion and introduce a new product (aluminum cans) to enhance the generalizability of the findings. Finally, we again provide evidence for the role of usefulness using a mediation approach.

STUDY 5A

Procedure

One hundred thirty undergraduates at Boston University were randomly assigned to one condition in a 2 (can size: regular vs. small) × 2 (form distortion: distorted vs. maintained) between-subjects design. Participants received partial course credit in exchange for their participation.

Participants entered the lab to find a soft drink can at their computer terminal. Participants in the *regular can size* condition received an empty 12 fl. oz. (355 ml) can while participants in the *small can size* condition received an empty 7.5 fl. oz. (222 ml) can. To manipulate form distortion in the distorted condition the can was dented while in the maintained condition the can was left undented (see the appendix for a photo of a can used in the distorted condition). Thus, while the product remains uncut in the form distorted condition, the product's form has been distorted and the new product form is distanced from the prototypical member form.

Participants were then informed that they would be completing a series of unrelated studies. The first study consisted of a novel approach to measuring participants' categorization of the product as garbage to provide additional support for our conceptualization. In the previous studies we intentionally measured perceptions of garbage after participants' recycling behavior to keep the measurement from contaminating the behavior. However, respondents' recycle/trash behavior may have influenced the categorization measure. Recognizing this as a potential limitation, in study 5a we had participants first complete a task that was ostensibly described as a creative writing task about the can at their terminals. They were asked to write down the first five things that came to mind regarding the can. They subsequently completed a 150- to 250-word creative writing assignment about the empty soft drink can in front of them. The thought listings and creative writing task were subsequently coded as either useful thoughts or useless/useless thoughts by a research assistant who was blind to both the experimental conditions and to the study's hypotheses. Examples of useless related words included trash, waste, and empty, whereas useful related words included recycling bins, aluminum, and reuse. We then created a categorization measure using a ratio of useful versus useless thoughts (Fazio 1990). The categorization measure was calculated as: (number of useful thoughts – number of useless thoughts)/useful thoughts + useless thoughts. The resulting ratio is such that a positive (negative) number indicates a greater proportion of useful (useless) thoughts. The ratio was used as our evidence of categorization.

After the creative writing task, participants were told that after completing another unrelated study (a filler) they were allowed to leave the session and that on their way out they should dispose of their can. Next to the exit were the same bins described earlier. Soft drink cans were numbered so that we could match specific cans, whether they were recycled or thrown in the garbage, with participants and their

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creative writing tasks. As per the previous experiments, the focal dependent variable was the percentage of participants who recycled.

Results and Discussion

Recycle Data. The recycle data were analyzed using a logistic regression model with recycling behavior as the dependent variable (coded 1 = recycled, 0 = thrown away), and a categorical variable for can size (coded 1 = regular size 12 fl. oz., 0 = small size 7.5 fl. oz.), a categorical variable for form distortion (coded 1 = distorted; 0 = maintained), and their interaction. Logistic regression revealed a significant main effect of can size ($\beta = 1.74$, $\chi^2 = 9.24$, $p < .01$) indicating that large cans were recycled more than small cans. The data also revealed a significant main effect of form distortion ($\beta = -1.11$, $\chi^2 = 3.95$, $p < .05$) showing that cans whose form is maintained are recycled more than form distorted cans (i.e., the can is dented). The interaction between can size and form distortion on recycling behavior also proved to be significant ($\beta = -2.15$, $\chi^2 = 6.18$, $p < .05$; see fig. 2).

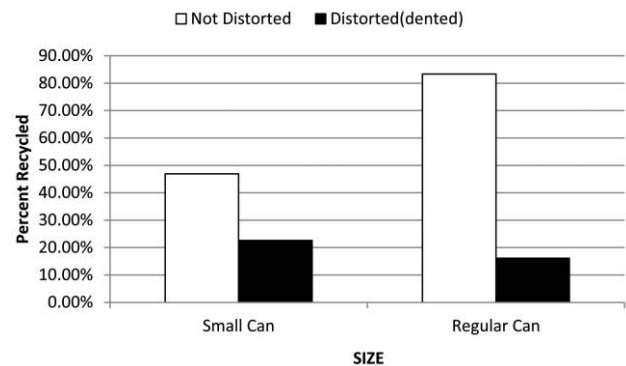
Consistent with our earlier findings for paper, a planned comparison of the form maintained conditions revealed that participants recycled the regular sized 12 fl. oz. can (83.33%) more than the smaller 7.5 fl. oz. can (46.88%; $\beta = .840$, $\chi^2 = 9.91$, $p < .01$). Planned comparisons also revealed that participants recycled the regular size can more when its form was maintained (83.33%) as compared to distorted (16.13%; $\beta = 1.71$, $\chi^2 = 25.24$, $p < .001$), and recycled the small can marginally more when its form was maintained (46.88%) versus distorted (22.58%; $\beta = .50$, $\chi^2 = 3.61$, $p = .057$).

