May 21, 2015
Hazardous Waste Management Facility Allocation Committee Meeting
9:00 a.m. – 10:10
Conference Room B - MetroCenter
Agenda

9:00 Introductions / Announcements / Approve Agenda

9:10 Adopt minutes of May 30, 2014 Meeting  
Action
(Attachment A)

9:15 2015 Legislation Update  
Action
Bullock present six bills related to hazardous waste management and extended  
(Attachment B)
producer responsibility

9:30 Budget and Work Plan  
Action
Bullock will present progress on various projects and seek approval  
(Attachment C)
For draft Fiscal Year 2015/2016 Budget and Work Plan

9:50 Other Business / Next Meeting  
Information/Action

10:10 Adjourn
Bay Area Hazardous Waste Management Facility Allocation Committee
Draft Minutes of the May 30, 2014 Meeting

Attendance:

Members
Mark Luce
Karen Mitchoff
Kevin Miller
Pete Sanchez
Ronit Bryant

Alternates
Paris Greenlee
Steven Lederer
Lisa Steinman (on phone)
Narcisa Untal (on phone)

Technical Advisory Committee/Staff

Adrien Baudrimont (SFEP)
JoAnna Bullock
Maggie Johnson
Kevin Miller

Call to Order/Introductions: Chair Mark Luce called the meeting to order at 10:10. He welcomed everyone to the meeting and initiated a round of introductions.

Adoption of Minutes: Pete Sanchez moved; Karen Mitchoff seconded, and the minutes of the May 31, 2013 meeting were unanimously approved.

Sustainable Processing of Universal and Electronic Waste Recycling Progress Report:

Presentation by Adrien Baudrimont:
Committee decided in 2012 to pursue this study but due to staff time constraints, there was a delay in project commencement. Staff began work on the study in January 2013.

An info graph was presented showing 40 million tons of U & E waste is generated annually worldwide and only a very small percentage of the waste is actually recycled. U & E waste is a growing waste stream that is largely exported from the US and Europe to developing countries. One of the purposes of this study is examine opportunities to bring recycling jobs to the Bay Area.

Products in the study include batteries, fluorescent bulbs, cell phones, computers, rigid plastics, and leaded glass. The study will identify the constraints, opportunities, and make recommendations to the committee.
Initial work tasks included interviews with stakeholders, a TAC meeting and two site visits. Interview and TAC meeting are summarized in Appendix A of Attachment B. The site visits were revealing and generated useful information. Photos of both site visits were presented. Both facilities had numerous piles of electronics. Workers sort the waste stream by hand then it is processed in machines.

Staff noted the advanced technology of the CEAR, Inc machine that separates instead of shredding waste stream. CEAR’s machine creates very little dust and therefore virtually eliminates the issue of toxics that are dust born. This makes the equipment appropriate for solar panel recycling which is now prohibited in CA because of the toxins in the dust.

Steve Lederer said manager at CEAR told him because of CA regulations, solar panels are not processed in CA. All panels are shipped to AR and NV for processing. The CEAR staff told him during the site visit CA regulations are too stringent. CA encourages the use of solar panels but current regulation prohibits processing/recycling them.

Narcisa Untal asked if the difficulty with regulation rests with DTSC or CalRecyle. Steve replied he believes the issue is with DTSC and perhaps CARB.

Paris Greenlee said the issue with solar panel processing is largely with DTSC because beyond a certain point, its no longer considered processing but hazardous waste treatment which requires a permit. The CEAR operation is a manageable process that doesn’t create significant health or safety issues associated with conventional treatment. He believes an opportunity exists to get the right people together to address relaxing regulation for this process. Mark added yes, some sort of universal waste exception.

Ronit Byrant asked if solar panels are processed in other locations and how they are processed. Steve replied yes, panels are processed in AR, we do not know how they are processed. Steve replied It’s not more complicated that CRT regulations and it’s a growing industry. Mark Luce said it would be great to have more industry in CA.

Adrien shared solar panels are fragile and have a high replacement rate.

Maggie Johnson asked if CEAR mentioned where the bag house dust is disposed of. Adrien replied no. Paris said the machine doesn’t generate much dust because it isn’t shredding. Dust generated at this facility would be largely polymers and not regulated as hazardous waste. It is the cleanest solid waste industrial operations he has seen. Steve agreed. Paris said there were many questions and not enough time during the one site visit.

JoAnna Bullock asked if another site visit is warranted. Mark Luce said DTSC and other interested state agencies should be invited to attend.

Karen Mitchoff offered to connect staff with Kish Rishov at GoBiz to further the discussion of getting new businesses in CA through legislation or regulatory revision. Mark said this group should be able to get the ear of DTSC and other regulatory agencies.
Adrien highlighted the barriers and opportunities of siting a recycling facility in the Bay Area.

