



**The Mark of  
Environmental  
Responsibility**

# **Green Purchasing: Implementation & New Developments**

**Sustainability Summit  
Los Angeles County  
Metropolitan Transportation Authority  
Los Angeles, CA  
May 6, 2009**

**Mark Rentschler, PhD  
VP of Institutional Greening Programs  
Green Seal, Inc.**

# Topics to be Discussed

- **Introduction to Green Seal**
- **EPP Implementation:  
Examples from California**
- **What's Next: Green Services**



# Who We Are

- 20 years old 501(c)(3) non-profit ecolabel - oldest in USA
- Mission is to transform the marketplace - focus on greener products and services
- Science-based product standards, certification
  - Multi-attribute, life-cycle based
  - Over 3200 products/services certified - range from windows, electric chillers, and lodging facilities to institutional cleaners, paints, paper products, etc.
- No financial interest in products or companies



# **Green Seal Meets Applicable Guidelines for Certification**

- **ISO 14020 and 14024**
  - Principles of Environmental Labeling
  - Principles and Procedures for Type I EL
- **ANSI Accredited Standard Developer**
- **EPA Guidelines for 3<sup>rd</sup>-Party Certifiers**
- **FTC Green Labeling Guidelines**
- **Consumers Union criteria**
- **Global Eco-labeling Network criteria**



# Green Seal Meets Guidelines for Certification (cont'd)

- **Key attributes:**
  - open, transparent process
  - based on life-cycle environmental evaluation
  - impartial; no financial interest/conflict
  - leadership levels in standards
  - performance requirements - products must work!
  - developed by consensus if possible
  - monitored and enforced
  - Seal is a registered certification mark



# Green Seal in the Media

([www.greenseal.org](http://www.greenseal.org): 1.7 million hits per month)

The New York Times



THE WALL STREET JOURNAL.

Los Angeles Times



The Washington Post



The Mark of Environmental Responsibility

The screenshot shows the Today Show website interface. At the top, the 'TODAY' logo is displayed with 'on msnbc.com' and the 'msn' logo. The main content area features a video player with a background of environmental certification logos: Energy Star, USDA Organic, FSC, and Green Seal Certified. Below the video player, a 'Related link' section mentions 'iVillage: Janice Liberman on if you're being 'greenwashed''. A BlackBerry advertisement is visible at the bottom of the page.

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 Now playing  
 The truth about going green  
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January 31, 2008 Today Show

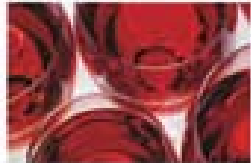


The Mark of Environmental Responsibility

Special Advertising Section

# Green for the Holidays

Go holiday green. Find great sustainable gifts. Wrap them in recycled and natural materials. Buy delicious organic ingredients for festive meals. And serve up a Christmas, Hanukkah or Kwanzaa that contributes to a cleaner, healthier world.



**Celebration.....3-4**  
Bring sustainability and festivity together this month. Check out the growing number of organic produce markets—and learn how to get a reusable green table.



**Travel.....5**  
You can reduce the impact of travel this winter by choosing greenways, green-powered airports, fly or drive, and planning a sustainable holiday vacation.



**Home.....18-20**  
Updating holiday traditions for the 21st century. A few simple changes can make a whole positive impact—and make your celebrations greener.



This product has been independently certified as meeting rigorous, science-based, and transparent standards for environmental sustainability, from sourcing the materials, to manufacturing and use, to disposal and recycling.

Each step in the life cycle of everything we use—from extracting the raw materials, to production, to distribution, to use and disposal—can either sustain and even enhance the environment, or harm and deplete the environment. It's easy to see which is the greener, healthier choice!

## What do these symbols mean?

Printed Mark						
<b>What It Means</b>	Products with this symbol contain recycled materials. They are made from recycled paper, plastic, metal, glass, and other materials, and reduce the need for virgin resources and energy.	This symbol was created to help consumers identify products that are made with renewable energy. It is a mark of environmental responsibility.	This mark of environmental responsibility is a mark of environmental responsibility. It is a mark of environmental responsibility.	This mark is a high standard of responsibility. It is a mark of environmental responsibility. It is a mark of environmental responsibility.	This symbol is a mark of environmental responsibility. It is a mark of environmental responsibility. It is a mark of environmental responsibility.	This symbol is a mark of environmental responsibility. It is a mark of environmental responsibility. It is a mark of environmental responsibility.
<b>Why It Matters</b>	Using recycled materials can help reduce the need for virgin resources and energy. It is a mark of environmental responsibility.	Each American who recycles just one pound of paper saves enough energy to power a 60-watt light bulb for one hour.	Each pound of waste recycled saves enough energy to power a 60-watt light bulb for one hour.	Using local and organic ingredients can help reduce the need for virgin resources and energy. It is a mark of environmental responsibility.	Each step in the life cycle of everything we use—from extracting the raw materials, to production, to distribution, to use and disposal—can either sustain and even enhance the environment, or harm and deplete the environment. It's easy to see which is the greener, healthier choice!	

Oprah Magazine, December 2007  
Special Advertising insert



The Mark of Environmental Responsibility

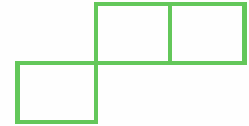
# Green Seal's Institutional Clients

- **Federal:**
  - U.S. Army, Aberdeen Proving Ground
  - The Pentagon
  - U.S. EPA
  - U.S. Dept. of Energy
  - National Park Service
  - U.S. Dept. of Interior
- **Educational, Other:**
  - Univ. of Miami, Harvard
  - World Bank, IADB, NFCU
- **State and Local:**
  - California
  - Pennsylvania
  - Massachusetts
  - Maryland
  - Virginia
  - Georgia
  - Colorado
  - Los Angeles County
  - Philadelphia
  - Chicago



# Building Guidance for Pennsylvania

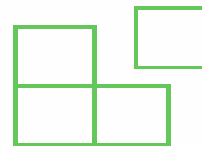
- *The Pennsylvania Green Building Operations and Maintenance Manual*
  - [http://www.dgs.state.pa.us/dgs/lib/dgs/green\\_buildingbook.pdf](http://www.dgs.state.pa.us/dgs/lib/dgs/green_building/greenbuildingbook.pdf)



**buildings**

Commonwealth of Pennsylvania

The Pennsylvania  
Green Building Operations  
and Maintenance Manual



Build it **GREEN**

More Sustainable. Greener.



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# Environmental Assessment of Facilities Operation and Maintenance at the Pentagon

Prepared for:

**Washington Headquarters Services**  
Defense Facilities Directorate  
Engineering & Technical Services Division  
Safety & Environmental Management Branch  
1155 Defense Pentagon  
Washington, D.C. 20301

Prepared by:



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Chantilly, VA 20151-1102

and



**Green Seal, Inc.**  
1001 Connecticut Avenue, NW  
Suite 627  
Washington, DC 20036-5525

May 2007

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Contract No. HQ00034-06-F-1215



**The Mark of Environmental Responsibility**

# Environmental Procurement Program



## Purchasing Manual

Version 1.0

Date: 3/18/08



The Mark of Environmental Responsibility

# Topics to be Discussed

- Introduction to Green Seal
- **EPP Implementation:  
Examples from California**
- What's Next: Green Services



# Examples from California

- **CA Procurement Division EPP**
  - Generic purchasing guidelines
- **Los Angeles County EPP**



# CA Procurement Division EPP

- **Early 2002, California Department of General Services Procurement Division launched a project to green the State's procurement.**
- **Lay the groundwork for EPP in terms of coordination with other divisions, agencies, and departments;**
- **Set priorities among product categories in terms of volume purchased, environmental significance, improvement potential;**
- **Develop environmental specifications and green product lists for several priority categories;**
- **Provide tools and information to specifiers, purchasers, and management, such as a generic guidance for developing environmental specifications.**



