Martha Aja, Dublin
Dorothy Killingsworth, Alameda County
Peter Schultze-Allen, Emeryville
Marie Arnerich, EBRPD
Steve Myli, EBRPD
Max Gara, Oakland Unified SD
Nancy Deming, Sustainability Initiatives Program Manager, Oakland Unified SD
Marcy Greenhut, Emeryville
Jennifer Feeley, Piedmont
Braxton Banks, Independent consultant to schools
Karen Cook, Alameda County
Rachel Balsley, StopWaste.Org
Delyn Kies, Consultant to StopWaste.Org
Susan Kinsella, Conservatree
A participant asked about what time of day janitorial services should be provided for best results and environmental benefits, such as minimizing lighting use and other building energy and efficiency outcomes.

Typical work schedule for Alameda County janitorial staff is 5am to 1pm. This provides the following benefits:

- 2 to 3 hours to do noisy work (like vacuuming) before majority of building occupants arrive
- Janitors get to know staff, are part of work community – this builds trust and allows for two way communication
- Reduces lighting and building HVAC energy use because building systems can remain off for more hours of the night
- Exceptions – From 6pm to 2am a small night shift crew rotates through the buildings doing floor care work. Also, from 1pm to 9pm, there is a day porter shift that rotates through the buildings handling emergencies or doing special projects. Each of these shifts is approximately 1 person for every 8 to 10 buildings.

EBRPD uses a similar hybrid system of day and night cleaning for services in their administrative properties – mostly daytime service for shared areas and non-disruptive functions with some nighttime crews for floor care duties.
Why Green Cleaning

- Reduces health risks to workers and building occupants and promotes a healthy workplace:
  - Every year 6 out of every 100 janitors are injured by the chemicals in the cleaning products they use.
  - Of 2,800 chemicals generated in quantities greater than 1 million pounds/year – only 7% have been tested for developmental effects and only 43% have been tested for human health effects.
  - The chemicals most frequently involved in poisonings reported to U.S. Poison Control Centers are cleaning products.
  - Cleaning products are responsible for approximately 8% of total non-vehicular emissions of volatile organic compounds (VOCs).
Santa Monica documented a 5% reduction in cost when they transitioned to green cleaners. Controlled dilution systems limit overuse of chemicals and can contribute to reduced costs.
Making It Happen in Alameda County:

- In Alameda County, there are many different purchasing structures:
  - Centralized or decentralized purchasing
  - In-House or contracted services
  - Agency or contractor purchases supplies
- There is also a wide range of purchasing practices from formal bids and contracts to direct purchasing from approved vendors.
- Some jurisdictions have years of experience with green cleaning and some do not.
Local Agencies Cleaning Green

- Alameda County
  - Janitorial Cleaning and Paper Products Bids & Contracts
  - Local Vendor
- Berkeley
  - Green cleaners in every department
- Dublin
  - Green Cleaning Products
- Albany
  - Green Cleaning Products
- Castro Valley Sanitary District
  - Green Cleaning Products
  - Local Vendor
- San Leandro
  - Green Cleaning Service Contract
- Livermore
  - Green Cleaning Service Contract
  - Blind Testing of Products
- Fremont
  - Green Cleaning Products
- Pleasanton
  - Green Cleaning Products
  - Letter of Bulk Purchasing/Extending to Unified School District
How To Buy

1. Buy certified products
2. Include green specs in bid documents
3. Take advantage of existing resources and local assistance
Certifications/Standards

- Use Open, Transparent Standards
- Use Credible, Third Party Certifying Organizations
- Use Multiple Attribute Standards

- The standard for environmental label guidelines is ISO 14020:
  - “a voluntary, multiple-criteria based, third party program that awards a license that authorizes the use of environmental labels on products indicating overall environmental preferability of a product within a particular product category based on life cycle considerations”.

Green Seal and EcoLogo are both approved for meeting ISO 14020 standards that include these criteria.
Green Seal


- **Certification Criteria:**
  - Product Performance, Health and Environmental, Packaging, Training and Labeling, and Manufacturing Sustainability.

- **Product Standards:**
  - General purpose, glass, bathroom, carpet, floor and upholstery cleaners, sanitizers, cleaners and degreasers, liquid hand soaps and specialty cleaning products like graffiti removal.

- **Cleaning Services Standard:**
  - All indoor activities typically required to clean commercial, public, and industrial buildings including planning, products, supplies, equipment, procedures, training, communications and labeling.