Another consideration for siting facilities is power. Steve said the manager at CEAR told him the existing power infrastructure was a major reason for locating at the former Mather Air Force Base. Not all industrial locations have the infrastructure to meet heavy power demand of a large industrial plant.

Adrien ended the presentation with next steps including soliciting feedback from the committee, forming a stakeholder group, completing study and final report.

Napa ships electronic waste to Fresno which does not comport to AB 32. What if jurisdictions received a credit for more local solutions.

Ronit Bryant asked if there are small start-up companies that could take on recycling – something along the lines of pilot projects. Also public private partnerships might be a vehicle to pursue. Adrien: There are companies in Silicon Valley interested in electronic waste that could offer insight. Ronit said it would be great if Silicon Valley companies interested in sustainability could offer resources toward this effort.

Karen Mitchoff said if interim CRT regulation is expiring, perhaps this is an opportunity to revisit the matter particularly if technology has advanced. Karen also mentioned the importance of sharing this information with the Executive Board via a shortened presentation – a snap shot report. Venture Capital wants to put their investment into green – so we should approach them.

**Green Purchasing Regional Case Studies and Website Updates**

Adrien presented the work to date on the case studies and website updates. Also shared the piggybacking project at Stopwaste.org and the DTSC safer consumer products newly released product list.

**2014 Legislation Update**

Updates on five bills were included in Attachment D. No action was needed on three of the bills - two of the bills were voted on; a third was turned into a grant program. The committee voted that a position of support be conveyed to the Legislation and Governmental Organization Committee for SB 270 Padilla, Solid Waste: Single – use Carryout Bags and AB 2748 Committee of Environmental Safety and Toxic Material, Hazardous Waste (Used Paint Recovery): Business Plan. Maggie Johnson shared that AB 2284 was gutted and is now a grant program. Mark Luce called for a motion, Karen Mitchoff motioned, ___ seconded, consensus.

**Green Business Program Update**

JoAnna Bullock provided summary of challenges, opportunities and advances in the program. Paris Greenlee added that Green Business Program has collected great information and metrics
on the water and energy conserved and waste avoided. The metrics of the program show how valuable the program is and confirms its credibility. It requires a heavy demand of resources.

Steve cautioned us not to burden the program with a lot of fixed cost. While growth is necessary, incurring costs that make the program too expensive to administer should be avoided.

Mark Luce said it would valuable to showcase the metrics of the Green Business Program on the web. Paris offered to provide metrics to ABAG and that perhaps we can discuss at the next GB coordinators meeting. Mark said the web site presentation could be helpful for program advocacy.

**Budget and Work Plan**
Karen Mitchoff asked for clarity on the proposed reserve to cover contributions not received. JoAnna explained Sonoma County has not paid its contribution for 2012 or 2013 due to decreases in fees collected. The reserve is to create a small cushion in the event annual contributions are not received in full.

Karen Mitchoff moved for approval of the budget; _____ seconded, consensus

Mark Luce called for new business. None mentioned. Next meeting in October or November 2014.

**Meeting Adjourned**
Overview
This Budget and Workplan for the Hazardous Waste Management Facility Allocation Committee (Committee) includes proposed activities and allocation of funds for fiscal year 2015/2016. Activities are organized into two main categories, Hazardous Waste and the Green Business Program. Anticipated revenues of $84,476 include $10,559.50 from each of the nine Bay Area counties except Sonoma County that has requested a reduced fee of $2,500, and a $10,000 contribution from the Bay Area Air Quality Management District (BAAQMD). The local contribution is the same amount billed in FY2014/2015. No increase is requested for the coming fiscal year.

A request for $10,000 will be submitted to the Bay Area Air Quality Management District for fiscal year 2015/2016. If successful, the funds will be used for the maintenance and enhancement of the Green Business Program statewide database system that manages the certification process and calculates the environmental benefits achieved by our businesses.

The Sustainable Processing of Universal Waste and Electronics study was completed and staff is seeking feedback from the Committee on direction on how to advance sustainable processing of electronic and universal waste in the Bay Area.

Hazardous Waste

Electronic and Universal Waste Study: In September 2014, Supervisor Mitchoff convened a meeting between staff and Kish Rijan, Executive Director of GoBiz. It was a valuable meeting that revealed GoBiz’s interest in engaging CalRecyle and DTSC in discussions regarding E & U waste recycling facilities. Staff was advised to proceed with the stakeholder meeting with E & U waste recyclers to solicit their input regarding siting recycling facilities.

On December 11, 2014, the Technical Advisory Committee (TAC) convened a stakeholder meeting that included representatives from recycling E & U waste facilities (ECS Refining and CEAR, Inc.) and GoBiz. The purpose of the meeting was to advance the conversation about the need for and feasibility of establishing an E & U waste recycling center in the Bay Area; specifically, what are the priorities when siting an E & U waste recycling facility, what are the obstacles to consider when siting in the Bay Area, and what resources are needed to overcome the obstacles. Minutes of the meeting are included in Appendix A.
The conversation revealed obstacles that will require addressing current state regulation and policy. Staff’s goal was to provide findings from the stakeholder meeting with Kish Rijan that could be used as talking points in future meetings with CalRecycle and DTSC. Staff also prepared a short memo for GoBiz that summarizes ABAG’s findings regarding sustainable processing of E & U waste in the San Francisco Bay Area (Appendix B).