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# CA Procurement Division EPP

Table 1. California Environmental Regulations and Guidelines for "Green" Products				
Sub - Product Category	Regulation or Guideline Name	Specific Regulation or Guideline	Location of Document	Agency
Residential Appliances	Title 20, Title 24	Title 20 – Appliances Title 24 – Residential Energy Efficiency	<a href="http://www.energy.ca.gov/appliances/documents/ab_970_text.html">http://www.energy.ca.gov/appliances/documents/ab_970_text.html</a> <a href="http://www.energy.ca.gov/title24">http://www.energy.ca.gov/title24</a>	California Energy Commission
Paper Products	State Agency Buy Recycled Campaign	Content Requirements - 50% Recycled, 10% Post-consumer	<a href="http://www.ciwmb.ca.gov/buyrecycled/stateagency/">http://www.ciwmb.ca.gov/buyrecycled/stateagency/</a>	Integrated Waste Management Board
Paints	State Agency Buy Recycled Campaign Proposition 65 Title 17, Division 3, Chapter 1, Subchapter 8.5 – Coating Products	Content Requirements - 50% Recycled, 10% Postconsumer Specific reporting guidelines and content limits. VOC and volatization limits	<a href="http://www.ciwmb.ca.gov/buyrecycled/stateagency/">http://www.ciwmb.ca.gov/buyrecycled/stateagency/</a> <a href="http://www.cdpr.ca.gov/docs/factsheets/prop65.pdf">http://www.cdpr.ca.gov/docs/factsheets/prop65.pdf</a> Articles 2 and 3, sections 94507-94517 and 94520-94528)	Integrated Waste Management Board CA Environmental Protection Agency Air Resources Board
Consumer Products and Aerosol Products – Air Fresheners, Cooking Sprays, Insect Repellants	Title 17, Division 3, Chapter 1, Subchapter 8.5; Proposition 65	VOC and volatization limits Specific reporting guidelines and content limits	Articles 2 and 3, sections 94507-94517 and 94520-94528) <a href="http://www.cdpr.ca.gov/docs/factsheets/prop65.pdf">http://www.cdpr.ca.gov/docs/factsheets/prop65.pdf</a>	Air Resources Board CA Environmental Protection Agency
Other Household Chemicals and Cleaners	Hazardous Waste Source Reduction Planning – SB 14	Labeling, Concentration Limits, Use, and Prohibition of Certain Compounds	<a href="http://www.dtsc.ca.gov/PollutionPrevention/index.html">http://www.dtsc.ca.gov/PollutionPrevention/index.html</a>	CA Environmental Protection Agency
Gasoline Vehicles	The California Low Emission Vehicle Regulations Green Products Guidelines	Emission Limits Procurement Specifications	<a href="http://www.arb.ca.gov/msprog/zevprog/zip/2061.htm">http://www.arb.ca.gov/msprog/zevprog/zip/2061.htm</a> <a href="http://www.dgs.ca.gov/energy">http://www.dgs.ca.gov/energy</a>	Air Resources Board Department of General Services
Steel Products	State Agency Buy Recycled Campaign	Content Requirements - 25% Recycled, 10% Postconsumer	<a href="http://www.ciwmb.ca.gov/buyrecycled/stateagency/">http://www.ciwmb.ca.gov/buyrecycled/stateagency/</a>	Integrated Waste Management Board



# CA Procurement Division EPP

**Table 2. Agencies Participating in Specific Guideline-Setting Process**

<b>Product Category and/or Guideline or Regulation</b>	<b>Agency</b>	<b>Notes</b>
Green Materials	Energy Management Division of DGS	DGS is developing a database and procurement guidelines
Pesticides	Office of Environmental Health Hazard Assessment Center for Analytical Chemistry	These agencies support standards and criteria setting processes through technical and analytic support
Recycling	Department of Conservation	Labeling and specific procurement goals
Building Codes	Department of Housing and Community Development Office of the State Fire Marshal Division of State Architect Real Estate Division Office of Statewide Health Planning and Development California Building Standards Commission	Affect energy-consuming products procurement
Schools	Finance, Technology and Administration Branch Allocation Board	These agencies control site selection and construction material specifications
Green Products	DGS – Division of Energy Management	DGS is compiling “green products” information
Natural Resources	Resources Agency Water Resources Department Office of Mine Reclamation	These agencies promulgate regulations on the procurement of natural resources and also set guidelines for emissions and discharges.
Consumables/Consumer Products	National Guard, Prison Authority	Procurement/Production Guidelines



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# Prioritizing CA State Purchasing

- **Step 1. Collected and compiled purchasing data for the Procurement Division's product classes. Gathered data on State purchases compiled by staff of Procurement Division for years 1991-2001.**
- **Step 2. Selected subset of product groups. Sorted product classes by total annual expenditures, selecting product classes accounting for highest annual spend.**
  - **Lower-expenditure product classes were added to list if their environmental impact or improvement potential were thought to be significant.**



# Prioritizing CA State Purchasing

- **Step 3. Evaluated health and environmental impacts and improvement potential of subset of product classes using a consensus process among the researchers (Green Seal and University of Tennessee).**
- **Assigned high, medium, and low ranks in following areas:**
  1. Energy use
  2. Other resource use (e.g., biological resources)
  3. Global air impacts (e.g., GHG emissions, stratospheric ozone)
  4. Regional and local air impacts (e.g., VOCs, acid deposition)
  5. Water quality impacts (e.g., oxygen demand, silt, nutrients)
  6. Toxics (potential occupational, consumer/user, ecosystem)
  7. Solid, hazardous, and/or radioactive waste

**Improvement potential (availability of green alternatives) also ranked as high, medium, low**



# Prioritizing CA State Purchasing

- **Step 4. Consider contract dates and other programs or priorities, such as federal or state mandates.**
- **Step 5. Determine approach for overall prioritization of ranked product classes.**
  - **Resulted in prioritized list of 58 product classes, divided into four groups based on technical and other criteria, with other programs/priorities and upcoming contract renewals noted**



# Prioritizing CA State Purchasing

Highest priority (high volume, impact & improvement potential)

1. Paper products (household, commercial, janitorial)
2. paper book offset (e.g., uncoated offset book paper)
3. truck
4. automobile
5. van
6. bus
7. beef & beef product
8. dairy product
9. road highway equipment (e.g., snowplow)
10. vegetable & vegetable product
11. pest weed control agent
12. bread product
13. fruit & fruit product
14. cereal & cereal product
15. custom printing
16. cleaning compound (e.g., herbicides and pesticides)
17. bag & sack (e.g., bags, plastic; bags, paper, grocery)
18. household furnishing (e.g., sheets, pillowcases; towels)



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# Examples from California

- CA Procurement Division EPP
  - Generic purchasing guidelines
- Los Angeles County EPP



# Generic Green Purchasing Criteria

## Guidance on Evaluating Products for the Development of Environmental Specifications: Generic Evaluation Criteria with Guidance on their Use and Communication

### 1. Purpose of Guidance and Intended Audience

This guidance has been produced for the use of the Procurement Division of the State of California in its Sustainability Program, and is specifically designed to make the State's purchasing more environmentally sustainable by providing guidelines on how to evaluate the environmental aspects of product categories and how to develop environmental specifications for them.

The intended audience includes, primarily, the procurement agents of the State and their specifications teams, which typically include engineers and other specialists in a given category. The secondary audience for this guidance includes those State agencies that purchase and use the products, who should be made aware of their role in ensuring that product use and end-of-life are as environmentally sustainable as possible.