Mediation Analysis. The creative writing task was coded and analyzed to provide evidence of the role of usefulness in disposal decisions. A ratio was created such that a positive (negative) number indicates that a greater proportion of useful (useless) thoughts. Participants who did not include recycling or garbage thoughts were not included, leaving 85 participants for this part of the analysis. A 2 (size) \times 2 (form distortion) ANOVA revealed a significant main effect of form distortion ($F(1, 81) = 14.43$, $p < .001$), showing that products that are not distorted were perceived to be more useful ($M = .54$) while distorted products were perceived to be more useless ($M = -.17$). The main effect of size was not significant ($p = .13$). The data did reveal a marginally significant size by form distortion interaction ($F(1, 81) = 3.57$, $p = .06$). Pairwise comparisons showed that form distortion had a significant effect on the perceived usefulness of large cans ($M_{\text{mtd}} = .86$ vs. $M_{\text{dist}} = -.21$; $F(1, 81) = 13.32$, $p < .001$) but not on the small cans ($M_{\text{mtd}} = .22$ vs. $M_{\text{dist}} = -.14$; $F(1, 81) = 2.32$, $p = .13$).

Next we conducted a mediation analysis using the above usefulness variable as our process variable (Process Model 7; Hayes 2012). This model was tested whereby the independent variable (can size) affects the mediator (usefulness ratio) and where the effect of the mediator on the dependent variable (recycling behavior) depends on the moderator

FIGURE 2

PERCENTAGE OF CANS RECYCLED AS A FUNCTION OF SIZE AND PRODUCT DISTORTION (STUDY 5A)



(form distortion). Bootstrapping techniques employed to test conditional indirect effects confirmed the mediating role of categorization. The conditional indirect effect of size on recycling behavior was significant and positive (1.06) when form was not distorted and the can was not dented (95% confidence intervals excluding zero; .187 to 2.142). The conditional indirect effect of size on recycling behavior was not significant when the form was distorted and the can was dented (95% confidence interval includes zero; -1.15 to $.776$; Preacher, Rucker, and Hayes 2007; Zhao, Lynch, and Chen 2010). The direct effect of size (X) on recycling behavior (Y) is no longer significant ($p = .42$) when controlling for the mediator (c' path) indicating indirect-only mediation (Zhao et al. 2010).

This study adds to our understanding of how size and form distortion affect recycling behavior in a new domain—aluminum cans. In the earlier studies we demonstrated that consumers were more likely to trash a product when size distortion resulted in smaller parts. In study 5a we find that smaller objects are more likely to be trashed (as compared to recycled) even when the product naturally occurs at that size. We also find that aluminum cans are more likely to be trashed when their form has been distorted and that perceived usefulness mediates this relationship between size, form distortion, and disposal behavior.

We have posited and demonstrated that size and form distortion increases the likelihood that a product will be trashed because it is perceived to be less useful and that usefulness is a category-defining attribute for both recyclables and trash. The coded writing task used in this study identified participants' thoughts of the can as either useful or useless. Although the research assistant responsible for coding the task was unaware of the study's hypotheses, the coding is still subjective. The writing task also suggested additional alternative explanations (i.e., cleanliness and purity) behind our proposed effects. Thus, in study 5b we not

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only directly measure perceived usefulness but we also measure participants' perceptions of cleanliness and purity.

STUDY 5B

Procedure

Sixty-eight undergraduates at Boston University received partial course credit in exchange for their participation in an online study. Participants were randomly assigned to one condition of a single factorial between-subjects design (form distortion: distorted vs. maintained). Participants were shown a photograph of either an empty, dented soft drink can (i.e., form distorted condition) or an empty soft drink can (i.e., form maintained condition; photos were generated from the stimuli used in study 5a). Participants were then asked to "Answer the following questions regarding the empty can of coke pictured here: (1) The can is clean, (2) The can is pure, (3) The can is useful, and (4) I am likely to throw this can in the garbage." All of the items were 7-point scales (1 = strongly disagree, 7 = strongly agree).

Results and Discussion

A series of ANOVAs revealed significant main effects of form distortion on perceptions of cleanliness, purity, and usefulness. Specifically, the form maintained can was perceived to be cleaner ($M = 4.76$), purer ($M = 4.35$), and more useful ($M = 4.88$) than the form distorted can (clean: $M = 1.85$; $F(1, 66) = 51.04$, $p < .001$; pure: $M = 2.00$; $F(1, 66) = 43.82$, $p < .001$; useful: $M = 3.79$; $F(1, 66) = 5.29$, $p < .05$). The results also showed that participants indicated they would be less likely to throw the can in the garbage in the form maintained ($M = 3.53$) as compared to the form distorted ($M = 4.38$; $F(1, 66) = 2.91$, $p < .10$ condition).

Mediation Analyses. Mediation analysis was employed to gain process evidence of the role of usefulness in disposal decisions. A bootstrapping technique was used to generate a bias corrected confidence interval to test for the indirect effect of form distortion (X) on likelihood to discard the can (Y) through usefulness (M ; Process Model 4; Hayes 2012). The indirect effect is significant and positive (.30) as evidenced by a 95% confidence interval which is entirely above zero (95% confidence interval [CI] = 0.03 to 0.87). The direct effect of X on Y is not significant ($p = .27$) when controlling for the mediator (c' path) indicating indirect-only mediation (Zhao et al. 2010).