In recent weeks, the Bay Area representative from GoBiz, Justin Currie, left the organization soon to be followed by Kish Rijan’s departure. In an effort to continue the relationship with GoBiz, staff provided a project summary to Jason Rancadore, Assistant Deputy Director of GoBiz and requested his assistance in advancing our work. In his recent communication with us, Jason stated ABAG’s interest in establishing an E & U waste recycling facility in our region makes sense. He said incentives that the state currently offers (i.e. New Employment Credit, Cal Competes, Employment Training Panel) could apply to any business, including e-waste recyclers and there may be some financing mechanisms available through Pollution Control Financing at the Treasurer’s Office as well. In addition, the permitting unit at GO-Biz can assist with permit streamlining but any sort of reduction in State Agency fees or other targeted e-waste incentives would require legislative action.

Staff will continue engagement with GoBiz but would like to know if the Committee has additional direction to offer.

**Green Business Program**

*California Green Business Programs:* The network of California Green Business Programs (CAGBN) continues to function with significant support from the Bay Area Green Business Program. In spite of efforts from the coordinators, a permanent funding source has still not been identified. Program coordinators will continue the search for a stable source of funding.

The CAGBN has a number of functional funding needs however the major need remains the statewide database which continues to operate on a very limited budget with insufficient support for necessary repairs and maintenance.

Efforts to create a 501 (c) 3 for the statewide CA Green Business Network were not as robust as planned. Discussions with a legal advisor were initiated but there haven’t been any tangible advances to formalize the structure of the network into a non-profit organization.

*Bay Area Green Business Program:* The Bay Area Green Business program experienced a number of challenges this past year including staff changes and addressing the time demands of recertification. We are hopeful counties with program vacancies will soon have additional staff resources to support their programs.

This year, county programs are spending their last allocation from the $100,000 grant from PG&E. This generous funding from PG&E has been a significant offset for county program expenses. We believe because the Bay Area Green Business Program is a valuable partner to
PG&E that provides respected support to their customers, the program will receive second grant award.

**Actions Requested**

1. Staff is seeking Committee approval for the proposed FY 2015/2016 Budget and Work Plan that covers expenditure of the annual fees received from each county and the anticipated annual contribution from the Bay Area Air Quality Management District.
Proposed 2015/2016 Workplan

The proposed 2015 – 2016 Budget and Work Plan covers expenditure of the annual fees received from each county and the anticipated contribution from the Bay Area Air Quality Management District. Staff activities are broken down into two categories: Hazardous Waste Management Planning/Source Reduction, and the Green Business Program. We anticipate that approximately 65% of staff time will be devoted to Hazardous Waste Management/Source Reduction Projects, and 35% to the Green Business Program.

Hazardous Waste Management Planning/Source Reduction

- Staff the Committee, Technical Advisory Committee (TAC).
- Continue establishing working relationships with appropriate stakeholders including state, local and community based organizations to determine the need and feasibility of creating a recycling facility in the Bay Area that would address high volume of U & E wastes being shipped outside of the region, promote environmentally responsible processing, create jobs and contribute to a more resilient economy.
- Continue the product study in order to prioritize what kind of E&U waste would be more feasible to site in the Region.
- Confer with Department of Toxic Substances Control and local TAC members and report on whether, when and how to approach future analyses of the hazardous waste manifest data DTSC compiles to ensure the process meets legal requirements and is useful to ABAG members.
- Consult with the TAC to identify an appropriate time to draft a new report on status and trends.
- Monitor and report on multi-agency sustainable purchasing efforts in the remaining counties in order to complete the case studies and highlight this resource on the website. Identify new/revised sustainable purchasing policies, resolutions, ordinances, and specifications.
- Update committee website at http://www.abag.ca.gov/hazwaste/ to provide additional sustainable purchasing tools, resources and links for local governments; consider other opportunities to promote sustainable purchasing, including presentation to ABAG Executive Board. Make the website a more dynamic and up-to-date information gateway for decision makers in the HazWaste world.
- Work with TAC, the California Product Stewardship Council, and others to track state and local Extended Producer Responsibility and Sustainable Purchasing activities, including legislation. Report to the Committee and to ABAG Legislation & Governmental Organizations Committee and/or Executive Board. Fix and update the webpage.
- Monitor the Department of Toxic Substances Control’s Green Chemistry Initiative; apprise Committee and TAC of opportunities to comment and participate in related discussions. Upload the updates on the website.
- Report on regulatory / other changes pertaining to universal and electronic wastes.
Green Business Program