Since this guidance is generic in scope, it cannot provide all the information or guidance needed to develop actual environmental specifications for a given product category. However, the guidance is designed to point the specifications team in the right direction to obtain the necessary specific information. Given the complexities of product life-cycle science, additional expertise may also be required to develop environmental specifications for certain product categories.



# Generic Green Purchasing Criteria

Guidance distills Green Seal's years of experience in developing environmental specifications for products.

- Based on consistency in criteria among products that belong to certain broad types
- Facilitates development of environmental specifications in any given product category



# Generic Green Purchasing Criteria

## Five broad categories of products:

- 1. Machines** – *an assembled device separate unto itself that undergoes an active (powered) process to produce a desired result or output*
  - *e.g., vehicles; photocopiers; electric lamps; bicycles; toilets*
- 2. Chemicals** – *predominantly formulations of individual compounds or ingredients, resulting in a more-or-less homogeneous mixture, typically in the form of a liquid, powder, emulsion, or aerosol*
  - *e.g., paints and coatings; cleaning products; automotive or aviation fuels and oils; degreasers; adhesives; lubricants*
- 3. Fabrications** – *assemblage of materials such as wood, metal, plastic, or textiles that passively provides a function or service*
  - *e.g., furniture; pens and pencils; clothing; carpet; toner cartridges, CDs*



# Generic Green Purchasing Criteria

Five broad categories of products:

4. **Materials** – *pieces of a substance of more-or-less uniform composition and texture, which may or may not have been processed.*
  - *e.g., paper, packaging, lumber; road materials; sheet metal; audio-visual transparencies*
5. **Food** – *anything that humans eat or drink, which may or may not have been processed, excluding drugs, medicinal supplements, etc.*
  - *e.g., meat, vegetables, fruit, fish, spices, condiments, etc.*



# Generic Green Purchasing Criteria

## Excerpts from Generic Criteria for Materials: Source of Materials

- shall come preferably from reused, recycled (post-consumer), or waste materials

A brief survey of the existing market of products in the category under consideration should reveal to what extent reused, recycled, or waste materials are incorporated in some of the products, and at what levels. Using this information, you can fashion your specification to require the appropriate level of such materials. Using such materials generally saves resources, minimizes pollution, and reduces the energy needed to produce the products.

- virgin materials shall come from sustainably managed and harvested sources (e.g., FSC-certified) or from extractive processes of lowest impact

Don't neglect the rest of the material: see if the market allows any virgin material to come from sustainable sources. Wood-based products should be certified by a reputable third-party program such as that of the Forest Stewardship Council. If there are no such programs in place for the raw material used in the product category, try to determine from the literature and market if there is any variation in the extractive processes used to obtain the material, such as organic versus conventional agriculture.



# Generic Green Purchasing Criteria

## Excerpts from Generic Criteria for Materials: Processing of Materials

- not processed with agents (e.g., chlorine) that produce carcinogenic and other toxic by-products (e.g., dioxins)
- not processed, treated, or applied with heavy metals, carcinogens, reproductive toxins, or ozone-depleting substances

Depending on the product category under consideration, one or more of the above criteria may be applicable, as revealed by a brief review of the literature on the materials' production. In some instances, the toxic substance may be applied in a seemingly innocuous form, such as with heavy metals in the ink printed on packaging. Some of the big issues here include chlorine bleaching for paper, chromated copper arsenate preservatives for wood, and ozone-depleting agents for foam.

- total fossil fuel energy used in production, including for process, transportation, and material feedstock, shall be in lowest 25% of products manufactured

This is a difficult criterion to apply and should be used only where sufficient data are available on the manufacturing process. In food packaging, for example, manufacturing data demonstrate a significant variation in energy use among the different kinds of products (plastic, paper, composites), but much of the data are currently proprietary.



# Generic Green Purchasing Criteria

## Excerpts from Generic Criteria for Materials:

### Packaging

- shall be reusable, recycled, or recyclable

Even some materials come in their own packaging (itself a material, for the purpose of this guidance), and the packaging should be demonstrated to be reusable, recycled, or recyclable. A brief survey of the market should indicate the options for the product category under consideration.

### Recycling or disposal of the materials

- shall be reusable or recyclable
- if not reusable or recyclable, shall be biodegradable or compostable

Depending on the product category, products once used may be reused (as with some packaging), recycled (as with many paper products), or disposed in a way that produces least impact (e.g., compostable). Choose the most relevant criterion for the specification.



# Examples from California

- CA Procurement Division EPP
  - Generic purchasing guidelines
- Los Angeles County EPP



# EPP Policies – County of Los Angeles

**Title:** PURCHASE OF ENVIRONMENTALLY PREFERABLE PRODUCTS (GREEN PURCHASING)

**Contents:** P-1050

**Submitted By:** Purchasing Division

**Approved By:** Purchasing Agent

**Effective Date:** 06-14-07

**Supersedes No.:** P-1000

**Page No.:** 1 of 7

**Purpose**

Los Angeles County is a very large consumer of goods and services and the purchasing decisions of our employees and contractors can positively or negatively affect the environment. By including environmental considerations in our procurement decisions, along with our traditional concerns with price, performance and availability, we will remain fiscally responsible while promoting practices that improve public health and safety, reduce pollution, and conserve natural resources. The purpose of this document is to establish the framework for establishing an environmentally based purchasing program for Los Angeles County.