To rule out perceptions of purity and cleanliness as alternate process explanations we ran a multiple mediator model using the same bootstrapping technique with three mediators—useful, pure, and clean. Again we generated bias corrected confidence intervals to test for the indirect effects of form distortion (X) on likelihood to discard the can (Y) through each of our three mediators (M_1 , M_2 , M_3 ; Process Model 4; Hayes 2012). Confirming our original analysis,

the indirect effect is significant and positive (.37; 95% confidence interval [CI] = 0.08 to 0.92) with useful as a mediator. The indirect effects were not different from zero with pure (95% confidence interval [CI] = -1.32 to 0.60) and clean (95% confidence interval [CI] = -1.39 to 0.36) as mediators. Thus, we provide evidence for the mediating role of usefulness but not for cleanliness or purity.

GENERAL DISCUSSION

This research opens the dialogue on consumer recycling behavior from a decision-making perspective. Our basic proposition is that consumers' recycling behaviors are a function of the physical changes that happen to a product both during and after consumption which "distorts" the product from its original size and form. We hypothesized that when product size and form distortion alter the product's characteristics substantially and distance the changed product from the original, the new product form is assigned to the disposal category with the most similar attributes. Across a field and four experimental studies we were able to demonstrate the implications of size and form distortion on the likelihood a product will be recycled (vs. discarded).

Our initial field study found that the size of the product matters: participants were more likely to recycle a piece of paper that was large than one that was small. Using a controlled laboratory environment, in study 2 we found that distorting a product size by making it substantially smaller decreased recycling behaviors. Participants recycled an undistorted product more often even when the total quantity of the distorted product's smaller parts was greater. We also found that product distortion influenced categorization of the product and made it more typical of garbage. Study 3 demonstrated that it is not the act of distorting the product alone that makes it more like garbage but, rather, the newly distorted product's final size. As a demonstration of the garbage category's graded structure, participants only trashed the paper when it was sufficiently small enough in the end. Even after it had been distorted, if the end product was large enough, it continued to be classified as recyclable and disposed of accordingly. In study studies 4, 5a, and 5b we provide direct evidence for the underlying role of usefulness, allowing us to conclude that product distortion has a significant impact on recycling behaviors due to changes in the perceived usefulness of the product. Finally, in studies 5a and 5b we generalize the results found in the first studies by extending our investigation to another product—aluminum cans.

Paper and aluminum are products that consumers are practiced at recycling. Paper is recycled 63% of the time (except, as we point out, when it is distorted down to small pieces) and aluminum is recycled 50% of the time (EPA; http://epa.gov/recycle/how_recycle.html). In this work we have chosen to investigate products that are commonly recycled with the objective of uncovering some of the psychological underpinnings that determine recycling behavior. We hope that our research stimulates a discussion of post-consumption and recycling decision-making that has largely been ignored. As such, we believe our work points to several

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interesting directions for future research. In this article we find that changes in size and form have a significant impact on perceived usefulness of a product and that usefulness is a category-defining attribute for recyclables and trash. While we find support for this process it may be material specific. Does usefulness explain low recycling rates of plastics and other common waste and materials? For example, only 8% of plastics are recycled, which are commonly found in packaging and thus broken down from their original form when opened. Food is also a good example of a product that is distorted during consumption and is often thrown in the garbage as opposed to composted. While it seems plausible that usefulness explains recycling patterns for these products, future work could attempt to find empirical support. Another important area for future research is in designing interventions that can combat the perceived uselessness of distorted/trashed products. Study 4 does provide an example of one such intervention that works; however, others may be even more effective.

While our results suggest that it does not appear to matter as to whether the product is distorted by the consumer (studies 2, 3, and 4) or by someone else (studies 5a and 5b), one can imagine situations where perceptions of the product being contaminated by different people might shift a product

from recyclable to trash (or vice versa; Argo, Dahl, and Morales 2008). For example, what if the person denting a can was someone who belonged to an aspirational group as compared to a membership or dissociative group? Thus, it is possible that category membership in the domain of recycling is relatively unstable and flexible. Future research should investigate different contexts, products, and product attributes that lead to these flexible representations of what is garbage and what is recyclable. Understanding how individual differences might influence categorization in the domain of recycling is another important area for future research. People who are more environmentally conscious are likely to report great intentions to recycle; however, it is unclear whether they are just as susceptible to the flexibility of category representations demonstrated in the present research.

Given the significant amount of waste that is generated in society and the detrimental effect it has on the environment, it is critical to understand consumers' recycling behaviors. This research seeks to provide some insight into how product size and form distortion during consumption influences the likelihood that consumers will or will not categorize a product as garbage and subsequently their decision to do their part for the planet and recycle.