- Staff the Bay Area Green Business Program Coordinators TAC.
- Assist local coordinators to ensure health of Bay Area county programs.
- Facilitate development of new checklists for industry sectors suitable for the Program by Bay Area coordinators; and updating of existing checklists to address new rules, technologies and best management practices.
- Review with local coordinators, update as needed, and monitor implementation of Bay Area Policy Guidelines to ensure consistent operations across programs.
- Identify funding and other opportunities to increase local and regional Green Business Program capacity.
- Assist local programs that intend to augment their budgets by charging a fee for participation to develop fee schedules that avoid disadvantaging businesses with limited resources; share information with all coordinators to encourage consistent fee structures across the Bay Area.
- Support efforts by local coordinators to engage with regional partners, such as the Bay Area Air Quality Management District and Pacific Gas & Electric Company to ensure timely site audits, solicit input to update standards, and pursue financial contributions.
- Update Bay Area website as needed; purchase window decals and other collateral for use by all local programs.
- Support Network efforts to engage with state entities that have complementary missions, such as California Air Resources Board, CalRecycle, California Public Utilities Commission, to better align our efforts and seek financial support.
- Assist with creation and implementation of a new formal governance structure for the California Green Business Network.
- Continue working with utility companies to strengthen partnerships and ensure continued funding for the program.

Work plan staff assignment allocations and details follow in the section entitled Proposed 2015-2016 Budget.
Proposed 2015/2016 Budget

Anticipated Revenue:

County Contributions $86,976
BAAQMD Database Contribution $10,000

Total: $96,976

Budgeted Expenses:

Personnel and Overhead $82,734
Database, Materials, Miscellaneous $14,242

Total: $96,976

Notes:

On March 23, 2007, the Committee approved annual cost-of-living adjustments to the county fee based on the 12-month moving average of the Consumer Price Index calculated in the same month as the adjustment to the ABAG membership dues. Using that formula for the 2011/12 Fiscal Year, the adjusted fee was $10,559.50. In recognition of the ongoing budget difficulties experienced by our members, we did not increase the fee in 2014/15 and are not seeking an increase in the fee for Fiscal Year 2015/16.

Due to decreases in revenue collection, Sonoma County did not remit the $10,559.50 annual county fee in fiscal year 2012/13, 2013/14, or 2014/15 and requests that these fees be waived. They have requested to remit $2,500 in fiscal year 2015/16 in place of the full $10,559.50 fee.

In Fiscal Year 2014/15, a contribution from the Bay Area Air Quality Management was not received but staff will again request a contribution from the District in fiscal year 2015/16. If received, the funds will go toward providing supporting the Green Business Program database.
Proposed Staff Allocations

Committee administration

Staff time: 44 hours

Task Summary: Schedule meetings, develop agenda packets, write minutes, staff meetings, research legislation, report to ABAG Legislation and Governmental Organizations Committee and Executive Board, prepare annual budget and work plan.

(Staff: Krebs – 10 hours; Bullock – 30 hours; web/accounting/support staff – 4 hours)

Hazardous Waste Projects:

Staff time: 365 hours

Recycling Facilities / Extended Producer Responsibility/ Sustainable Purchasing

Task Summary: Continuation of work on the Sustainable Processing of Electronic and Universal Waste project: dependent on Committee recommendation. Monitor and report on Sustainable Purchasing initiatives and update web resources. Monitor and report on Green Chemistry, Extended Producer Responsibility (EPR), and other source reduction opportunities. Monitor EPR and other legislation.

(Staff: Krebs – 10 hours; Bullock – 190 hours; Baudrimont – 165 hours; webmaster/support staff – 4 hours)

Bay Area Green Business Program Coordination

Staff time: 194 hours

Task Summary: Support county coordinators; identify resources/efficiencies to improve capacity; purchase materials; update website; ensure consistent application of standards; coordinate checklist and policy guide updates; support efforts to improve coordination with state agencies, PG & E and similar partners; develop legal structure for network organization and governance.

(Staff: Bullock – 190; web/support staff – 4 hours)
Bay Area Hazardous Waste Management Facility Allocation Committee

administered by

Association of Bay Area Governments

December 11, 2014
Stakeholder Meeting
09:00 a.m. - noon
Conference Room B - MetroCenter
Draft Minutes

Attendees:
By Phone:
Paul Y. Gao, California Electronic Asset Recovery, President
Maria Espinoza, CEAR, Director for Sales
Mark Verheyden, ECS Refining, President
Justin Currie, GoBiz, Senior Business Development Specialist (Bay Area)
Debra Kaufman, Stopwaste.org, Senior Program Manager
Rob D’Arcy, Santa Clara County Recycling and Waste Reduction Division
Paris Greenlee, Contra Costa County, Hazardous Waste Reduction Division
Erin Hannigan, Solano County, Supervisor
Heidi Sandborn, California Product Stewardship Council, ED
Ceil Scandone, ex-ABAG

In Person:
Steve Lautze, City of Oakland, RMDZ, BIN Coalition
JoAnna Bullock, ABAG
Jennifer Krebs, SFEP/ABAG
Adrien Baudrimont, SFEP/ABAG

Introductions / Announcements
Round of introductions
Sustainable Processing of Universal Waste and Electronics
Adrien presented the E&U waste project background and status, before presenting the desired outcomes of the Stakeholder Meeting.