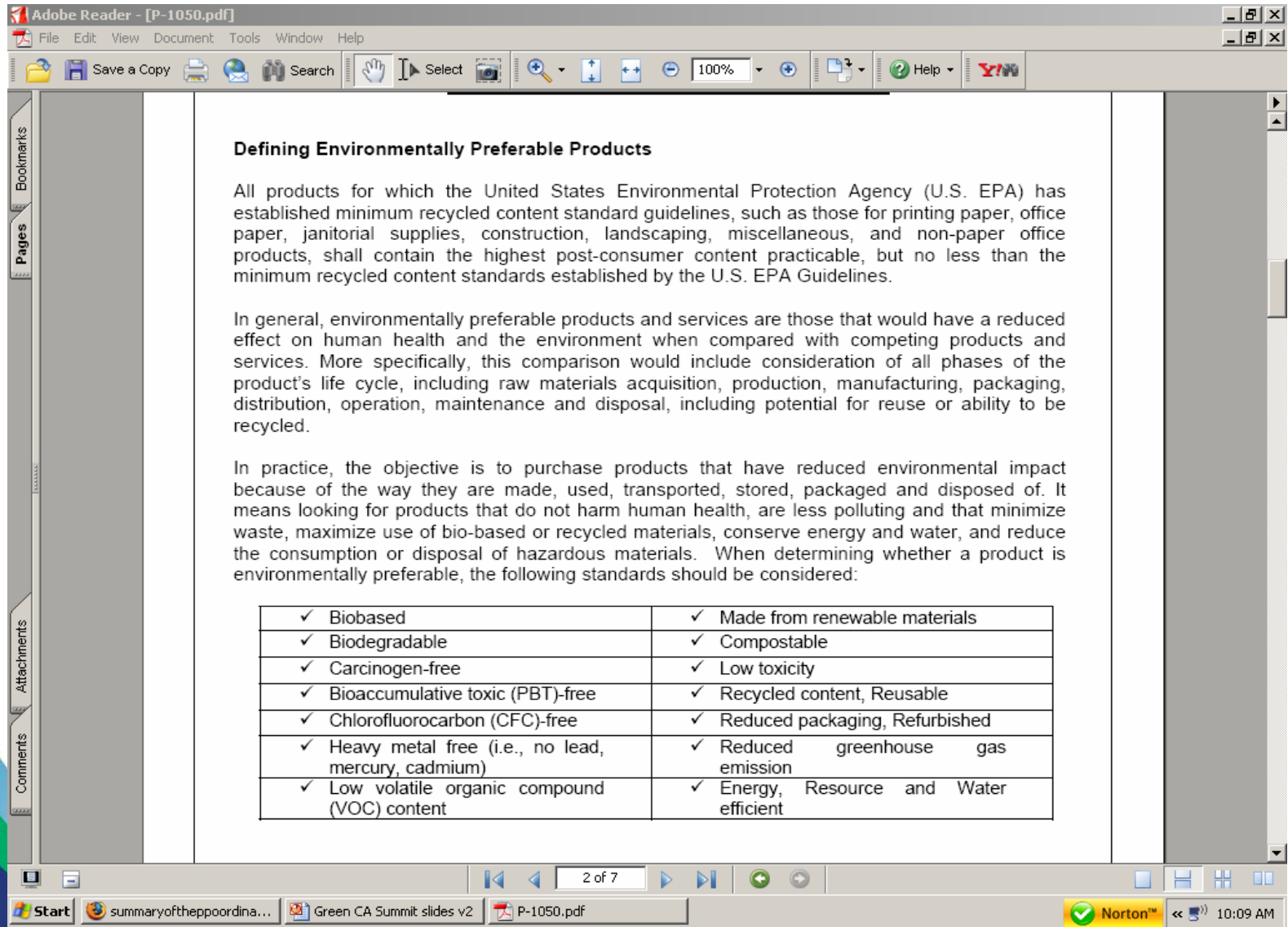
**Board Policy**

On January 16, 2007, the Board of Supervisors adopted a Countywide Policy instructing that all County departments to implement the County's Energy and Environmental Programs for energy conservation and environmental stewardship (See Board of Supervisors Policy No. 3.045, Energy and Environmental Policy). To implement the County's "green" initiatives, County departments will be tasked to:

- Institute practices that reduce waste by increasing product efficiency and effectiveness;
- Purchase products that minimize environmental impacts, toxics, pollution, and hazards to worker and community safety to the greatest extent practicable, and to
- Purchase products that include recycled content, are durable and long-lasting, conserve energy and water, use agricultural fibers and residues, reduce greenhouse gas emissions, use unbleached or chlorine free manufacturing processes, and use wood from sustainable harvested forests.



# EPP Policies – County of Los Angeles



**Defining Environmentally Preferable Products**

All products for which the United States Environmental Protection Agency (U.S. EPA) has established minimum recycled content standard guidelines, such as those for printing paper, office paper, janitorial supplies, construction, landscaping, miscellaneous, and non-paper office products, shall contain the highest post-consumer content practicable, but no less than the minimum recycled content standards established by the U.S. EPA Guidelines.

In general, environmentally preferable products and services are those that would have a reduced effect on human health and the environment when compared with competing products and services. More specifically, this comparison would include consideration of all phases of the product's life cycle, including raw materials acquisition, production, manufacturing, packaging, distribution, operation, maintenance and disposal, including potential for reuse or ability to be recycled.

In practice, the objective is to purchase products that have reduced environmental impact because of the way they are made, used, transported, stored, packaged and disposed of. It means looking for products that do not harm human health, are less polluting and that minimize waste, maximize use of bio-based or recycled materials, conserve energy and water, and reduce the consumption or disposal of hazardous materials. When determining whether a product is environmentally preferable, the following standards should be considered:

✓ Biobased	✓ Made from renewable materials
✓ Biodegradable	✓ Compostable
✓ Carcinogen-free	✓ Low toxicity
✓ Bioaccumulative toxic (PBT)-free	✓ Recycled content, Reusable
✓ Chlorofluorocarbon (CFC)-free	✓ Reduced packaging, Refurbished
✓ Heavy metal free (i.e., no lead, mercury, cadmium)	✓ Reduced greenhouse gas emission
✓ Low volatile organic compound (VOC) content	✓ Energy, Resource and Water efficient



# EPP Policies – County of Los Angeles

**Purchasing Environmentally Preferable Products**

County Purchasing Agent Responsibilities – General

In coordination with the County's Environment and Energy Team, ISD's Purchasing Division will be responsible for:

- Working with other governmental purchasing groups and agencies, such as U.S. Communities, NACO and CSAC to determine appropriate standards for green purchasing.
- Assigning central purchasing staff to evaluate various green products and to provide guidance and assistance to County departments.
- Developing and implementing a 5-year plan to phase in various categories of purchased goods under the green program umbrella. Relative easy to implement items (e.g., paper, cleaning supplies, etc.) will be implemented very early in the program.
- Heading up teams to evaluate various types of products where the cost differential is great and/or the products are not considered good substitutes.
- Assessing and making recommendations on the use of price preferences.
- Maintaining data and issuing reports related to the County's progress in environmental purchasing.
- Establishing central purchasing agreements with a catalogue of environmentally friendly and energy efficient products and to modify our existing agreement data bases for the easy identification of green products.

In establishing countywide commodity agreements, the County's Purchasing Agent will specify the requirement for environmentally preferable products where applicable, and will evaluate product alternatives where appropriate. This evaluation would include: consideration of total costs expected during the time a product is owned, including, but not limited to, acquisition, extended warranties, operation, supplies, maintenance, disposal costs and expected lifetime of a product(s) as compared to other alternatives.



# EPP Policies – County of Los Angeles

Adobe Reader - [P-1050.pdf]

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Bookmarks Pages Attachments Comments

Plants should be selected to minimize waste by choosing species that are appropriate to the microclimate species that can grow to their natural size in the space allotted them and perennials rather than annuals for color. Native and drought-tolerant plants that require no or minimal watering once established are preferred.

Hardscapes and landscape structures constructed of recycled content materials are encouraged.

Toxins and Pollutants

To the extent practicable, no cleaning or disinfecting products (i.e. for janitorial use) shall contain ingredients that are carcinogens, mutagens, or teratogens. These include chemicals listed by the U.S. EPA or the National Institute for Occupational Safety and Health on the Toxics Release Inventory and those listed under Proposition 65 by the California Office of Environmental Health Hazard Assessment.

When maintaining buildings, the County shall use the lowest amount of VOCs (volatile organic compounds), highest recycled content, and low or no formaldehyde when purchasing materials such as paint, carpeting, adhesives, furniture and casework.

The County shall reduce or eliminate its use of products that contribute to the formation of dioxins and furans. This includes, but is not limited to:

- Purchasing paper, paper products, and janitorial paper products that are unbleached or that are processed without chlorine or chlorine derivatives, whenever possible.
- Eliminating the purchase of products that use polyvinyl chloride (PVC) such as, but not limited to, office binders, furniture and flooring, whenever practicable.

Agricultural Bio-Based Products

Paper, paper products and construction products made from non-wood, plant-based contents such as agricultural crops and residues are encouraged whenever practicable.

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# Implementing LA County Policy

**Assisted County's Internal Services Department (ISD) in design and initial implementation of a 5-year green purchasing program for Los Angeles County.**

## **1. Assessed current purchasing and identified high-priority targets for improvement**

- Reviewed and analyzed current (baseline) purchasing from the County's 876 commodity contracts
- Prioritized 30 product and service categories in terms of environmental impact, improvement potential (i.e., availability of greener alternatives), and annual dollar volume of purchasing.