- [www.greenseal.org/GreenBusiness/Standards.aspx](http://www.greenseal.org/GreenBusiness/Standards.aspx)

- There are thousands of Green Seal certified products available from hundreds of manufacturers.
- Some common Green Seal product standards for cleaning products include:
  - GS-37 for General Purpose Cleaning
  - GS-34 for Cleaning and Degreasing
  - GS-40 for Floor Care Products For Industrial And Institutional Use
  - GS-41 for Hand Care Products For Industrial And Institutional Use
- Up to 27 Health & Environmental criteria including toxicity, carcinogens, skin irritants, inhalation toxicity, and concentrates and dosing - in product and as used.
- The Green Seal Cleaning Services standard (GS-42) only has 2 certified vendors in California. Instead of requiring vendors to have the certification as part of your contract, review what is in the standard and ask your vendor which of the practices they use and which they could implement, based on your agency’s priorities and policies. The standard can be found at the weblink on the slide.
- Similar to Green Seal, many certified products made by many companies.
- Note that the UL/EcoLogo standard documents all begin with CCD, which stands for Certification Criteria Document.
- Some of the common UL/EcoLogo standards for cleaning products are:
  - CCD-146 Hard Surface Cleaners
  - CCD-148 Carpet and Upholstery Cleaners
  - CCD-147 Hard Floor Care Products
  - CCD-104 Hand Cleaners
  - CCD-170 Instant Hand Antiseptic Products

UL/EcoLogo

- Founded in 1988 by the Government of Canada and now an independent company, the EcoLogo Program offers similar product standards and product certifications and is considered equally acceptable in the U.S.
- EcoLogo is now part of the UL Global Network.
- 122 categories of standards
  - CCD = Certification Criteria Document: EcoLogo’s environmental standards
- 300+ companies/brand names
- 7,000 + certified products

• An “ingredient-based analysis” does not also consider product use.
• DfE allows non-concentrates meaning potential overuse of chemicals and increased costs, i.e. more packaging, more shipping costs and waste, and more required storage space.
• “Renewable resource” is problematic as criteria for paper products because it can be interpreted to allow any forest product, including old growth trees. Requiring recycled content that meets at least the EPA minimum recycled content standards is best. More discussion at Slide 26.
Certified Products: What to Buy

- Green Seal Certified Products:
  - [www.greenseal.org/FindGreenSealProductsAndServices.aspx](http://www.greenseal.org/FindGreenSealProductsAndServices.aspx)

- EcoLogo Certified Products:

Purchasers need only specify in bids or request from vendors Green Seal and/or EcoLogo certified products for their cleaning needs.
Specifications

- Specify the use of environmentally preferable cleaning products and services in your bid documents and contracts:
  - “… products shall be certified to the most recent Green Seal or UL/EcoLogo standard…”

- Use Bid/Contract Language from others:
  - Alameda County: [www.acgov.org/sustain/what/purchasing/bids/excerpts.htm](http://www.acgov.org/sustain/what/purchasing/bids/excerpts.htm)
  - King County: [www.kingcounty.gov/operations/procurement/Services/Environmental_Purchasing/Products.aspx](http://www.kingcounty.gov/operations/procurement/Services/Environmental_Purchasing/Products.aspx)
  - State of CA: [www.dgs.ca.gov/BuyingGreen/Home/BuyersMain.aspx](http://www.dgs.ca.gov/BuyingGreen/Home/BuyersMain.aspx)

These agencies provide bid documents and/or contracts, or excerpts of the specific language used to specify green products. Even if you don’t formally bid, this information can help inform your conversations with your suppliers or janitorial services providers.
- These best practices, among many others, are included in Green Seal’s Commercial and Institutional Cleaning Services standard (GS-42). The standard document is available for free download from Green Seal <www.greenseal.org> and is a great resource for identifying best practices for your own cleaning program or for your cleaning services vendor.
The U.S. is the largest tissue producing region in the world, and also uses the most.
- Top at-home brand is Charmin which contains no recycled content (Kimberly-Clark owned) but many others do contain some recycled content, even if they don’t label it.
- North American away-from-home market has a number of smaller manufacturers like Bay West, SCA, and Marcal, in addition to the large players listed in this slide. There are also “rewinders” – companies that take huge rolls from manufacturers and cut them down for private label.
- Several U.S. tissue manufacturers have been investing in their facilities, including adding more recycling capacity.
- Some foreign papers marketed as renewable come from plantations that were created by clearing and burning old growth forests in Indonesia. For tissue products, ask for recycled content, not “renewable”. (See Slide 26 for more information.)
Environmental Tissue Priorities

- Source reduction
- Recycled fiber
- Other environmental attributes
  - sustainable forest fibers
  - non-chlorine bleaching
  - nonwood fibers
- Certifications
Studies show that converting from paper sheets to roll towels saves money and reduces paper use.