Start of the Discussion (Key Questions)

• **What are the priorities when siting an E&U waste recycling facility?**

As an exercise and a way to start the discussion, Adrien asked the recyclers what are the priorities when siting an E&U waste recycling facility.

Paul Gao: CEAR is one of the largest e-waste recycler in California.
1. The industry is changing; it is getting more challenging to sustain the e-waste business. The market price for metal is dropping. The new electronic products (laptop, tablets, and smartphone) are much cheaper, smaller, and lighter and they contain less metal. The industry is based on a price per pounds schema. One idea would be to switch to a price per unit instead.
2. Regulations are heavy in California. The sorting process in order to avoid mixing hazardous waste with universal waste or other kind of waste is time and resource consuming.
3. How can we make the product itself to support the e-scrap industry? Or should we add external funding to sustain the industry, like for the CRTs?

When Rob D’Arcy asked for clarification regarding shifting from a price/pound to a price/unit model, Paul Gao mentioned that when designing an e-waste facility, recyclers used to calculate per square feet per pound and from this volume, anticipate the amount of metal they could extract. Nowadays electronic devices are smaller and contain less metal. The change in the devices impacted a heavy change in the business model for e-waste recycling.

Justin Currie asked what regulators they were dealing with the most.
Paul Gao: DTSC, CalRecycle mostly. Solar panels (Photovoltaic, PV) are a good example. As of today, they are classified as hazardous waste, and therefore cannot be recycled even though there is a huge demand for it. Especially for the “garden lamps” type of PVs.

Mark Verheyden: 1. Decline of value for electronics. Price dropped drastically. E-waste recycling business is based upon making money out of metal. For a while the price of rare metals rises, before going down severely 20 months ago.
2. If you want to recycle safely and ethically, it cost money. Safety is about protecting employees, ethically is about proper disposal (avoid landfill).
3. Regulations for recycling are confusing, and it is the recycler that has to figure it out.
4. At the end, the consumer still has the choice to send its IT waste out of state or abroad because it is cheaper. The State of California should pass regulations to say it must be recycled in CA. US is one of the few countries that allow the recycling outside.
Rob D’Arcy: Manufacturers are not involved AT ALL. This is a major issue in CA.

- What are the main obstacles when considering siting in the Bay Area?
Adrien mentioned Blue Oak Resources¹, a startup that aims to build a facility to harvest rare metals from e-scrap. Their factory will start to operate in 2015 in Osceola, Arkansas. The facility will use a plasma refining technology that couples high technical recovery rates and operational flexibility, with low environmental impacts. Even though they are based in the Bay Area (Burlingame), they conducted a siting process to compare different potential states. Arkansas was selected for multiple reasons²:
  - Electricity rate: first advantage mentioned
  - Business friendly environment
  - Tax breaks
  - Labor rate
  - Labor force availability (metallurgy profiles)

Mark Verheyden: Yes, cheaper to do business in TX for example than in CA. The energy is a huge factor when siting a facility indeed. In fact, the electricity cost model makes it difficult to process e-waste during the full day. They have to stop operating the machines between noon and 6pm because electricity is too expensive.

Steve Lautze mentioned that PG&E is offering incentives to stay in CA. 12% discount for 5 years. 30% if the facility is in a high unemployment zone. Justin Currie highlighted that there are new state incentives, tax credit, funding available for employee training.

Erin Hannigan: Mare Island – dry docks re-use to dismantle Mothball Fleet. EPA in TX had fewer rules than EPA in CA...

Paul Gao: Recyclers are competing for the waste stream at several scales. There is a need for clear regulations from agencies. Regarding PV for example, we should not be selling PVs if we cannot recycle it!

Paris Greenlee: PV Impediment needs to be cleared. Opportunity for intermediary management? Some sort of initial processing for small collectors, like maybe taking the plastic out?

Rob D’Arcy: DTSC are back on square one with PV regulations due to technical difficulties. Is it a legislative action that is needed, or just a rulemaking? Maybe a role for this committee is to pressure DTSC to take action.

¹ http://blueoakresources.com/
² Phone conversation with Priv Bradoo, Founder & CEO on 12/04/2014
Steve Lautze: What about pass a BAN certification to limit the export? Would that help the recyclers? Paul Gao: this could help, but might also result in more inspections. Mark Verheyden: What if the Bay Area Government would state not to ship/export any e-waste out of the state/country? How about they guaranty that they will recycle their IT assets ethically? Steve Lautze: More money is needed to promote ethical processing. Supports the idea of ABAG initiating e-waste in-region recycling.