# Implementing EPP Policy

## Draft List of Priority Purchasing Categories

Product Category	Priority	Env'nmental Rank
Janitorial paper products	Very High	1
Books	Very High	2
Construction equipment rental	Very High	9
Countywide printing	Very High	15
Disposable foodware and plastic bags	Very High	17
Clothing, fabric & related materials	Very High	18
Computers	Very High	22
Janitorial supplies	Very High	25
Air conditioners, refrigerators	Very High	27
Herbicides	High	11
Pesticides	High	16
Lumber & plywood	High	24
Office supplies	High	32
Paint and related materials	High	33
Photocopy equipment	High	34
Laundry chemicals	High	36
Carpet and floor tiles	High	37
Fuels (liquid)	High	39



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# Implementing LA County Policy

## 2. Developed 5-year implementation schedule

- Based on the environmental priority rankings; the County's environmental objectives; ease or difficulty of greening in particular categories; and timing of upcoming solicitations.
- Resulting 5-year plan captured 66 percent of the County's annual commodity contract spending including its four largest-volume product categories
- Majority of the very-high-priority categories were addressed in year one



Implementation Schedule rev 1 10-17-07 w narrative - Microsoft Word

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### Draft Implementation Schedule

Product Category	Priority	Year 1	Year 2	Year 3	Year 4	Year 5
Countywide printing	VH					
Janitorial paper	VH					
Paper (roll, copy)	M					
Disposable foodware, plastic bags	VH					
Computers	VH					
Janitorial supplies	VH					
Office supplies	H					
Carpet & floor tiles	H					
Paint & related materials	H					
Photocopy equipment	H					
Laundry chemicals	H					
Construction equipment (rental)	VH					
Herbicides	H					
Pesticides	H					
Clothing, fabric & related materials	VH					
Lumber & plywood	H					
Fuels (liquid)	H					
Glass	M					

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# Implementing LA County Policy

## 3. Identified standards and developed specifications for products and services

- Identified existing industry green standards, such as third-party ecolabel requirements for particular product and service categories, whenever possible
- Where relevant, specifications referenced widely recognized benchmarks such as LEED requirements; California state product specifications; other federal, state or local government purchasing specifications; California state or local regulations
- Produced detailed product specifications for over 60 types of products and services in the 30 priority categories.



# Implementing LA County Policy

4. **Evaluated policies, procedures, organization, and monitoring and reporting practices**
5. **Produced EPP manual for County purchasers**
  - Each product specification included **product-specific metrics** for measuring progress along with product-specific green purchasing **targets**
  - Each specification also included a detailed background section explaining the environmental issues involved, the rationale for the recommended specification, and the **environmental benefits** provided by products meeting the recommended specification



# EPP Specification Manual

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# Some General Lessons

- **Communication and coordination among government agencies is important**
  - Easier said than done but pays dividends, 80-20 rule
- **EPP programs are vulnerable to changes in administration, loss of key personnel**
  - Sound policy framework and interagency coordination may offer some protection
- **Integrate “single-issue” programs into overall green purchasing strategy to the extent possible**
  - For example, recycled content products, green lodging
- **Tracking, monitoring & reporting are difficult for many agencies**



# EPP Policies – General Guidance

- Explicit **statement of commitment** from top management
  - Explain relevance to broad goals of institution
- Incorporation in standard and routine procurement procedures such as in relevant manuals or documents, procedures of purchasing agent
  - **Address potential obstacles** such as purchase price vs. life-cycle costing
  - Provide detailed **guidance on key issues** when possible (e.g., energy efficiency, toxics)
- **Explicit designation of authority and responsibility** for green procurement
  - Include green purchasing in annual performance reviews for relevant employees
  - Provision of rewards or incentives for superlative performance in achieving green procurement goals
- Require **monitoring and reporting on performance** against explicit targets



# Implementing EPP Policy

- Review and **analyze current purchasing** by major product categories
- **Prioritize product & service categories** in terms of environmental impact and improvement potential
- Develop multi-year **implementation schedule** based on priorities, difficulty, upcoming solicitations
- Produce manual of **standards & specifications**, address cost/availability issues that might arise
- Review **policies, procedures, organization**, and make improvements as needed
- Develop **metrics and report** on progress



# Challenges

## Products: Green vs. Non-Green

- **Quality** of green products, nowadays, is generally as good or better than non-green
  - Green Seal standards have performance requirements
- **Availability** of green products can sometimes be an issue, varies by product category
  - But it's getting better year by year
- **Demand** for green products is growing rapidly
- **Price** of green products is generally competitive, often saves money over life cycle, sometimes costs more



# Costs of Ownership (also known as life-cycle costing)

- A product's cost of ownership is the total financial (present value) **cost of the product throughout its useful life:**

- Initial cost
- Operating costs
- Energy, water costs
- Maintenance, repair costs
- Upgrade, replacement costs
- Disposal costs

- When comparing costs, **use cost of ownership, not price**

- Some green products cost more initially but save money over the life of the product

• Example:	CFL bulb	Incandescent bulb
Price	\$ 3.50	\$ 0.50
Ownership cost	<b>\$ 14</b>	<b>\$ 82</b>

Example Source: EPA



# Developing EPP Specifications

- Use existing sources – some examples
  - Ecolabel certification or “meets requirements”
  - State & local government RFPs & contracts
  - LEED rating systems
  - Green Guide for Health Care
  - AASHE “STARS” program for higher ed
- Balance the following
  - Environmental benefits
  - Cost
  - Availability
  - Performance



# Developing EPP Specifications

- Use **mandatory requirements** when products meeting your criteria are widely available
  - “All products purchased will be certified bronze level or better by the Electronic Product Environmental Assessment Tool (EPEAT) or meet the requirements to achieve a bronze or better rating.”
- **Requests for information** when products may not be widely available
  - “Vendor shall provide information on the availability, cost, and features of modular buildings that meet all the requirements of USEPA’s ENERGY STAR label or meet the requirements for LEED-NC certification.”



# Topics to be Discussed

- Introduction to Green Seal
- EPP Implementation:  
Examples from California
- **What's Next: Green Services**



# Green Services

- **Products + process**
- **Systems approach – more effective**
- **Achieve greater environmental & human health benefits**
- **LEED Credits (e.g., green cleaning service contributes to 8 credits)**
- **Easy for purchasers**



# Green Services

- **Cleaning services**
- **Food services**
- **Other:**
  - **Lodging**
  - **Purchasing**
  - **Facilities management**



# Green Seal's GS-42 Cleaning Service Standard

- Green buildings need green cleaning!
- Standard for cleaning service providers to create a green cleaning program that protects human health and the environment.
- 23 certified services in 15 states (3 in CA)



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# Background/Purpose of Cleaning Service Standard

- Cleaning industry in revolution
- Green Cleaning: high performance without health, environmental damage
- Green Seal spearheading through standards, esp. for chemicals
- Time ripe to address overall process, including procedures, equipment, etc.