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APPENDIX

FIGURE A1

STUDY 5A: FORM DISTORTION MANIPULATION



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San Jose biogas facility will turn food waste into energy

By Dana Hull dhull@mercurynews.com San Jose Mercury News

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MercuryNews.com

SAN JOSE -- The nation's largest facility for turning food scraps into biogas is about to go online in north San Jose.

The project is a unique partnership between GreenWaste, which collects garbage, recycled materials and compostibles, and Zanker Road Resource Management, which operates recycling facilities. The two firms formed the Zero Waste Energy Development Company in 2011 to take organic recycling to the next level: extracting energy.

Food waste, largely from restaurants and commercial businesses across San Jose, will be processed at the Los Esteros Road location by 16 massive digestion chambers that each can hold 350 tons of waste.

The process takes roughly 21 days, during which the food breaks down into compost and methane biogas. The gas can then be converted into electricity to power the facility or for use as fuel elsewhere. The technology, known as "dry fermentation anaerobic digestion," uses bacteria to break down organic matter in an oxygen-free environment and without using large quantities of water.

Scheduled to open later this month, the new facility arrives as California works to divert more materials -- from garbage to food scraps to consumer electronics -- away from landfills.

"This project is a big milestone for us," said Jo Zientek, the City of San Jose's Deputy Director of Environmental Services. "It's built on a piece of property that's an old landfill site that's owned by the city already. And the project is a direct outgrowth of San Jose's Green Vision."

San Jose adopted its Green Vision agenda in 2007 with the goal of making the city a world center of clean technology innovation. Included in the plan is an effort to divert 100 percent of waste from landfills and convert waste to energy.

Organic waste such as yard trimmings and leftover food are typically buried in landfills. As the waste breaks down, the landfills often emit methane gas -- a potent greenhouse gas that contributes to smog and climate change. Municipal solid waste landfills are one of the largest sources of human-related methane emissions in the United States, according to the EPA, and represent a lost opportunity to capture a significant source of energy.

"The capture rate at most landfills is not efficient," said Eric Herbert, CEO of Zero Waste Energy, which is based in Lafayette. "Methane is 23 times more potent than carbon dioxide."

Zero Waste's anaerobic digestion facility, located near the southern tip of the San Francisco Bay, will be the first large-scale commercial operation of its kind in the United States. It's being developed in three phases over the next several years, with each phase capable of processing 90,000 tons of organic waste each year. When fully operational, it will be one of the largest such plants in the world.

California utilities, including PG&E, are required to buy 33 percent of their electricity from renewable sources by 2020 via the state's "Renewable Portfolio Standard." Though much attention has focused on

solar and wind power, electricity generated from biogas also qualifies for meeting the standard. So San Jose's new facility could be replicated throughout the state by cities struggling to figure out how to handle their waste.

Other biogas projects are already operating in the Bay Area. Waste Management Inc., which recycles waste for several cities in Alameda County, is turning its decomposing garbage at the Altamont Landfill near Livermore into electricity and liquefied natural gas. The fuel is then used in the company's garbage trucks.

"The interest in biogas is growing very quickly," said Julia Levin, executive director of the recently formed Bioenergy Association of California. "In the long run, there's a lot of potential for biogas to be used as transportation fuel. San Jose is on the cutting edge, but cities across California are trying to figure out how to better handle their waste. Biogas closes the sustainability loop on so many levels."

Contact Dana Hull at 408-920-2706. Follow her at [Twitter.com/danahull](https://twitter.com/danahull).

What is Anaerobic Digestion?

Anaerobic digestion is the process of breaking down organic material without oxygen. One of the end products is "biogas," which can be burned to generate electricity or turned into a liquid transportation fuel.

Study: Minnesota throwing away jobs by not recycling more

NOVEMBER 18, 2013 12:00 AM • BY STEVE KARNOWSKI THE ASSOCIATED PRESS

MINNEAPOLIS — Minnesotans are throwing away a lot more food and a lot more plastic these days, and that's discouraging to officials who say valuable resources are being wasted that could create jobs if they were recycled instead.

A new Minnesota Pollution Control Agency report compares data on what residents and companies are putting into the garbage with a similar study in 2000. From 2000 to 2012, it found the amount of organic material Minnesotans throw away — primarily food — has grown to 31 percent of the waste stream, a 21 percent increase. And the amount of plastic Minnesotans trash has increased from 11 percent of the waste stream to 18 percent.

Researchers got down and dirty. They sent teams to six waste handling facilities across the state to sort trash into 50 categories by hand.

Based on what they found, the report estimates that Minnesotans last year threw out 21,000 tons of recyclable plastic beverage bottles and 12,000 tons of aluminum beverage cans — 3.6 million aluminum cans per day. Paper decreased from 34 percent to 24 percent of the waste stream, likely due to fewer newspapers, but Minnesotans still discarded more than 543,000 tons of recyclable paper last year.

“We’re throwing away about a million tons of recyclable material every year, and that material is worth about \$217 million,” Wayne Gjerde, recycling market development coordinator with the MPCA, said in an interview.

The agency provided a copy of the report to The Associated Press ahead of its official release Monday.