Erin Hannigan commented about pre-consumer recycling strategies. For example a better design that would make the electronic components of products easily removable, thus making recycling easier. Manufacturers should be involved in the recycling process. They should be responsible for recycling solutions. Regarding in-state recycling, Erin is concerned that some infringement of “fair-trade” could make it difficult. Mark Verheyden responded that these are excuses that municipalities use to stop in-state ethical recycling. Paul Gao: Discussions to extend CalRecycle fee to more products. Not only CEDs. This program stopped the export of CRT/LCDs screens. Regarding state laws, Paul mentioned that 27 states have EPR laws, including Texas, but not CA because of the CEW program. Two different market models. One of the cons of the CEW program is the amount of paperwork and the time sink to verify what product is under the CEW law or not. Reports must have names and details about the consumer. This is a lot of work.

Debra Kauffman: In Alameda County, use of BAN e-steward standards. Which other cities/county are using e-stewards/R2 certifications? Erin Hannigan: Share the ordinances passed with Alameda County. Adrien: some of this information is already on ABAG Green Purchasing webpage.

Rob D’Arcy: Would have to bring jobs in Santa Clara County. Problem is land is expensive. Businesses with low margin cannot afford it. Two years ago the County decided to move away from collecting e-waste (not cost effective to compete against private industry).

- **What resources and policies would be needed to overcome obstacles to siting in the Bay Area?**

Mark Verheyden: ECS did have a facility in the Bay Area, but it was too expensive so they closed it.
Heidi Sandborn mentioned AB45 that will force local governments to do curbside collection. Waste Management\(^3\) sponsored such a bill last year. It would be a “win” for them, collecting only e-waste (1-2% of waste) while increasing the consumer cost by 50%.

Heidi Sandborn commented about how local ordinances are “the last bastion of hope”. Local governments can innovate. The region can innovate too. What incentives would be useful for e-waste recyclers?

Steve Lautze: Eggman AB-1021 offer full tax credit for some recycling industries. This bill would expand projects eligible for the sales and use tax exclusion to include projects that process or utilize recycled feedstock, as defined, that is intended to be reused in the production of another product or soil amendment, but would not include a project that processes or utilizes recycled feedstock in a manner that constitutes disposal\(^4\). Are e-waste recyclers part of this new legislation? Justin Currie is not sure about it, will verify (NACE code).

Justin Currie: Useful conversation for him. There are places in CA where siting such a facility is possible, (or at least easier) like Stockton or Manteca. Land costs are not prohibitive there. GoBiz provides incentives and stays away from legislation. Interested in following this discussion.

JoAnna Bullock: This project aligns with ABAG planning goals: Growth will go along with more e-waste. PDAs will concentrate development to reduce needs of transportation and therefore decrease GHG emissions. It makes sense to build an e-waste facility in the region for the very same reasons.

Steve Lautze highlighted that private development on public land could be a good model for an e-waste facility. Like for airports or sewage treatment plants.

Paris Greenlee: At DTSC they hope to have an amendment to the PV regulation in spring 2016. In the meantime, would it be possible that the small collectors would be allowed to do some disassembling to make the job easier for the recyclers?

Erin Hannigan: Provide local governments playbooks on policies to implement on e-waste recycling and how to reduce pre-consumer implications.

**Other Business / Next steps**
1. Provide feedback to Kish Rajan. Send minutes to Justin Currie.

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\(^3\) [https://www.wm.com/about/index.jsp](https://www.wm.com/about/index.jsp)

\(^4\) [http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140AB1021](http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140AB1021)
2. Report to the HazWaste during the next HazWaste Committee. Provide information about e-waste regulations in Alameda and Santa Clara County, and ask if the Committee is interested in doing this in all counties/cities through ABAG.


Adjourn
The proliferation of electronic waste (e-waste), a growing concern
The U.S. Environmental Protection Agency estimates\(^5\) that in 2009, 438 million new electronic products were sold in the U.S. and that 5 million short tons of electronic products were in storage. In addition, 2.37 million short tons of electronic products were ready for end-of-life management; and 25% of these tons were collected for recycling. In a more recent report\(^6\), the U.S. EPA estimates the volume of e-waste generated by the country at 3.4 million tons in 2012. The same report highlights a recycling rate of 29%. The remaining 71% was trashed in landfills or incinerators.

In California, following the 2006 legislation that made it illegal to dispose of universal waste products (e.g., fluorescent lamps, alkaline batteries, and electronic product) in the trash, the volume of these wastes has drastically increased at household hazardous waste (HHW) collection facilities. The challenges to local governments of managing this burgeoning volume was highlighted in the October 29, 2010, Committee report, Hazardous Waste Generation and Treatment Trends\(^7\). Ultimately most universal waste is shipped not just out of the region, but outside the U.S. for treatment/resource recovery.