- Rechargeable batteries can be used in hands-free dispensers. It is a cultural change because you need to organize processes for regularly recharging the batteries and train staff not to throw them away as if they were disposables, but they are a huge cost saver. San Jose airport found they were replacing the four D batteries required for each hands-free towel dispenser every month and could achieve big savings by replacing them with recharged batteries on a regular schedule.
Coreless rolls use a reusable plastic spindle that is inserted into the center of the roll.

- One participant shared that the spindle can be difficult to insert into the center of some rolls. It can take more time to load them than using regular core toilet paper.

- However, with double the sheet capacity, it’s likely that total labor is smaller because less refilling is required.

- One spindle may not fit all dispenser types, especially with the variety of proprietary dispensers. It is recommended that you pilot test the spindle with each dispenser type in your agency. Also, there may be several spindle sizes that your vendor can provide, so ask your vendor.

- Small-core also reduces waste, but not by as much as the coreless. It is basically just a smaller core size than standard cores.
- EPP tissue products are made from the same fibers as recycled office and printing paper. Tissue products and office paper made from tree fibers use the most resources of all paper types, so they are especially important to buy with recycled content. Tissue manufacturing can also use shredded office paper.

- There is a big push to look for multi-attribute benefits. But because the paper manufacturing process is so energy, water and chemical intensive and recycling reduces the need for all of them, buying recycled content products results in significant multi-attribute resource savings.

- Recycled content product manufacturing is the most comprehensive way to rapidly reduce the manufacturing “footprint” for making paper.

- The only mills in North America producing tissue (as well as printing and office paper) bleached in totally chlorine-free processes are recycling mills. (Not all recycling mills are PCF – processed chlorine free – but most are.)
You can find the U.S. EPA’s comprehensive procurement guidelines at: <www.epa.gov/epawaste/conserve/tools/cpg/products/tissue.htm>.

- “Standard, not certification” means that criteria are set for labeling a product as recycled, but there is no EPA verification.

- EPA includes ranges in the recommendations because they encourage buyers to purchase higher than the minimum recommended levels whenever possible.
• Green Seal has been re-certifying all previously certified tissue products to the higher standards of 2011.
• Green Seal requires 100% recycled content AND postconsumer content levels slightly higher than the U.S. EPA minimums standards.
- An alternative allows up to 85% agricultural residues. While currently there are few such tree-free tissue products, it is expected that new tissue products with non-wood fibers will be introduced so there will be more in the future.
- Selecting Green Seal products also provides verification that manufacturers are using bleaching processes that are free of chlorine and chlorine-derivatives (PCF).
• It’s a good idea to verify products’ certification claims, especially on bids. Don’t accept claims for products that are still in the application process, or that have expired certifications.

• You can verify Green Seal certification by making sure the product is listed on the Green Seal website. This slide shows what the website verification looks like.
UL/EcoLogo goes about certification in a completely different way. Rather than telling the manufacturers exactly what environmental attributes their product must have, UL/EcoLogo tells them that the goal is to minimize their production footprint enough that they can be below a low level of “load points.” This gives flexibility to manufacturers on how they want to achieve the certification.

Standard does not require recycled content, but UL/EcoLogo says it is very hard to achieve the certification without it. Due to this, however, it is best to require minimum levels of postconsumer content consistent with the U.S. EPA CPG (see Slide 20), even if you are specifying UL/EcoLogo.
It is easy to verify that a product is certified by looking it up on the EcoLogo website.
Other environmental attributes you may want to look for, or may notice on the products you buy include:

-FSC certification – This ensures that any virgin wood content has been sourced responsibly. FSC also certifies some recycled products.

-The type of bleaching used on the pulp is important, and especially for tissue products. While the bleaching done in North America is much better environmentally than it used to be, the safest option is to use completely non-chlorine bleaching agents like ozone, oxygen and peroxide. The only tissue (as well as printing and office paper) mills doing that are (most of) the recycling mills. They will list “PCF” on their labels or product description.

-It can be even better for the pulp to not be bleached at all. But, ironically, some of the brown paper you see has actually been bleached and then dyed back to brown.

-CFPA certification – This certifies that the product was bleached without chlorine or chlorine derivatives, i.e. that it is process chlorine free (PCF).

-Tree-free fibers – While this is an emerging trend to watch, it’s still best to specify recycled content for now.
The USGBC LEED for Existing Buildings O&M has a number of points available related to green cleaning.