“This report is a wake-up call. Minnesotans take great pride in environmental stewardship, but these numbers suggest we’re not living up to our reputation,” MPCA Commissioner John Linc Stine said in a statement. “The amount of plastic and aluminum we’re still seeing going to the landfill is much more than a lost environmental opportunity, it’s a lost economic opportunity as well. We are literally throwing away valuable resources that fuel jobs and economic activity; we’re burying opportunity in landfills.”

It's not clear why Minnesotans are throwing away more food, Gjerde said. It may have something to do with people's buying habits or the trend toward more meals outside the home. He pointed to a 2011 British study that found two-thirds of the food waste from hotels, pubs and restaurants there in 2009 could have been eaten had it been better portioned, managed, stored or prepared.

One sanitation company is already composting household food waste in the western Minneapolis suburbs, Gjerde said. And the MPCA soon will issue draft regulations for public comment aimed at expanding curbside collection of compostable food waste across the metro area and other parts of Minnesota, he added.

He also credited groups such as Second Harvest with doing a good job of salvaging edible food for people in need.

There's been a dramatic jump since the last report in discards by businesses and consumers of plastic films including stretch wrap and plastic bags, Gjerde said. But used shopping bags and construction wrap can be recycled if they're collected and kept clean instead of being mixed with the rest of the trash, he said.

According to MPCA figures, recycling supports around 37,000 jobs in Minnesota, directly and indirectly, jobs that pay nearly \$2 billion in wages and add nearly \$8.5 billion to the economy. Minnesota recycling programs collected about 2.5 million tons of material worth \$690 million in 2010, while it cost the state over \$200 million to dispose of 1 million tons of recyclable material in 2010 instead of reusing it.

When that material goes into landfills, Gjerde said, those newspapers don't get recycled into egg cartons in Moorhead, those magazines don't get converted into new magazine paper in Duluth, and those plastic milk and detergent jugs don't get converted into plastic lumber in Paynesville.

"We can do a lot better," Gjerde said.

Contra Costa County put \$1 billion garbage franchise deal up for grabs

By Lisa Vorderbrueggen Contra Costa Times Contra Costa Times

Posted:

ContraCostaTimes.com

WALNUT CREEK -- Some of the biggest names in trash are vying for a piece of a lucrative \$1 billion contract to haul and recycle garbage in five Contra Costa County cities.

Arizona-based Republic Services, Recology, of San Francisco, and Garaventa Enterprises, of Concord, are among the companies bidding on all or a piece of a coveted multiyear franchise with Central Contra Costa Solid Waste Authority.

The authority's choice will set the bar for trash rates over the next two decades and spell out how communities will meet a state mandate to recycle by 2020 at least 75 percent of garbage that would have otherwise gone into landfills. The authority diverted 66 percent of its waste last year.

The agency oversees trash collection and recycling for 65,000 households in Danville, Lafayette, Moraga, Orinda, Walnut Creek and unincorporated areas.

Its board is expected in March to cement a deal worth an estimated \$500 million in the first decade, with a likely 10-year extension.

"This is a very, very significant step," said authority chairwoman and Contra Costa Supervisor Candace Andersen of Danville. "All the entities that submitted bids are credible and it will come down to how each proposes to meet the agency's objectives and at what cost."

Allied Waste -- bought out by Republic Services in 2008 -- has held the garbage collection and processing franchise since 1990. Valley Waste Management, a subsidiary of Texas-based Waste Management, has the recycling, green and food waste processing contract. Both deals expire March 1, 2015.

To meet the 75 percent waste diversion threshold, the authority must find new and cost-effective ways to recycle and reuse, authority Executive Director Paul Morsen said.

Residents served by the contracts sent to landfills 107,460 tons of trash or 3.4 pounds per person per day in 2012. Most of the refuse ends up in the Keller Canyon Landfill in Pittsburg.

For the first time, the authority solicited separate bids for both individual and combined components -- collection, transfer station operations where refuse is sorted and compacted, disposal in landfills, recyclables processing, and green and commercial food waste disposal.

The board will mix and match to get the "best value for rate payers," Morsen said.

"I remember when garbage was one can," Morsen said. "It has gotten a lot more complicated."

Nine proposals of varying scopes were submitted by the Oct. 7 deadline. Some firms bid on more than one area.

Cost details have not yet been released but bidders are scheduled to make 10-minute public presentations at the board's Oct. 31 meeting.

The current operator, Republic Services, submitted bids for trash collection, transfer station operations, disposal and green and food waste processing but not recyclables. In the Bay Area, Republic also handles trash for Martinez, Pleasant Hill, Antioch and San Jose.

The other comprehensive set of bids came from a new partnership between Recology of San Francisco and Concord-based Garaventa Enterprises. Its proposals encompass all the requested services including recyclables.

Garaventa Enterprises owns Mt. Diablo Recycling and provides garbage and recycling services for Concord, Pittsburg, Brentwood, Discovery Bay, Oakley and Rio Vista. It also operates a large transfer station, where trash is sorted and compacted.