# **Background/Purpose of GS-42 (continued)**

- **Purchasers need way to identify green cleaning service providers**
- **Providers need specifications to follow**
- **Certification by Green Seal based on meeting criteria in standard**



# Sample of GS-42 Stakeholders

## Equipment

- AquaStar
- Rovic
- Hydro Systems

## Products

- Coastwide Labs
- Hillyard
- Tennant

## Services

- MediClean
- ServiceMaster Clean
- Unicco

## Trade Associations

- BSCAI
- ISSA
- CRI

## Govt., Universities

- U of North Carolina
- DGA, Washington State
- Portland Pub. Schools

## Public Interest

- Healthcare w/o Harm
- GreenGuard
- GreenBlue



# Scope of Standard

- **Commercial services but not residential**
- **Both in-house and external (i.e., BSCs) service providers**
- **Most facilities but not highly specialized areas (e.g, OR, IT clean rooms, etc.)**



# Key Areas of Standard

- **Planning requirements**
- **Products, supplies, and equipment requirements**
- **Cleaning procedures requirements**
- **Communications requirements**
- **Training requirements**
- **Labeling requirements**



# Planning Requirements

- **Written standard operating procedures**
- **Building-specific green cleaning plans**
  - schedules, communications, floor maintenance
  - vulnerable populations, special areas, etc.
- **Use of powered equipment**
  - equipment must meet criteria
  - quarterly maintenance program



# Requirements for Products, Supplies, Equipment

- For major specified categories, use only environmentally preferable products
  - Defined in standard
  - Certified by ecolabel or designated by national program
- Criteria for new powered cleaning equipment



# Requirements for Cleaning Procedures (Samples)

- **Chemicals:** track; limit waste, exposure
- **Waste:** recycle, minimize; reuse
- **Entryways:** matting, cleaned frequently
- **Floors:** extensive criteria for hard floors, carpet care, vacuuming



# Requirements for Cleaning Procedures (Samples)

- **Disinfection:** use only where needed and as directed
- **Restrooms:** clean and disinfect; do not mingle equipment with other areas
- **Eating areas:** clean and sanitize surfaces
- **Trash:** pull as needed, esp. before weekends, holidays



# Requirements for Cleaning Procedures (Samples)

- **Recycling:** inspect and clean daily
- **Indoor plants:** collect debris; keep from carpet, vents
- **Vulnerable populations:** reduce exposures, chemicals



# Communications Requirements

- **Plan required to communicate with:**
  - cleaning personnel
  - facility managers
- **Develop plan in conjunction with owners, managers, occupants**
- **Plan shall:**
  - provide for training of staff and feedback
  - identification of special occupant needs



# Communications Requirements (continued)

- **Through plan, cleaning service providers shall:**
  - **facilitate reduction in cleaning, treatment**
    - e.g., spill reporting procedures
  - **notify managers of cleaning products used**
    - make list of all chemicals, MSDSs available
    - contact person for building



# Training Requirements

- All cleaning personnel trained initially upon hiring *before* cleaning independently
  - proper use, handling, procedures
- Site-specific training covering facility cleaning plan
- All cleaning personnel get 24 hours continuing training annually
- Maintain training records



# Labeling Requirements

- **Certification applies to specific cleaning service**
  - certification mark may be used in advertising that service
  - not to provider as a whole unless all services certified
- **Facility cleaned by certified service may be so designated**





**“This cleaning service meets the criteria of Green Seal's Environmental Standard for Cleaning Services for reduced toxicity, waste, and exposure.”**





**“This facility is cleaned by a service that meets the criteria of Green Seal's Environmental Standard for Cleaning Services for reduced toxicity, waste, and exposure.”**



# Green Services

- Cleaning services
- Food services
- Other:
  - Lodging
  - Purchasing
  - Facilities management