Over the years, the Hazardous Waste Management Facilities Allocation Committee has demonstrated an interest in managing at least some of these wastes in the San Francisco Bay Area region. This memo highlights the reasons why local processing of e-waste may be a sustainable option for the Bay Area, what the major obstacles are, and how GoBiz can help.

Electronic Waste: A Growing Opportunity
According to a market research report\(^8\) from Marketsandmarkets (August 2011), the worldwide volume of e-waste generated is expected to reach 93.5 million tons in 2016 from 41.5 million tons in 2011. The revenue generated from the e-waste management is expected to grow from $9.15 billion in 2011 to

\(^{7}\) http://www.abag.ca.gov/hazwaste/staffmemos.html  
$20.25 billion in 2016 at a rate of 17.22 percent. This trend makes e-waste one of the fastest growing waste streams, and an opportunity for recycling businesses.

Jobs
Home of Silicon Valley and one of the most innovative place in the country, the San Francisco Bay Region has very little recycling capacity. Only three facilities are certified to process Covered Electronic Devices (everything with a screen wider than 4 inches) - a small percentage of the entire e-waste stream. The lack of recycling-based manufacturing and processing facilities means that higher paying recycling jobs are located outside of the region. Increasing local recovery capacity has the potential to stimulate investment and the creation of jobs in the de-manufacturing, recycling, and reuse industries.

Planning
In addition to job creation, creating recycling facilities in the region would revive underutilized industrial lands that are at risk of conversion to other uses. Identifying productive uses for these sites contributes to a more sustainable, resilient, balanced regional economy. The goals of this project align with the region’s long range sustainable growth plan (PlanBayArea) to advance and support communities with ample housing choices and access to living wage jobs.

Shipping
Shipping E & U waste outside the region and/or outside the country increases the region’s carbon footprint. In addition, because processors in other countries may not be bound by regulations as stringent as those in the U.S, their activities may expose workers and the environment to serious harm.

Waste Stream
The STEP Initiative (Solving The E-waste Problem), an international group of manufacturers, recyclers, academics, governments and other organization, used the latest data available to provide an estimate of each country’s annual e-waste generation. As previously mentioned, approximately 30 kg of e-waste was generated per person in 2012 in the US.

If we estimate that 7.1 million people live in the 9 Bay Area Counties, then there were approximately 213 million kg of e-waste produced in the Bay Area in 2012.

As a reference, the two e-waste facilities outside of the Bay Area Region ABAG’s Technical Advisory Committee toured have joint capacity of approximately 70 million kg per year.

E-waste, a threat to emerging countries
A recent study published in Environmental Sciences & Technologies (June 2014) estimate that 25% of the waste generated in industrialized countries end up exported in 7 African and Asian countries.

http://pubs.acs.org/doi/abs/10.1021/es5021313

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11 http://www.bayareacensus.ca.gov/bayarea.htm
12 ECS Refining: 61 million kg per year, CEAR: 9 million kg per year
Obstacles to siting an e-waste facility in the San Francisco Bay Region

Interviews with electronic waste stakeholders and to e-waste recycling facilities generated useful feedback concerning barriers to siting an e-waste facility in the Bay Area. They include:

- Prices land/labor: high price of land, labor and resources
- Expense and complexity of regulation: heavy regulatory environment is expensive and time consuming, complex regulations can be contradictory and difficult to navigate
- Different models for various products
- No regulation exists to prohibit/regulate shipping abroad

Cost of transportation

The high cost of transporting e-waste leads recyclers to site their facilities near locations where large waste streams are generated. One of the recyclers interviewed mentioned that it is less expensive to fill a shipping container and send it to Asia than to transport the waste between states which accounts for the vast amount of waste being exported out of the country.

A Shifting Industry

While the number of electronics and the exchange rate is growing, electronic recyclers note that the weight of electronic devises is decreasing, and that the amount of precious metals and other valuable components is being reduced as well. Today the industry is shaped around a weight-based model. Already thin profit margins are further diminished as the precious metal content in electronics decreases.

Partnership with State Agencies and ABAG

With the growing need for recycling, and technologies for processing e-waste improving, it is appropriate to examine the potential to site e-waste recycling facilities in the Bay Area.

Very few numbers are available to evaluate the strength of the electronic recycling market. ABAG could use some assistance to generate an-indepth economic analysis. The study conducted by ABAG’s HazWaste Committee staff highlights the interest of local officials, the presence of an active community, and involved stakeholders.

We believe a market exists in the region, but economic and regulatory barriers are significant inhibitors. Incentives for new businesses could trigger interest for an e-waste recycling facility including reduction in permit fees, streamlined permitting processes, and enhanced access to industrial land.

ABAG believes interagency discussions with DTSC regarding changes in regulation could lead to more progressive recycling options for the Bay Area region.