Recology runs similar operations throughout the Bay Area and Northern California, as well as Portland, Seattle, and other cities in Oregon and Washington. Recology also owns the Hay Road landfill in Solano County.

Other bidders include Texas-based Waste Management for transfer and disposal. Potrero Hills landfill near Suisun City is vying for landfill services, and Pacific Rim Recycling of Benicia and Los Angeles-based California Waste Services are also competing for the recycling contract.

With so much money at stake, the authority's staff and 12-member board -- consisting of two elected county supervisors and two council members from each of the five member cities -- took steps last fall to reduce appearances of political favoritism.

The agency staff reports in writing all contacts with bidders while board members publicly disclose at every meeting even casual encounters with the companies' owners or representatives.

The county supervisors and city council members also voluntarily banned last September the receipt of campaign contributions from garbage interests during the franchise review and selection process.

Staff writer Elisabeth Nardi contributed to this story

Contact Lisa Vorderbrueggen at 925-945-4773, lvorderbrueggen@bayareanewsgroup.com or [Twitter.com/lvorderbrueggen](https://twitter.com/lvorderbrueggen).

Oakland recycler fined \$2 million for defrauding state bottle redemption program

By Doug Oakley Oakland Tribune Contra Costa Times

Posted:

ContraCostaTimes.com

OAKLAND -- A bottle and can recycling company with locations in Oakland and San Francisco was ordered to pay \$2 million in restitution to the state of California and kicked out of a lucrative bottle and can reimbursement program following a fraud investigation.

The restitution order against Recycle Today in Oakland and Paper Rush in San Francisco is a rare crackdown by the state and is meant to set an example for others tempted to defraud the California Redemption Value program, said CalRecycle spokeswoman Heather Jones.

Jones said an investigation in 2008 and 2009 revealed owners June Tran Vahn and Hugo Centeno got reimbursements from the state for redeeming previously recycled bottles and cans and for reimbursements of cans and bottles that came from out of state.

The state pays can and bottle recyclers like Vahn and Centeno 5 to 10 cents per bottle and can sold in California. The money comes from consumers who pay the 5 to 10 cents when they buy a beverage and serves as an incentive to recycle cans and bottles instead of throwing them in the trash.

The investigation suggested the two got help from one or more processors in the program who gave them the already processed materials to redeem a second time, Jones said.

"This was a pretty good case and we were able to shut them down," Jones said. "Usually we put them on probation."

Vahn, who worked in recycling for 26 years, said she's already gone out of business and is offering the state \$350,000 over five years instead of the \$2 million. She said a judge will make a decision on her offer Nov. 25.

"What they say is not the truth," Vahn said. "We worked so hard for the program. We closed the business, so they can't get anything now. It's too bad they treat us like that."

The state feels differently.

"I don't think we could have shut them down if we didn't prove there was some intent to defraud," Jones said.

Contact Doug Oakley at 925-234-1699 or follow him on Twitter at www.twitter.com/douglasoakley

✶

COMMENT



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OBITUARY David Hunter Hubel, visual-processing pioneer, remembered **p.625**

SERGIO MORAES/REUTERS



The now-full Jardim Gramacho landfill in Rio de Janeiro, Brazil, received more than 10,000 tonnes of waste per day.

Waste production must peak this century

Without drastic action, population growth and urbanization will outpace waste reduction, warn **Daniel Hoornweg, Perinaz Bhada-Tata and Chris Kennedy**.

Solid waste — the stuff we send down our chutes, discard at work and put on the curb every week — is a striking by-product of civilization. The average person in the United States throws away their body weight in rubbish every month. When waste management works well, we give it little thought: out of sight and, usually, quickly out of mind. Discarded materials are collected, some are recycled or composted, and most are landfilled or incinerated. But the global view is troubling.

In the past century, as the world's population has grown and become more urban and affluent, waste production has risen tenfold.

By 2025 it will double again¹. Rubbish is being generated faster than other environmental pollutants, including greenhouse gases. Plastic clogs the world's oceans and rivers, causing flooding in developing-world cities. Solid-waste management is one of the greatest costs to municipal budgets.

The waste problem is acute in emerging cities. Landfills such as Laogang in Shanghai, China; Sudokwon in Seoul; the now-full Jardim Gramacho in Rio de Janeiro, Brazil; and Bordo Poniente in Mexico City vie for the title of the world's largest. Each typically receives more than 10,000 tonnes of waste per day. Rapidly developing cities such as

Shenzhen in China are adding to the world's 2,000-plus inventory of waste incinerators. With the largest able to process more than 5,000 tonnes per day, concerns over ash disposal, air pollution and costs are rising too.

As city dwellers become richer, the amount of waste they produce reaches a limit. Wealthy societies tend to curb their waste. So as living standards around the world rise and urban populations stabilize, global solid-waste generation will peak.

Just when is difficult to predict. But by extending current socio-economic trends to 2100, we project that 'peak waste' will not occur this century. Unless we ▶

► reduce population growth and material consumption rates, the planet will have to bear an increasing waste burden.