**1**



**2**



**3**

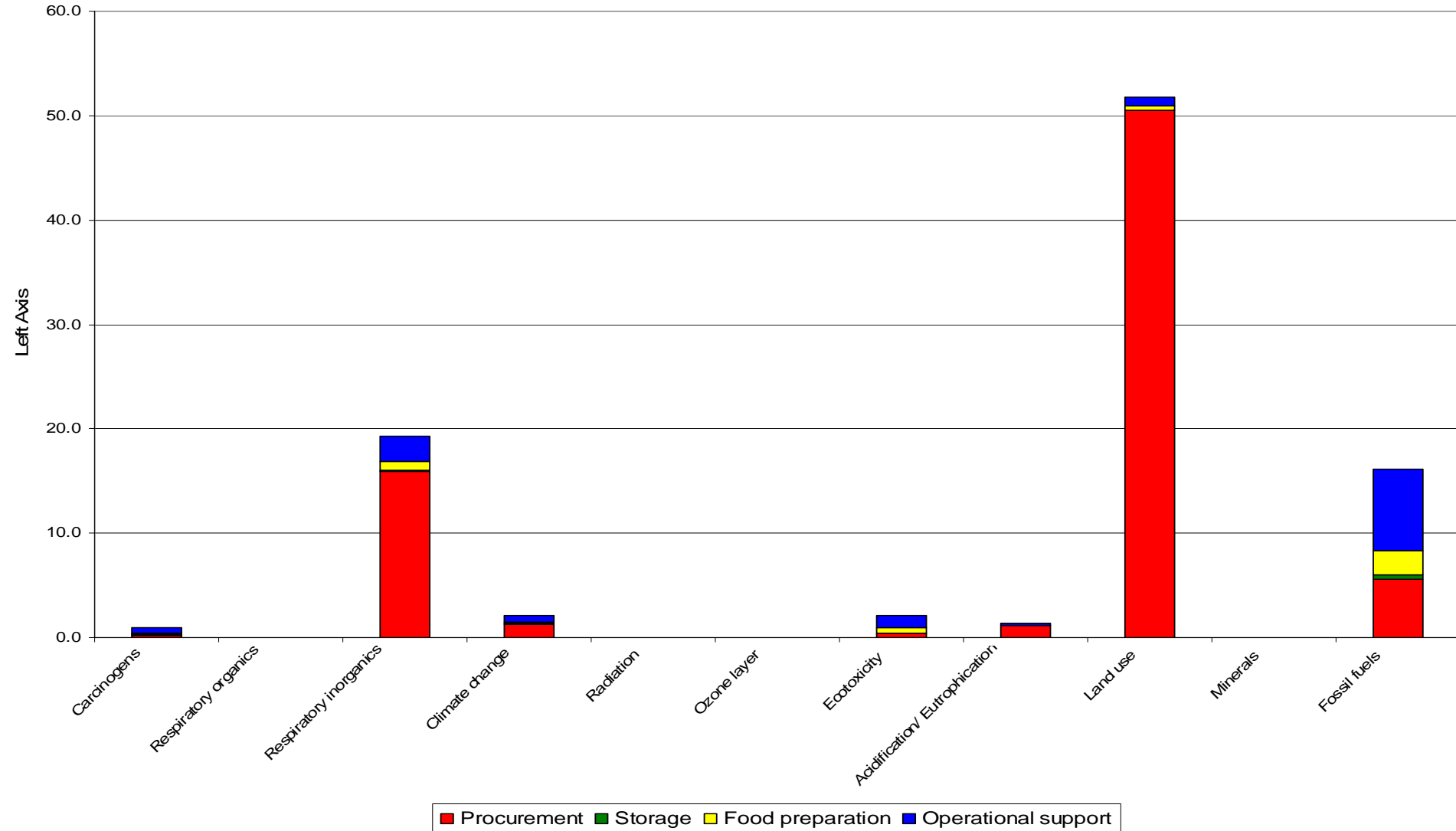


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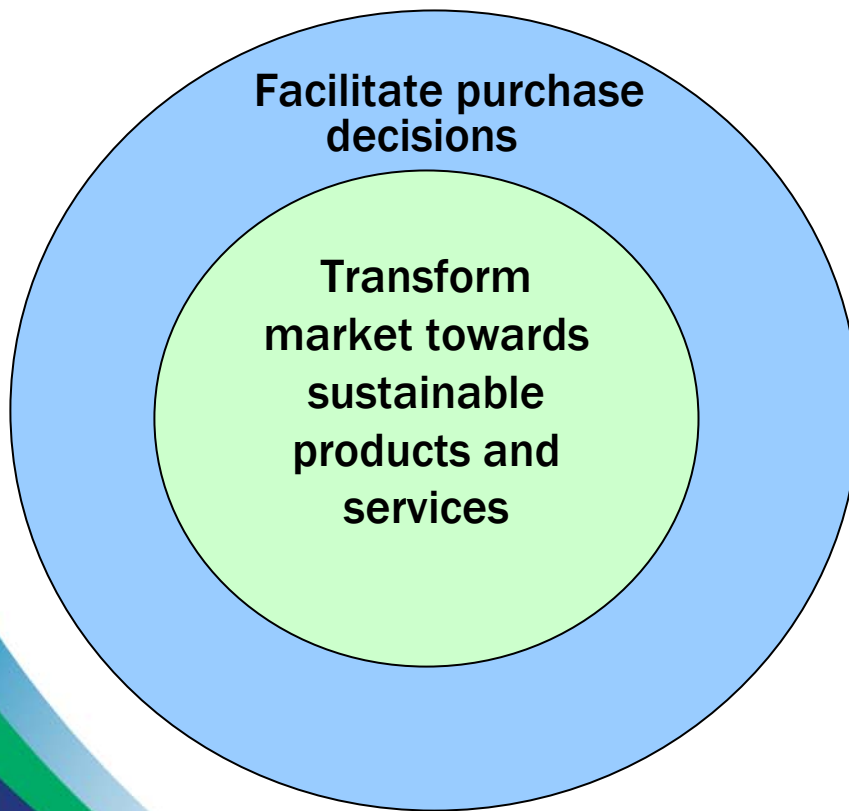
**The Mark of Environmental Responsibility**

The greatest contribution to the environmental load was food.



The Mark of Environmental Responsibility

# Aim of Ecolabel Standards & Certification Program



1. Identification = Criteria & Standards

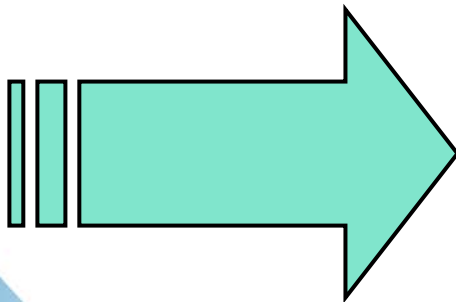
2. Verification = Certification (independent experts)

3. Documentation = Labeling



# Background

- Consumers are increasingly becoming concerned with the environmental provenance of food they buy and eat<sup>1</sup>.
- National Restaurant Association forecasts that more restaurateurs will “go green” in 2008<sup>1</sup>.
- There is no clear guidance on how to make meaningful environmental improvements.



1. Life cycle research to outline priorities for environmental improvement
2. Developed a comprehensive framework for food services to focus their efforts



<sup>1</sup>National Restaurant Association 2008 Industry Forecast

# Goal and Scope

**Purpose of study**

To determine the environmental impacts from operations of restaurant and food service in the USA

**System boundary**

Sub-systems: procurement, storage, food preparation, operational support

**Coverage**

Time period: 2007 – 2008  
Geographic coverage: USA

The functional unit: operations of a restaurant or food services



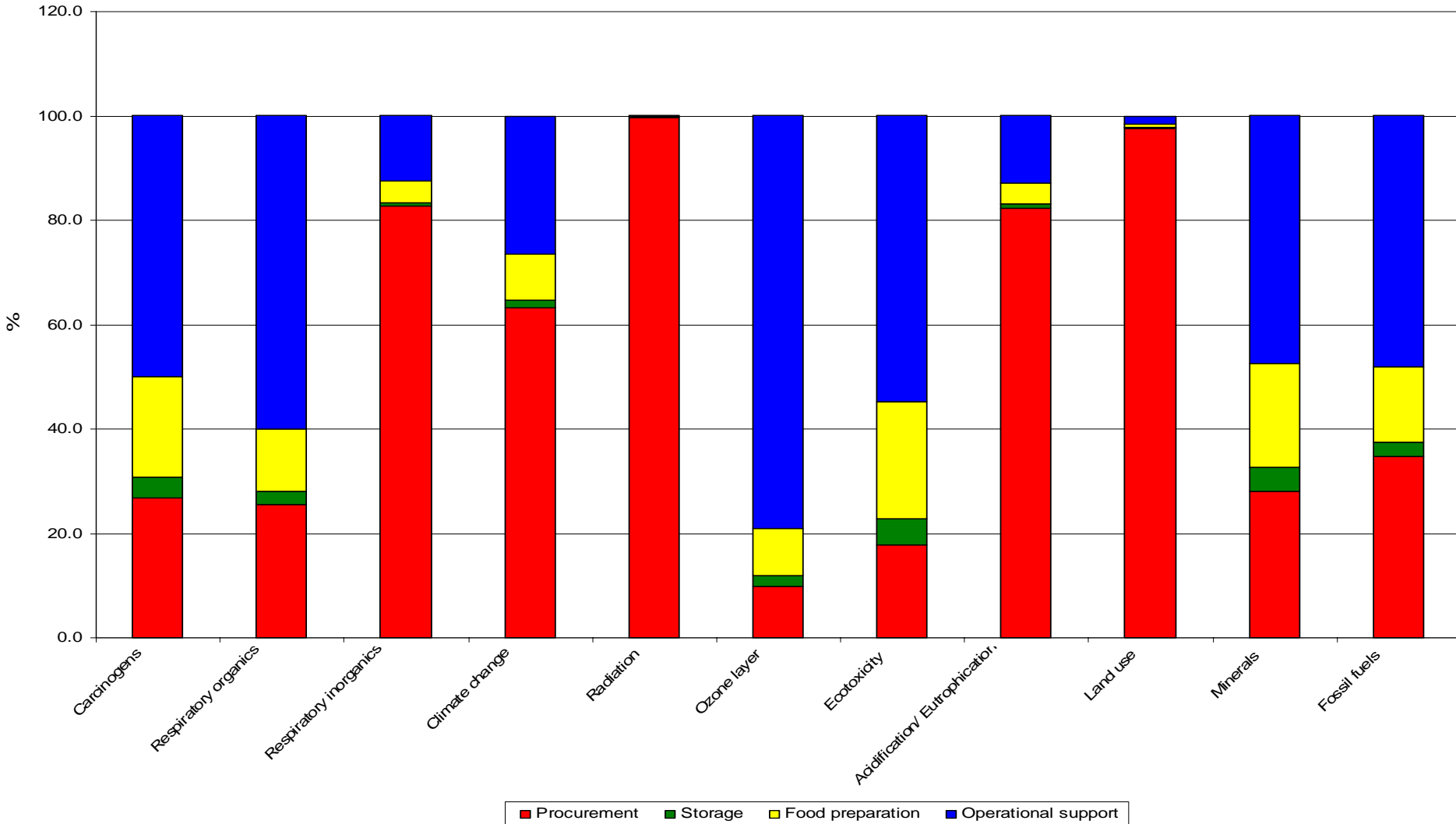
# Methodology

**Data collected from 6 commercial food services in the US, in the Chicago metropolitan area and in the Washington, DC metropolitan area**