**Covered Electronic Waste**

California regulations (SB 20, SB 50) about Covered Electronic Devices involve about 475 approved collectors and 35 approved recyclers in the State. 1.7 Billion pounds of COD (771 million kg) were processed since the beginning of the program in 2005. Most of the approved recyclers are part of a certification program (E-steward or R2).

A fee between $3 to $5 is paid by the consumer at the time of the purchase of each COD. It is then redistributed to approved collectors and recyclers at the time of the CED disposal. Since the beginning of the program, approximately $744 million have been claimed through this payment system.

http://www.calrecycle.ca.gov/Electronics/ProgramStats.pdf
Date: May 21, 2015
To: Hazardous Waste Management Facility Allocation Committee
From: JoAnna Bullock, Senior Regional Planner
Re: 2014 Legislation Status

The Committee has been charged with reviewing Extended Producer Responsibility (EPR) and other relevant legislation and forwarding information and recommended positions to ABAG’s Legislation and Governmental Organization Committee. Staff works with the California Product Stewardship Council (CPSC) and Technical Advisory Committee members to identify bills for Committee consideration.

In the 2015 session, six bills are particularly germane to the Committee’s mission.

2014 State Legislation

Active:
SB 489 Monning, Hazardous Waste: Photovoltaic Modules

This bill would authorize the department to adopt regulations to designate end-of-life photovoltaic modules that are identified as hazardous waste as a universal waste and subject those modules to universal waste management.

Intent of the legislation is to (1) Foster a comprehensive and innovative system for the reuse, recycling, and proper and legal disposal of end-of-life photovoltaic modules. (2) Encourage the photovoltaic module industry to make end-of-life management of photovoltaic modules convenient for consumers and the public, to ensure the return and recycling of photovoltaic modules, which is the most efficient and environmentally safe disposition of end-of-life photovoltaic modules, by constructing a photovoltaic module recycling organization to develop a plan for recycling end-of-life photovoltaic modules in the state in an economically efficient manner. (3) Reduce the likelihood of improper disposal by prohibiting end-of-life photovoltaic modules from entering landfills.

Status: Pending Referral: In Assembly, Read first time. Held at Desk as of May 5, 2015

Proposed Action: Staff recommends a support position be conveyed to the Legislation and Governmental Organization Committee on this bill.
Active:
**AB 45 Mullin, Household Hazardous Waste**

This bill would require each jurisdiction that provides for the residential collection and disposal of solid waste to increase the collection and diversion of household hazardous waste in its service area, on or before July 1, 2020, by 15% over a baseline amount, to be determined in accordance with department regulations. The bill would authorize the department to adopt a model ordinance for a comprehensive program for the collection of household hazardous waste to facilitate compliance with those provisions, and would require each jurisdiction to annually report to the department on progress achieved in complying with those provisions. By imposing new duties on local agencies, the bill would impose a state-mandated local program.

Status: In Committee Process: Re-referred to Committee on Appropriations

Proposed Action: Staff recommends an opposing position be conveyed to the Legislation and Governmental Organization Committee on this bill

Active:
**AB 190 Harper, Solid Waste: Single Use Carryout Bags**

Both this bill would repeal the plastic bag legislation passed last year

Status: In committee: Set, second hearing. Failed passage. Reconsideration granted as of March 13, 2015

Proposed Action: Staff recommends an opposing position be conveyed to the Legislation and Governmental Organization Committee on this bill

Active:
**AB 191 Harper, Solid Waste: Single Use Carryout Bags**

Both this bill would repeal the plastic bag legislation passed last year

Status: In committee: Set, second hearing. Failed passage. Reconsideration granted as of March 13, 2015

Proposed Action: Staff recommends an opposing position be conveyed to the Legislation and Governmental Organization Committee on this bill
Active:
AB 199, Alternative Energy: recycled feedstock

This bill would expand projects eligible for the sales and use tax exclusion to include projects that process or utilize recycled feedstock, but would not include a project that processes or utilizes recycled feedstock in a manner that constitutes disposal.

Status: In committee: Set, first hearing. Referred to REV. & TAX. suspense file as of May 11, 2015

Proposed Action: Staff recommends a support position be conveyed to the Legislation and Governmental Organization Committee on this bill.

Active:
AB 1159 Gordon and Williams, Product Stewardship: Pilot Program: household batteries and home-generated sharps waste

This bill would establish the Product Stewardship Pilot Program and, until January 1, 2024, would require producers and product stewardship organizations of covered products, defined to mean a consumer product that is used or discarded in this state and is either home-generated sharps waste or household batteries, to develop and implement a product stewardship plan, as specified.

Status: In Committee Process: From committee: Do pass and re-refer to Committee on Appropriations (Ayes 6, Noes 0) Re-Referred to Committee on Appropriations as of April 29, 2015

Proposed Action: Staff recommends a support position be conveyed to the Legislation and Governmental Organization Committee on this bill.