URBAN PROBLEM

Solid waste is mostly an urban phenomenon. In rural communities there are fewer packaged products, less food waste and less manufacturing. A city resident generates twice as much waste as their rural counterpart of the same affluence. If we account for the fact that urban citizens are usually richer, they generate four times as much.

As urbanization increases, global solid-waste generation is accelerating. In 1900, the world had 220 million urban residents (13% of the population). They produced fewer than 300,000 tonnes of rubbish (such as broken household items, ash, food waste and packaging) per day. By 2000, the 2.9 billion people living in cities (49% of the world's population) were creating more than 3 million tonnes of solid waste per day. By 2025 it will be twice that — enough to fill a line of rubbish trucks 5,000 kilometres long every day.

Together, the member countries of the Organisation for Economic Co-operation and Development (OECD) are the largest waste generators, producing around 1.75 million tonnes per day. This volume is expected to increase until 2050, owing to urban population growth, and then to slowly decline, as advances in material science and technology make products smaller, lighter and more resource efficient.

Some countries generate more waste than others. Japan issues about one-third less rubbish per person than the United States, despite having roughly the same gross domestic product (GDP) per capita. This is because of higher-density living, higher prices for a larger share of imports and

cultural norms. Waste quantities worldwide can also vary seasonally, by up to 30%, as horticultural and food wastes fluctuate. For example, household waste volumes double in the week after Christmas in Canada.

Waste reduction and dematerialization efforts in OECD countries are countered by trends in east Asia, particularly in China.

“Waste will continue to rise in the fast-growing cities of sub-Saharan Africa.”

China's solid-waste generation is expected to increase from 520,550 tonnes per day in 2005 to 1.4 million tonnes per day in 2025. East Asia is now the world's fastest growing region for waste, a distinction that is likely to shift to south Asia (mainly India) in 2025, and then to sub-Saharan Africa around 2050.

As a country becomes richer, the composition of its waste changes. With more money comes more packaging, imports, electronic waste and broken toys and appliances. The wealth of a country can readily be measured, for example, by how many mobile phones it discards. Solid waste can thus be used as a proxy for the environmental impact of urbanization. Most of a material's impact is through production and use. Less than 5% stems from waste management, which includes emissions from collection trucks, landfills and incinerators.

PEAK WASTE

The rate at which solid-waste generation will rise depends on expected urban population and living standards growth and human responses. In 2012, two of us (D.H. and P.B.-T.) authored a World Bank report, *What a Waste*¹, which estimated that global solid-waste generation would rise from more than 3.5 million tonnes per day in 2010 to more

than 6 million tonnes per day in 2025. These values are relatively robust, because urban populations and per capita GDP can be well forecast for several decades.

Extending those projections to 2100 for a range of published population and GDP scenarios shows that global 'peak waste' will not happen this century if current trends continue (see 'When will waste peak?'). Although OECD countries will peak by 2050 and Asia-Pacific countries by 2075, waste will continue to rise in the fast-growing cities of sub-Saharan Africa. The urbanization trajectory of Africa will be the main determinant of the date and intensity of global peak waste².

Using 'business-as-usual' projections, we predict that, by 2100, solid-waste generation rates will exceed 11 million tonnes per day — more than three times today's rate. With lower populations, denser, more resource-efficient cities and less consumption (along with higher affluence), the peak could come forward to 2075 and reduce in intensity by more than 25%. This would save around 2.6 million tonnes per day.

CONVERT AND DIVERT

How can today's situation be improved? Much can be done locally to reduce waste. Some countries and cities are leading the way. San Francisco in California has a goal of 'zero waste' (100% waste diversion by reduction and recycling) by 2020; already more than 55% of its waste is recycled or reused. The Japanese city of Kawasaki has improved its industrial processes to divert 565,000 tonnes of potential waste per year — more than all the municipal waste the city now handles. The exchange and reuse of materials connects steel, cement, chemical and paper firms into an industrial ecosystem³.

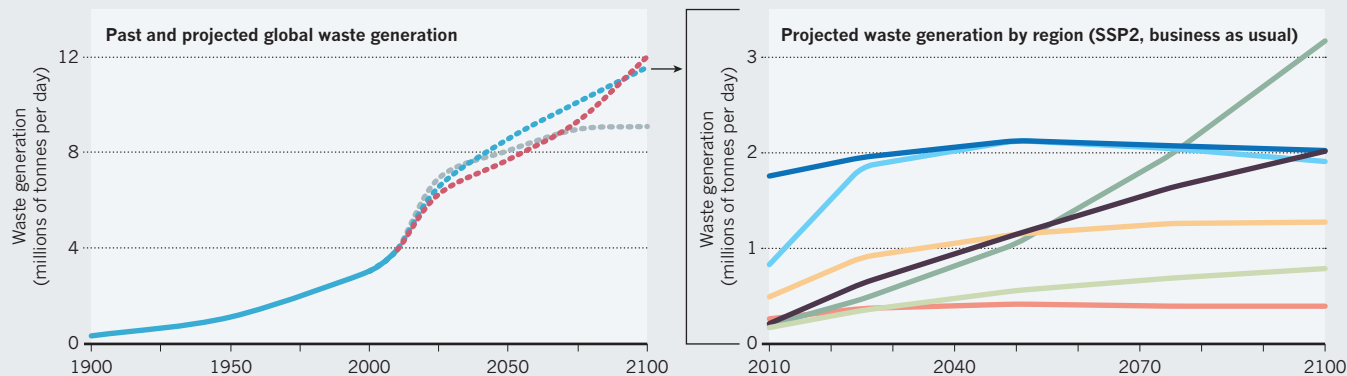
North America and Europe have tried

WHEN WILL WASTE PEAK?