*SimaPro 7.1 analyst version software, ISO 14044 procedure*

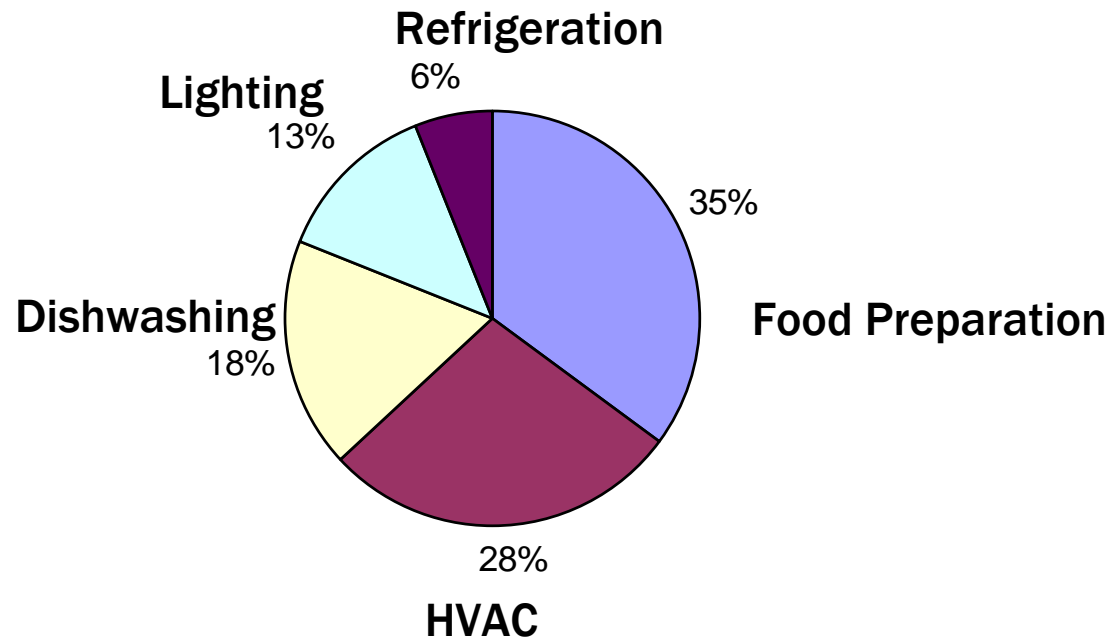


# Procurement and operational support subsystems dominated the impact categories.



# Direct Impacts

## Energy Consumption<sup>1</sup>

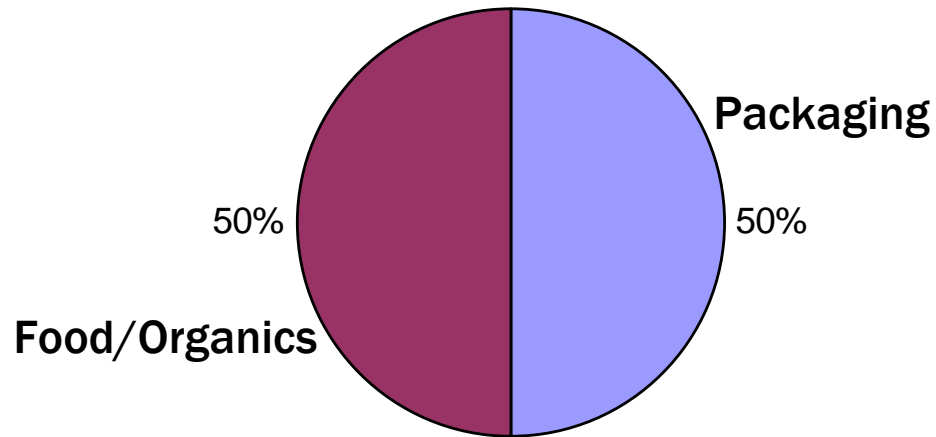


<sup>1</sup>Environmental Law and Policy Center, Goinggreener



# Direct Impacts

Waste<sup>2</sup>

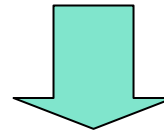


<sup>2</sup> California Integrated Waste Management Board

# Developing an Environmental Food Service Standard using LCA results

## Where are the impacts occurring?

1. Food procurement:
  - Intensive agricultural practices
  - Food waste
2. Energy consumption
3. Waste and Disposable products



## GS-46 Restaurant and Food Service Standard (*Proposed Standard*)

### Emphasis on:

- Sustainable Food Purchasing
- Energy Management and Conservation
- Waste Management

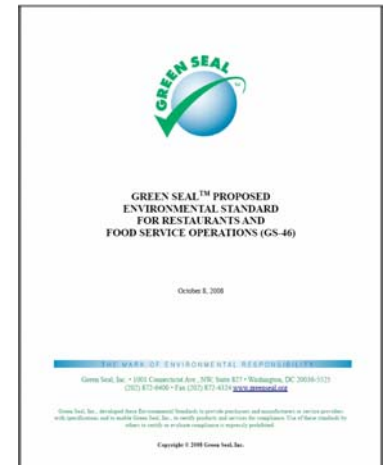
Plus additional requirements for a comprehensive framework



# Proposed Food-Service Standard

(Expected completion Spring 2009)

- Includes full-service, limited-service, non-commercial, and catering operations
- Based on life-cycle research; focuses on food procurement, energy management, and waste
- Organizational commitment required to ensure long-term effectiveness of program
- Three levels: bronze, silver, gold



[http://www.green Seal.org/certification/gS46\\_food\\_service\\_operations.cfm](http://www.green Seal.org/certification/gS46_food_service_operations.cfm)



# Proposed Standard Content

- Sustainable food
- Energy management and conservation
- Water consumption and management
- Air quality
- Waste reduction and management
- Cleaning and landscape management
- Environmentally sensitive purchasing
- Company responsibility, operating procedures, training, communication, and education
- Continuous improvement
- Additional requirements for gold achievement



# Food Service Summary

- Consumers are increasingly becoming concerned about the environmental provenance of food they buy and eat
- Green food services contribute to green buildings
- Life cycle assessment of the food industry:
  - The results indicated that procurement of food was the highest contributor to the environmental load of food service operations.
  - Direct impacts from waste, energy use, and disposable products played additional roles in the environmental impact of the operations.
- Green Seal is developing the first comprehensive framework for environmentally responsible food service operations, based on the life cycle research.



# Green Services

- Cleaning services
- Food services
- Other:
  - **Lodging**
  - Purchasing
  - Facilities management





**GS-33**

**GREEN SEAL™  
ENVIRONMENTAL STANDARD  
FOR LODGING PROPERTIES**

**Fourth Edition  
September 5, 2008**



# Green Seal's Green Lodging Certification

- 40 (going on 50) certified properties in 15 states, including major cities and tourist destinations
- Los Angeles and Chicago green lodging programs
- Three achievement levels:
  - **Bronze** – entry level that contains essential leadership elements of a lodging operation
  - **Silver** – more comprehensive level of required leadership operations
  - **Gold** – adds additional criteria characterizing properties that are at the forefront of environmental leadership



# Green Seal's Green Lodging Certification

- Includes requirements in the following areas:
  - Waste Minimization, Reuse, and Recycling
  - Energy Efficiency, Conservation, & Management
  - Management of Fresh Water Resources
  - Waste Water Management
  - Hazardous Substances
  - Environmentally Sensitive Purchasing



# Green Services

- Cleaning services
- Food services
- Other:
  - Lodging
  - Purchasing
  - Facilities management



# Green Seal's Green Purchasing & Facilities Partnerships

- Provide **recognition** and **technical assistance** if requested
- Based on **action plan** to implement green purchasing or facilities program tailored to organization's objectives, challenges and opportunities
- Green Seal provides **annual monitoring** to ensure targets and timetables are met
- Organization can advance from **Partner** to **Leader** or **Champion** with continued progress



# Green Purchasing Partnership

**Green Purchasing Action Plan** requires the following elements (or steps to achieve them):

- Effective **policies**, procedures, organization and staffing
- **Prioritization** of product categories by dollar volume, environmental significance, improvement potential
- **Implementation schedule** for green purchasing based on prioritization, timing of upcoming bidding opportunities, ease of implementation for each category
- Environmentally preferable **product specifications** to be used in purchasing for current year of implementation schedule
- **Monitoring and reporting** protocols adequate to document progress on green purchasing and to demonstrate readiness for advancement to Leadership or Championship levels



# Thank You!

Please feel free to contact me with questions or ideas:

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