Even if you don’t pursue LEED for Existing Buildings, the requirements for a high-performance cleaning program provide an excellent overview of what to consider in greening your operations. An overview of the credit can be found at: new.usgbc.org/node/1731404?return=/credits/existing-buildings/v2009.

It is very complementary to the Green Seal Cleaning Services Standard (GS-42, see Slide 9 for more information).

Be wary of tissue product companies that claim environmental benefits due to “rapidly renewable” resources (as allowed for in LEED). Don’t confuse “renewable” with “recycled” – the paper industry considers trees to be “renewable” and there are paper companies destroying forests in Indonesia, especially, to produce tissue and paper products that are then labeled “renewable.” Insist on recycled and postconsumer content instead.
• Here are the top three things you can specify for your products, with recycled content being the most important.
• Tissue products researched for the City of San Francisco in summer 2012 found that there are many tissue products nationwide that can meet all three.

What To Buy

1) Recycled Content

<table>
<thead>
<tr>
<th>Product</th>
<th>Total Recovered Fiber</th>
<th>Postconsumer Fiber</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper Towels</td>
<td>100%</td>
<td>40%</td>
</tr>
<tr>
<td>Bathroom Tissue</td>
<td>100%</td>
<td>20%</td>
</tr>
<tr>
<td>Seat Covers</td>
<td>100%</td>
<td>20%</td>
</tr>
</tbody>
</table>

2) Certifications – Green Seal or UL/EcoLogo

3) Processed chlorine free (PCF)
- The product types listed here have sufficient products available and/or numerous product vendors to ensure a competitive bid.
- See next slide for exceptions.
Here are some exceptions where the certifications may not provide adequate competition.

- Also, correctional facilities and hospitals may have special circumstances that need to be considered prior to making changes to products.

- Remember that if you go below 100% recycled, you should see if you can get FSC certification for the virgin fiber, too.
GREEN TEAMS:
While useful in all agencies, green teams can be particularly successful in agencies where purchasing is completely decentralized with each department doing its own purchasing. Several local jurisdictions have used green teams successfully to educate, test, and specify green products as a group to implement green purchases across all departments in the City.

ASSIGN RESPONSIBILITY:
- Setting reasonable, achievable and measurable goals or targets, and then tracking progress towards them, can be an effective way to motivate behavior change.

PURCHASING:
- Leverage the work of other agencies by piggybacking.
- If writing your own contracts, learn from others who have already done it by reviewing their bids.
- To get best pricing, make vendors bid on green products by listing these as your core-product list and removing products that don’t meet your environmental criteria.
- Pilot test products to ensure they work in your environment. Include line staff and/or customers in the product testing and ask for their input. (Be sure to train them on how to use the products correctly, since often they require a new process.) If at all possible, ask staff to use up any product that is pilot tested, even if it is not ultimately selected, so you don’t waste it.
## Implementation Strategies - 2

**Educate:**
- Internal newsletters, emails

**Train:**
- Purchasing staff, cleaning staff and/or contractors

**Track:**
- Performance metrics
- Employee evaluation

**Promote Success:**
- News releases
- Awards and recognition

### EDUCATE:
- Use existing communication methods for quick tips, getting user feedback and letting employees know why and how new products are being evaluated and/or purchased.

### TRAIN:
- Remember that when switching to green cleaners, you need to train staff on a new way of doing cleaning. They often do not work in the same way as traditional cleaners.
- When contracting for cleaners, ensure your contract requires initial and ongoing training by the vendor.
- The Alameda County contract requires unlimited training. This is particularly useful when we need to troubleshoot a location that is getting complaints. Retraining staff often addresses the issue.

### TRACK:
- It can be useful to track metrics on product use in order to monitor ongoing performance of your green purchasing initiative, promote cost savings, or promote your green purchasing program success to your elected leaders and your community.
- You can also integrate sustainability performance metrics at a staff or organization level.

### PROMOTE SUCCESS:
- Build momentum for your programs by promoting your successes and recognizing key staff efforts.
- Alameda County makes the environmental language from many of its green bids available on our public facing website listed in the slide.
- Sustainability staff is available to provide technical assistance to local public agencies. Please do not hesitate to request assistance!
StopWaste.Org has published a number of guides and factsheets that serve as a resources to green purchasers locally and nationally.

The 2013 Update of the Green Maintenance Guide is available for download at the weblink in the slide or by requesting a printed copy from Rachel Balsley (see Slide 35 for contact information).
Conservatree is recognized nationally as a leading voice for sustainable papers.
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