Three projections to 2100 for waste generation spell very different futures. In the first Shared Socioeconomic Pathway⁹ scenario (SSP1), the 7-billion population is 90% urbanized, development goals are achieved, fossil-fuel consumption is reduced and populations are more environmentally conscious. SSP2 is the 'business-as-usual' forecast, with an estimated population of 9.5 billion and 80% urbanization. In SSP3, 70% of the world's 13.5 billion live in cities and there are pockets of extreme poverty and moderate wealth, and many countries with rapidly growing populations.

● SSP1 ● SSP2 ● SSP3

*Organisation for Economic Co-operation and Development



disposal fees, and found that as fees increase, waste generation decreases. Another tactic is to steer people to buy less with their increased wealth, and to spend more on experiential activities that require fewer resources^{4,5}.

But greater attention to consumption and improvement in waste management is needed in rapidly urbanizing regions in developing countries, especially in Africa. Through increased education, equality and targeted economic development, as in the sustainability scenario we evaluated⁶ (SSP1), the global population could stabilize below 8 billion by 2075, and urban populations shortly thereafter. Such a path reflects a move towards a society with greater urban density and less overall material consumption⁷. Also needed is a widespread application of 'industrial ecology' — designing industrial and urban systems to conserve materials. This begins with studies⁸ of the urban metabolism — material and energy flows in cities.

Reducing food and horticultural waste is important — these waste components are expected to remain large. Construction and demolition also contribute a large fraction by mass to the waste stream; therefore, building strategies that maximize the use of existing materials in new construction would yield significant results.

The planet is already straining from the impacts of today's waste, and we are on a path to more than triple quantities. Through a move towards stable or declining populations, denser and better-managed cities consuming fewer resources, and greater equity and use of technology, we can bring peak waste forward and down. The environmental, economic and social benefits would be enormous. ■

Daniel Hoornweg is associate professor of energy systems at the University of Ontario Institute of Technology in Oshawa, Canada.

Perinaz Bhada-Tata is a solid-waste consultant in Dubai, United Arab Emirates.

Chris Kennedy is professor of civil engineering at the University of Toronto, Canada.

e-mail: daniel.hoornweg@uoit.ca

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The Baltoro Glacier in the Karakoram mountain range feeds the river Indus.

Melting glaciers bring energy uncertainty

Countries should work together to understand how the Himalayan thaw will affect hydroelectric energy, says **Javid R. Laghari**.

Running 2,000 kilometres from east to west and comprising more than 60,000 square kilometres of ice, the Hindu Kush–Karakoram–Himalayan glaciers are a source of water for the quarter of the global population that lives in south Asia. Glaciers are natural stores and regulators of water supply to rivers, which, in turn, provide water for domestic and industrial consumption, energy generation and irrigation.

Ice cover is decreasing in this region, as for most glaciers in the world, as a result of global warming. Between 2003 and 2009, Himalayan glaciers lost an estimated 174 gigatonnes of water¹, and contributed to catastrophic floods of the Indus, Ganges and Brahmaputra rivers. Pollution is accelerating the melt. An 'Asian brown cloud', formed from the 2 million tonnes of soot and dark particles released into the atmosphere every year,

mostly from India and China, warms the air and surface ice².

Seasonal meltwater serves as the main source of power for an increasing number of hydroelectric dams on the rivers served by the glaciers. But hydropower faces a difficult future in south Asia because of climatic, environmental and politico-economic factors. The region is starved of energy, and power shortages of up to 20 hours a day are stunting development. Importing oil and gas from the Gulf, Iran or Tajikistan is expensive or politically difficult. So countries are turning to indigenous hydroelectric power, and to other renewable energies such as solar and wind, for cheap, sustainable energy.

Hydroelectric power must play a part in south Asia's low-carbon energy future. But to be effective, governments around the Himalayas need to work together to measure and model glacier retreat, ▶

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**January 2014
Meetings Schedule**

Alameda County Waste Management Authority & Source Reduction and Recycling Board
(Meetings are held at StopWaste.Org unless otherwise noted)

SUN	MON	TUES	WED	THURS	FRI	SAT
			1 Agency Holiday	2	3	4
5	6	7	8	9:00 am Programs & Administration Committee <hr/> 3:00 pm (note special time) Planning & Organization Committee /Recycling Board Tour: Davis Street Transfer Station	10	11
12	13	14	15	16	17	18
19	Agency Holiday	21	3:00 pm WMA Board	23	24	25
26	27	28	29	30	31	